

A Yale Book of Numbers

Historical Statistics of the College and University
1701-1976

George W. Pierson

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YALE UNIVERSITY

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In honor of
FRANKLIN BOWDITCH DEXTER
and all the record-keepers of Yale

INTRODUCTION

This book of Yale numbers has been composed to serve a variety of purposes.

The first purpose is purely factual and informational. Here, fundamentally, is a compilation of Yale's historical statistics for ready reference. My basic intent has been to create and make available a large and convenient collection of quantitative measurements on Yale's successive states or stages of being from its earliest frail beginnings throughout its first 275 years. This seemingly straightforward enterprise developed for me a compelling fascination yet proved surprisingly difficult and laborious and hard to finish. Finally, from Yale's archives of manuscripts and printed records, from sources both primary and secondary, published and unpublished, sometimes from tables previously composed by other hands, more often by the painful accumulation of new statistics from long series of catalogues or annual reports, we have managed to collect, organize and present quantitative data or statistical estimates on the size, shape, balance and character of Yale for every decade, often even for every year of its past.

The results are obviously far from perfect. The various statistics, because of their diversity or changing character, or the omissions and imperfections of the sources from which they have been drawn, will sometimes be found incomplete and at other times only approximately accurate. And of course they are not altogether original or new. Some can easily be verified, or approximated from comparable sources. Yet most of our larger tables can be duplicated only with great difficulty. And altogether they provide us with a foundation of factual information as broad and as solid as it could reasonably be made.

Throughout the effort has been to organize continuous series of quantitative data on each of the major aspects of the institution: (A) its Enrollments and Degrees; (B) its Students; (C) their Studies; (D) the Faculty; (E) Yale's Alumni; (F) Yale's Finances. Thus, anyone interested in any particular year or decade in Yale's past will find a considerable

volume of hitherto almost unavailable quantitative information ready for his consideration and use. For any given year he can ascertain the number of students enrolled (A-1 series), the number and kind of degrees awarded (A-2 series), the tuition charges and other costs (F-1, F-2 series), the distribution of study time (C-1, C-3, C-4 series), the marking system (C-6), and the numbers and ranks and salaries of the faculty (D-1,2,3,4 and F-2.10-12). For larger aggregates or stretches of time one can ascertain where the undergraduates came from (B-1 series), how old they were (B-4), how long on the average they lived (E-5), where the professional students had been or would be educated (B-11), whence came the older or the newer faculty (D-2 series) and how long it took to move from rank to rank (D-3), where the alumni settled and into what vocations or professions (E-2 and E-4 series), and what were the expenses or incomes or endowments of the several schools or the entire university (F-1 and F-2 series). To repeat, our basic purpose has been to provide a storehouse or mini-encyclopedia of statistical measurements and factual information.

Our second purpose, clearly, has been to put together a comprehensive record of growth and of change. Since the tables run in series and nearly continuously, they bring together (for the first time for Yale) a many-sided set of comparisons to show the development of the institution and its component parts: from year to year, from presidency to presidency, from primitive collegiate simplicity to university complexity, from one set of functions to whole congeries of shifting and quite different balances of energy and performance, sometimes by deliberate design, more often perhaps inadvertently, and occasionally to lengths not fully contemplated or publicly understood (cf. D-4.19). Here, so to speak, is a kind of geologic record or series of sedimentary deposits that testify both to Yale's durability and to many changes through time, not least the increasing mass of the University, its heightened aspirations and powers.

The geologic metaphor hints at our third purpose. A book of changing numbers can be a lens for viewing and a tool for thinking. By way of stimulation, for each series of statistical tables I have provided a brief introduction pointing out some of the things that intrigued or surprised me or that seemed of exceptional institutional importance -- some of the things but by no means all. Others interested in Yale will make their own discoveries and will perhaps begin to see not only how Yale grew, but how over the years it was supported, shaped, inhibited, distorted or delayed by the larger society of which it was a part. If

the poets can find sermons in stones, we can draw thoughts from running numbers.

In the fourth place this encyclopedia of historical statistics is explicitly designed to serve the presidents and administrative officers and other planners of Yale. It addresses our historical performance, but enlarges our contemporary understanding. A grounded knowledge of Yale's growth and astonishing developments over the years may prove a considerable aid not only in reconstructing Yale's history, but in understanding Yale's peculiarities and present condition, and in estimating Yale's built-in limitations or its latent possibilities. At certain critical moments in Yale's past it might have been advantageous, I suggest, if certain Yale Presidents and other officers had known more about its admissions history (cf. B-2, B-3). And might it not still be useful if the alumni better understood the ebb and flow of Yale's dependencies on Government or "Benevolent Strangers" (F-1, F-2.17)? Again, there have been times when one wished the College Faculty had better remembered its own traditions (C-6, D-5), or the Corporation had been more aware of the professional Schools (D-4). To navigate safely one needs long experience and charts. Here, for our pilots, are some buoys marking the channels and tiderips, even moaning faintly by the shoals and sunken reefs of our precarious navigation.

Beyond considerations of local benefit and policy guidance this encyclopedia of statistical information will also provide unusual scholarly resources for those interested in higher education in particular, or for those concerned for the social and intellectual development of the American people. Yale happens to be one of our oldest corporations of any kind -- an uninterrupted organic record-keeping society spanning almost three centuries -- and its statistics of growth and stagnation, of ventures welcomed or rejected, yield insights into our national character. Comparable evidence on other major universities would be most desirable but will unfortunately not be easy to find. We do benefit from Seymour Harris, *The Economics of Harvard* (1970), which discusses and to a degree documents a large and fascinating variety of questions concerning not only the economy but the social and intellectual and personal life of our most famous university. With care it should be possible to make some illuminating comparisons now between the two institutions. Unfortunately for such a purpose, Harris' text is more discursive, historical and sociological than statistical. So conceivably Yale's statistical record may prove of more general use as a measuring rod, or may stimulate other colleges and

universities to construct contrasting models. Meanwhile here is at least one rather solid and instructive performance.

On leafing through this book, viewers may easily find themselves overwhelmed, even numbed, by the density and variety of our statistical tables; and there will be those who wonder why for light on our past or on our universities one even considers such a book of numbers, or devotes it just to Yale. I should like to address those two questions.

Why Yale and Yale alone? Alone because it has been hard enough just to get statistics on Yale. A compilation of comparable figures for all of our major institutions would take a lifetime, or rather (as already hinted) it would be impossible. For many of our major institutions have kept no adequate records until recently, and have no comparable statistics available for study. Why Yale? Because Yale has been and remains the second most important college and university of the liberal arts in this country, and I am persuaded that it has been and remains one of the great instruments of our progress as a nation. Second only to Harvard (and not second but first in certain categories) Yale has produced more leaders in more of the professions and vocations and offices of American society than any other university. Second to none it has influenced the evolution of American colleges. Its pioneering efforts in the arts and sciences have also helped shape the development of the highest learning. And somehow it has generated traditions and great loyalties. By character, by quality of personnel, by level of performance it has earned our attention. This book is a testimony, therefore, to my faith that Yale will continue to count, and that thoughtful students of higher education will find its history illuminating.

But why seek light through numbers? I suggest that the numerical vision is not the first way but may be an invaluable second way of looking at an institution. Let there be no misunderstanding. The author regards himself as a disciple of the humanities, a man of words not of digits, a writer rather than an econometrician. Yet he has learned all sorts of things from this exercise, expected and unexpected. For those with a wary eye or a skeptical disposition I offer some observations.

I would observe first that numbers do indeed, more often than not, prove what we know already. Yet they are not to be discounted on that account, for they offer us confirming demonstration. They may even dramatize a familiar truth. Furthermore, numbers recognize differences

in proportion. They set up the balance. They emphasize or they diminish the perceived differences. They add a kind of visual clarity to our basic perceptions.

Beyond verification, numbers often provide small increments or even large sections of new information. And these may educate us both by addition and by contradiction or subtraction. Who would have supposed that our colonial predecessors lived so long (E-5.1)? Or that Yale today educates a larger percentage of the U.S. population than it has done since the Revolution (A-5.1)? In large clusters or in time sequences running numbers may lead to new perceptions and concerns, e.g. I was a long way from dreaming that two-thirds of all the students who had ever graduated from Yale would be alive today (cf. E-1). And of course I have also had numbers explode what I thought I knew, undermine cherished assumptions, and shatter myths, e.g. the still cherished myth of Yale's broader national constituency (E-3.2). Repeatedly I have seen numbers disappoint the investigator and disillusion him about things long taken for granted, as, for example, my assumptions about Yale's "collegiate" success, or the adequacy of student housing (B-5 series). Numbers can unblock you, they can free your mind. And I have become aware, as all should be, that numbers -- because of their quantitative rather than qualitative bias -- can also hide the facts and create new illusions. So they need to be handled with care. Altogether numbers play a strange music. They may set your mind to dancing or they may put you to sleep. But when added to what we know by other means they are informative, and they put you on firmer ground than you had to walk on without their aid.

So it is my hope that this book of tables will contribute not just to our knowledge but to our understanding of some matters of consequence to our American world.

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The original opportunity to work and write on the history of Yale University I owe to President Charles Seymour, who in 1938 secured for me a small reduction of teaching load, with some research and secretarial assistance. World War II rather impeded the enterprise; and a good many years later there emerged, not the three- or four-volume general history of the University that we had looked forward to, but two thick volumes on the modern history of Yale from just after the Civil War to the eve of World War II. Meanwhile an interest in Yale's changing character and in statistical measurements of its growth had been generated. For another fifteen years a succession of administrative and intellectual preoccupations delayed or totally arrested pursuit of such studies; but I've had the continuous support of succeeding Yale Presidents, notably A. Whitney Griswold, Kingman Brewster Jr., and A. Bartlett Giamatti, as well as the title of University Historian carried over into my retirement from teaching.

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A

ENROLLMENTS AND DEGREES

A-1. Yale Enrollments

A-1 Yale Enrollments

Introduction: Some Notes on Student Numbers

Our two most important series of historical statistics on Yale, from its foundation in 1701 to the National Bicentennial 275 years later, are the "Statistics of Enrollment" and the "Degrees Awarded at Yale" (A-1.1 to A-1.8 and A-2.1 to A-2.12). These tables record the growth and in some measure even describe the performance of a celebrated American university. As will be seen, they provide us as well with basic materials for many special tables or particular estimates of its achievements.

Ideally, Yale's "Statistics of Enrollment" should report the exact facts. Yet all one can do today is to assemble figures that approach as close to the ideal as is now humanly possible--and for the early years this approach has to be somewhat approximate and inexact. As the footnote on sources (table A-1.1) will make clear, we lack contemporary enrollment figures for most of the first century (before the printing of annual broadsides or catalogues). The yearly census of the Colonial period has therefore had to be put together from the graduating records or from such chance enumerations or personal recollections as have survived. A second problem has been the fact that students came and went with considerable freedom, so the count for any given year depended on the date when it was taken--and these dates have varied from generation to generation. Still a third element of imprecision has arisen from actions of the modern census takers, who have been commendably consistent and yet have varied from time to time in their categories, or their methods of counting. Students of Yale's educational growth should therefore bear in mind the warning that its statistics of enrollment are not perfectly exact or absolutely consistent. Yet they are close enough to reality to yield important findings, perhaps even some special insights into the character of Yale as an institution of higher learning.

The first and basic revelation of these statistics of enrollment is that the curve of growth has never been quite regular or smooth. Instead there have been, so to speak, considerable tides in the affairs of Yale, and

STATISTICS OF ENROLLMENT
1701 - 1812

YEAR	YALE COLLEGE	YEAR	YALE COLLEGE	YEAR	YALE COLLEGE	YEAR	YALE COLLEGE
	Rec. Min. Enrol. Estim.		Rec. Min. Enrol. Estim.		Rec. Min. Enrol. Estim.		Rec. Min. Enrol. Estim.
1701-02	1	1731-32	(77?)	1760-61	165-D, K (142?)	1786-87	174-M (147?)
1702-03	8-S, C (9?)	1732-33	(73?)		170-C	1787-88	139-D (116?)
1703-04	(11?)	1733-34	(81?)	1761-62	170-C, S (160?)	1788-89	125-M (113?)
1704-05	(13?)	1734-35	(82?)		200-S	1789-90	131-M (125?)
1705-06	(11?)	1735-36	(68?)	1762-63	170-C (154?)	1790-91	141-M (121?)
1706-07	16, 19?-S (17?)	1736-37	(70?)		1763-64 (136?)	1791-92	143-M (127?)
1707-08		1737-38	(66?)	1764-65		1792-93	(127?)
1708-09	c. 18-C (14?)	1738-39	68-S (68?)	1765-66	107, 120-S (116?)	1793-94	136-M (126?)
1709-10	(10?)	1739-40	82, 95- (82?)		1766-67 c. 100-K (98?)	1794-95	143-S, M (125?)
1710-11	(17?)		S, D, K	1767-68		1795-96	(118?)
1711-12	(17?)	1740-41	(76?)	1768-69	(87?)	1796-97	115
1712-13	(18?)	1741-42	(83?)		1769-70 (97?)	1797-98	123
1713-14	(20?)	1742-43	(78?)	1770-71	(108?)	1798-99	168
1714-15	24-S (24?)	1743-44	(82?)		1771-72 (124?)	1799-00	195
1715-16	(25?)	1744-45	(103?)	1772-73	(134?)	1800-01	217
1716-17	31-C (32?)	1745-46	(99?)		1773-74 (154?)	1801-02	217
1717-18	(41?)	1746-47	(104?)	1774-75	(164?)	1802-03	242
1718-19	37-S (36?)	1747-48	c. 120-C (98?)		1775-76 180-S (163?)	1803-04	233
1719-20	35-40- (43?)	1748-49	(76?)	1776-77	125-S (157?)	1804-05	200
	K, C	1749-50	(70?)		1777-78 132-S, D (128?)	1805-06	222
1720-21		1750-51	(69?)	1778-79	124, 132- (114?)	1806-07	204
1721-22	46-S (46?)	1751-52	(70?)		M, K, S	1807-08	196
1722-23	61-S (61?)	1752-53	(89?)	1779-80	139-S, M (122?)	1808-09	183
1723-24	(60?)	1753-54	170-C (112?)		1780-81 153-M, K (147?)	1809-10	228
1724-25	c. 60-D (54?)	1754-55	170-C (139?)	1781-82	223-225- (190?)	1810-11	255
1725-26	58-S (62?)	1755-56	?170-S, C (165?)		S, M, K	1811-12	305
1726-27	58-S (57?)	1756-57	170-C (165?)	1782-83	250, 252-M, S (215?)	1812-13	313
1727-28	(60?)	1757-58	170-C (154?)		1783-84 265, 270- (231?)		
1728-29	(71?)	1758-59	170-C (154?)		M, K, S, D		
1729-30	(70?)	1759-60	170-C (147?)	1784-85	252, 254-M, S (214?)		
1730-31	(66?)				1785-86 200, 201-S, M (174?)		

Sources. For the years from 1796 to 1813 the count is taken from the annual Broad-sides; but prior to 1796 no annual lists or records of enrollment were printed. For such hard figures or informed guesses as have survived--here given in the "Recorded Enrollment" columns--we are indebted to (C) Thomas Clap, Annals; (S) The Literary Diary or Itineraries of Ezra Stiles; (D) F. B. Dexter, Biographies and Annals, Sketch of the History of Yale University, Documentary History; (M) E. S. Morgan, The Gentle Puritan; (K) Brooks Kelley, Yale: A History. The questionable figures in parentheses represent estimates, here obtained by adding to the graduating class of each year (as given in the Catalogue of the Graduates of Yale University, ed. of 1924) the graduating numbers of the next younger classes then in the College. For 1702-10, the period of three-year degrees, this has required adding the graduating figures for the next two classes; thereafter, for the next three. These totals should be regarded as minimum estimates because the classes tended to shrink toward senior year. There were also seasonal variations: between the autumn Commencement and December of each year the class enrollments tended to grow, by late arrivals or admissions; but through the winter and spring they tended to lose more than they had gained, in part because of sickness, more largely because of departures or dismissals. From the notes kept by Ezra Stiles it is also clear that almost always a few or even a very substantial fraction of the enrolled students were (at least momentarily) absent. In any case, the numbers on hand varied almost from week to week. Most of the early "Recorded Enrollments" given in the first columns (above) represent enumerations made apparently during the winter, but for the 1780s the counts were made at or shortly after the start of the College year.

From time to time one or more graduates stayed on or returned for further study, but for the first 113 years no estimate of resident graduates has been attempted.

STATISTICS OF ENROLLMENT 1813 - 1846

YEAR	YALE COLLEGE	RESIDENT GRADUATES	MEDICAL INSTITUTION	DEPT. OF THEOLOGY	LAW SCHOOL	DEDUCT AS ENTERED TWICE	TOTAL ENROLLED
1813-14	291		37				328
1814-15	277	16	57				350
1815-16	271	17	64				352
1816-17	251	18	29				298
1817-18	262	21	50				333
1818-19	265	29	55				349
1819-20	282	30	64				376
1820-21	319	31	62				412
1821-22	325	4	78				407
1822-23	371	18	92				481
1823-24	374	28	71				473
1824-25	349	--	80	17	13		459
1825-26	356	--	75	23	16		470
1826-27	329	4	80	31	10		454
1827-28	335	5	91	50	20		501
1828-29	325	7	68	54	20		474
1829-30	359	6	61	49	21		496
1830-31	346	4	69	50	33		502
1831-32	331	4	48	42	44		469
1832-33	354	--	51	49	31		485
1833-34	376	--	66	55	39		536
1834-35	354	--	64	53	43		514
1835-36	413	5	60	63	31		572
1836-37	411	2	50	76	31		570
1837-38	403	2	48	82	33	4	564
1838-39	411	--	46	74	32	2	561
1839-40	438	2	45	78	45		608
1840-41	429	--	52	61	32		574
1841-42	410	3	47	59	31		550
1842-43	376	3	52	76	30		537
1843-44	383	6	60	66	44		559
1844-45	394	5	43	64	36		542
1845-46	424	5	53	67	39		588
1846-47	422	5	52	53	52		584

Sources. From 1813 forward the enrollment counts are taken from the appropriate Catalogues which vary somewhat in their dates of census and their titles (now University Bulletin: Catalogue Number). The Catalogue figures for 1815-20 have been filled out from Welch and Camp, Yale: Her Campus, Class Rooms and Athletics; and the medical totals for 1832-35 from the Catalogues of the Medical Institution.

GENERAL NOTES ON ENROLLMENT TABLES A-1.1 - A-1.8

Notes on Names of Departments and Schools

Many of Yale's professional schools evolved from small and simple beginnings, and sometimes from institutions or departments which long offered no academic degrees (cf. A-2.3). Almost all experienced some slight changes of name as the generations and the University administrations passed. For the sake of simplicity in this and the succeeding tables the modern name has been used in most cases. To avoid misunderstanding, however, the following changes of title may be noted:

also smaller oscillations, or a kind of interior vibration. Even when rather crudely estimated, the Colonial enrollment figures paint a vivid picture of the ebb and flow of students in the early College. Thus in the first generation one may observe the struggling rise to a regular enrollment of around 60, or some 15 students in a class, by the 1720s. By the 1740s, the enrollments seem to have been about 80-100, or 20-25 students in a class; but they evidently dropped in the early 1750s, recovered strongly in the latter part of that decade and then fell again in the last years under Clap and the early years under Daggett. The Revolution was obviously no friend to learning--until the war moved south and the northern students came flooding in. Then hard times returned again and Stiles' last graduating classes in the years 1787-95 shrank to only about half of what he had known in the early 1780s.

Once the enrollment statistics began to be printed under President Timothy Dwight, they recorded a rise-fall-rise to 305 by the year 1811, some decline in the War of 1812, recovery in the 1820s, and a total college enrollment of 413 in the year 1835-36. Yale was then (and for a long generation remained) the largest college in the country, yet it took almost twenty years for growth to resume, so that a figure of more than 500 students was not reached until the eve of the Civil War. Once that conflict had passed, there followed years of an increase so gradual that if one knew nothing else one would suspect that all had not gone too vigorously forward under President Porter (1871-1886). When the younger Timothy Dwight became president, however, Yale College doubled its enrollment in a brief ten years. There followed another period of slower expansion, yet meanwhile the Sheffield Scientific School had added its students to Yale's undergraduate constituencies, and by 1915 their combined total was approximately three times that of the middle 1880s (and once again, if briefly, ahead of Harvard College).

Beginning in 1813 with the Medical Institution, one can next detect the founding of special schools for the learned professions, and watch their struggles to survive. The appearance of the Graduate School and the School of Fine Arts in the 1870s foretells the successful development of the modern university; and the growing versatility and range of that university are thereafter reflected in the increasing complexity and immensity of these tables. By 1900 the graduate and professional schools were contributing about 30 percent of some 2600 students regularly enrolled for their degrees. By 1927 this graduate-professional share had risen to better than 36 percent of 5000--and the figures held in that neighborhood until after World War II. Then came the great rush to college and into professional training of the years 1946-49, swelling enrollments to more than 8600: a figure which would

STATISTICS OF ENROLLMENT 1847 - 1868

YEAR	YALE COLLEGE	SHEPHERD SCIENTIFIC SCHOOL	DEPT. OF PHILOSOPHY AND THE ARTS	RESIDENT GRADUATES	GRADUATE SCHOOL	MEDICAL SCHOOL	DIVINITY SCHOOL	LAW SCHOOL	DEDUCT AS ENTERED TWICE	TOTAL ENROLLED
1847-48	379		11	2		45	44	41		522
1848-49	385		14			38	45	35		517
1849-50	386		20			41	52	33	1	531
1850-51	432		21			38	38	26		555
1851-52	440		16			37	38	27		558
1852-53	447		46			35	37	39		604
1853-54	443		45			41	27	38		594
1854-55	450		60			46	24	25		605
1855-56	473		63			32	25	26		619
1856-57	472		46			27	23	30		598
1857-58	447		36			29	22	31		565
1858-59	456		36			34	21	33		578
1859-60	502		40			45	27	28		641
1860-61	521		38			38	22	30		649
1861-62	462		44			38	27	28		599
1862-63	460		47			51	25	34		617
1863-64	471		57			45	28	31		632
1864-65	458		84			47	23	32		644
1865-66	490		92			41	24	35		682
1866-67	500	119			3	31	30	26		709
1867-68	505	120			2	24	32	16		699
1868-69	519	132			8	23	25	17		724

Source. Catalogues

GENERAL NOTES, (Cont.)Names of Departments and Schools, (Cont.)

Divinity School: what is now the Divinity School was designated the Department of Theology from 1822 to 1914; the School of Religion from 1914 to 1919; the Divinity School from 1919 to the present.

The School of Medicine began as the Medical Institution (1810-1847); then became the Medical Department or Department of Medicine (1847-1887); the Department of Medicine (Yale Medical School) (1887-1914); the School of Medicine thereafter.

The Law School began as the Law School (1824-1846); and was called the Law Department or Department of Law (1846-1887); the Department of Law (Yale Law School) (1887-1914); School of Law (1914-1946); and Law School thereafter.

The School of Fine Arts (founded 1866, opened 1869) was retitled the School of Architecture and Design in 1955, when the Drama Department became a separate school. In 1958 the title was modified again to School of Art and Architecture; and in 1972 these elements were separated to form the School of Architecture and the School of Art.

The School of Engineering had its roots in the establishment of work in agricultural and applied chemistry, 1846, by Professors J. P. Norton and B. Silliman II. In 1847 this School of Applied Chemistry was made a part of the new graduate and scientific Department of Philosophy and the Arts; in 1852 the first Ph. B. degrees were awarded, a professor of civil engineering was appointed and an Engineering School was recognized, which in 1854

STATISTICS OF ENROLLMENT 1869 - 1891

YEAR	YALE COLLEGE	SHEFFIELD SCIENTIFIC SCHOOL	GRADUATE SCHOOL	MEDICAL SCHOOL	DIVINITY SCHOOL	LAW SCHOOL	SCHOOL OF FINE ARTS	SPECIAL STUDENTS NOT CANDIDATES FOR DEGREES	DEDUCT AS ENTERED TWICE	TOTAL INDIVIDUALS ENROLLED
1869-70	518	139	2	28	35	18	--	12	16	736
1870-71	522	123	2	33	55	23	--	7	10	755
1871-72	527	147	27	26	69	21	--	10	18	809
1872-73	517	200	54	24	96	36	13	20	56	904
1873-74	512	242	64	32	101	46	6	25	73	955
1874-75	537	248	62	50	103	53	21	20	63	1031
1875-76	582	224	63	42	99	76	30	14	49	1081
1876-77	569	206	69	36	95	60	16	9	39	1021
1877-78	577	194	50	55	107	59	23	16	43	1039
1878-79	587	194	46	58	67	68	30	11	39	1022
1879-80	581	175	39	32	88	74	39	13	38	1003
1880-81	612	190	29	25	93	64	46	9	31	1037
1881-82	601	185	44	21	97	68	50	6	30	1042
1882-83	611	206	41	30	106	85	40	6	29	1096
1883-84	612	212	30	31	99	69	49	4	14	1092
1884-85	580	249	37	27	107	68	40	10	32	1086
1885-86	563	251	42	28	110	62	48	11	39	1076
1886-87	570	279	56	27	108	79	44	11	40	1134
1887-88	614	291	69	26	117	94	58	12	36	1245
1888-89	688	308	79	35	133	106	47	13	44	1365
1889-90	736	343	81	54	136	111	42	11	37	1477
1890-91	832	379	104	63	139	116	44	6	38	1645
1891-92	888	461	76	74	122	155	37	19	48	1784

Source. Catalogues

GENERAL NOTES, (Cont.)Names of Departments and Schools, (Cont.)

was renamed the Yale Scientific School. After adding professors of metallurgy, analytical chemistry, and industrial dynamics and physics, and after receiving the gift of a building and other support from Joseph E. Sheffield, in 1861 the Yale Scientific School recognized its benefactor by taking the name Sheffield Scientific School.

In 1932 the School of Engineering was reestablished separately from the Sheffield Scientific School, and in 1945 acquired a graduate division. These two branches were later absorbed, the first wholly into Yale College in 1962, the second into the Graduate School in 1962-66.

The Sheffield Scientific School, after offering both graduate and undergraduate courses for more than 70 years, in 1919 lost many of its graduate functions to the Graduate School; in 1932 its engineering responsibilities to the Engineering School; and in 1945 its entering undergraduate scientific students to Yale College. In the same year the School was reorganized to resume its originally intended function as a graduate school of the sciences. Thereafter the Sheffield Scientific School retained its own Trustees or governing board, and the graduate students in mathematics and the sciences were catalogued and graduated as members of the Sheffield Scientific School; but since 1950 Yale's scientific programs and students at the graduate level have been counted within and administered by the Graduate School.

The Drama School began in 1924 as the Department of Drama, with enrollment counted in the School of Fine Arts until its establishment as an independent School in 1935.

STATISTICS OF ENROLLMENT 1892 - 1915

YEAR	YALE COLLEGE	SHEFFIELD SCIENTIFIC SCHOOL	GRADUATE SCHOOL	MEDICAL SCHOOL	DIVINITY SCHOOL	LAW SCHOOL	SCHOOL OF FINE ARTS	MUSIC SCHOOL	FORESTRY SCHOOL	TOTAL ENROLLMENT FOR DEGREES	SPECIAL STUDENTS	TEACHERS	DEDUCT AS ENTERED TWICE	TOTAL INDIVIDUALS ENROLLED
1892-93	966	529	125	76	109	171	31	7		2014	17		62	1969
1893-94	1086	601	143	80	119	188	30	9		2256	22		76	2202
1894-95	1150	662	138	100	116	195	41	25		2427	19		96	2350
1895-96	1199	584	176	125	105	224	46	53		2512	34		131	2416
1896-97	1237	553	227	138	104	213	53	76		2601	19	120	125	2615
1897-98	1241	543	262	128	102	198	78	70		2622	22	145	144	2645
1898-99	1224	567	233	110	95	194	84	76		2633	15	163	137	2674
1899-00	1224	571	283	135	100	195	90	107		2705	20	167	208	2684
1900-01	1190	610	304	133	89	213	75	126	7	2747	38	---	243	2542
1901-02	1240	675	338	147	100	249	66	69	31	2915	90	---	293	2712
1902-03	1205	738	346	145	112	253	29	47	40	2915	81	77	257	2816
1903-04	1250	837	333	141	97	259	35	64	64	3098	76	166	198	3142
1904-05	1275	871	353	139	96	234	39	89	63	3159	100	132	253	3138
1905-06	1322	885	355	137	66	278	51	90	54	3238	86	617	135	3806
1906-07	1351	895	360	154	65	294	41	87	59	3306	109	345	155	3605
1907-08	1315	948	357	137	80	339	39	83	61	3359	125	139	190	3433
1908-09	1273	953	385	140	106	434	47	95	70	3503	118	---	171	3450
1909-10	1229	959	396	124	108	352	50	81	82	3381	129	---	193	3317
1910-11	1226	1017	441	82	93	295	48	89	85	3366	77	---	157	3286
1911-12	1236	1118	408	63	101	173	59	94	57	3309	79	---	159	3229
1912-13	1321	1107	474	43	90	138	43	103	40	3359	62	118	251	3288
1913-14	1397	1112	353	48	91	133	56	91	32	3313	84	27	152	3272
1914-15	1426	1048	407	49	104	146	39	86	29	3334	58	109	191	3310
1915-16	1479	1020	346	58	106	119	49	99	25	3301	48	124	206	3267

Sources. Catalogues. All figures for 1914-15 are from The Report of the President for that year.

GENERAL NOTES, (Cont.)

Names of Departments and Schools, (Cont.)

The School of Forestry, founded in 1900, in 1972 enlarged its scholarly terrain and changed its name to Forestry and Environmental Studies.

Yale's most recent school, The School of Organization and Management was to evolve out of the Institute for Social and Policy Studies (1969-), and would admit its first students in 1976.

Notes on Classifications

Graduate Students. After 1847 the "Resident Graduates" were no longer listed separately but were apparently included with the incoming students in applied Chemistry and Engineering under the new rubric: Philosophy and the Arts. The first Ph. B. degrees were awarded to the scientific and engineering students in 1852, and in 1861 the first Ph. D. s were awarded for systematic graduate study, but this separation was not recognized in the Catalogue enrollment lists until 1866 (cf. Tables A-1.3 and A-2.5).

Teachers. As indicated by the gaps in our tables, it has not proved possible to distinguish the teachers taking courses in education from other special students for the years 1808-12, 1818-19, and 1946-54; in the years 1912-18, the teachers seem to have been counted in the Graduate School total even though not candidates for the degree.

School of Fine Arts. Prior to 1918-19 the School of Fine Arts listed its preparatory students in drawing as regular students, afterwards as special students.

Science and Engineering. In 1946-47 the Sheffield Scientific School became a graduate school, and transferred its undergraduate courses to the Engineering School or the College, while its graduate students were blended into the Graduate School total after 1949. In 1962 the School of Engineering ceased to function as an undergraduate school and was absorbed into the Graduate School. In the same year the "Common Freshman Year" was reabsorbed into Yale College.

STATISTICS OF ENROLLMENT 1916 - 1939

A-1.6

YEAR	YALE COLLEGE	FRESHMAN YEAR	SHEFFIELD SCIENTIFIC SCHOOL	SCHOOL OF ENGINEERING	GRADUATE SCHOOL	MEDICAL SCHOOL	DIVINITY SCHOOL	LAW SCHOOL	SCHOOL OF FINE ARTS	MUSIC SCHOOL	FORESTRY SCHOOL	SCHOOL OF NURSING	DEDUCTED AS ENTERED TWICE	TOTAL CANDIDATES FOR DEGREES	RESEARCH & SPECIAL STUDENTS NOT CANDIDATES FOR DEGREES	TEACHERS & OTHERS IN EXTENSION COURSES	TOTAL INDIVIDUALS ENROLLED
1916-17	1502		968		328	77	119	129	62	103	30		253	99	110	3274	
1917-18	873		574		236	73	76	68	36	88	11		165	34	102	2006	
1918-19	1153		890		112	77	60	49	34	60	11		30	2416	138	2554	
1919-20	1490		991		267	88	95	136	54	97	24		24	3128	96	3308	
1920-21	997	684	688		294	118	111	166	61	102	22		41	3222	140	3822	
1921-22	1035	867	519		355	163	134	213	72	86	35		24	3455	147	3932	
1922-23	1176	843	619		375	192	173	243	83	92	31		43	3784	153	4540	
1923-24	1229	776	684		435	190	178	323	101	91	30	11	80	3968	177	4482	
1924-25	1408	379	708		469	186	194	398	148	109	33	25	112	4445	169	5158	
1925-26	1464	860	724		538	195	223	412	226	96	38	39	93	4722	175	5325	
1926-27	1548	876	712		600	207	217	418	295	100	38	42	93	4960	183	5629	
1927-28	1608	878	689		634	212	219	367	311	100	44	49	104	5007	122	561	5490
1928-29	1630	890	669		649	208	217	318	327	115	39	70	107	5025	169	596	5780
1929-30	1697	832	845		741	212	227	315	333	103	43	82	99	5131	247	812	6190
1930-31	1680	849	645		812	199	258	325	367	120	40	102	107	5290	134	502	5915*
1931-32	1658	846	630		868	195	218	318	352	113	41	100	85	5274	109	439	5819*
1932-33	1556	882	430	233	882	196	208	302	361	97	36	110	111	5182	125	326	5631*
1933-34	1599	838	425	204	708	218	218	339	393	92	28	111	66	5107	105	264	5476
1934-35	1584	781	437	181	653	212	218	359	372	87	33	128	63	4982	121	259	5362
1935-36	1519	878	468	192	660	218	221	381	368	86	37	140	72	5086	90	315	5501
1936-37	1527	846	474	217	658	219	225	394	383	77	40	148	78	5130	104	259	5493
1937-38	1536	859	495	253	707	216	237	393	353	77	34	149	79	5230	93	318	5641
1938-39	1612	854	475	270	707	227	247	391	318	91	55	137	65	5319	115	315	5749
1939-40	1532	836	483	320	735	250	238	378	339	96	37	131	56	5319	108	318	5745

Sources. Catalogues. All figures for 1927-28 are from Reports to the President for 1927-28 and for 1928-30 from the Student Directory.

GENERAL NOTES. (Cont.)

Notes on Classifications. (Cont.)

Wars. During World War I and World War II enrollments oscillated more violently than is indicated by our figures. Thus, of the 2,108 enrolled in 1917-18, it is estimated that 854 were absent in war service. Again the three-term cycle of World War II, with its irregular dates of entry and of graduation, has made consistent enumeration impossible. The 1945-46 figures are for March 1945 and include students in the Army and Navy College Training Programs.

Special Students. For a number of reasons the category of "Special Students" gave our census takers a good deal of trouble. Prior to 1869-70 the Special Students, if any, were included in the School totals; after 1918 they were transferred to the columns for Research and Special Students; in the intermediate years, 1869-1918, they were generally, though not always, counted both for the School in which they were enrolled and in the column for Special Students, except that in most years the summer camp students in Forestry were listed only in the latter column.

Discrepancies

The figures given will be found to differ from the figures in the Catalogue for a few years in the 19th century and for a good many in the 20th. The figures for 1789-93 include one member of the Class of 1793 who was not awarded his degree until 1905; for 1852-53 they include one man in Yale College, deceased. For 1875 the Catalogue failed to list the registration of 30 in the School of Fine Arts; again in 1923-24 the Catalogue failed to list the 11 students registered in the new School of Nursing. In the years 1919-22 the Catalogue failed to list 2 research fellows; in 1923-24, 14; in 1924-25, 12; in 1925-26, 22; in 1926-27, 43; in 1927-28, 31; and in 1928-29, 45; thereafter the research fellows were counted, but in 1935-37, 7 men enrolled in the Harvard-Yale Business Law Course were omitted. The greatest discrepancies, however, have been caused by the students in the summer program in Forestry. For the years 1902-10, and again 1911-16, the Catalogue counted them for the grand total but not under Forestry nor under Special Students. In 1901-02 they were not counted at all and the same was true for the years 1910-11, 1911-12, 1916-17 and 1922-42; and for 1909-10, 5 students were omitted. We have added these summer Foresters to the count of Special Students for all the years since 1901-02, i. e., 27 in that year, 19 in 1902-03, and 15, 18, 18, 15, 23, 16, 15, plus 5 more in a second short summer program for 1909-10. For 1910-11 we have

*For these years respectively there were 11, 3 and 2 students enrolled in non-degree programs who were listed twice, making the totals correct as shown.

STATISTICS OF ENROLLMENT 1940 - 1954

YEAR	YALE COLLEGE	FRESHMAN YEAR	SHEFFIELD SCIENTIFIC SCHOOL	SCHOOL OF ENGINEERING	GRADUATE SCHOOL OF ENGINEERING	GRADUATE SCHOOL OF ARTS AND SCIENCES	MEDICAL SCHOOL	DIVINITY SCHOOL	LAW SCHOOL	SCHOOL OF FINE ARTS	MUSIC SCHOOL	FORESTRY SCHOOL	SCHOOL OF NURSING	DEDUCT AS ENTERED TWICE	TOTAL CANDIDATES FOR DEGREES	RESEARCH & SPECIAL STUDENTS NOT CANDIDATES FOR DEGREES	TEACHERS & OTHERS IN EXTENSION COURSES	TOTAL INDIVIDUALS ENROLLED
1940-41	1520	858	482	292	733	243	255	386	305	98	45	133	68	5280	135	281	5696	
1941-42	1392	981	507	333	592	237	264	305	287	81	28	163	65	5105	103	249	5457	
1942-43	1338	1203	556	361	454	238	248	107	172	60	6	185	53	4865	56	115	5036	
1943-44	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5080
1944-45	740	716	321	585	431	289	297	67	144	81	---	---	---	3905	120	31	4056	
1945-46	616	257	202	577	451	283	308	78	149	80	1	220	60	3172	113	78	3363	
1946-47	2590	1767	292	1023	683	285	306	511	443	137	89	181	68	8357	376	---	8733	
1947-48	3339	1165	340	1172	727	261	321	496	433	142	77	147	54	8671	320	---	8991	
1948-49	3348	1179	384	1041	749	279	328	514	422	122	62	146	48	8638	379	---	9017	
1949-50	3032	1125	379	860	744	277	349	541	401	129	65	142	58	8084	435	---	8519	
1950-51	2533	1050	653	653	108	1103	295	370	547	390	140	44	134	7317	428	---	7745	
1951-52	2446	1168	583	583	99	1089	368	402	551	350	28	121	59	7211	477	---	7688	
1952-53	2506	1018	582	582	89	1104	320	402	521	359	116	32	137	7129	438	---	7567	
1953-54	2357	1032	601	601	102	1149	334	400	515	343	125	35	132	7065	490	---	7555	
1954-55	2360	1002	620	620	104	1148	358	398	435	345	115	28	124	6974	395	---	7369	

Source. Catalogues. The census for 1945-46 was taken as of March 1945.

GENERAL NOTES. (Cont.)

Discrepancies (Cont.)
 added 4; then for the next years 3, 6, 4, 10, 7, and 12 in 1916-17. In 1922-23 there were 6; in the next year 10, then 3, 9, 3, 2, 2, 6, 1, 4, 0, 1, 0, 1, 3, 4, 2, 1, 2, and 3 in 1941-42. All these various additions have necessarily increased our total enrollment figures above the Catalogue figures for all the years since 1901 except for 1902-09, 1911-16, 1917-19, 1932-33, and 1934-35. In the years 1930-31, 1931-32 and 1932-33, an overlap between research students and teachers has required reductions of 11, 3, and 2, respectively, in order to get the correct figures for Total Individuals Enrolled. The Law School figures for 1923 to 1932 include Yale College students electing law courses (34, 64, 40, 40, 44, 30, 19, 9, 2); and for the years 1931 to 1942 small groups of Sterling Fellows (11, 11, 10, 9, 10, 9, 14, 12, 8, 10, 8) in addition to the three regular classes and graduate students.

STATISTICS OF ENROLLMENT 1955 - 1976

YEAR	YALE COLLEGE	FRESHMAN YEAR	SCHOOL OF ENGINEERING	GRADUATE SCHOOL OF ENGINEERING	GRADUATE SCHOOL OF ARTS AND SCIENCES	MEDICAL SCHOOL	DIVINITY SCHOOL	LAW SCHOOL	SCHOOL OF ARCHITECTURE & DESIGN	MUSIC SCHOOL	FORESTRY SCHOOL	DRAMA SCHOOL	SCHOOL OF NURSING	DEDUCTED AS ENTERED TWICE	TOTAL CANDIDATES FOR DEGREES	RESEARCH & SPECIAL STUDENTS NOT CANDIDATES FOR DEGREES	TOTAL INDIVIDUAL ENROLLMENT
1955-56	2300	1007	616	122	1122	354	392	466	185	96	36	146	113	70	6885	468	7353
1956-57	2339	1031	564	120	1198	367	404	516	238	100	41	163	76	61	7096	568	7664
1957-58	2379	1004	512	182	1257	341	396	537	192	84	44	160	44	107	7025	380	7405
1958-59	2374	1007	496	187	1345	346	403	544	265	84	48	162	19	111	7169	604	7773
1959-60	2437	1031	465	190	1486	339	358	556	273	93	50	154	19	73	7378	415	7793
1960-61	2451	997	427	199	1544	339	423	570	311	84	36	144	25	85	7465	664	8129
1961-62	2564	1020	326	209	1660	342	372	574	277	86	48	169	23	90	7580	641	8221
1962-63	3970			167	1723	345	328	586	270	76	70	169	29	14	7736	668	8404
1963-64	4054			149	1829	359	309	616	287	89	75	175	31	10	8063	270	8333
1964-65	4093			55	2094	364	282	617	286	93	59	197	28		*8178	436	8614
1965-66	4110			23	2138	397	313	625	304	104	38	177	23		*8252	287	8539
1966-67	4080			9	2323	409	313	596	291	107	29	203	26		*8386	268	8654
1967-68	4010			9	2328	452	312	567	288	111	49	166	28		*8320	346	8666
1968-69	4001			5	2415	453	328	551	244	106	62	162	34		*8361	304	8665
1969-70	4586			2	2473	477	341	572	274	116	68	140	44		*9053	292	9385
1970-71	4728			1	2170	465	329	613	222	128	88	134	56		*8934	280	9214
1971-72	4727				2137	481	365	634	215	117	82	129	62		*8949	282	9231
1972-73	4898		83		2157	524	345	576	119	129	76	121	79		*9105	114	9219
1973-74	4899		91		2293	512	358	586	137	133	96	131	79		*9315	112	9427
1974-75	5051		95		2261	588	391	584	135	170	105	138	84		*9602	59	9661
1975-76	5144		90		2283	605	396	582	141	173	106	136	90	95	9650	71	9721

*Information on duplicate registrations is not available for these years, therefore these figures represent total enrollment for degrees rather than the actual number of candidates.

Source: Catalogues.

not be approached again until the late 1960s, when for the first time the graduate and professional schools enrolled more than 50 percent of the students of Yale University.

One should note that this strengthening implied no real weakening in Yale College. On the contrary, Yale College continued to flourish, and so effectively that in the twentieth century it absorbed the Sheffield Scientific School and the Engineering School students, and by 1970-75 once again enrolled more than half of those studying for a degree.

Perhaps we should take note also of one other characteristic feature, which is the numerical demonstration that Yale has devoted its energies almost exclusively to students enrolled for their degrees. Through almost three centuries of growth the number of those attending Yale on a marginal basis has remained remarkably low. In translation these figures seem to tell us that if Yale has economized it has been on its less significant functions: in pursuit of its main business it has been persistent and sturdy.

A-2. Degrees Awarded at Yale

A-2 Degrees Awarded at Yale

Introduction: The Yardstick of Degrees

The tables of degrees conferred, between 1702 and 1976, contain a variety of information, both general and particular. In general, they measure the quantitative success of the College and University in educating and graduating into the working population potential leaders and specialists for American society. In particular, they enable any inquirer to determine just how many degrees, and of what kind, were awarded in every single year through two and three-quarter centuries. The structure of this cumulative record also defines the stages of Yale's institutional growth and diversification. And to the attentive ear the columns of figures for each degree, like telephone cables stretching down through the years, convey a surprising volume of messages.

For example, if we examine the columns of figures for the B.A. degree we learn for each generation how many students survived to win their diplomas (after a classmate or two had died, others had withdrawn because of bad health, and still others had failed to meet the academic requirements or had fallen by the wayside for disciplinary or financial reasons). By comparing the degree figures for a given decade with the figures for total enrollment for the same decade (table A-1.1 et seq.) we can achieve some rather interesting estimates of student departures or "mortality." Thus--if we bypass the Colonial Period when the reliable enrollment figures were too spotty and irregular for useful comparison--we can calculate that for the years 1797-1806 the average size of graduating classes was 45, whereas the average figure for enrollments was 193. Without failures, voluntary withdrawals or deaths, the number of degrees should presumably have approximated 25% of average enrollment, or 48 plus: in point of fact the difference between the theoretical maximum of 48 plus and the actual average of 45 in the decade under "Pope" Timothy Dwight suggests a theoretical survival rate for students of about 93% (but one suspects that withdrawals had been concealed by last minute additions or transfers into the senior class). Similar calculations for 1820-29, under President Jeremiah Day, will show average enrollments at 336, average

graduations at 76, or an apparent survival rate in the neighborhood of 90%. For the twentieth century, survival rates in Yale College (with few transfers or late additions) would vary from less than 70% to more than 90% (see the B-6 series of tables).

Again, the columns of figures for the B.A. show that the size of the senior classes was not steady but characteristically uneven. For example, in 1726 there were 23 B.A.s, for the next year only 10, and it would be six years before another batch of 23 would graduate, another twenty-five years before the senior classes regularly exceeded that number. In the years 1757-1759 Yale graduated three classes of more than 40 students each, but there would be only three other such hearty achievements in the next eighteen years. The first graduating class to exceed 100 seems to have been the class of 1826--the next, the class of 1837--and in the following twenty years only seven classes would number more than 100.

If we disregard individual variations and average the class sizes by decades we will discover that in the 1830s the graduating classes averaged just over 80; in the 1840s, in the mid-90s; and in the 1850s, just over 100. The Civil War Decade lifted this average to 110, the 1870s to 121, and the 1880s to 135: testimony to a growth that may have been variable from year to year but that over a longer run showed a steady if rather slow progression. Then, suddenly, the pace quickened. The classes of 1890 to 1893 averaged 175. The next year, 1894, saw the first senior class with more than 200 students, which was quickly followed by the class of 1898 with just over 300--after which came another plateau that lasted more than twenty years.

Meanwhile the Sheffield Scientific School, with the Ph.B. degree, had begun to graduate a small trickle of engineering and scientific students, to an average of 8 per year during its first decade and a half. After the Civil War the Ph.B. began to be earned every year by some 20 Sheff. seniors, in the 1870s by 40, in the 1880s by about 54, in the 1890s by more than 125, and in the 1900s by over 200. In 1912 and again in 1914 the Sheffield Scientific School actually graduated more seniors than did Yale College.

Then came the great reorganization of 1919-20 and the transfer of the Ph.B. degree to Yale College for its non-Latin students, followed in 1931 by the abandonment of that degree when Yale College gave up its Latin requirement. The subsequent separation of the scientific and engineering courses, the struggle to achieve substantial numbers in these disciplines, the decline of undergraduate engineering, and then the stabilization of the bachelor of

science contingent at a very modest percentage of the undergraduate enrollment: these are all graphically visible in our table.

Turning to the professional degrees, it is interesting to observe that M.D.s were awarded from the founding of the Medical School, but by the Law School (1824-) and Divinity School (1822-) degrees were not considered essential for intending lawyers or ministers and in fact were not awarded, in law until the 1840s and in divinity until after the Civil War (cf. tables A-1.2, A-1.3, and A-1.4). Looking a little closer, we can observe that the Medical School prospered in its first few decades but then just stagnated, finally dropping to the desperately low point of 2 M.D.s, in 1881 and again in 1889. Then a moderate recovery set in, followed by another decline in the years 1913-1919, after which the strong revival under Dean Winternitz is clearly figured.

Periods of prosperity or stagnation can also be detected in the graduating statistics of the other Schools--as can the post-World War I recovery of the University as a whole in the first decade under President Angell (1922-31). The award of 2000 degrees annually would not be reached until the return of the veterans from World War II, after which came another twenty-year period of slow growth, culminating in 1976 with just under 3000 degrees.

Turning to the intermediate degrees, it is interesting to note that in its history the University has awarded four different kinds of M.A. First there was the traditional second degree or (semi-honorary) M.A., awarded "in course" but without examination to those Yale graduates who returned and paid a small fee, three years or more after graduation. This custom continued from 1702 to 1874, at which point the unearned M.A. in course was abandoned in favor of the earned academic M.A. (after instruction and examination). And it may be observed that in spite of some perceptible efforts in the 1880s to interest Yale undergraduates in going on for an earned M.A., this degree never became popular. Why? Perhaps it was because the University concentrated its post-graduate teaching emphasis on the Ph.D., and for many years in the twentieth century insisted on two years of work for the M.A.--thus discouraging candidates who intended to go no further and could get an M.A. in one year from another university. As a matter of information it should be added that after World War II the M.A. came in many disciplines to be used (and regarded) primarily as a consolation degree: for those who failed their oral examinations or who felt unable to continue for the Ph.D. Meanwhile and from the very beginning Yale also awarded entirely honorary M.A. degrees to a few non-Yale graduates, intermittently in the earlier years, more regularly after the

Revolution. These honorary M.A.s were given to graduates of other colleges, sometimes as a substantial honor for a distinguished career, sometimes on an ad eundem basis, i.e., to match M.A.s already received from Harvard or the English universities. In the later years the ad eundem degrees were no longer awarded and by 1964 the proliferation of doctoral degrees had so lowered the value of the honorary M.A. that it, too, ceased to be given.

Again, from 1881 forward one begins to note the award of the M.A. privatim. This degree went to individuals appointed to the Yale faculty who had taken all their college and professional degrees elsewhere. The statistics of award for the M.A. privatim therefore suggest the gradual addition to the homebred faculty of increasing numbers of scholars who had been both liberally and professionally educated in other colleges and universities (cf. D-3 series). The desire to add them to the rolls of alumni, as members of the Yale faculty, is made evident.

Students of higher education will also find tables A-2.1 to A-2.12 worth careful study for a number of other features either characteristic of American education in general or betraying an emphasis peculiar to Yale. For example, the very gradual and slow yet ultimately substantial growth of the institution is testimony not only to a certain durability and vigor, but to the strenuous efforts that have been made over many years to limit Yale's schools of instruction, and the institution as a whole, to a manageable size. For two quite separate reasons--financial costs, and the desire to keep Yale's programs small enough to give personal attention to the students--the University has tried consciously and deliberately to limit or moderate its growth: an effort that obviously has had a partial, but only a partial, success.

Finally, it may be observed that these tables enable one to identify and in a measure calibrate the cultural output of the institution. Thus, Yale established and awarded the Ph.D. degree in 1861, nine years before any other American college or university, but the public was slow to respond: few candidates enrolled for this degree. Then, when Johns Hopkins and Harvard (and the growing complexities of industrial life) began to make the degree more popular, Yale's smaller financial resources, reinforced by the overwhelming emphasis on Yale College by President Porter and the older alumni, delayed Yale's expansion in this field. In the twentieth century a more favorable university atmosphere led to a growth still somewhat limited by lack of means, lack of numbers in the Faculty, and insistence on personal instruction. No doubt the greater public emphasis on the basic and applied sciences, or on teacher education, has also had negative consequences for Yale's

DEGREES IN COURSE AND HONORARY DEGREES
1702-1738

Year	B. A.	M. A. * (without examination)	Total Degrees in Course	B. A. Hon.	M. A. Hon.	M. D. Hon.	Total Honorary Degrees
1702	1	1	2		4		4
1703	1		1				
1704	3		3				
1705	5		5	1			1
1706	3	1	4				
1707	5	2	7				
1708	3	4	7				
1709	9	2	11				
1710	2	4	6				
1711	3	3	6				
1712	2	8	10				
1713	3	2	5				
1714	9	2	11				
1715	3	1	4				
1716	3	3	6				
1717	5	6	11				
1718	13	2	15				
1719	4	4	8		1		1
1720	10	5	15				
1721	14	13	27				
1722	8	3	11				
1723	11	10	21			1	1
1724	18	13	31		2		2
1725	9	5	14		1		1
1726	23	8	31				
1727	10	15	25				
1728	12	6	18				
1729	17	20	37				
1730	18	10	28		1		1
1731	13	9	22				
1732	23	26	49		1		1
1733	16	18	34		1		1
1734	14	11	25				
1735	24	20	44				
1736	19	16	35				
1737	24	11	35		2		2
1738	15	20	35				

Source. Catalogue of the Officers and Graduates of Yale University in New Haven, Connecticut, 1701-1924 (1924). Dates of the first and last award of each degree may be verified in Historical Register of Yale University, 1951-1968 (1969).

*The M. A., without examination, was awarded in course to graduates of Yale College who returned and paid a small fee. Generally this degree was conferred three years after graduation, but on occasion a man might not receive it until four, or ten, or even fifteen years later.

DEGREES IN COURSE AND HONORARY DEGREES, 1739-1777

Year	B. A.	M. A. (without examination)	Total Degrees in Course	B. A. * Hon.	M. A. Hon.	D. D.	LL. D.	Total Honorary Degrees
1739	10	20	30					
1740	21	18	39		1			1
1741	20	11	31		2			2
1742	17	9	26					
1743	24	15	39					
1744	16	18	33					
1745	27	16	43					
1746	12	22	34					
1747	28	14	42					
1748	36	25	61					
1749	23	12	35					
1750	17	25	42		8			8
1751	22	24	46		1			1
1752	14	20	34		2			2
1753	17	14	31		10			10
1754	16	23	39		5			5
1755	23	12	35		2			2
1756	33	14	47					
1757	40	15	55	1	4			5***
1758	43	17	60		2			2
1759	49	26	75	4	3			7
1760	33	32	65		5			5
1761	29	34	63		1			1
1762	43	41	84	1				1
1763	42	27	69		2			2
1764	28	12	40		1			1
1765	47	42	89	5	5			10
1766	37	19	56		4			4
1767	24	19	43					
1768	29	35	64		5			5
1769	26	29	55	1	3			4
1770	19	19	38	1	4			5
1771	19	25	44		2			2
1772	23	25	48		6***			6
1773	36	23	59	1	3	1	1	6
1774	30	19	49		4	1		5
1775	35	7	42		1			1
1776	33	15	48	1		2		3
1777	56	16	72		2			2

Source. Catalogue of the Officers and Graduates of Yale University in New Haven, Connecticut, 1701-1924 (1924).

*The B. A. Hon. awarded first in 1705, and quite frequently from 1757 to 1879, was generally granted ad eundem, i. e., to a recipient of the earned B. A. in the same year from another institution, often Harvard, Princeton, or Brown.

**Edward Walker received both the B. A. Hon. and the M. A. Hon. in the same year, 1757.

***Theodore Sedgwick, B. A. 1765, did not pick up his M. A. in 1768, but was awarded an M. A. Hon. in 1772.

DEGREES IN COURSE AND HONORARY DEGREES, 1778-1816

Year	B. A.	M. A. (without examination)	M. D.	Total Degrees in Course	B. A. Hon.	M. A. Hon.	M. D. Hon.*	D. D.	LL. D.	Total Honorary Degrees
1778	40	38		78	1	4				5
1779	34	18		52	1	3	1		3	8
1780	27	27		54		2				2
1781	27	40		67		11			2	13
1782	26	19		45	1	7		3		11
1783	42	26		68		1		2	2	5
1784	52	16		68		3				3
1785	70	19		89		6	1	1	1	9
1786	51	27		78	1	2			3	6
1787	58	29		87	1	5	1		2	9
1788	35	24		59		4		1	3	8
1789	30	17		47	1	3	2	1		7
1790	24	22		46	2	3		1	2	8
1791	27	18		45	1	5		4	2	12
1792	34	21		55	2	10	1	2	3	18
1793	38	14		22		2			1	3
1794	22	7		29	2	2		1		5
1795	33	12		45		6				6
1796	34	16		50		3		1	1	5
1797	37	11		48		5		3	1	9
1798	21	17		38		5		1		6
1799	26	13		39		4				4
1800	36	13		49		4		1	1	6
1801	38	13		51		4				4
1802	56	11		67	6	1		1	2	10
1803	58	7		65	2	2		2	1	7
1804	66	20		86	2	4		2		8
1805	42	33		75	5	3				8
1806	70	31		101	1	4		1	1	7
1807	63	23		86	4	3		1	1	9
1808	50	29		79		9		2		11
1809	43	23		66	5	5				10
1810	54	17		71	1	3				4
1811	49	23		72		1				1
1812	50	9		59	1	2		1	2	6
1813	70	15		85						
1814	82	25	3	110			1			1
1815	72	17	5	94	1	8		1	1	11
1816	61	24	18	103		6	8		1	15

Source. Catalogue of the Officers and Graduates of Yale University in New Haven, Connecticut, 1701-1924 (1924).

*By agreement with the Connecticut Medical Society, Yale awarded the honorary degree of M. D. to numbers of privately trained physicians recommended by the Society. This practice was begun in 1814, the year Yale began awarding the M. D. degree in course, and continued until 1871.

DEGREES IN COURSE AND HONORARY DEGREES, 1817-1851

Year	M. A.			Total Degrees in Course	B. A. Hon.	M. A. Hon.	M. D. Hon.	D. D.	L. L. D.	Total Honorary Degrees
	B. A. (without examination)	M. D.	L. L. B.							
1817	61	39	6	106		8	4	1	1	14
1818	67	23	10	100	1	7	12	2	1	23
1819	39	24	13	76	3	7	5		3	18
1820	58	32	7	97	1	6	1	2		10
1821	69	29	13	111	5	3		1		9
1822	80	29	17	126	2	2	6	2	2	14
1823	72	23	28	123	1	6	4	1	3	15
1824	68	39	15	122		5	5	1	1	12
1825	71	37	25	133	1	5	6	2	2	16
1826	101	34	30	165	5	5	6			16
1827	80	32	20	132	1	4	8	2	3	18
1828	82	49	29	160			8	1	1	11
1829	78	41	36	155	1	4	3	1	2	11
1830	71	40	17	128		7	5	1	3	16
1831	81	46	22	149	1	6	5			12
1832	74	21	16	111						
1833	91	35	14	140		9	10	1	4	24
1834	66	23	14	103	1	6	7	2	3	19
1835	75	24	18	117		4	4			8
1836	81	37	18	136		2	5			7
1837	106	43	17	166		4	2			6
1838	70	41	18	129		1	2			3
1839	95	39	17	151	2	3	6		1	12
1840	107	52	15	174		6	5		1	12
1841	79	43	8	130	1	2	3		2	8
1842	110	42	19	171		3	4		2	9
1843	96	42	17	157		4	4			8
1844	105	39	18	171	1	5			2	8
1845	75	52	11	144	1	5	7		2	15
1846	83	51	19	162		3	4		3	10
1847	124	55	21	214		6	3		4	13
1848	89	35	12	141		4	1		3	8
1849	96	43	11	157		6	2		1	9
1850	81	52	16	158	1	5	2			8
1851	93	31	12	143	2	4				6

Source. Catalogue of the Officers and Graduates of Yale University in New Haven, Connecticut, 1701-1924 (1924).

DEGREES IN COURSE AND HONORARY DEGREES, 1852-1871

Year	B. A.	Ph. B.	M. A. (without examination)	Ph. D.	C. E.	M. D.	L.L. B.	B. D.	Total Degrees in Course	B. A. Hon.	Ph. B. Hon.	M. A. Hon.	M. D. Hon.	D. D.	I. L. D.	Total Honorary Degrees
1852	95	7	44		14	6			166	1		5	1		2	8
1853	110	7	36		16	13			182			5	1		1	8
1854	102	7	41		10	3			163			5	6		3	14
1855	92	7	62		11	8			180			3	4		1	8
1856	97	12	51		18	4			182	1		4	3		2	10
1857	107	9	54		13	8			191			5	1		1	7
1858	105	12	47		6	5			175		2	7			1	7
1859	107	8	31		5	7			158	1		5	2		2	12
1860	112	6	49		14	8			190		1	7			2	10
1861	97	9	23	3	17	5			154	1		4			1	9
1862	100	6	25	1	13	8			153							5
1863	129	4	34	3	15	6			191			2			3	3
1864	112	9	47		18	9			195			2			1	3
1865	102	14	49		14	8			187		1	4	1		2	8
1866	99	8	81	4	18	9			221	1		10			3	14
1867	107	16	66	1	12	10			216		3	10	1		2	7
1868	110	27	43	1	6	5	4		216			1	1		3	15
1869	116	26	38	4	10	5	7		199		1	6		2	3	13
1870	120	27	50	1	2	3	9		203			6			3	11
1871	105	27	57	3	11	12	12		214	1		10	1		3	18
									228			13	1	1	3	19 ^c

Source. Catalogue of the Officers and Graduates of Yale University in New Haven, 1701-1924 (1924).

^cIn 1866 and 1871 Yale awarded the honorary Doctor of Philosophy degree (Ph. D. Hon.) to John Merrill; Stafford and to James Craig Watson (the only such degrees ever awarded by the University).

DEGREES IN COURSE, 1872-1899

Year	B. A.	Ph. B.	M. A. (upon exam)	M. A. (without exam)	M. S.	Ph. D.	C. E.	M. E.	B. F. A.	B. M.	M. D.	LL. B.	LL. M.	D. C. I.	B. D.	Total Degrees in Course
1872	133	24		48		3	2				5	10			8	233
1873	114	30		50		8	2	2			5	15			21	247
1874	124	39		56		4	2				9	21			22	277
1875	98	56				4	2	2			14	17			35	228
1876	127	53	2			8					10	36			24	260
1877	120	55	1			6	2	2			6	27	1		22	242
1878	133	40	2			7	1				10	26	5	1	33	258
1879	138	44	2			3					16	22	1	1	20	247
1880	122	43	2			5	2	1			12	33	2	3	24	249
1881	130	47	4			2					10	31	6		20	248
1882	122	36	4			2	3				2	21	5	2	32	229
1883	154	48	3			1					7	43	2		26	284
1884	152	44	4			2		1			9	36	6		26	280
1885	127	68	2			6	2				6	31	2	1	36	281
1886	139	66	2			3	1	2			6	20	3		30	272
1887	150	58	4			4		3			8	28	5		26	286
1888	125	80	13			4		1			7	37	3		27	304
1889	124	72	6			13					2	41	6		35	299
1890	146	65	8			9	2	1			7	42	2	3	38	323
1891	186	90	9			23	3		1		15	55	2	1	43	428
1892	182	103	8			15	1	1			22	49	11		37	429
1893	185	110	11			13	4	1			16	73	4	4	32	453
1894	239	143	13			21	1	4		4	15	60	5	2	32	539
1895	249	162	11			19					13	90	11	1	32	588
1896	278	160	12			31	4	1			25	61	13	3	28	616
1897	275	178	13			22	3			1	35	98	14	3	29	671
1898	301	113	14			34	2	1	4		31	27	15		26	568
1899	298	138	38		2	30	1	3	2		7	64		3	21	607

Source. Catalogue of the Officers and Graduates of Yale University in New Haven, Connecticut, 1701-1924 (1924).

HONORARY DEGREES, 1872-1899

Year	B. A.	Ph. E.	M. A.	LL. B.	Mus. D.	Litt. D.	D. D.	LL. D.	M. A. <u>Privatim</u>	Total Honorary Degrees
1872			13		1		2	4		20
1873	1		9				1	3		14
1874	1		9				3	3		16
1875			9				2	3		14
1876			3					3		6
1877			7				1	3		11
1878			4				1	3		8
1879	1		19				2	3		25
1880			12		1		2	2		17
1881			8				1	4	2	15
1882			3				1	3	1	8
1883			8				2	3		13
1884			3				3	4		10
1885		1	5				3	3		12
1886			12				3	4		19
1887			15				3	4		22
1888			11				1	6	1	19
1889			9				5	4		18
1890			13		1		2	5		17
1891			13				3	6		22
1892			17				1	5		20
1893			9	1		1	4	7		29
1894			6				3	5	1	18
1895			7				3	6		15
1896			10			1	2	7		16
1897			6			1	4	2		17
1898			9				4	3		14
1899							2	7*		18

Source. Catalogue of the Officers and Graduates of Yale University in New Haven, Connecticut, 1701-1924 (1924).

*One of the seven honorary LL. D. degrees was conferred privatim.

DEGREES IN COURSE, 1900-1921

Year	B. A.	P. H. B.	M. A. (upon exam)	M. S.	Ph. D.	C. E.	M. E.	E. M.	E. E.	Met. E.	B. F. A.	B. M.	M. F.	Dr. PH.	M. D.	LL. B.	B. C. L.	LL. M.	D. C. L.	J. D.	B. D.	Total Degrees in Course
1900	321	137	23	1	26	2					1	1			24	46		1			23	606
1901	254	143	38	4	39		2				3	1			18	54		5			26	587
1902	292	133	58	3	29						1	2	10		20	62		3			21	634
1903	316	131	54	2	36		1				2	1	16		27	71		6			30	693
1904	288	175	55	6	39	2	2				1	1	31		23	63		5			27	718
1905	288	166	52	2	36		2				1	2	28		21	62	1	8	1		27	697
1906	297	215	62	3	29	3	1				3	1	19		25	57		7	1		18	741
1907	357	216	71	2	22	3	2				1	1	26		29	79		5			12	826
1908	342	274	61	3	32	1	2	1			1	2	28		29	88	1	14			16	895
1909	313	224	84	3	44	3	3				1	3	31		15	82	1	17	1		21	843
1910	313	251	80	3	27	1	3	4			3	2	33		27	99		12			26	881
1911	297	272	84	4	31	5	1	2			1	1	43		20	141	3	13			24	942
1912	292	300	78	2	31	5	3	9			1	3	37		29	48		9	1	1	27	876
1913	298	286	44	4	39	4	2	2			1	5	19		9	44		4			4	783
1914	293	326	31	4	32	2	8	4	1		1	2	20		8	29	1	6		2	28	794
1915	307	283	33	5	36	3	8	4	2		4	2	12		7	33	1	5	1	3	32	781
1916	318	290	19	6	50	1	1	1	1	1	2	4	12		6	37	1	8	1		19	776
1917	340	245	18	9	37		6	4		1	6	6	15		10	38	1	1			28	766
1918	342	182	9	4	21						3	3	5		8	21					27	625
1919	266	179	7	5	14		2		2		1	2	4		12	8					22	524
1920	240	173	13	7	29	1	6	1	1		3	8	14	2	19	35				4	34	589
1921	228	268	37	12	38	1	4	1	2		8	8	9		16	54				4	35	725

Source. Catalogue of the Officers and Graduates of Yale University in New Haven, Connecticut, 1701-1924 (1924).

HONORARY DEGREES, 1900-1921

Year	M. A.	Mus. D.	Litt. D.	Sc. D.	D. D.	LL. D.	M. A. Privatim	Total Honorary Degrees
1900	5				2	2	7	16
1901	12		8		10	50		80*
1902	5		1		2	6	2	16
1903	7				3	4		14
1904	7	1			2	5	1	16
1905	5	1		2	2	4	2	16
1906	9			2	1	4		16
1907	6		1	2	2	4	15	30
1908	5		2	1	2	4	8	22
1909	4			3	2	4	4	17
1910	5		1		2	3	7	18
1911	4	1		1	1	4	5	17
1912	7			1	1	3		12
1913	4		1	2	3	3	4	17
1914	12			2	1	4	4	25
1915	3		2	1	2	2	6	16
1916	6		1		1	4	8	20
1917	8	1		2	2	4	8	25
1918	6		1	2	2	4		15
1919	6			2	2	4	11	25
1920	6	1		1	1	4	7	20
1921	4		2	2	2	6	6	22

Source. Catalogue of the Officers and Graduates of Yale University in New Haven, Connecticut, 1701-1924 (1924).

*Conferred at the Bicentennial Celebration, October 20-23, 1901.

DEGREES IN COURSE, 1922-1950

Year	B.A.	Ph.D.	B.S.	B.Eng.	M.A. (on Exam)	M.S.	M.Eng.	Ph.D.	E.M.	C.E.	M.E.	E.E.	D.Eng.	Chem. Eng.	MS/C.E.	MS/M.E.	MS/E.E.	MS/E.M.	MS/Tr. Eng.	M.E.	D. For.	B. P. A.	B. Arch.	M. Arch.	M. F. A.	B. M.	M. M.	B. N.	M. N.	M. P. H.	D. P. H.	M. D.	LL. B.	LL. M.	D. C. L.	J. S. D.	B. D.	M. S. T.	Total	
1922	272	8	74		25	14	39	1	1										19	5						8														597
1923	248	83	150		41	21	52	1	5										17	10																				782
1924	308	80	189		21	26	45	1	4										17	16																				926
1925	268	157	213		31	20	69	1	7										22	18																			1026	
1926	268	180	227		40	17	82	1	2										24	25																			1036	
1927	308	180	224		47	18	70	1	1										25	31																			1147	
1928	313	137	221		51	20	60	1	1										28	44																			1158	
1929	313	157	210		37	26	85	1	3										21	43																			1173	
1930	342	182	202		35	24	83	1	1										26	46																			1252	
1931	352	179	197		36	20	100	1	3										26	52																			1275	
1932	554		180		48	16	119	3	2										32	46																			1382	
1933	481		127		64	44	7	124	4	2									32	52																			1322	
1934	476		128		53	42	117	2	2										30	28																			1366	
1935	485		127		44	20	5	134	2	1									10	47																			1428	
1936	522		152		49	30	4	118	2	1									19	12																			1508	
1937	474		140		46	35	2	5	135	1									22	40																			1207	
1938	423		168		54	24	7	5	106	2	1								21	44																			1208	
1939	526		149		59	30	4	5	133	1									36	30																			1348	
1940	488		150		71	34	2	14	113	1									15	12																			1287	
1941	512		139		56	43	10	7	137	1									29	35																			1243	
1942	453		145		96	168	35	21	122	1									18	17																			1430	
1943	430		1		87	98	24	4	104	2									4	20																			1091	
1944	433		148		99	63	27	15	48	1									3	14																			1680	
1945	837		240		198	88	15	1	46	1									21	6																			1680	
1946	375		57		253	123	20	7	56	3									43	12																			1170	
1947	593		107		220	186	41	62	103	5									45	1																			1398	
1948	230		65		76	182	74	49	140	6									45	1																			1390	
1949	774		104		154	183	43	47	148	15									46	1																			1980	
1950	1034		152		158	148	63	48	167	13									43	1																				2348

Sources: Catalogue of the Officers and Graduates of Yale University in New Haven, Connecticut, 1701-1924 (1924) and Catalogue of Yale University Alumni, 1925-1954 (1955). In the latter catalogue many graduates who failed to complete their courses with their original classes were nevertheless restored to their classes if they so pleased. This indulgence somewhat distorts the numbers who actually graduated in a given year, most especially for World War II, 1940-1950.

*Includes Master of Science in Mining and Metallurgy degrees.

HONORARY DEGREES, 1922-1950

Year	M. A.	M. S.	Mus. D.	Litt. D.	L. H. D.	Sc. D.	D. F. A.	D. D.	LL. D.	M. A. Privatim	TOTAL Honorary Degrees
1922	7			1		2		2	2	3	17
1923	5			1		3		1	3	7	22
1924	5			2		2		2	4	4	19
1925	4			2		2		2	5	8	23
1926	5		1	1		2		2	6	7	24
1927	7			1		3		2	3	11	27
1928	4	1		3		2		2	3	11	26
1929	2	1		1		2		2	4	12	24
1930	3	1		2		2		1	1	6	16
1931	3	1				2		1	3	17	27
1932	3	1		2		1		1	3	8	19
1933	2	3		1		2		1	3	4	16
1934	3			2	1	2		1	3	3	15
1935	3	1		1		1		1	4	5	16
1936	2	1		2	1	1		1	3	5	16
1937	2	1		2		2		1	3	8	19
1938	1	1	1	1	1	1		1	4	9	20
1939	2	1		1		2		1	3	2	12
1940	1	1		1	1	1		1	4	6	16
1941	1	1		2		1	1	1	3	6	16
1942	2	1								1	4
1943	3										3
1944	10									11	21
1945	8									10	18
1946	1	1		3	5	5	3	1	3	14	36
1947	1	1		2		12		1	5	14	36
1948	1	1		1		1		2	3	13	22
1949	2				2	2		1	3	7	18
1950	1	1		1	1	2	1	1	4	16	28

Sources. Catalogue of the Officers and Graduates of Yale University in New Haven, Connecticut, 1701-1924 (1924) and Bulletin of Yale University, annual General Catalogue Number (1925-1951).

DEGREES IN COURSE, 1951-1976

Academic Year Ending	B. A.	B. S.	B. Eng.	M. A.	M. S.	M. A. T.	M. Eng.	M. Phil.	Ph. D.	D. Eng.	M. C. P.	M. I. A.	M. U. S.	M. F.	M. F. S.	D. For.	B. F. A. (Art)	B. Arch.	M. F. A. (Art)
1951	748	189	112	175	68		53		179	6	2			33		1	42	25	45
1952	702	183	99	118	70		50		174	8	1			20		1	31	28	45
1953	740	162	92	148	67		29		177	4	6			16		1	25	30	40
1954	685	137	101	154	50		26		201	2	5			20		3	26	24	41
1955	716	188	81	153	69		37		186	11	6			31			21	25	50
1956	635	182	108	184	47		36		175	12	2			24			20	15	40
1957	689	151	120	211	73		36		194	13	7			29		4	16	25	45
1958	660	127	90	208	78		50		168	10	16	7		31			24	33	42
1959	713	104	96	233	73		58		176	13	7	11		31		1	35	24	65
1960	706	110	85	221	73	35	57		195	11	10	9		36		2	29	22	63
1961	708	123	79	163	77	42	55		213	15	16	16		23		2	44	25	74
1962	723	92	71	184	79	60	58		195	11	15	13		44		3	58	18	70
1963	760	99	76	210	93	48	52		209	12	9	12		47		1	37	21	90
1964	824	68	54	247	115	52	58		223	16	15	12		47			23	14	45
1965	827	79	53	259	111	52	17		266	13	20	13	6	35		5	2	23	47
1966	880	121	9	254	162	59	10		299	9	22	9	3	30			14	24	42
1967	841	125	1	178	95	64		110	256	2	13	18	9	7			22	7	49
1968	861	109		138	67	66		120	278	4	2		7	9		2	23	1	42
1969	846	111		113	34	64		261	305	2	13		10	8	14		24	4	43
1970	781	97		92	8	63		256	334	2	20		8	10	16	2	16	9	44
1971	988	139		64	2	10		340	339	1	9			13	26		25	8	47
1972	999	132		137	69			304	345		13		2	12	38		5 ^a	2	39
1973	998	145	1 [#]	318	121			285	341				2	4	27		2		39
1974	1015	166		257	74			301	347					6	33				43
1975	1001	187		246	72			265	348					4	47			2	49
1976	1066	192		244	86			250	334					10	42			1	46

Source. Bulletin of Yale University General Catalogue Number (1952-1976). At the time of compilation there was no catalogue of graduates and non-graduates after the year 1954, so all the years after 1954 have to be drawn from the General Catalogue, and for consistency the years 1951-1954 have been taken from the same source. This has produced a distortion in the numbers different from the distortion in the earlier catalogues of graduates, for it was the practice in the annual several catalogues to list the degrees awarded during the academic (not the calendar) year. This means that the totals for any year include degrees awarded in the preceding November as well as at Spring commencement (instead of degrees in Spring and Fall, as earlier). During the years of student unrest (1967-1972) considerable

DEGREES IN COURSE, 1951-1976 (cont.)

M. F. A. (Drama)	M. Arch.	M. Env. Des.	D. F. A. / Drama	B. M.	M. M.	M. M. A.	D. M. A.	M. N. / M. S. N.	M. P. H.	Dr. P. H.	M. D.	L. L. B. / J. D.	L. L. M.	M. S. L.	J. S. D.	B. D. / M. Div.	M. S. T.	M. R. E. / M. A. R.	Total	Academic Year Ending
	4		41	19			54	26		58	187	12		5	73	7			2164	1951
	4		32	23			28	26		66	151	24		7	98	16			2006	1952
	2		27	19			39	25		61	133	22		7	102	12			1986	1953
	2		25	23			37	20		63	206	17		5	80	11	7		1971	1954
	2		21	24			45	23	2	79	128	16		7	95	11	6		2033	1955
	1		21	12			34	30		71	122	17		5	86	4	1		1894	1956
	2		31	16			50†	25	1	80	142	31		7	79	12	6		2085	1957
	9	1	20	17			38	34		72	155	27		5	82	13	10		2027	1958
	19		15	17			12	40	3	79	161	30		6	98	9	4		2133	1959
	7	4	11	24			4	34		72	155	27		8	65	12	7		2094	1960
	16	2	1	25			13	30	2	67	171	28		4	94	26	12†		2166	1961
	14	2		37			9	16		77	165	39		10	75	18	9		2165	1962
	16	1		23			13	23		79	180	26		8	83	26	4		2258	1963
37	11		3	28			14	25		72	169	43		9	84	36	19		2363	1964
36	19		7	25			17	30		77	166	41		6	67	31	9		2360	1965
39	13		3	33			8	32	2	72	167	60		7	56	25	20		2484	1966
48	34		8	37			12	40	1	73	192	33		10	83	22	14		2404	1967
42	47	1	4	38			13	42		82	167	33		7	63	33	13		2314	1968
52	35	14	6	24	22		14	51		77	162	29		3	67	27	21		2456	1969
35	52	10	4	17	21		16	49	2	83	121	17		10	71	11	27		2304	1970
36	39	14	6	36	19		28	62	1	91	174†	19		2	67†	21	28		2654	1971
41	35	10	3*	24	24		25	42		84	227	24		2	93	16	35		2782	1972
37	46	9	4	45	18		38	59	4	88	195	18		2	88	14	27		2975	1973
35	31	7	2	42	15	17	38	49		82	179	25		3	62	31	34		2894	1974
38	33	9		53	12	13	36	91	1	102	161	21	6	6	79	23	33		2938	1975
43	46	3		66	21	6	32	70	1	90	174	28	3	3	85	21	24		2987	1976

numbers failed to graduate on schedule but were allowed to make up their work later, and for alumni records purposes were reclassified with their original classes. But how many such reclassifications were included in the annual catalogues it is not possible to say.

*Year of change of title of degree.

† In year of change of title of degree; 7 L. L. B. and 167 J. D.; 21 B. D. and 46 M. Div.; 40 M. N. and 10 M. S. N.

Degree conferred retroactive to 1946.

HONORARY DEGREES, 1951-1976

Year	M.A.	M.S.	Mus.		L.H.D.	Sc.D.	D.F.A.	D.D.	LL.D.	Soc.Sc. D.	M.A.	Total
			D.	D.							Privatim	Honorary Degrees
1951				10	1	12			1	1	18	43
1952									1	6	15	22
1953				2	3	2			1	3	10	21
1954	1	1			2	2	1		1	4	10	24
1955	3		1	1	1	2			1	2	12	23
1956	3			1	2	1			1	4	11	22
1957	1			1	1	2			2	6	10	23
1958	2				1	3			1	5	12	24
1959	1			2	2	2			1	4	14	26
1960	2			1	3	2			1	4	13	26
1961	2				4	2			1	4	24	37
1962	1		1			2			2	7	21	34
1963	1				2	2			1	4	23	33
1964	1				3	2			1	6	30	43
1965					2	2			1	6	37	48
1966			1	1	1	4			1	3	27	38
1967			1		3	3			1	4	19	31
1968			1	1	2	3			1	5	37	51
1969					1	4	1		2	5	32	45
1970			1		3	2			1	3	37	48
1971					2	2	1		1	5	17	29
1972				1	3	2			1	5	28	40
1973			1		2	2	1		1	3	25	35
1974			1	1	2	1			1	4	17	28
1975			1	1	1	1			1	6	26	38
1976			1		4	2				3	32	43

Sources. Yale Alumni Magazine (1951-1967), Yale Commencement Programs (1957-1967), Bulletin of Yale University, annual General Catalogue Number (1968-1977) and Yale Corporation Records.

CERTIFICATES, 1918-1950

Year	Fine Arts	Music Theory	Nursing	Public Health	Transportation	Total Certificates Conferred
1918				1		1
1919				2		2
1920				2		2
1921				1		1
1922				5		5
1923				3		3
1924				1		1
1925	7	12		2		21
1926	14	26		1		41
1927	19	16		5		40
1928	15	21	1	4		41
1929	18	25		2		45
1930	24	14		3		41
1931	28	17		6		51
1932	18	20		2		40
1933	27	21		6		54
1934	14	27		5		46
1935	24	16		2	3	45
1936	24	11			5	40
1937	23	14			4	41
1938	19	11			1	31
1939	16			15	4	35
1940	31	16			3	50
1941	26	22		22	4	74
1942						
1943						
1944						
1945	10					10
1946	8					8
1947	16				2	19*
1948	34				1	35
1949	23				1	24
1950	16				2	18

Sources. Catalogue of the Officers and Graduates of Yale University in New Haven, Connecticut, 1701-1924 (1924), and Bulletin of Yale University, annual General Catalogue Number (1925-1951).

*Includes one certificate to a Rockefeller Foundation Student.

CERTIFICATES, 1951-1976

Year	Transportation	Drama	Music	Nursing	Midwifery- Nursing	Total Certificates Conferred
1951						
1952						
1953						
1954	2					2
1955	1					1
1956	3					3
1957	4					4
1958						
1959		2				2
1960	2	1				3
1961	1				4	5
1962	1	1			4	6
1963	3	2			4	9
1964		1			5	6
1965	3	2			8	13
1966		2			2	4
1967		1			4	5
1968	3	2			5	10
1969		10			4	14
1970		6			5	11
1971		1			7	8
1972		6			6	12
1973		1			9	10
1974		2	1		3	6
1975				12	-*	12
1976			2	11		13

Sources. Bulletin of Yale University, annual General Catalogue Number (1952-1977) and the Registrars of the Schools of Drama, Nursing and Music.

*As of 1975 students in the Nurse-Midwifery program received certification from the American College of Nurse-Midwives.

production of Ph.D.s. So an academic service that Yale began has now for a long time been dominated by Columbia and Chicago and Harvard and more recently by some of the major state universities.

Notwithstanding, in the winter of 1975-76, Yale awarded its ten thousandth Ph.D.: a quite measurable contribution to the nation's limited pool of scholars over the past century.

Until recently, of course, Yale's degrees have been awarded entirely or almost exclusively at Commencement--whereby hangs a symbolic tale. Yale's Commencement started as a small affair in Saybrook, Conn., at the home of the Reverend Thomas Buckingham, one of the clergymen who had helped found the college. After the move to New Haven, the classic location came to be the (Center) Church on the Green. Then in the twentieth century, with the organization of a university and conferring of a multiplicity of degrees, Commencement moved to commodious Woolsey Hall. But after World War II the graduating classes became so large that in 1950 the traditional ceremonies had to be moved once again, this time outdoors, to the Old Campus. And legend has it that only once has it rained.

A-3. Perspectives on Growth in Enrollment

A-3 Perspectives on Growth in Enrollment

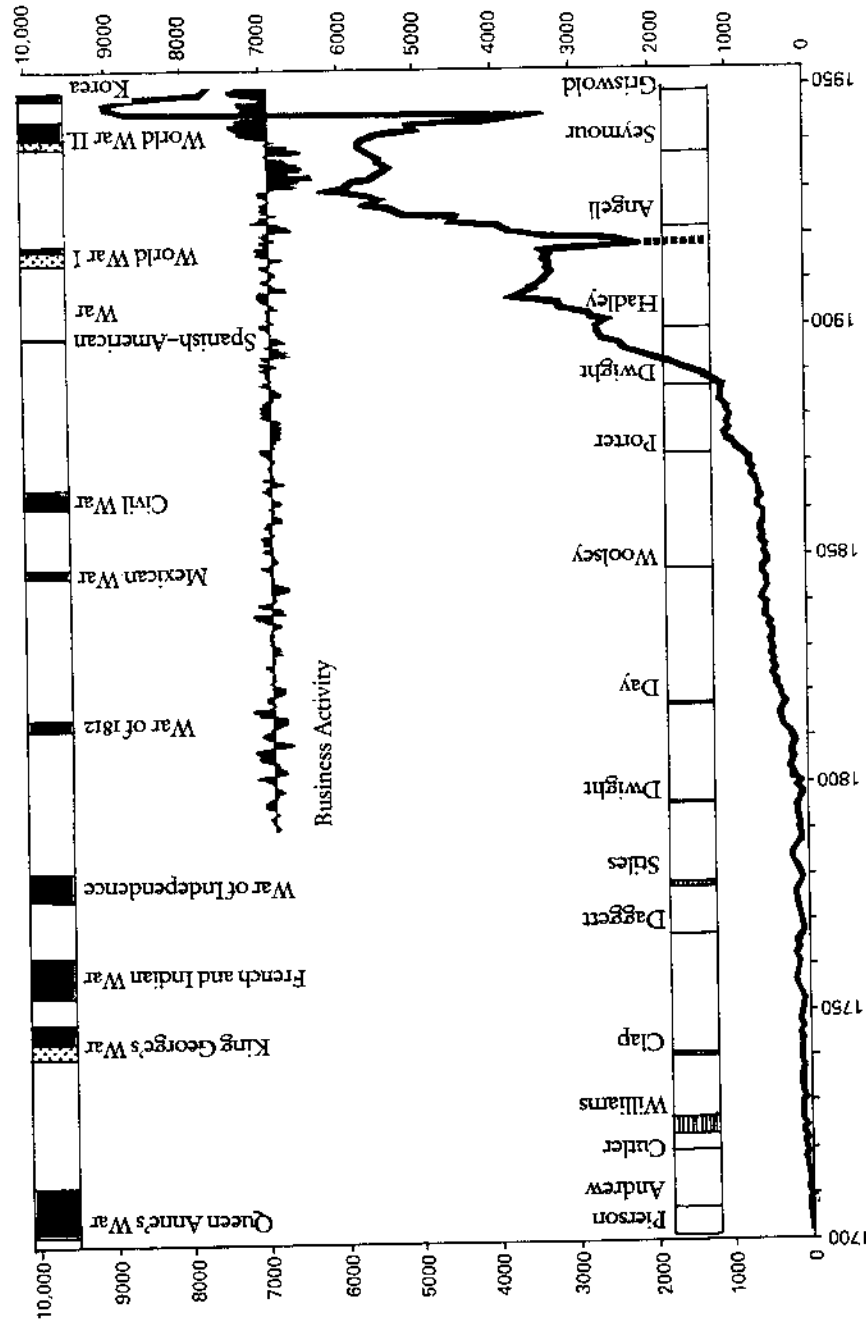
Introduction: On the Repercussions of National Events

The first chart (A-3.1) represents an effort to correlate Yale's enrollments with exterior circumstances, in particular with the nation's wars and depressions. Because of the uncertainty of the Colonial enrollments and the slow but rather steady growth thereafter, modified chiefly by interior oscillations, this visual comparison down to the Civil War is not very illuminating. One then notes a slightly delayed increase of enrollment after the Civil War, followed by the pause under Porter, then the very striking change of pace under Timothy Dwight II, before the check in the second half of Hadley's administration: variations which seem to this institutional historian attributable as much to internal as to external circumstances.

Then, however, came the dramatic drop and almost total elimination of the student body in World War I, followed by an impressive post-war boom. One can next detect the effects of the Great Depression, though the recoil seems less severe than might have been apprehended. This recoil or pause dragged on until the crisis of World War II: a catastrophe which restored prosperity to the nation, but threatened bankruptcy to the colleges because of the manhood draft. In compensation there surged in an almost violent return flood of students in 1946-50.

The bursary aide who first made this table graduated in 1945, and his successor not long after, so the effects of the Korean and the Vietnam Wars, with the student uprisings of the late 1960s and early '70s, and the repercussions of the stock market collapse and depression under Nixon will have to be ferreted out and visualized from the enrollment figures given in tables A-1.7 and A-1.8--if indeed such repercussions can be detected in the crude totals. Such has become the drawing power of a great university, however, that perhaps only the catastrophe of another major war will have striking statistical consequences for its normal enrollments. Hence it may be that one must look to the inflation-strained budgets--or to the admission of women and other "minorities"--or to the proportions between undergraduate and

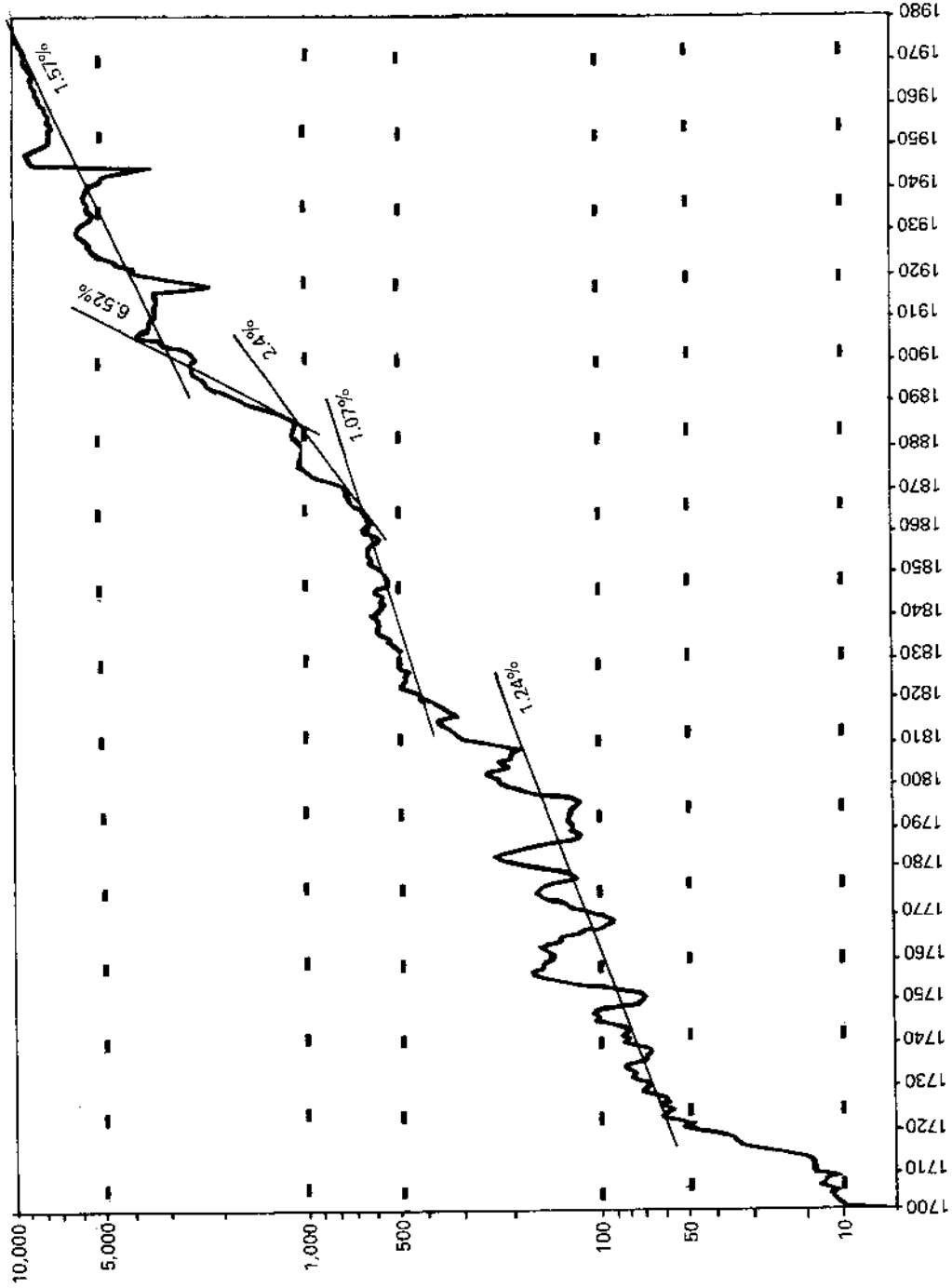
Enrollment at Yale Through Wars and Depressions, 1701-1951



Source: "Business activity" graphs by Leonard P. Ayres, published by The Cleveland Trust Company in their Business Bulletin prior to World War II and resumed in the 1950s.

Changing Rates of Growth

Over the last 200 years (1775-1975) the annual rate of growth can be figured at 2.07 percent, or just over 2 percent in an average year.



professional enrollments--or to the quality rather than the quantity of the students (i.e., to student aptitude scores, academic mortality, choice of majors, honors awards, etc.) for signs of the social storms or economic weather being experienced by the nation.

Yale's Rates of Growth

Notwithstanding our reservations about the crude totals of enrollment in this century, when more students are applying than can be accommodated, our logarithmic graph (A-3.2) will be found tantalizing or suggestive. For it makes possible the calculation of average rates of growth compounded across the years. Thus one finds that, after the initial uncertainties and steep rise from 1709 to 1722, a much steadier and more predictable rate of increase governed the ensuing years. From 1743 to 1808 the average rate of growth in enrollment was 1.24%. This was followed by a much faster rate from 1808 to 1821, then by another long stretch from 1821 to 1864 along a very gradual incline. Between 1864 and 1885 that 1.07% rate changed to 2.4%, then shot up to 6.52% in the next twenty years. By contrast the 70-year stretch from 1903 to 1973 showed an average rate of annual growth at 1.57%. Aside from the steep recoveries after World War I and World War II, the periods of most rapid expansion seem to have occurred in the early administration of President Clap, and the presidencies of the two Timothy Dwights.

Altogether, over the last 200 years (1775-1975) the annual rate of growth can be figured at 2.07%, or just over 2% in an average year.

A-4. Comparative Enrollments:
Yale Schools and Departments

Introduction: The Inner Balance

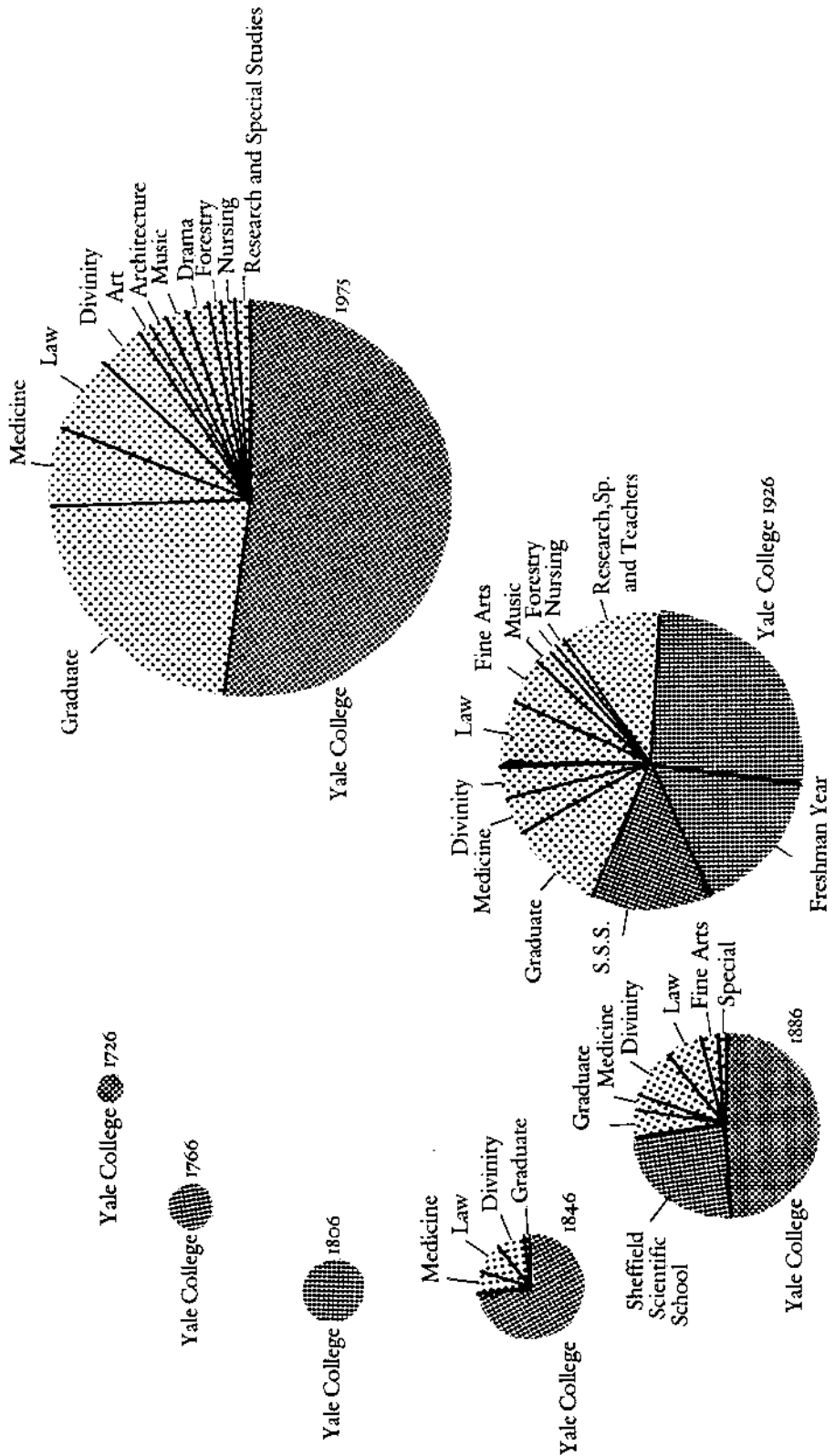
For its first 110 years Yale was Yale College. Such resident graduates as might have lingered on, or returned for private study, did not count and were not counted.

Then for fifty years, 1813-61, from the founding of the Medical School to the establishment of the scientific and graduate departments and the award of the Ph.B. and Ph.D. degrees, the College slowly accumulated (and even more slowly laureated with appropriate degrees) three small clusters of professional students in the traditional learned professions of medicine, divinity and law. So in the first half of the nineteenth century the College acquired something of the form or outward shape of the ancient universities of the European continent. And between the Civil War and World War I still other schools were added, to stretch that borrowed constitution in what would become distinctly American directions and diversifications. Yet still Yale College, or Yale College and the Sheffield Scientific School, dominated and remained what most mattered in the burgeoning University.

Since 1921 that university--which had begun to seem to some critics bottom-heavy and weighted toward the higher rather than the highest learning--has strengthened its upper divisions and come into much better balance. The graduate and professional schools, whose faculties have earned Yale its world-wide reputation, now account for about half of the student enrollment (A-4.2). And as between the Graduate School of the Arts and Sciences and the cluster of professional schools the balance is also much more even (A-4.3). So the humanities and liberal learning have come to figure strongly in the graduate as well as the undergraduate hemispheres.

It seems evident that--like very few rival universities at home or abroad--Yale now has the divisions, and the proportions, and the energy at its upper levels, to make possible a whole and integrated University of liberal learning, based in and nourished by a strong college of the liberal arts.

College to University

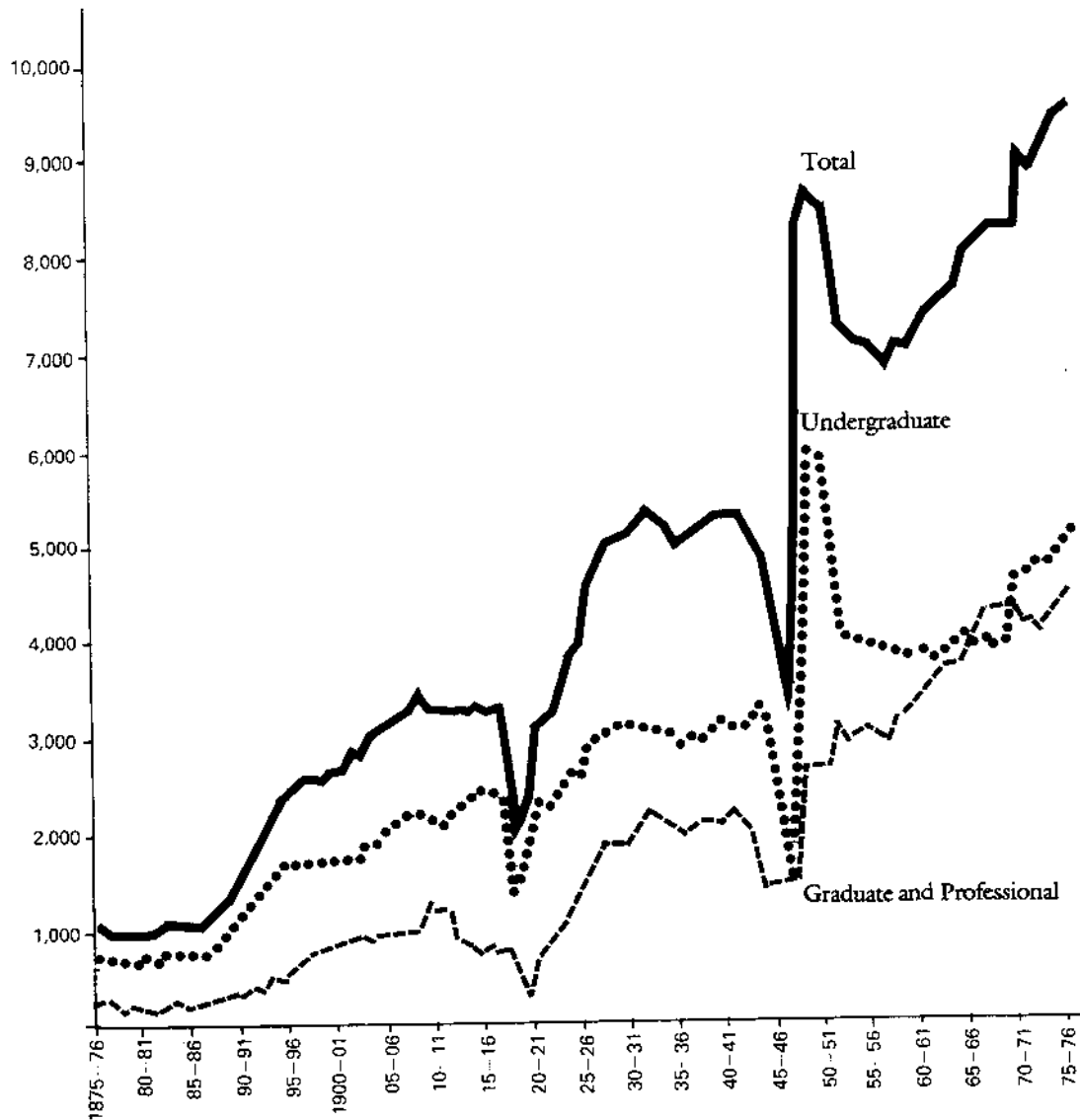


A-4.1

The Development in America of Higher Learning and Professional Skills as Reflected in Student Enrollment at Yale

Composition of the University

The Growing Balance Between Undergraduates and Graduate or Professional Students, 1875-1975



Source. Office of Dean of Graduate School.

Rise of the Graduate School:
Its Percentage Share in Yale's Non-Undergraduate Population, 1875-1975



Yale's ambition, to use Kingman Brewster's phrase, is "to have the best of both worlds:" a pre-eminent college in a university of international distinction.

A-5. Comparative Enrollments:
Yale and the Nation

A-5 Comparative Enrollments: Yale and the Nation

Introduction: Yale's Share of the Population

Across the span of 275 years, how well has Yale held up its (enrollment) end? Surprisingly well . . . but on a sinking curve.

First and last, Yale's share of the American population has been both greater and smaller than many people suppose. For example, our figures on the "Ratio of Yale Enrollment to U.S. Population" (A-5.1) demonstrate that the student body at Yale has never been more than a minute fraction of the nation. Yet that same student body reached its most significant demographic weight around 1725-1735, which was just after the frail Collegiate School moved to New Haven and became Yale College, and just before Princeton, Columbia, Dartmouth and other late colonial colleges began to compete for the potential college-going youth. There followed an apparently inexorable decline, from the Stamp Act era to the Civil War, as the national population continued characteristically to double every 22-23 years, while Yale's enrollment failed to keep pace (even though for most of the first half of that century its college was the largest in the country). Then, surprisingly, Yale's share started to grow again, to better than 4 students per 100,000 population in 1930-1970: a plateau it had not touched since the 1780s.

As the pictogram (A-5.2) and the comparative tables (A-5.3 and A-5.4) make unmistakably clear, however, the recapture of Yale's percentage level was made possible only by the growth of its graduate and professional schools, and by the marked slow-down in the national population growth. What did not slow down but even accelerated, especially after World War II, was the growing popularity of going to college, along with the proliferation of colleges and universities. So Yale's fairly steady share of the total population became necessarily an ever smaller percentage of the students in higher education. And Yale's proportional contribution to the pool of educated citizens shrank and shrank and perhaps is still shrinking.

How certain state and city universities first overtook Yale and Harvard

RATIO OF YALE ENROLLMENT TO U. S. POPULATION
1710 - 1970

Decade Years	Average Enrollments per Decade		U. S. Census Population	Census Year	Yale Students per 100,000 U. S. Population	
	Undergraduate	Graduate & Professional University			Undergraduate	Graduate & Professional University
1705-1715	17.8	-	357,500	1710	4.98	-
1715-1725	44.9	-	474,388	1720	9.47	-
1725-1735	69.9	-	654,950	1730	10.67	-
1735-1745	77.6	-	889,000	1740	8.73	-
1745-1755	92.4	-	1,207,000	1750	7.65	-
1755-1765	151.4	-	1,610,000	1760	9.40	-
1765-1775	117.5	-	2,206,000	1770	5.33	-
1775-1785	168.1	-	2,781,000	1780	6.04	-
1785-1795	130.1	-	3,929,214	1790	3.31	-
1795-1805	175.8	-	5,308,483	1800	3.31	-
1805-1815	247.6	10.8	7,239,681	1810	3.42	.15
1815-1825	306.9	86.7	9,638,453	1820	3.19	.90
1825-1835	346.3	143.6	12,886,020	1830	2.69	1.11
1835-1845	406.8	156.9	17,069,453	1840	2.38	.92
1845-1855	444.0	121.7	23,191,876	1850	1.91	.53
1855-1865	521.3	92.9	31,443,321	1860	1.66	.29
1865-1875	669.9	130.5	39,818,449	1870	1.68	.33
1875-1885	795.2	256.7	50,155,783	1880	1.58	.51
1885-1895	1,219.7	400.0	62,947,714	1890	1.94	.64
1895-1905	1,883.4	854.9	75,984,575	1900	2.48	1.12
1905-1915	2,313.8	1,086.9	91,972,266	1910	2.52	1.18
1915-1925	2,396.4	1,252.8	105,710,620	1920	2.27	1.18
1925-1935	3,118.0	2,539.6	122,755,046	1930	2.54	2.07
1935-1945	3,201.7	2,341.4	131,669,275	1940	2.43	1.78
1945-1955	5,082.0	3,240.9	151,325,798	1950*	3.36	2.14
1955-1965	3,963.2	4,124.3	179,323,175	1960*	2.21	2.30
1965-1975	4,508.8	4,922.9	203,211,926	1970*	2.22	2.13

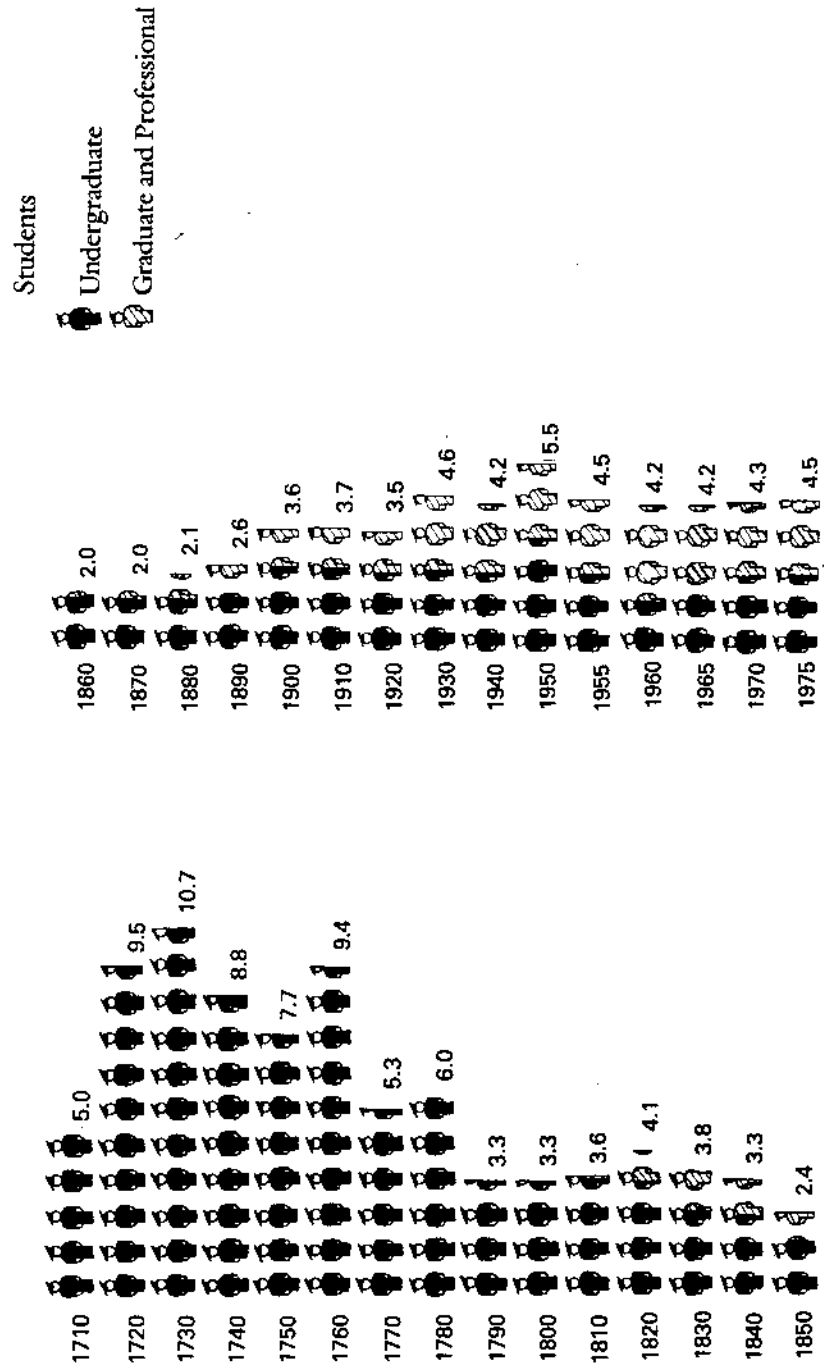
Sources. Statistics of Enrollment (Tables A-1, 1 to A-1, 8) and U. S. Census.

*Includes Alaska and Hawaii.

Note: As indicated, the Yale enrollments are stated in ten-year averages. By exception the figure for 1935-1945 is the average for the years 1936-37 to 1942-43, and the 1945-1955 figure is the average for 1946-47 to 1952-53. To avoid counting names twice, the figures for graduate and professional enrollments have been obtained by subtracting undergraduate from total enrollments. However, graduate and professional totals include "Others not candidates for degrees" (breakdown may be found in the A-1 Tables on Enrollment).

Ratio of Yale Enrollment to U.S. Population, 1710-1975

Each Figure Represents One Yale Student per 100,000 Persons in the United States



RATIO OF YALE ENROLLMENT TO ENROLLMENT IN HIGHER EDUCATION, 1869 - 1974

(a) School Year	(b) Total U. S. Population	(c) Population Ages 18-21	(d) Students in Higher Educ.	(e) Students in Higher Educ. as % of (b)	(f) Students in Higher Educ. as % of (c)	(g) Yale Degree Credit Enrollment	(h) Yale Enroll- ment as % of (d)
1869-70	38,558,371	3,115,555	52,286	.14	1.68	736	1.41
1874-75							
1879-80	50,155,783	4,253,027	115,817	.23	2.72	1003	.87
1884-85							
1889-90	62,622,250	5,160,067	156,756	.25	3.04	1477	.94
1894-95							
1899-1900	75,984,575	5,930,765	237,592	.31	4.01	2706	1.14
1904-05	84,219,378	6,583,108	264,345	.31	4.02	3159	1.19
1909-10	91,972,266	7,335,453	355,213	.39	4.84	3381	.94
1914-15	99,342,623	7,339,624	403,558	.41	5.50	3334	.83
1919-20	105,710,620	7,343,794	597,880	.57	8.14	3128	.52
1924-25	116,631,963	8,353,561	917,462	.79	10.98	4722	.51
1929-30	123,076,685	9,033,000	1,100,737	.89	12.18	5131	.47
1934-35	128,051,867	9,260,060	1,208,227	.94	13.05	5096	.43
1939-40	131,689,275	9,753,537	1,494,203	1.13	15.32	5319	.36
1944-45	139,393,406	9,403,000	1,676,851	1.17	17.59	3172	.19
1949-50	150,697,361	8,805,020	2,659,021	1.76	30.20	7317	.28
1954-55	164,367,000	8,508,000	2,740,000	1.67	31.18	6885	.25
1959-60	183,285,009	9,546,000	3,582,726		37.53	7465	.21
1964-65	194,572,000	12,119,000	5,526,325	2.84	45.60	8252	.15
1969-70	204,879,000	14,705,000	7,920,149	3.87	53.86	8934	.112
1974-75	211,390,000	15,925,000	9,023,446	4.26	56.02	9602	.106

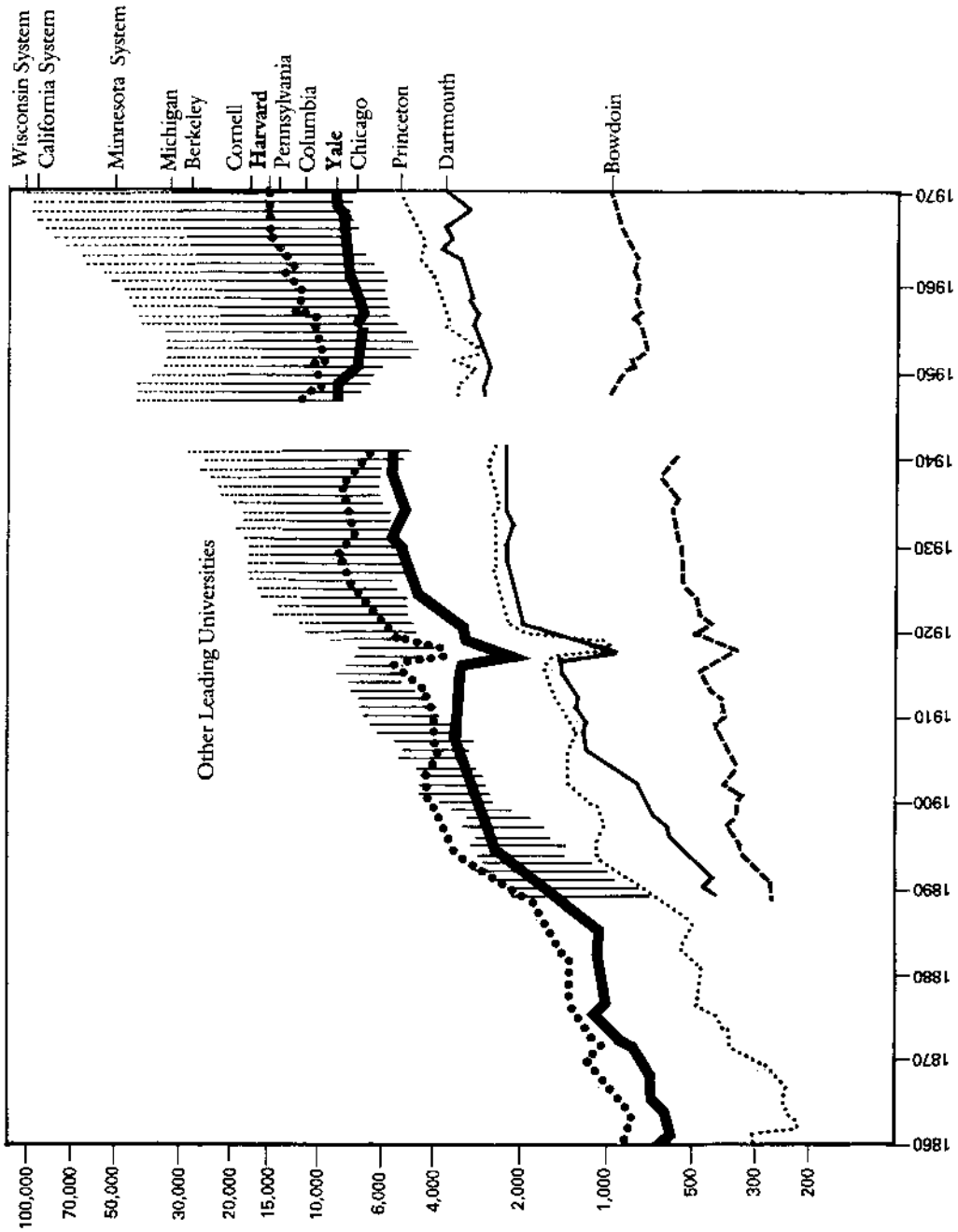
Note on Sources and Counts. Yale enrollment figures (g) are total individuals enrolled in the years 1869-70, 1879-80, and 1889-90; thereafter they represent total candidates for degrees. All are from the annual catalogues. The figures for U. S. population and enrollment prior to 1954 have been taken from U. S. Office of Education, Biennial Surveys of Education, 1948-50, Chap. 4, Sec. 1, p. 6, Table B, and 1950-52, Chap. 4, Sec. 1, p. 6, Table II. Figures on population and general enrollment in 1954-55 and after have been taken from U. S. Office of Education, Digest of Educational Statistics, for the relevant years. Prior to World War II, and again in 1974-75, the Students in Higher Education (d) and the Yale enrollment represent enrollments of the fall of the year preceding the census date, except for 1924-25 and 1934-35 which are for the fall of the census year, as are also all the figures from 1945 to 1970. The figures for Students in Higher Education represent degree-credit enrollments, excluding extension degree-credit students before 1953, but including them thereafter.

MAJOR UNIVERSITY ENROLLMENTS AS PERCENTAGES OF U.S. STUDENTS IN HIGHER EDUCATION, 1900-1974

Year	Total U.S. Population	Population Ages 18-21	Students in Higher Education	Students in Higher Education as % of Population, 18-21	California (Berkeley)	Chicago	Columbia (Barnard)	Cornell	Dartmouth	Harvard	Illinois (Champaign-Urbana only)	Johns Hopkins	M. I. T.	Michigan (all campuses)	Minnesota (Mpls. - St. Paul only)	Pennsylvania	Princeton	Stanford	Williams	Wisconsin	Yale
1900	75,984,575	5,930,765	237,592	4.00	1.03	1.31	.93	.93	.29	1.65	.77	.27	.49	1.29	1.23	1.17	.46	.48	.10	.77	1.13
1905	84,219,378	6,583,108	264,345	4.01	1.25	1.74	1.60	1.33	.35	1.56	1.36	.28	.59	1.45	1.37	1.12	.52	.59	.18	1.14	1.19
1910	91,972,266	7,335,453	355,213	4.87	1.09	1.37	.99	1.10	.34	1.14	1.35	.19	.42	1.34	1.42	--	.39	.49	.16	1.03	.93
1915	98,342,825	7,339,824	403,558	5.50	1.59	1.53	1.29	1.31	.34	1.14	--	.22	.45	1.43	1.36	1.26	.41	.51	.12	1.27	.82
1920	105,710,520	7,343,794	597,880	8.14	1.58	.98	1.35	.96	.29	.88	1.35	.41	.48	1.38	1.25	1.19	.31	.41	.09	1.15	.55
1925	116,631,963	8,353,561	917,462	10.98	1.15	.99	1.27	.58	.21	.83	1.22	.14	.30	1.02	1.10	.94	.26	.45	.08	.84	.57
1930	123,076,885	9,033,000	1,106,737	12.18	1.07	.51	1.35	.52	.20	.77	1.13	.13	.28	.86	1.13	.63	.22	.42	.07	.85	.56
1935	128,051,867	9,260,000	1,208,277	13.04	1.15	.51	1.21	.50	.20	.67	.95	.15	.21	.89	1.14	.58	.20	.34	.06	.83	.45
1940	131,869,275	9,753,537	1,494,203	15.31	1.10	.40	.95	.48	.16	.55	.90	.11	.21	.87	1.17	.49	.18	.29	.05	.80	.38
1945	139,393,406	9,403,000	1,676,851	17.83	1.13	.39	.83	.33	.11	.21	.64	.07	.12	.68	.75	.33	.07	.20	.02	.49	.20
1950	150,687,361	8,805,020	2,286,500	25.97	.87	.29	.96	.44	.12	.47	.90	.11	.25	.63	.95	.43	.13	.31	.04	.80	.34
1955	164,367,000	8,508,000	2,650,429	31.27	.65	.19	.45	.38	.11	.40	.82	.08	.21	.78	.80	.33	.13	.26	.04	.58	.28
1960	183,285,000	9,546,500	3,582,726	37.53	--	.16	.34	.32	.08	.34	.72	.08	.18	.58	.77	.26	.11	.22	.03	.67	.22
1965	194,572,000	12,119,000	5,526,325	45.68	.49	.19	.31	.25	.07	.27	.58	.19	.14	.65	.69	.35	.09	.21	.02	.96	.16
1970	204,879,000	14,705,000	7,920,149	53.86	.32	.09	.15	.20	.04	.19	.38	.05	.09	.49	.65	.18	.06	.14	.02	.66	.12
1974	211,380,000	15,925,000	8,518,150	53.49	.33	--	.14	.19	.05	.18	.36	.05	.09	.40	.59	.17	.07	.13	.02	.66	.11

Note on Sources. The figures for population and students in higher education are taken from U. S. Office of Education, Biennial Surveys of Education, 1948-50, Chap. 4, Sec. 1, p. 6, Table B, and 1950-52, Chap. 4, Sec. 1, p. 6, Table II, and Digest of Educational Statistics, 1963 ed., Table 45, p. 59, and Digest of Educational Statistics, 1975 ed., Table 76, p. 79 from 1950 through 1974. Prior to 1955 extension students were not counted in the public census. The "Students in Higher Education" figures and the university percentages represent enrollments in the fall of the year preceding the census date for the following years: 1900, 1905, 1910, 1915, 1920, 1930, 1940 and 1974. All others are for the fall of the census year. Sources for enrollments for the individual universities are the Annual Report of the Commissioner of Education, 1900-1915; Biennial Survey of Education, 1917-1939, a publication of the Office of Education; and Raymond Walters et al., "Statistics of Registration in American Universities and Colleges," published annually in School and Society, 1919-1970, and in Intellect, 1974. Only full-time students, registered as candidates for degrees, were counted. The source for the most recent U. S. population figures was The Statistical Abstract of the United States, 1976.

Enrollment Trends in 13 Colleges and Universities, 1860-1970



YALE-HARVARD SHARES IN COLLEGE-EDUCATED POPULATION OVER 25, 1940 - 1975

Year	Total Population Over 25	Population over 25 with 1 Year of College or More	% of Population over 25 with 1 Year of College or More	Harvard Alumni	% of Harvard Alumni to Coll. -Edctd. Pop. over 25	Yale Alumni	% of Yale Alumni to Coll. -Edctd. Pop. over 25
1940	74,775,836	7,482,515	10.01	74,733	1.00	46,330 (1939)	0.62
1947	82,518,000	9,957,000	12.07	93,330 (1948)	0.94	54,843 (1948)	0.55
1957	95,630,000	14,137,000	14.78	109,945 (1955)	0.78	65,627 (1956)	0.46
1962	100,854,000	18,172,000	18.02	129,500*	0.71	73,931	0.41
1965	103,245,000	18,881,000	18.29	138,177	0.73	77,500*	0.41
1970	109,310,000	23,228,000	21.25	156,536	0.68	81,269 (1968)	0.35
1975	116,897,000	30,762,000	26.32	188,778	0.62	92,185*	0.30

Sources. Material for this table taken from current population reports, population characteristics, Series P-20, #15, 77, 121, 149, 153, 207 and 295 published by the Bureau of the Census, and from the 1940 census. Alumni counts are from appropriate alumni directories and from the Office of Alumni Records of both Yale and Harvard.

*Estimated.

in student numbers, 1890-1910, and then left our most venerable foundations far behind, is made graphic by A-5.5. Yet even these new giants, buoyed by the student population explosion, had to face the fact of increasing competition, which meant a steadily shrinking share for each in the total national effort.

The accumulated and older populations of college alumni, of course, still showed the results of enrollments of earlier generations--as witness the greater (though obviously declining) shares of Harvard and Yale in that pool (A-5.6). So by 1975 it had come to this: Yale's students represented only 1/10 of one percent of their kind, whereas Yale's graduates still represented 3/10 of one percent of theirs.

To what social significance might three tenths of one percent aspire? The answer is again a surprise. When one learns that Yale's graduates have held and often still hold some 6% (or more) of the top offices or leadership positions in government, big business, law, medicine, and many of the major intellectual or artistic professions in this country, one discovers that they have again and again achieved distinction at a rate of 15 to 20 to 25 times their mathematical expectations (cf. G. W. Pierson, "The Education of American Leaders: Comparative Contributions of U.S. Colleges and Universities", 1969).

A-6. Comparative Regional Drawing
Power of Yale's Schools

A-6 Comparative Regional Drawing Power of Yale's Schools

Introduction: The Local/National Status of Yale's Schools

The four graphs in table A-6.1, together with the more recent graph and statistics in tables A-6.2 and A-6.3, provide a number of interesting perspectives on the character of Yale's growth.

To be noted, first of all, is the relative weight of the component parts of the University at various stages since 1886. The black anchor bar or pendulum below each name represents the enrollment in each school, or in the total University; so one can see at once why, down to World War I, the undergraduates of the College and Scientific School completely dominated the University. Thereafter one may observe the Graduate School growing to substantial importance, with the Law and Medical and Divinity Schools achieving parity in a kind of third rank, followed by the Schools of Art, Music and Drama, then the still smaller Schools of Forestry and Nursing.

A second revelation of these graphs is provided by the columns above the line, which give an "index of provinciality" by indicating what percentage of the students in each School were drawn: from Connecticut; from the rest of New England; or from New York, New Jersey or Pennsylvania. Thus we can see at a glance that in 1886 most of Yale's schools drew some 70% of their students from the Northeast or North Atlantic region, while the Medical School and Art School (both very small) drew 90% or more of their students from Connecticut alone. By exception, at the other end of the scale, the Divinity School drew only a little more than 50% from the entire Northeast, and only 20% from Connecticut.

If we turn our attention next to the graph for 1909-10 we see that a still newer school, the Music School, was now the most local in its constituency. The Medical School had improved in its drawing power from the rest of New England and from New York--New Jersey--Pennsylvania. The Law School, the Scientific School, the College and Forestry School still depended for 70% of their enrollments on the Northeast, but the College drew a much smaller

portion of its students from Connecticut than did the Scientific School, while the Forestry School drew least of all from Yale's home state. Worth noting, as well, is the 60% total Northeast figure for the Graduate School (i.e., 40% from the rest of the country); also the fact that now the Divinity School was getting more than half of its students from the South and the West.

Twenty years later, in 1930-31, the decline in "provinciality" had become even more marked. Only the Music School continued to depend on Connecticut for at least 70% of its students; and otherwise only the Medical School drew as many as 50% of its students from New England; while the College, Forestry, Graduate and Art Schools now enrolled 30% or less of their students from Connecticut and once again the Divinity School seems to have outranked all the others in its national character or its drawing power from the rest of the country.

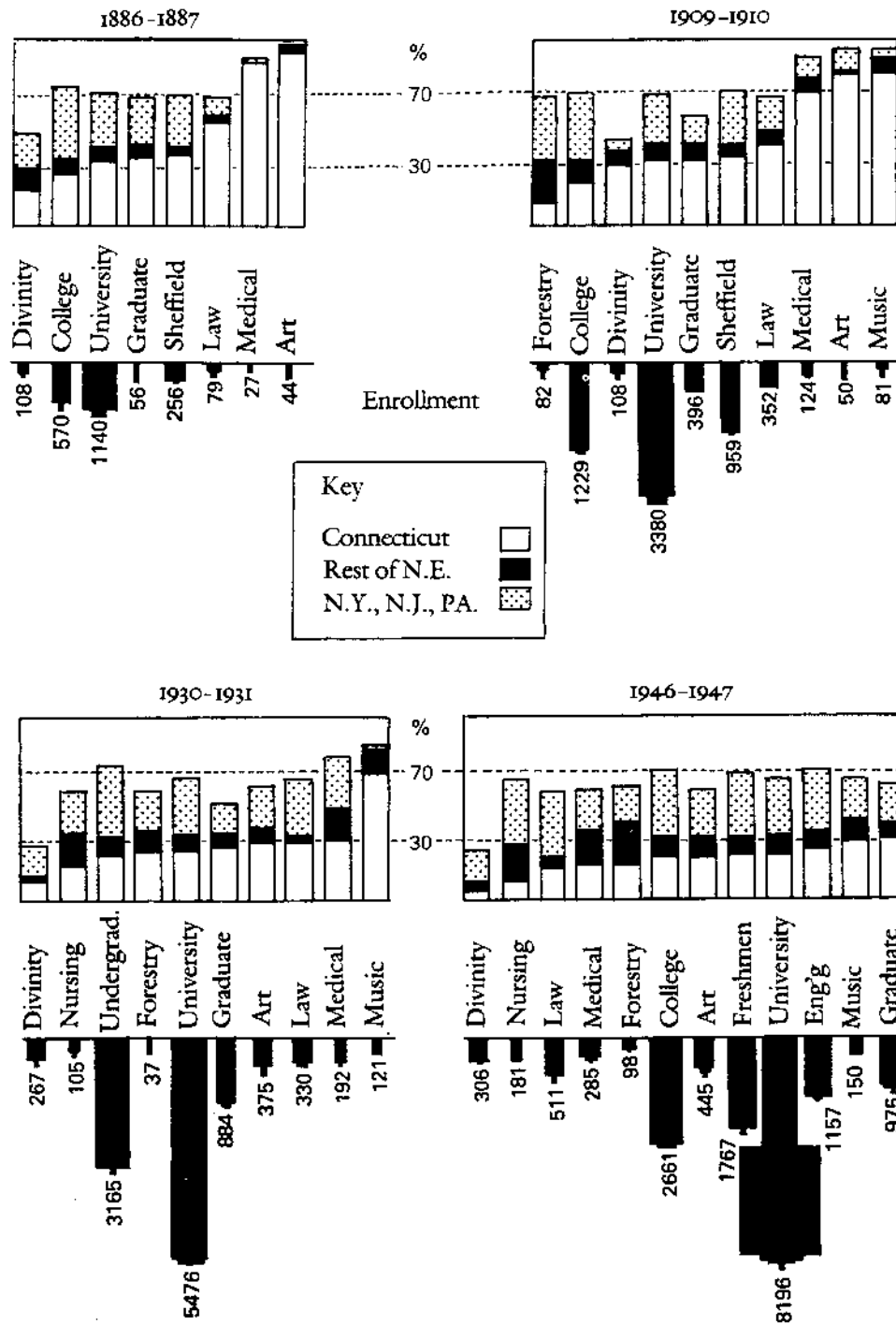
By 1946-47 it appears that only the undergraduate schools continued to take as much as 70% of their constituency from the Northeast--and that largely because of very strong intakes from New York--New Jersey--or Pennsylvania. Now no single school enrolled even 40% of its students from Connecticut. The Medical School had moved well to the left or toward a metropolitan and national foundation; while the Forestry School, as in its early days, showed a strong contingent from northern New England.

Once again the Divinity School seems to have outdistanced the others in its spatial drawing power. Yet reflection on regional origins as an index of provinciality suggests a cautionary thought. In the case of the Divinity School it may be fair to remind ourselves that it was probably drawing the same kind of persons from all over the country and, in so doing, it was relying considerably on the more rural and the less intellectually developed areas.

Our final graph for 1969-70 reveals an averaging down in all the schools, with only the Medical School drawing more than 60% of its constituency from the North Atlantic region, but with the Divinity, Forestry, Nursing and Graduate Schools now strongest in Connecticut students. Here, once again, appearances may be deceptive, for after World War II the graduate and professional students have tended more and more to separate themselves from parental support and from birthplace or geographical origins, to locate and perhaps marry in New Haven. So for them the Connecticut registration figures in recent years will somewhat exaggerate the degree of local origin.

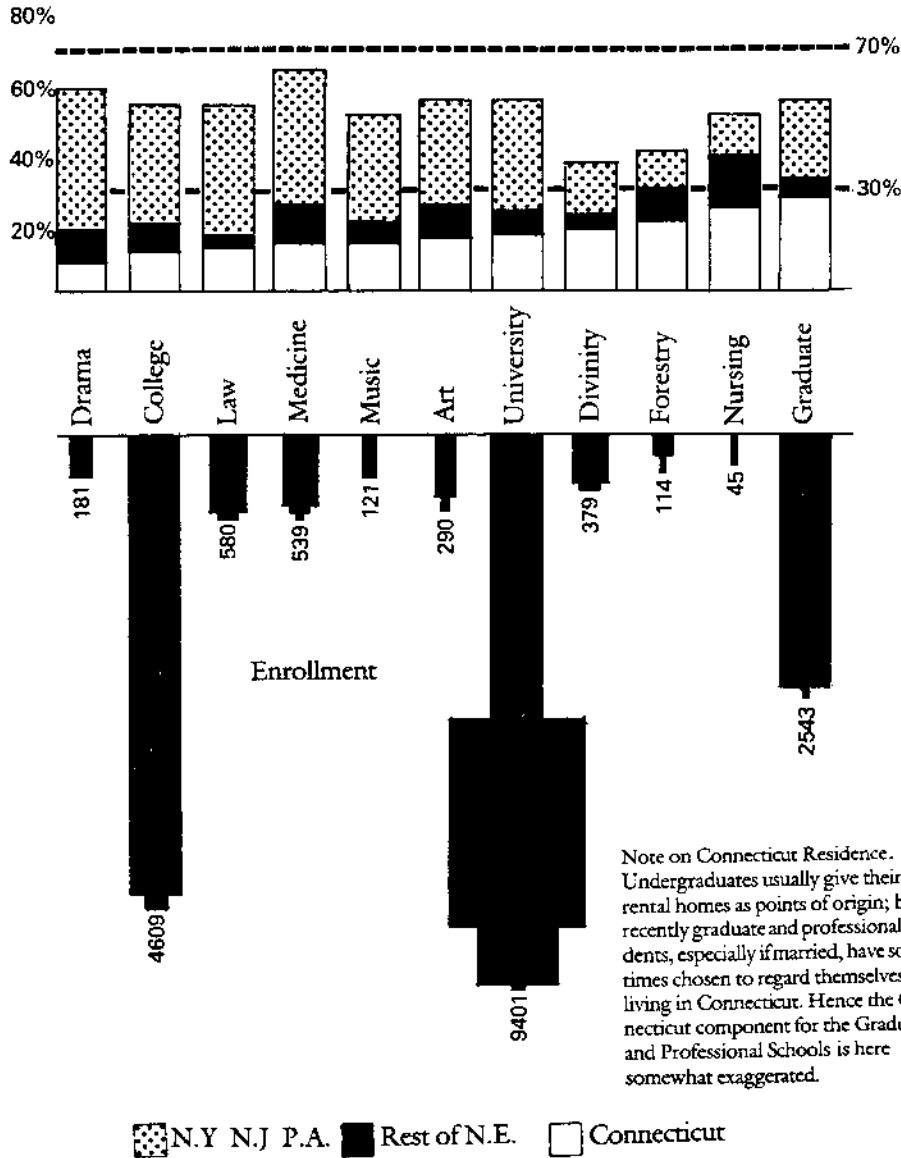
Local/National Status of Yale's Schools, 1886-1946

Index of Provinciality



Source. University Catalogues. The enrollment figures differ slightly from those given in the Table A-1 series because the address lists were compiled at a different time of the year.

Local/National Status of Yale's Schools, 1969-1970



LOCAL/NATIONAL STATUS OF YALE'S SCHOOLS
Geographical Distribution of the 1969 - 1970 Enrollment

School	Total Enrollment	Connecticut† No.	%	N.Y., N.J. & Penn. No.	%	Rest of New England No.	%
Yale College	4,609	496	10.8	1,559	33.8	365	7.9
Graduate School	2,543	678	26.6	566	22.6	148	5.8
Law School	580	75	12.9	214	36.9	18	3.1
School of Medicine	539	71	13.2	211	39.1	59	10.9
Divinity School	379	68	17.9	63	16.6	13	3.4
School of Art and Architecture	290	44	15.2	88	30.3	27	9.3
School of Music	121	17	14.0	38	31.4	6	4.9
School of Forestry	114	22	19.3	13	11.4	11	9.6
School of Nursing	45	11	24.4	6	13.3	6	13.3
School of Drama	181	15	8.3	71	39.2	18	9.9
Total Enrollment	9,498*	1,500*	15.9%†	2,829	31.1%	672*	7.1%

Sources. The figures here given, and used also in the graph A-6.2, will be found to differ from the official tabulation of enrollments given in Table A-1.8 because this table and graph were made before the official Catalogue became available. Approximate but usable estimates were obtained in three principal ways: from the Student Directory for the Academic Year 1969-1970 (New Haven, 1969), p. 93; from the catalogues issued by the School of Medicine, the Divinity School, School of Art and Architecture, and the School of Drama: when the necessary figures had not yet been published, student lists were made available by the registrars' offices of Yale College, the Graduate School, the Law School, the School of Music, the School of Forestry, and the School of Nursing. All figures represent the enrollment as of the fall term, 1969.

*Total enrollment figure includes two students enrolled in the School of Engineering, and two in the Institute of Far Eastern Languages. Total figure for Connecticut includes one engineering student and two IFEL students; total figure for the Rest of New England includes one IFEL student.

†Undergraduate students registering from Connecticut come almost always from families resident in Connecticut, as previously indicated. Graduate and professional students, however, especially if they are married, are often inclined to list Connecticut as their (temporary) residence instead of their state of origin. Hence, for the graduate and professional schools the Connecticut figures here given probably exaggerate the degree of local origin.

Which is to suggest that the University--which never drew exclusively from Connecticut--is now enrolling a strikingly small percentage of its students from its home state or immediate vicinity: quite possible as small a percentage as any of its major rivals in the nation. For confirmation, readers are invited to consult the B-1 series on "Sources of the Student Supply".

B

THE STUDENTS

B-1. Geographic Backgrounds

B-1 Geographic Backgrounds

Introduction: Sources of the Student Supply

The statistics on the "Regional Origins of the Students and Fellows of Yale University" (tables B-1.1, B-1.2, B-1.3, B-1.4) outline a dramatic story.

It will be noticed that, save for the earliest years, these tables present figures only at 7-year or 5-year intervals. Yet the geographic progressions are remarkably consistent, and demonstrative of the Southward, Westward, Pacific and Southwestward expansion of Yale's reputation and drawing power, almost step-by-step with the expansion of the country: from the early seaboard colonies to the thirteen independent states and the slave-holding South, to the settlement of the Ohio and Mississippi valleys, then the Pacific Coast and trans-Mississippi West. Within five years of the gold rush of '49, for example, young men from the Pacific Coast were already knocking at Yale's doors.*

Beginning with table B-1.1, just a glance at the statistics for the Colonial period will demonstrate two interesting facts. From the very first the little College drew from beyond Connecticut and beyond New England. Except for the precarious years after Abraham Pierson's death, some 20% or more of the students of Yale College came from the rest of New England or the Middle Atlantic region. The founding of Princeton by a number of Yale men (in 1746) obviously reduced Yale's supply of students from New Jersey and Pennsylvania and perhaps also from New York during the second half of the eighteenth century (by 1805 came a strong recovery). But after Timothy Dwight's election in 1895, and his visits in the Carolinas, a contingent of students from south of the

*For the first century of the story, these statistics of students origins represent Yale College alone: for the second hundred years they represent the Yale College ratios as slightly modified by the addition of the small professional schools and later by the growth of the Sheffield Scientific School. For the twentieth century, however, the percentages take a larger account of the graduate and professional schools, until in the 1970s the balance between undergraduates and graduate or professional students is almost even (cf. graphs A-4.1, A-4.2, and A-4.3).

REGIONAL ORIGINS OF THE STUDENTS AND FELLOWS OF YALE UNIVERSITY, 1702-1799

Region	States	1702-1711	1712-1718	1726-1729	1736-1739	1746-1749	1756-1759	1766-1769	1776-1779	1786-1789	1796-1799
CONNECTICUT	Connecticut	74.29	94.74	77.59	80.60	77.08	78.88	72.57	82.10	80.46	76.52
NEW ENGLAND (Excl. Conn.)	Me., N.H., Vt., Mass., R.I.	14.29	2.63	13.79	8.95	13.54	17.39	24.78	14.81	14.94	10.43
MIDDLE ATLANTIC	N.Y., N.J., Pa., Del., Md., D.C.	11.43	2.63	8.62	10.45	9.37	3.10	2.65	3.09	4.60	6.96
SOUTHERN	Va., N.C., S.C., Ga., Ky., Tenn.						0.62				6.09
	TOTAL	100.01	100.01	100.00	100.00	99.99	99.99	100.00	100.00	100.00	100.00

From 1702 to 1799 the percentages given are for graduates in the indicated groups of classes. Thereafter the percentages are for total University enrollment during each indicated year. A few students of uncertain geographical origin have been omitted from these calculations.

Source. Data from F. B. Dexter, Yale Biographies and Annals.

Mason and Dixon line came to Yale regularly and in significant numbers; and that flow lasted into the 1850s or almost to the eve of the Civil War. Meanwhile the settlement of the Ohio country, and Michigan and Illinois, started a trickle of students from the Midwest, which swelled to some 7% of Yale's total enrollment by 1860. By contrast, the Connecticut contingent dropped from a colonial 80% to a Jacksonian 50% and by the mid-1840s to considerably less than 40%. With the rest of New England contributing about 16% this meant that from about 1840 to 1860 the Yale College student body drew 45% or more of its membership from outside New England.

After the Civil War one notes that the Connecticut figures remained rather steadily around 35%, while the contributions from the rest of New England declined to the neighborhood of 8%, whereas the Middle Atlantic region now supplied a good third of Yale's constituency (as indeed it had from 1855).

Little by little candidates had also begun to come from the West Central states and Pacific Coast, with another 1-2% from intervening territories and the U.S. Possessions, and later another percent or two from the Rocky Mountain states and Southwest. By 1900, obviously, there was no section of the country which was not sending some students to Yale College or to one or the other of Yale's graduate or professional schools.

The twentieth century then witnessed a further Connecticut shrinkage, which started in the 1920s and reduced the home state contingent from a third to about a sixth of Yale's student body. From the rest of New England the flow remained fairly constant except for a slight decline in the most recent years. These reductions brought the share of all New England down to about 22%, or two students in every nine. Meanwhile the Middle Atlantic region continued to hold its own, while the old South, which had remained at about 3% for two long generations after the Civil War, now began to climb slowly back toward 8%. The Great Lakes region had meanwhile stabilized at around 11% and the West Central states at just under 5%; while the Pacific Coast rose slowly and then more impressively to some 8.5% by 1975, and the Southwest strengthened its delegation from one half of one percent to three percent.

All the while, of course, the College and the University had kept growing and growing. So we should realize that in current terms even a very small percentage can mean a good many students. Thus one half of one percent from the Southwest around 1905 might have meant 15 students, but 3.12% in 1965 meant 256.

REGIONAL ORIGINS OF THE STUDENTS AND FELLOWS OF YALE UNIVERSITY, 1800-1861

Region	States	1800-	1805-	1810-	1815-	1820-	1825-	1830-	1835-	1840-	1845-	1850-	1855-	1860-
		1801	1806	1811	1816	1821	1826	1831	1836	1841	1846	1851	1856	1861
CONNECTICUT	Connecticut	82.03	69.82	49.21	58.21	56.43	47.79	50.00	47.27	40.42	39.52	35.68	32.15	36.00
NEW ENGLAND (Excl. Conn.)	Me., N.H., Vt., Mass., R.I.	7.37	7.66	20.08	16.42	16.27	17.02	17.27	16.40	15.51	13.80	19.64	14.86	16.31
MIDDLE ATLANTIC	N.Y., N.J., Pa., Del., Md., D.C.	5.99	11.71	17.72	14.03	13.39	23.54	19.88	23.57	27.00	27.77	26.49	34.41	33.69
SOUTHERN	Va., N.C., S.C., Ga., Fla., Ky., Tenn., Ala., Miss., Ark., La.	4.61	10.36	12.60	10.45	11.29	7.23	9.44	10.05	10.98	12.78	11.17	8.69	3.23
GREAT LAKES	O., Ind., Ill., Mich., Wis.		0.45		0.90	1.31	2.80	2.21	2.47	4.88	4.09	4.51	5.82	7.23
WEST CENTRAL	Minn., Iowa, Mo., N.D., S.D., Neb., Kan.									0.17	1.36	0.72	1.45	0.62
ROCKY MOUNTAIN	Mont., Wyo., Colo., Idaho, Utah, Nev.													
SOUTH WESTERN	Okla., Tex., N.Mex., Ariz.												0.16	0.15
PACIFIC COAST	Wash., Ore., Cal.												0.32	0.77
FOREIGN	Incl. U.S. Possessions and Territories			0.39		1.31	1.36	1.20	1.23	1.04	0.68	1.80	1.94	2.00
	TOTAL	100.00	100.00	100.00	100.01	100.00	100.01	100.00	99.99	100.00	100.00	100.01	100.00	100.00

Sources. Data from F. B. Dexter, Yale Biographies and Annals, and University Catalogues.

REGIONAL ORIGINS OF THE STUDENTS AND FELLOWS OF YALE UNIVERSITY, 1865-1915

Region	States	1865-	1870-	1875-	1880-	1886-	1892-	1899-	1904-	1914-	
		1866	1871	1876*	1881	1887**	1893	1900	1905	1910	1915
CONNECTICUT	Connecticut	33.19	35.88	35.51	35.28	35.85	32.37	34.61	33.76	35.07	32.60
NEW ENGLAND (Excl. Conn.)	Me., N.H., Vt., Mass., R.I.	14.10	9.37	11.43	10.68	7.82	8.47	8.82	7.99	8.99	8.29
MIDDLE ATLANTIC	N.Y., N.J., Pa., Del., Md., D.C.	35.10	34.04	32.30	29.84	29.09	34.45	33.42	31.18	28.06	30.66
SOUTHERN	Va., N.C., S.C., Ga., Fla., W.Va., Ky., Tenn., Ala., Miss., Ark., La.	2.20	3.04	2.74	3.18	2.64	3.04	3.64	3.98	4.01	4.25
GREAT LAKES	O., Ind., Ill., Mich., Wis.	10.87	11.87	12.18	13.28	14.76	11.31	9.62	11.43	10.51	11.70
WEST CENTRAL	Minn., Iowa, Mo., N.D., S.D., Neb., Kan.	2.35	2.37	2.17	3.18	4.31	5.33	4.55	5.28	5.71	4.43
ROCKY MOUNTAIN	Mont., Wyo., Colo., Idaho, Utah, Nev.		0.13	0.09		0.97	1.01	1.27	1.30	1.28	1.03
SOUTH WESTERN	Okla., Tex., N. Mex., Ariz.		0.13			0.18	0.45	0.48	0.43	0.79	1.30
PACIFIC COAST	Wash., Ore., Cal.	0.73	1.32	1.32	0.58	1.67	1.57	1.27	1.30	1.94	2.58
FOREIGN	Incl. U.S. Possessions and Territories	1.47	1.85	2.27	2.98	2.72	2.08	2.33	3.34	2.54	3.16
	TOTAL	100.01	100.00	100.01	100.00	100.01	99.99	100.01	99.99	100.00	100.00

Source. Data from University Catalogues.

*Total figure includes 8 men counted twice and omits 30 students in the Fine Arts School who registered too late to be included in the Catalogue.

**Total figure includes 4 men counted twice.

REGIONAL ORIGINS OF THE STUDENTS AND FELLOWS OF YALE UNIVERSITY, 1919-1976

Region	States	1919-	1923-	1928-	1933-	1935-	1946-	1951-	1955-	1965-	1969-	1975-
		1920	1924	1929	1934	1936	1947	1952	1956	1966	1970	1976
CONNECTICUT	Connecticut	36.96	33.99	28.27	28.71	26.21	24.41	20.03	20.55	19.80	17.59	14.36
NEW ENGLAND (Excl. Conn.)	Me., N.H., Vt., Mass., R.I.	7.00	8.11	8.94	8.87	8.29	9.98	8.58	8.87	7.47	6.58	7.78
MIDDLE ATLANTIC	N.Y., N.J., Pa., Del., Md., D.C.	27.33	28.64	32.51	35.62	36.53	35.30	36.13	35.75	32.80	31.63	34.80
SOUTHERN	Va., N.C., S.C., Ga., Fla., W.Va., Ky., Tenn., Ala., Miss., Ark., La.	4.70	5.57	6.08	4.36	5.27	6.03	6.89	7.03	7.58	8.47	7.63
GREAT LAKES	O., Ind., Ill., Mich., Wis.	11.61	11.54	10.29	10.41	11.10	10.54	11.84	10.73	11.95	11.96	10.54
WEST CENTRAL	Minn., Iowa, Mo., N.D., S.D., Neb., Kan.	5.57	5.15	4.84	4.40	5.54	4.36	3.97	4.55	4.75	4.87	3.46
ROCKY MOUNTAIN	Mont., Wyo., Colo., Idaho, Utah, Nev.	0.97	0.94	1.46	1.13	1.31	1.27	1.23	1.47	1.41	1.29	1.42
SOUTH WESTERN	Okla., Tex., N.Mex., Ariz.	0.65	1.18	1.47	1.25	1.16	1.64	2.28	2.42	3.12	3.00	3.09
PACIFIC COAST	Wash., Ore., Cal.	2.37	2.37	3.07	2.88	3.40	4.00	4.60	3.73	4.38	6.21	8.55
FOREIGN	Incl. U.S. Possessions and Territories	2.83	2.51	3.07	2.38	2.39	2.46	4.43	4.92	6.44	7.98	7.73
	TOTAL	99.99	100.00	100.00	100.01	100.00	99.99	99.98	100.02	100.00	100.01	100.00

Sources. Data from University Catalogues, Student Directories, and Tables B-1.8, 9, 10.

The Feeder States

The statistics on state origins since 1899 and on Yale's chief Feeder States (tables B-1.5 to B-1.11) enable us to go behind the regional groupings and identify the heaviest contributors to Yale's student population in this century, as also the least productive.

Looking for slim contributors one finds that between 1899 and World War I there were apt to be no students at all from Nevada and New Mexico, few if any from Arizona, North Dakota and Wyoming, and only a handful at most from Arkansas, Idaho, Mississippi, Montana and South Dakota. Between the wars, Nevada still was not sending any students, and Arizona missed in five years, North Dakota in two years, New Mexico in one. Since World War II, out of 48 states only Nevada has failed to send and keep at least one student at Yale (and that only in the years 1949-53). Alaska and Hawaii (previously counted in the Foreign and Possessions category) have been regular contributors since 1957, though on quite disparate scales. And joining Nevada and Alaska at the meager single-digit level have usually been the same mountain cluster of Idaho, Montana and Wyoming--the two Dakotas--and, until 1960, New Mexico.

Leading the heavy contributors, of course, has always been Yale's home state of Connecticut, followed strongly by New York--until in the 1960s and 1970s Connecticut dropped dramatically to only 15%, and slid down into second place. On the same table of Feeder States one sees that perennially the next five places belonged to Pennsylvania, Massachusetts, New Jersey, Ohio and Illinois--frequently in that order, but with occasional variations, as Pennsylvania finally eased from 6.5% to 5.2%, Massachusetts peaked and declined a little, and New Jersey came up to 6.6% to surpass them both, while Ohio and Illinois completed this secondary cluster at the level of 300-350 students each. Always in eighth place one used to find the students from U.S. Possessions and abroad--until suddenly in the 1950s this miscellaneous category (after losing Hawaii and Alaska) trebled its constituency and shot up into third place behind New York and Connecticut. Then in the 1960s and 1970s the students from California, who had ranked in ninth place since 1930, in turn vaulted to fourth place at 6.8%--ahead now of New Jersey, Massachusetts, Pennsylvania, Illinois and Ohio.

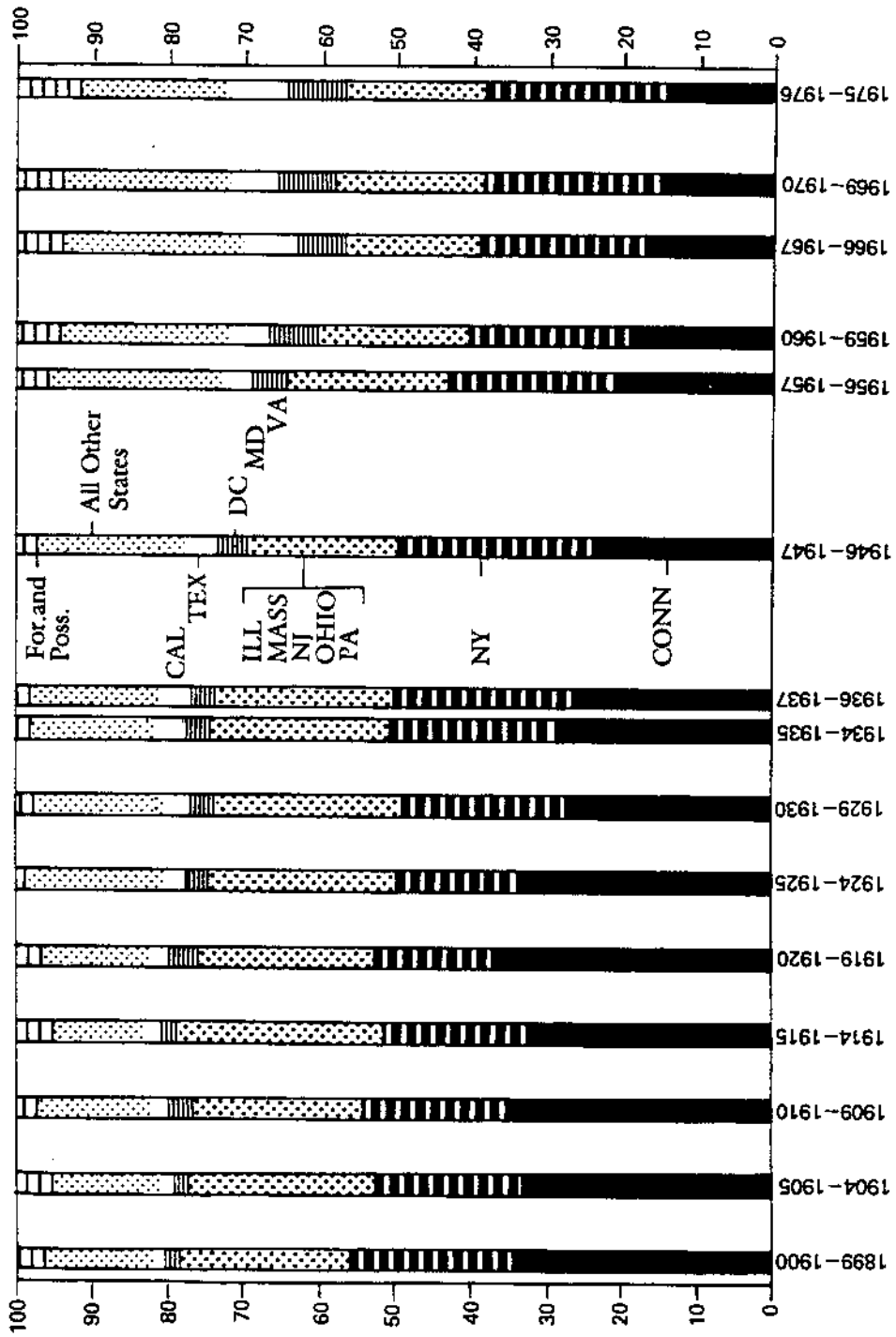
Next, but at a lower level of student supply (from 2.7% to .8%) and with somewhat greater variations of ranking, we find a considerable cluster of states sending or keeping from 80 to 250 students each year of census. Missouri, Minnesota, and Michigan used to lead that pack, but in recent decades

YALE'S FEEDER STATES, 1899-1976
 Percentage of Students at Yale from 15 States and Abroad

	1899- 1900	1904- 1905	1909- 1910	1914- 1915	1919- 1920	1924- 1925	1929- 1930	1934- 1935	1936- 1937	1946- 1947	1956- 1957	1959- 1960	1966- 1967	1969- 1970	1975- 1976
1.	Conn. 34.6	Conn. 33.7	Conn. 35.1	Conn. 32.6	Conn. 37.0	Conn. 34.0	Conn. 28.4	Conn. 28.7	Conn. 26.2	Conn. 24.4	Conn. 21.6	Conn. 19.8	Conn. 18.8	N. Y. 18.6	N. Y. 19.1
2.	N. Y. 21.5	N. Y. 19.4	N. Y. 18.5	N. Y. 18.9	N. Y. 16.4	N. Y. 16.6	N. Y. 19.2	N. Y. 21.1	N. Y. 21.2	N. Y. 20.7	N. Y. 19.5	N. Y. 18.1	N. Y. 16.8	Conn. 15.8	Conn. 14.4
3.	Penn. 6.2	Penn. 6.5	Mass. 6.1	Penn. 6.5	Penn. 5.2	Penn. 6.3	Penn. 6.1	Penn. 6.5	Penn. 6.5	Mass. 7.3	Penn. 5.9	F&P 6.4	F&P 7.2	F&P 7.3	F&P 7.7
4.	Mass. 5.5	Mass. 5.6	Penn. 5.6	Mass. 5.8	Mass. 4.8	Mass. 5.4	Mass. 6.5	Mass. 6.4	N. J. 6.4	N. J. 5.8	N. J. 5.9	N. J. 5.7	N. J. 5.4	N. J. 6.6	Cal. 6.8
5.	N. J. 4.2	Ill. 4.7	Ohio 4.3	Ill. 5.2	Ill. 4.4	Ohio 5.1	N. J. 5.6	N. J. 6.0	Mass. 6.1	Penn. 5.7	Mass. 5.3	Penn. 5.6	Mass. 4.9	Cal. 5.3	N. J. 6.1
6.	Ohio 3.9	Ohio 4.0	Ill. 3.7	Ohio 4.0	Ohio 4.3	Ill. 3.7	Ohio 5.2	Ohio 4.9	Ohio 5.3	Ohio 4.3	F&P 5.2	Mass. 5.3	Cal. 4.8	Penn. 5.2	Mass. 5.6
7.	Ill. 3.8	N. J. 3.6	N. J. 3.6	N. J. 3.8	N. J. 3.6	N. J. 3.4	Ill. 3.0	Ill. 2.7	Ill. 3.2	Ill. 2.9	Ohio 4.5	Ohio 4.6	Penn. 4.8	Mass. 5.1	Penn. 5.5
8.	F&P 2.3	F&P 3.3	F&P 2.6	F&P 3.2	F&P 2.8	F&P 2.5	F&P 2.6	F&P 2.4	Cal. 2.6	F&P 2.5	Ill. 3.5	Ill. 3.8	Ill. 4.2	Ohio 4.2	Ill. 3.8
9.	Mo. 2.3	Mo. 1.7	Mo. 1.7	Mo. 1.5	Minn. 1.9	Mo. 1.8	Cal. 1.9	Cal. 2.2	F&P 2.4	Cal. 2.2	Cal. 2.7	Cal. 3.0	Ohio 3.8	Ill. 4.1	Ohio 3.3
10.	R. I. 1.2	Minn. 1.3	Minn. 1.4	Cal. 1.4	Mo. 1.8	Minn. 1.5	Mo. 1.8	Mo. 1.5	Mo. 1.7	Mo. 1.5	Mo. 1.8	Tex. 1.9	Md. 2.5	Md. 2.6	Md. 2.7
11.	Ky. 1.2	Ind. 1.2	Iowa 1.2	Minn. 1.4	Cal. 1.4	Cal. 1.5	Mich. 1.4	Minn. 1.5	Minn. 1.6	Mich. 1.5	Tex. 1.7	Md. 1.9	Va. 2.0	Va. 2.2	Tex. 2.1
12.	Vt. .9	Mich. 1.2	Cal. 1.2	Mich. 1.1	D. C. 1.2	D. C. 1.2	Minn. 1.3	Mich. 1.2	Mich. 1.4	Md. 1.4	Md. 1.6	Mo. 1.8	Tex. 1.8	Tex. 1.9	Va. 1.9
13.	Col. .9	Iowa 1.1	Mich. 1.0	Tex. 1.0	Mich. 1.1	Mich. 1.1	Tex. 1.1	Md. 1.1	Md. 1.0	Minn. 1.3	Mich. 1.3	Va. 1.5	Minn. 1.7	Mich. 1.6	Mich. 1.8
14.	D. C. .8	Col. .9	Ind. .9	Me. .8	Ind. 1.0	Md. .9	R. I. .9	R. I. 1.0	D. C. 1.0	D. C. 1.3	Minn. 1.3	Mich. 1.4	Mo. 1.5	Fla. 1.2	Wash. 1.2
15.	Ind. .8	D. C. .9	Vt. .9	Wash. .8	R. I. .9	R. I. .9	Col. .9	Ind. .9	R. I. 1.0	Wash. 1.1	Va. 1.1	Minn. 1.3	Mich. 1.5	Mo. 1.1	Fla. 1.2
16.	Me. .8	R. I. .8	R. I. .8	Ky. .8	Wis. .8	Wis. .9	Wis. .9	D. C. .8	Col. 1.0	R. I. 1.1	Fla. 1.1	Fla. 1.3	Fla. 1.4	Tenn. 1.1	D. C. 1.1

Sources. University Catalogues and Student Directories.

Yale's Feeder States
Major Groups, 1899-1976



Source: Tables B-1,5,6,7,8,9,10.

STATE ORIGINS OF THE STUDENTS AND FELLOWS OF YALE UNIVERSITY, 1899-1917

	1899-1900	1901-1902	1903-1904	1905-1906	1907-1908	1909-1910	1911-1912	1913-1914	1915-1916	1917-		
Alabama	2	3	8	11	9	7	3	12	14	11	5	8
Arizona	1	0	0	0	1	2	3	3	2	4	3	1
Arkansas	3	2	3	2	1	2	1	2	4	3	3	1
California	17	18	22	26	21	21	32	40	39	45	47	41
Colorado	22	17	24	22	27	26	33	31	30	22	27	28
Connecticut	875	924	932	987	980	1018	1057	1156	1189	1155	1135	1069
Delaware	8	5	6	7	8	13	16	13	14	10	9	6
Dist. of Col.	20	24	21	24	28	26	27	23	21	23	17	14
Florida	7	6	5	4	6	7	9	7	11	12	6	8
Georgia	7	10	8	15	13	11	7	12	12	19	12	11
Idaho	2	2	2	1	1	1	1	2	3	5	4	4
Illinois	95	108	107	111	121	140	143	153	137	123	127	132
Indiana	20	20	25	30	40	36	26	20	34	25	29	39
Iowa	19	15	18	25	32	32	34	30	34	33	38	30
Kansas	10	18	20	21	18	21	18	17	16	22	21	25
Kentucky	30	27	25	18	21	24	30	25	22	24	23	24
Louisiana	4	4	0	18	11	6	6	8	17	14	11	5
Maine	20	20	18	17	20	18	20	19	16	18	23	26
Maryland	12	18	16	17	15	15	10	14	13	13	13	19
Massachusetts	139	126	141	144	176	169	188	184	177	207	202	213
Michigan	15	17	29	27	36	35	37	35	34	39	36	43
Minnesota	17	20	28	30	41	40	45	53	46	47	41	56
Mississippi	1	1	3	3	3	4	3	5	4	7	5	6
Missouri	59	62	54	55	40	52	58	63	67	58	57	54
Montana	1	0	7	5	3	3	7	6	6	7	6	8
Nebraska	5	6	10	6	11	8	7	17	12	15	14	11
Nevada	0	0	0	0	0	1	1	1	1	1	1	0
New Hampshire	11	8	9	7	10	8	12	14	15	17	16	14
New Jersey	185	95	101	104	108	108	112	107	120	125	117	135
New Mexico	0	0	0	0	0	0	0	0	1	2	2	4
New York	543	527	567	569	566	582	608	638	671	640	608	572
North Carolina	1	1	0	0	0	2	0	1	1	2	1	3
North Dakota	1	1	0	0	0	0	0	0	0	0	0	0
Ohio	98	91	118	115	112	120	135	159	172	165	142	136
Oklahoma	1	1	1	3	2	1	4	2	5	2	3	7
Oregon	9	7	9	12	13	10	13	10	7	12	15	14
Pennsylvania	157	174	164	191	201	194	188	198	201	211	188	194
Rhode Island	30	31	31	33	27	24	25	27	30	27	30	27
South Carolina	4	1	3	3	10	12	9	4	4	4	4	3
South Dakota	4	1	2	3	4	3	5	7	5	1	2	4
Tennessee	18	14	24	23	24	19	14	17	14	18	17	13
Texas	10	6	14	9	7	12	22	20	24	18	18	23
Utah	3	3	2	4	5	7	7	4	7	10	7	8
Vermont	24	15	21	18	17	15	21	16	21	23	26	29
Virginia	4	6	6	7	10	8	10	11	14	12	16	14
Washington	6	4	5	4	2	6	11	9	15	20	25	24
West Virginia	7	7	3	2	3	7	6	7	9	13	12	11
Wisconsin	15	15	17	18	28	19	24	22	19	18	12	21
Wyoming	4	2	0	0	2	2	2	1	1	1	1	1
Total U.S.	2489	2492	2626	2647	2866	2900	3054	3165	3320	3339	3220	3176
Foreign	58	50	62	74	96	96	93	87	105	100	87	99
Total	2528	2542	2688	2721	2962	2999	3147	3252	3431	3439	3307	3275

"Foreign" includes students from U. S. Possessions and Territories as well as foreign nations. "Total" is the total number of students whose addresses are given in the catalogue--excluding, therefore, some extension and summer students, and others whose addresses are omitted.

STATE ORIGINS OF THE STUDENTS AND FELLOWS OF YALE UNIVERSITY, 1918-1942

	1918-1919	1920-1921	1922-1923	1924-1925	1926-1927	1928-1929	1930-1931	1932-1933	1934-1935	1936-1937	1938-1939	1940-1941	1942
Alabama	6	13	8	13	14	18	15	20	21	15	16	15	21
Arizona	0	0	0	0	2	4	7	8	9	9	3	1	4
Arkansas	2	4	8	11	14	18	18	16	11	7	13	19	14
California	28	45	35	37	48	60	72	80	88	110	100	108	121
Colorado	22	19	22	20	18	17	20	29	31	46	50	44	37
Connecticut	939	1187	1220	1378	1388	1481	1485	1479	1512	1468	1455	1502	1488
Delaware	5	7	8	6	6	8	10	9	8	10	14	11	9
Dial. of Col.	17	39	28	33	58	54	49	52	58	45	50	34	45
Florida	6	12	8	10	10	10	7	11	16	35	25	16	23
Georgia	10	7	4	11	17	30	24	30	33	28	30	28	34
Idaho	2	5	4	5	4	2	3	4	3	4	7	6	4
Illinois	110	142	146	135	153	163	151	163	156	150	139	160	172
Indiana	23	32	34	32	33	30	40	55	57	50	48	59	45
Iowa	6	14	16	23	25	30	25	29	39	34	41	36	34
Kansas	8	21	16	23	27	22	21	29	21	20	19	22	20
Kentucky	19	22	25	29	33	32	41	33	44	42	38	40	28
Louisiana	5	8	8	9	13	12	17	14	17	18	17	18	11
Maine	12	19	22	40	33	40	38	42	38	43	48	45	40
Maryland	12	23	19	32	36	33	37	53	42	45	40	37	45
Massachusetts	107	153	173	183	224	239	319	238	282	309	322	344	345
Michigan	24	35	57	47	59	54	44	57	63	85	64	68	72
Minnesota	48	63	78	67	71	71	61	58	59	62	68	77	70
Mississippi	5	5	6	6	4	4	8	8	7	10	4	4	4
Missouri	35	57	57	53	60	75	73	84	88	92	78	81	73
Montana	4	3	4	8	7	4	5	5	5	5	4	6	4
Nebraska	10	17	21	22	19	17	18	21	22	27	23	24	26
Nevada	0	0	0	0	0	0	0	0	0	0	0	0	0
New Hampshire	7	10	17	13	12	16	20	20	15	22	26	39	29
New Jersey	95	115	107	119	129	161	138	166	219	234	247	272	284
New Mexico	0	2	3	3	4	4	6	5	7	7	8	8	4
New York	413	527	542	555	637	695	675	774	843	911	970	1014	1064
North Carolina	5	14	14	17	14	14	32	32	34	41	43	33	30
North Dakota	0	4	6	6	3	1	4	5	4	6	6	4	5
Ohio	37	138	145	160	169	189	208	239	283	288	259	233	276
Oklahoma	1	6	11	7	10	14	16	14	13	13	15	19	16
Oregon	3	10	8	10	14	14	11	16	15	17	15	14	21
Pennsylvania	116	168	172	208	237	275	255	305	323	327	355	321	331
Rhode Island	16	29	32	21	33	30	36	52	53	53	48	49	50
South Carolina	12	14	22	21	10	13	18	27	31	18	26	23	23
South Dakota	2	4	4	3	5	4	8	2	2	3	4	2	3
Tennessee	6	19	20	37	19	18	35	34	28	24	31	30	29
Texas	13	13	23	33	39	30	39	45	49	43	43	56	54
Utah	2	3	4	4	4	6	6	9	11	12	7	5	7
Vermont	11	15	17	12	18	18	22	19	24	28	26	24	25
Virginia	8	18	23	15	20	19	18	29	31	38	45	37	28
Washington	14	21	20	26	28	22	34	34	46	34	33	35	32
West Virginia	13	14	16	17	20	23	27	25	32	24	17	20	25
Wisconsin	16	26	28	26	35	33	30	38	38	44	47	45	40
Wyoming	1	1	1	4	3	2	3	3	4	4	1	3	4
Total U.S.	2716	3121	3249	3416	3862	4130	3985	4438	4722	4955	4857	4988	5130
Foreign	59	81	86	107	100	123	139	129	128	156	138	124	100
Total	2377	3212	3345	3595	3969	4260	4057	4562	4851	5094	5098	5146	5268

Source: University Catalogues. "Foreign" includes students from U.S. Possessions and Territories whose addresses are given in the catalogue--excluding, therefore, some extension and summer students, and others whose addresses are unknown or unrecorded.

STATE ORIGINS OF THE STUDENTS AND FELLOWS OF YALE UNIVERSITY, 1946-1956

	1946- 1947	1947- 1948	1948- 1949	1949- 1950	1950- 1951	1951- 1952	1952- 1953	1953- 1954	1954- 1955	1955- 1956	1956- 1957
Alabama	15		21	32		24	23	25	22	26	24
Alaska											
Arizona	7		15	17		11	11	16	14	13	20
Arkansas	33		44	33		28	17	22	20	19	19
California	179		190	221		215	211	215	191	172	202
Colorado	77		72	73		58	57	64	58	65	57
Connecticut	2001		1964	1756		1497	1602	1389	1300	1471	1597
Delaware	27		29	30		24	25	27	32	20	20
Dist. of Col.	105		101	104		84	89	84	81	69	81
Florida	65		65	67		69	60	58	70	70	85
Georgia	50		38	38		36	35	36	43	45	54
Hawaii											
Idaho	4		11	5		9	11	13	12	11	8
Illinois	237		283	304		291	246	248	246	228	259
Indiana	79		84	84		77	64	58	63	59	69
Iowa	43		40	52		44	30	34	36	35	44
Kansas	35		29	32		33	32	31	25	34	37
Kentucky	48		47	53		52	59	51	47	49	48
Louisiana	20		28	30		29	28	28	29	30	28
Maine	52		52	63		49	61	61	66	58	45
Maryland	118		109	111		106	110	109	118	102	117
Massachusetts	597		577	553		442	450	426	435	419	394
Michigan	125		133	139		130	120	112	100	101	98
Minnesota	115		113	104		82	84	104	108	100	94
Mississippi	22		16	19		17	12	15	12	16	14
Missouri	127		113	117		97	105	111	115	119	133
Montana	8		10	12		3	11	12	9	11	6
Nebraska	25		24	23		22	25	21	19	22	20
Nevada	3		1	0		0	0	1	2	4	7
New Hampshire	45		50	48		41	48	43	45	60	65
New Jersey	478		454	477		411	408	454	449	450	436
New Mexico	7		2	5		6	6	13	13	10	11
New York	1696		1702	1797		1601	1578	1628	1536	1456	1443
North Carolina	55		51	38		49	50	47	51	37	48
North Dakota	6		9	9		10	5	6	4	8	9
Ohio	354		354	351		310	311	323	334	314	335
Oklahoma	40		39	48		40	43	46	43	38	47
Oregon	55		48	54		44	39	30	30	28	27
Pennsylvania	469		480	488		474	462	489	506	462	438
Rhode Island	88		84	76		73	64	67	83	72	73
South Carolina	29		22	24		18	22	19	24	26	22
South Dakota	6		14	12		9	7	5	5	8	9
Tennessee	59		67	76		65	67	63	69	62	53
Texas	80		93	109		113	104	108	113	112	125
Utah	8		13	19		15	10	12	12	10	13
Vermont	36		34	30		36	35	33	35	26	32
Virginia	65		83	89		87	79	78	80	83	83
Washington	94		111	98		85	84	71	70	67	55
West Virginia	34		35	39		41	33	34	34	40	33
Wisconsin	69		69	87		77	77	59	56	66	70
Wyoming	4		6	9		7	6	2	2	4	8
Total U.S. + Poss.	7994		8787	8212		7417	7255	7241	7020	6807	7042
Foreign	202		250	307		271	312	314	349	318	359
Total	8196	8991	9017	8519	7745	7688	7567	7555	7369	7353	7664

Sources. University and School Catalogues, and for the years 1955 and 1956: Student Directories.

Note. The years 1942 to 1946 have been omitted because, under war-time acceleration and draft, the enrollments were too irregular and changeable for reliable statistical analysis.

STATE ORIGINS OF THE STUDENTS AND FELLOWS OF YALE UNIVERSITY, 1957-1968

1957- 1958	1958- 1959	1959- 1960	1960- 1961	1961- 1962	1962- 1963	1963- 1964	1964- 1965	1965- 1966	1966- 1967	1967- 1968	
22	25	24	26	29	34	34	29	37	38	39	Alabama
1	1	3	3	2	2	3	3	2	5	4	Alaska
23	17	26	24	26	25	26	32	27	28	27	Arizona
23	25	20	17	18	15	20	18	17	17	19	Arkansas
214	248	235	241	272	292	336	381	372	419	426	California
60	60	58	57	59	49	53	55	60	56	60	Colorado
1493	1498	1543	1534	1545	1618	1382	1160	1502	1629	1355	Connecticut
30	30	36	39	38	33	35	34	34	28	19	Delaware
84	86	86	90	106	107	115	106	111	84	80	Dist. of Col.
108	103	99	97	95	105	119	124	118	120	131	Florida
59	55	70	68	66	74	85	83	77	74	76	Georgia
16	14	22	29	28	29	29	32	35	36	35	Hawaii
7	12	11	18	10	11	10	12	8	7	8	Idaho
268	287	296	296	302	321	343	370	378	366	395	Illinois
80	89	91	87	80	100	108	112	111	105	104	Indiana
49	48	47	49	43	41	49	52	55	54	52	Iowa
32	39	43	49	55	54	55	44	40	40	32	Kansas
63	60	56	49	62	68	67	63	62	48	55	Kentucky
32	33	31	27	35	36	36	35	33	46	39	Louisiana
48	38	32	37	38	39	42	53	50	49	48	Maine
102	131	147	150	142	161	185	199	187	220	212	Maryland
410	414	413	417	435	389	382	414	393	420	472	Massachusetts
98	106	109	120	119	117	134	137	122	126	127	Michigan
97	102	99	101	109	128	137	137	129	143	131	Minnesota
17	18	12	22	16	14	19	19	13	13	19	Mississippi
143	148	142	136	142	155	159	146	138	133	108	Missouri
7	5	8	8	8	8	8	6	14	17	15	Montana
22	24	26	25	24	30	25	26	31	25	25	Nebraska
5	4	4	3	5	4	5	4	2	6	10	Nevada
49	68	53	64	59	64	57	59	50	49	47	New Hampshire
408	413	441	408	407	406	415	452	455	466	512	New Jersey
9	7	11	11	16	19	20	15	12	18	26	New Mexico
1409	1469	1413	1359	1362	1372	1455	1583	1483	1457	1528	New York
47	56	56	72	74	60	66	70	72	80	88	North Carolina
13	3	5	2	7	10	8	6	9	13	7	North Dakota
325	333	361	376	348	348	350	361	323	332	345	Ohio
46	52	55	44	54	60	62	57	55	60	61	Oklahoma
36	53	48	58	62	61	63	54	59	56	64	Oregon
428	441	433	431	443	420	454	479	431	418	447	Pennsylvania
67	57	63	57	54	56	50	48	46	43	49	Rhode Island
24	26	16	26	28	24	33	34	31	34	44	South Carolina
7	10	8	8	9	7	12	15	14	14	16	South Dakota
60	66	59	64	58	68	73	64	80	67	72	Tennessee
142	140	151	147	165	148	171	177	162	156	155	Texas
14	18	20	17	13	19	21	17	14	11	20	Utah
23	31	31	28	30	29	21	20	23	19	24	Vermont
97	117	117	117	120	136	130	160	157	176	199	Virginia
72	72	58	62	80	91	98	112	99	104	50	Washington
27	25	30	28	28	26	26	26	26	25	64	West Virginia
72	85	74	77	79	86	81	85	87	74	86	Wisconsin
7	9	9	10	4	9	10	12	12	9	8	Wyoming
6997	7276	7291	7305	7430	7595	7697	7812	7870	8052	8056	Total U. S. + Poss.
394	497	505	549	556	579	635	666	669	602	610	Foreign
7405	7773	7793	8129	8221	8404	8333	8614	8539	8654	8666	Total

Sources. University and School Catalogues, Student Directories.

STATE ORIGINS OF THE STUDENTS AND FELLOWS OF YALE UNIVERSITY, 1969-1976

	1968- 1969	1969- 1970	1970- 1971	1971- 1972	1972- 1973	1973- 1974	1974- 1975	1975- 1976
Alabama	48	48	45	26	26	25	31	27
Alaska	3	4	3	4	3	9	9	7
Arizona	30	27	29	41	40	35	33	28
Arkansas	17	17	16	14	11	13	15	16
California	438	509	543	536	571	577	645	638
Colorado	68	61	61	67	54	61	63	81
Connecticut	1349	1509	1445	1373	1427	1369	1442	1349
Delaware	20	25	29	30	28	27	33	28
Dist. of Col.	85	98	109	95	103	96	110	101
Florida	115	114	111	124	112	102	113	110
Georgia	56	76	97	111	104	92	90	85
Hawaii	27	29	40	38	50	51	44	54
Idaho	5	9	12	13	11	9	13	14
Illinois	407	394	420	378	376	351	365	359
Indiana	89	89	94	88	77	72	66	66
Iowa	48	56	67	52	43	40	50	49
Kansas	30	34	39	44	41	41	44	48
Kentucky	52	47	45	40	47	30	29	27
Louisiana	45	48	52	58	55	55	50	54
Maine	53	52	58	49	47	44	47	45
Maryland	199	247	234	218	255	258	253	251
Massachusetts	448	487	459	449	454	465	509	529
Michigan	134	150	147	164	154	146	166	167
Minnesota	109	100	89	77	76	68	97	93
Mississippi	15	20	20	17	21	19	18	16
Missouri	103	109	91	92	95	95	95	98
Montana	9	8	8	5	5	7	10	14
Nebraska	21	35	36	40	29	29	33	22
Nevada	8	8	10	11	12	6	6	7
New Hampshire	45	50	44	48	47	43	47	52
New Jersey	525	631	668	590	600	582	600	572
New Mexico	28	30	29	35	36	36	34	28
New York	1546	1772	1789	1681	1721	1764	1867	1797
North Carolina	80	82	93	99	92	79	83	81
North Dakota	9	3	3	6	11	4	6	6
Ohio	359	399	416	416	452	306	335	308
Oklahoma	63	49	47	45	57	34	42	34
Oregon	50	48	47	53	46	48	53	51
Pennsylvania	422	496	508	518	496	489	538	520
Rhode Island	55	56	63	64	70	67	71	70
South Carolina	49	42	39	32	36	32	39	29
South Dakota	16	15	13	8	3	3	6	9
Tennessee	72	106	82	77	76	77	73	71
Texas	158	184	157	165	182	200	220	200
Utah	18	23	23	22	22	16	16	13
Vermont	29	32	32	32	17	25	33	35
Virginia	201	213	207	177	187	172	187	181
Washington	84	89	90	98	86	93	105	114
West Virginia	22	25	22	17	20	15	23	20
Wisconsin	88	85	98	92	71	79	96	90
Wyoming	8	11	8	6	9	4	2	4
Total U. S.	7958	8851	8887	8535	8664	8360	8955	8668
For. & U. S. Poss.	663	692	321	650	662	666	674	726
Total	8621	9543	9708	9185	9326	9026	9629	9394

Sources. University and School Catalogues, School Registrars, and Yale College Introductory Information.

*State origin statistics were not available for the School of Nursing for all years, for the Divinity School in 1973-74 and 1975-76, and for the School of Drama in 1968-69. In the years indicated, the enrollments of these schools are not included in the Total U. S. and Total figures, which also differ from the totals given in Table A-1.8 because the Yale College and many school geographic counts differed from the final Catalogue totals.

COMPARATIVE STUDENT ORIGINS-SELECTED EASTERN UNIVERSITIES

REGION	1887-88Cn 1892-93		1904-05	1914-15 1917-18Cn		1935-36Y 1937-38C 1939-40P		1947-48Cn 1948-49H 1951-52C PY		1965-66	
NEW ENGLAND											
Columbia	5.98%	C	4.74%	C	11.43%	C	6.69%	C	5.79%	C	6.72%
Me., N.H., Vt., Mass., R.I., Conn.	5.58	Cn	4.92 *	Cn	3.43			Cn	6.51		
Princeton	1.46 *	P	3.86 *	P	4.63	P	7.34	P	6.48	P	9.43 *
Yale		Y	41.75	Y	40.89	Y	34.50	Y	28.61	Y	24.17
Harvard		H	59.19					H	36.72		
MIDDLE ATLANTIC											
C	83.79	C	79.75	C	82.48	C	77.52	C	78.99	C	73.14
N.Y., N.J., Pa., Del., Md., D.C.	71.33	Cn	72.82 *	Cn	78.93			Cn	77.34		
P	73.46 *	P	69.29 *	P	60.57	P	64.03	P	57.66	P	50.17 *
Y	34.45	Y	31.18	Y	30.66	Y	36.33	Y	36.13	Y	31.63
H		H	19.58					H	28.47		
SOUTHERN											
C	2.36	C	3.56	C	1.34	C	3.53	C	3.02	C	2.82
Va., N.C., S.C., Ga., Fla., W.Va., Ky., Tenn., Ala., Miss., Ark., La.	2.15	Cn	3.81 *	Cn	2.66			Cn	3.06		
P	4.81 *	P	5.82 *	P	5.30	P	7.15	P	7.86	P	10.97 *
Y	3.04	Y	3.98	Y	4.25	Y	5.27	Y	6.89	Y	8.47
H		H	2.86					H	5.36		
GREAT LAKES											
C	2.92	C	3.94	C	1.58	C	3.96	C	2.63	C	3.87
O., Ind., Ill., Mich., Wis.	14.58	Cn	9.38 *	Cn	8.55			Cn	6.13		
P	10.24 *	P	10.33 *	P	8.94	P	10.25	P	11.38	P	12.26 *
Y	11.31	Y	11.43	Y	11.70	Y	11.10	Y	11.84	Y	11.96
H		H	8.97					H	11.03		
WEST CENTRAL											
C	1.14	C	2.24	C	.75	C	2.52	C	1.22	C	1.16
Minn., Iowa, Mo., N.D., S.D., Neb., Kans.	2.64	Cn	2.41 *	Cn	1.89			Cn	1.55		
P	5.43 *	P	4.88 *	P	5.42	P	3.02	P	4.73	P	4.46 *
Y	5.33	Y	5.28	Y	4.43	Y	5.54	Y	3.97	Y	4.87
H		H	3.58					H	3.24		
ROCKY MOUNTAIN											
C	.57	C	1.44	C	.47	C	.74	C	.51	C	.75
Mont., Wyo., Colo., Idaho, Utah, Nev.	.49	Cn	1.36 *	Cn	.67			Cn	.53		
P	.73 *	P	1.97 *	P	1.10	P	1.07	P	1.35	P	1.23 *
Y	1.01	Y	1.30	Y	1.03	Y	1.31	Y	1.23	Y	1.29
H		H	1.12					H	1.28		
SOUTH WESTERN											
C	.31	C	.38	C	.14	C	1.05	C	.81	C	.87
Okla., Tex., N.Mex., Ariz.	.20	Cn	.68 *	Cn	.80			Cn	.59		
P	.63 *	P	1.24 *	P	1.16	P	1.73	P	2.03	P	3.49 *
Y	.46	Y	.43	Y	1.30	Y	1.16	Y	2.28	Y	3.00
H		H	.43					H	3.56		
PACIFIC COAST											
C	.89	C	1.09	C	.35	C	1.52	C	1.27	C	2.08
Alaska, Wash., Ore., Calif., Hawaii	.39	Cn	.99 *	Cn	.69			Cn	1.03		
P	.73 *	P	1.02 *	P	1.95	P	2.76	P	3.41	P	5.06 *
Y	1.57	Y	1.30	Y	2.58	Y	3.40	Y	4.60	Y	6.64
H		H	1.81					H	4.73		
FOREIGN & U.S. POSS.											
C	2.03	C	2.88	C	1.46	C	2.47	C	5.71	C	8.58
Cn	2.64	Cn	3.62 *	Cn	3.38			Cn	1.25		
P	2.51 *	P	1.60 *	P	1.95	P	2.65	P	5.10	P	2.92 *
Y	2.98	Y	3.34	Y	3.16	Y	2.39	Y	4.43	Y	7.98
H		H	2.46					H	5.62		

Sources: Data from University Catalogues, Student Directories and Table B-1.4 (above); Annual Reports of the Registrar, Columbia; Columbia University Quarterly, Vol. VIII, 1905-1906; Office of the Registrar, Princeton; "Ten-Year Book" of 1888 and 1898, Cornell; The Registrar's Report in the President's Report of Cornell, 1948 (excluding Medical and Nursing Schools in New York City); Harvard, for 1904-1905 from the Columbia study, 1948-1949 from the Harvard Alumni Office.

*Undergraduates only.

this Middle Western dominance has yielded somewhat to the region of the national capital, and to the new South: specifically, to Maryland, Virginia and the District of Columbia, to Texas and Florida.

Students of academic demography will find it interesting to inquire into the reasons for Yale's special appeal to particular states (e.g., Minnesota)--and tantalizing to compare these figures on student origins with the series on alumni destinations (E-3.4, E-3.5 and E-3.6).

Some Comparisons

Finally, table B-1.12 on the comparative student origins for certain selected eastern universities will place Yale's student distribution in a larger frame--and moderate any lingering notions of Yale's decisive superiority in nation-wide appeal. For it appears that since 1900 the Big Three and Columbia and Cornell have been astonishingly similar in their geographic constituencies. Yale incontestably has had the smallest home-state base, but also the smallest state as a home. Princeton has consistently remained somewhat stronger than Yale in the South, and about as strong in the regions of the West, while Harvard (no doubt with the aid of its national scholarships and its Schools of Law and Business Administration) has moved out from its narrower nineteenth century base in New England and the Northeast. One detects also that both Columbia and Cornell have been more local in their appeal, notwithstanding Columbia's somewhat greater attraction for foreigners.

B-2. Family Backgrounds: Yale College

B-2 Family Backgrounds: Yale College

Introduction: New Blood and Old

The public utility and the ideological excitement that may be hidden in educational statistics are suddenly illustrated in our tables on Yale's sons and daughters.

Originally, of course, there were no Yale fathers: it was not until the fall of 1729 that the first son of a Yale graduate was graduated from Yale College. Thereafter they came in increasing numbers, so that for the first 90 years out of 2,015 graduates (Bailey's count--our A-2 tables show 2,014) some 272 B.A.s had had Yale fathers, which meant a prior parental connection with Yale for 13.5% of them. In the last years of the eighteenth century, as shown here, the percentage of graduating seniors with Yale parentage rose to 20.7%—making an overall ratio for the first century of 14.5%, or one graduate in seven with a Yale parent.

For the nineteenth century we have only periodic samplings, i.e., percentages for every tenth class from 1811 to 1901. These show a surprising decline from 20% to 10%, or even lower after the Civil War, then a slow rise again toward the end of the century. For the second hundred years, therefore, the percentage of Yale sons appears to have averaged in the neighborhood of 13%—a figure which does not seem to have changed much until after World War I.

Then, however, the numbers of Yale graduates whose fathers were Yale graduates increased until one out of every five, even one out of every four, of the new graduates had Yale fathers, until the sudden and dramatic decline under President Brewster.

These changes of proportion are even more vividly displayed by the statistics at entrance, which we have first for the years 1920-1957 (table B-2.2). These year-by-year Freshman figures reveal a steady and impressive increase in the proportion of Freshmen with Yale fathers: to 25%, and even 30% in the

FATHERS AND SONS
YALE GRADUATES WHOSE FATHERS WERE YALE GRADUATES
1702-1971

<u>CLASSES</u>	<u>GRADUATES</u>	<u>YALE FATHERS</u>	<u>%</u>
1702-1791	2015	272	13.5
1792-1801	318	66	20.7
<hr/>			
Totals for First Hundred Years	2333	338	14.5
<hr/>			
1811	49	10	20.4
1821	69	8	11.6
1831	81	9	11.1
1841	79	8	10.1
1851	93	11	11.8
1861	97	10	10.3
1871	105	7	6.7
1881	130	16	12.3
1891	186	30	16.1
1901	254	40	15.7
<hr/>			
Average for 10 Classes: 19th Century	114	15	13.1
<hr/>			
1911	297	42	14.1
1921	228	39	17.1
1931	528	120	22.7
1941	701	192	27.4
1951	940	238	25.3
1961	925	201	21.7
1971	1127	122	10.8
<hr/>			
Average for 7 Classes: 20th Century	678	136	20.0

Sources. The figures for 1702-1791 are from W. D. Bailey, "A Statistical Study of Yale Graduates, 1701-1792," in the old Yale Review, 16:405-416. The rest of this table we owe almost entirely to Miss Lottie G. Bishop, whose devoted and painstaking work over the years gave her an almost unrivaled knowledge of Yale's biographical records. Her data for the Classes of 1792-1801 were taken from F. B. Dexter, Yale Biographies and Annals; for the sample classes thereafter largely from the relevant Class Books. The 1961 count was made by G. F. Law, B.A. 1966. The 1971 count was supplied by the Office of the Registrar, Yale College.

Comment. The first graduate to have had a Yale father was a member of the Class of 1729. Before 1745 twice as many parents were graduates of Harvard as of Yale. Later there came a few sons of Princeton graduates, but no other American college was represented among Yale parents during the period 1701-1791. Between them, Harvard and Princeton supplied 5.4% of the paternal parentage for those 90 years.

years 1937-39, then after World War II a reduced but steady inflow of Yale sons at the rate of about 23% for each entering class.

Comparison of table B-2.2 with table B-2.1 for their overlapping years seems to show also that, except for the class of 1931, the proportion of Yale sons was higher at entrance than at graduation—only a little higher, but higher. So for reasons not entirely clear, whether from lesser abilities or lower motivations or greater participation in extra-curricular activities, the sons of Yale men had achieved a slightly higher drop-out rate.

Next, table B-2.3 conducts us to a 5% decline in Yale blood at entrance in the fall of 1962, followed by another 7% drop in the next nine years, with the result that if the male freshmen of the class of 1976 are analyzed one finds only 11% with Yale parents (rather close to the previous recorded low). Meanwhile, however, from 1969 forward, women had been entering, among them a certain number of Yale daughters, so that the total percentage of men and women in the freshman classes with Yale parents seems to have leveled off at about 14% (very close to the Colonial and nineteenth century averages).

The outcry and the disappointment and even the bitterness of a considerable number of Yale graduates can be understood from these figures. Especially if one troubles to notice the sequence of the generations. The proportion of Yale parents had risen in the 1920s to better than 20%, and in the late 1930s to better than 30%; so it was the classes which had had an exceptionally large number of Yale fathers which later saw their own sons' chances so drastically and deliberately reduced by the Brewster administration. By the same token, the Yale President and Dean of Admissions and certain faculty leaders were offending not just an unusual number of fathers, but of grandfathers as well. It would be a fair guess that if either the outraged and organized alumni or the policy-making authorities in the University had taken the trouble to acquaint themselves with these generational accidents, both the policies and the resentments might have been modified.

For the next generation it will be interesting to see how much larger a contribution the graduate and professional school parents will be making to the freshman classes in the College—and, vice versa, how large a percentage of the new graduates of the College will go on to become graduates of the Yale professional schools. There are chances, obviously, that further pressures and resentments will not be easy to avoid.

Reviewing Yale's statistical experience over 275 years, with questions of

YALE SONS IN FRESHMAN CLASSES, 1920-1957

Year	Class of	Enrollment at Entrance	Number of Yale Sons in Freshman Class	Yale Sons as % of Fresh. Class
1920	1924	681	90	13.2
1921	1925	866	130	15.0
1922	1926	886	137	15.4
1923	1927	863	119	13.7
1924	1928	880	187	21.2
1925	1929	864	147	17.0
1926	1930	881	164	18.6
1927	1931	884	190	21.4
1928	1932	894	197	22.0
1929	1933	834	175	20.9
1930	1934	850	202	23.7
1931	1935	850	227	26.7
1932	1936	884	262	29.6
1933	1937	839	249	29.6
1934	1938	781	213	27.2
1935	1939	878	230	26.1
1936	1940	848	249	29.3
1937	1941	859	262	30.5
1938	1942	855	262	30.6
1939	1943	836	263	31.4
1940	1944	861	249	28.9
1941	1945	983	269	27.4
1942	June (Summer T.) 1945 W	1055	281	26.6
1942	Oct. 1945 WO	156	27	17.3
1943	Feb. 1945 WF	68	15	22.0
1943	July 1946	496	128	25.8
1943	Nov. 1946 N	116	24	20.6
1944	March 1946 M	63	9	14.3
1944	July 1947	437	96	21.9
1944	Nov. 1947 N	135	38	28.1
1945	March 1947 M	88	15	17.0
1945	July 1948	624	117	18.7
1945	Oct. 1949	388	89	22.9
1946	March 1949 M	400	89	22.2
1946	Sept. 1950	1474	355	24.1
1947	Feb. 1950 F	160	55	34.3
1947	1951	1049	283	27.0
1948	1952	1177	284	24.1
1949	1953	1125	244	21.7
1950	1954	1050	251	24.0
1951	1955	1169	233	20.0
1952	1956	1020	215	21.1
1953	1957	1033	229	22.2
1954	1958	1002	243	24.3
1955	1959	1008	225	22.3
1956	1960	1034	231	22.3
1957	1961	1006	234	23.2

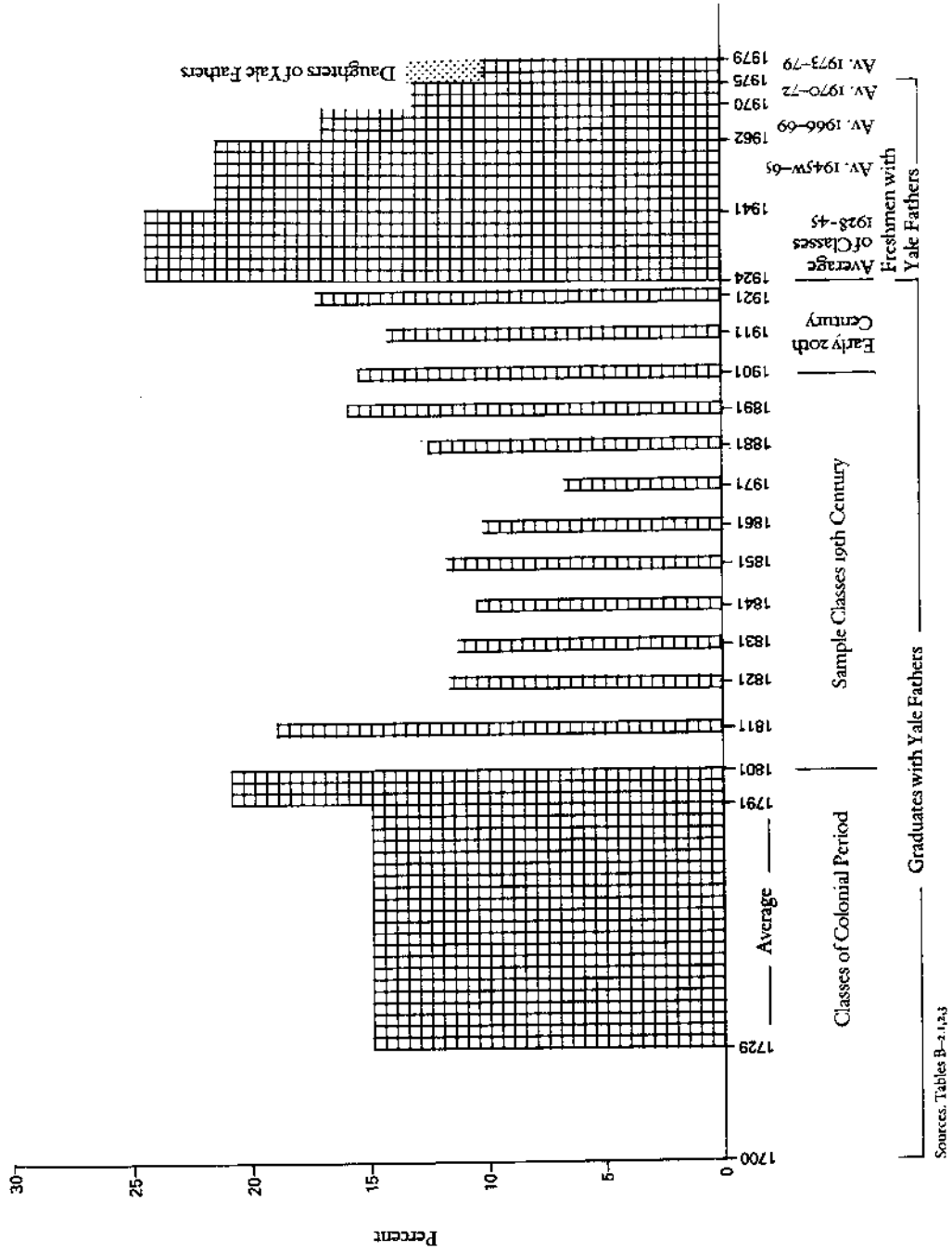
Sources. Data supplied by Freshman and Admissions Offices.

YALE SONS -- AND DAUGHTERS -- IN FRESHMAN CLASSES, 1956-1975

YEAR	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	
CLASS OF	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1979	1978	1977	1976	1975
TOTAL ENROLLMENT AT ENTRANCE	1008	1032	1001	1023	1024	1037	1061	1054	1021	1023	1024	1259	1255	1284	1341	1304	1307	1346					
Yale U. Sons in Freshman Class	222	243	237	249	193	186	185	179	148	123	133	123	130	124	117	130	157	135					
Yale U. Daughters in Freshman Class	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Total Yale U. Children in Freshman Class	222	243	237	249	193	186	185	179	148	123	133	123	130	124	117	130	157	135					
Yale U. Sons as % of Freshman Class	22.0	23.5	23.7	24.3	18.8	18.1	17.4	17.0	14.5	12.0	13.0	9.8	10.4	9.6	8.7	10.0	12.0	10.0					
Yale U. Daughters as % of Freshman Class	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Total Yale U. Children as % of Freshman Class	22.0	23.5	23.7	24.3	18.8	18.1	17.4	17.0	14.5	12.0	13.0	9.8	10.4	9.6	8.7	10.0	12.0	10.0					
Yale G. or P. S. Sons in Freshman Class	16	12	24	31	14	14	23	13	24	18	12	14	20	24	26	20	17	23					
Yale G. or P. S. Daughters in Freshman Class	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Total Yale G. or P. S. Children in Freshman Class	16	12	24	31	14	14	23	13	24	18	12	14	20	24	26	20	17	23					
Yale G. or P. S. Sons as % of Freshman Class	1.6	1.2	2.4	3.0	1.4	1.4	2.2	1.2	2.4	1.8	1.2	1.1	1.6	1.9	1.5	1.3	1.7	1.7					
Yale G. or P. S. Daughters as % of Freshman Class	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Total Yale G. or P. S. Children as % of Freshman Class	1.6	1.2	2.4	3.0	1.4	1.4	2.2	1.2	2.4	1.8	1.2	1.4	2.2	2.2	3.3	2.4	2.4	3.6					
Yale U. Sons in Freshman Class	238	355	261	280	207	202	208	192	172	141	145	137	150	148	143	150	174	158					
Yale U. Daughters in Freshman Class	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Total Yale U. Children in Freshman Class	238	355	261	280	207	202	208	192	172	141	145	137	150	148	143	150	174	158					
Total U. Sons as % of Freshman Class	23.0	24.7	26.1	27.4	20.2	19.5	19.6	18.2	16.8	13.8	14.2	10.9	12.0	11.4	10.7	11.5	13.3	11.7					
Yale U. Daughters as % of Freshman Class	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Total Yale U. Children as % of Freshman Class	23.0	24.7	26.1	27.4	20.2	19.5	19.6	18.2	16.8	13.8	14.2	10.9	12.0	11.4	10.7	11.5	13.3	11.7					

Sources: Lists in Yale Alumni Magazine for 1958 and 1963; Office of the Freshman Registrar, 1959-1962 and 1964-1966; Admissions Office, 1960-1975.

Yale College Sons and Daughters as Percentage of Class Enrollments, 1702-1979



Sources: Tables B-2, 1, 2, 3

social mobility in mind, one can now recognize that through the first 220 years more than 85% of the undergraduate classes did not have Yale fathers. Did they have any Yale relatives? This question, in the present state of our information, cannot be answered. The probability is that a certain number of them did have Yale relatives other than fathers--just as it is probable that in the future some sons will have Yale mothers or aunts or great-aunts rather than Yale fathers. However, even the combination of distant kinship with immediate blood relations will probably not seriously alter my estimate that at least 70% of Yale's material over the centuries has been fresh blood, without close or compelling Yale ties before they enrolled in the College. As freshmen first they came to Yale . . . from many different places and family backgrounds.

Some of them--indeed many of them--grew so fond and proud of their alma mater that they later sent every youngster they could to this place. Yet others did not, or could not. Unfortunately there is no way of knowing how many sons and grandsons of alumni did not apply, or applied and did not get in. Altogether, the numbers must have been substantial. It is well known that Colonial farmers could often spare only one son (and farm hand) to college; and obviously in the nineteenth and twentieth centuries Yale's western and southern alumni must again and again have preferred to keep their educable progeny nearer home. We know also that many sons were and are independent or rebellious enough to want to make their own choices, sometimes as far away from the paternal track as possible. So about even the most Yale-oriented families there could develop a cloud of non-college or rival-college witnesses. Yet still there remained that connection. Which is to suggest that--if not at first, then eventually--the number of Americans who have had a parental or avuncular or fraternal or cousinly or ancestral or other more distant family connection with Yale College (even though they themselves did not attend) must have been and must still today be considerable.*

*By what factor dare one multiply to estimate such extended connections? And how qualify the influence of blood relationship? We do know this much: since 1701 Yale has honored in the neighborhood of 120,000 individuals with degrees (see A-2 and E-1 tables). And over the generations some 4 out of every 100,000 living Americans were likely to be studying at Yale (see pictogram A-5.2).

B-3. Admissions: Yale College

B-3 Admissions: Yale College

Introduction: Retrospect on Yale College Admissions

In their quiet way these tables present a corrective to popular thinking, and a considerable if underutilized resource for Yale University planning.

First and last, they demonstrate the growth of a mischievous myth, and the carelessness of some of those who have handled admissions arguments over the years. Specifically, it has been claimed and it has been believed that at the beginning of the century, and indeed until after World War II, Yale College drew largely from the classes of privilege and wealth and specifically from the "elite" Eastern preparatory schools. The popular press, the Middle Western high school teachers and principals, and many Middle Western alumni often seem to have taken this as an article of faith. So, oddly enough, has Yale's own Admissions Office in recent years.

That old football captain and professor of German, Robert Nelson Corwin 1887, who served as chairman of the Board of Admissions from 1919 to 1933, would have known better. As Yale people then recognized, and as Yale's historians have rediscovered (not only from these figures but from other statistics and sources of information), Yale has never ceased to draw and to educate a considerable number of students of very limited means and somewhat limited educational backgrounds. The College was never given over to or completely dominated by any narrow or privileged band. It did rely on certain feeder schools of proven quality, but it drew also from a great many others. It did for many years cling to subject requirements and certain standards of achievement; but finally the failure of the public school systems, especially in the West, to handle the languages (ancient and modern) at all adequately threatened Yale with loss of its long-standing Western constituency unless its own standards were modified—which they were. The story of that shift of expectations from the examinable subjects and levels of academic achievement to promise of intelligence and student aptitude testing need not detain us: it may be read elsewhere (cf. Pierson's two volume history of Yale from 1871 to 1937). But what do our statistics now tell us?

If we turn to the first table for "Freshman Admissions, 1909-19" (B-3.1), we find that, except during the crisis of World War I, only about a third of Yale's students came from Connecticut or from New England as a whole (which we know also from other statistics, cf. the series of tables under A-6 and B-1). Eight percent came from west of the Mississippi in 1909, but by 1919 it was fourteen percent. All this is familiar. The division according to character of preparatory schooling, however, is not. In that section of table B-3.1 one discovers that in 1909, out of 302 admitted, 82 students came from high schools, 152 came from preparatory schools, 56 from a combination of high and preparatory schools and 12 were transfer students. How are we to interpret that distribution? If we add the high-plus-preparatory school number to the preparatory school group we identify two-thirds of the entering freshmen as coming from the preparatory schools; and if the place of last education alone counts, that is an accurate reading. On the other hand reflection suggests that those students who had studied in both high and preparatory schools probably had had only one year or at most two years of "preparatory" schooling. They had transferred in many cases in order to acquire an ancient or a modern language, or more advanced mathematics, or better teaching in English, i.e., so as to be able to take the Yale College Admissions examinations and be fitted to survive the Yale expectations afterwards. Some, no doubt, had hoped also to benefit socially from the experience and associations. It would therefore seem reasonable to divide the high-and-preparatory numbers between the high school and preparatory school groups or even to give most of them to the high school classification. In any case, in 1909 only 152 students out of 302 had known only preparatory school training, i.e., fifty percent. In 1913 the number would be 214 out of 401; in 1919, 200 out of 427. Only in the crisis years of 1917 and 1918 did the exclusively-preparatory-school boys reach as high as sixty percent of the freshman enrollment.

Pursuing this question to the later decades, one finds that through the 1920s in no single year did the exclusively-preparatory group equal fifty percent of the class. That would not happen until 1931 and the three years immediately following, i.e., until the depths of the Great Depression. This financial disaster seems to have inhibited candidates from west of the Mississippi, but also from the whole Northeast including New Haven (and from New Haven many of the candidates would have been high school students).

The tables for 1920-37 and 1937-52 (B-3.2 and B-3.3) throw additional light on this question by giving the regional locations for the feeder preparatory schools and the high schools--and this geographic distribution may help explain some Middle Western attitudes. Thus, if we ask how many students

FRESHMAN ADMISSIONS, 1909-1919
Freshman Classes Analyzed According to Origins and Training

	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20
According to character of preparatory school											
High School	82	81	93	89	92	92	93	105	75	61	85
Prep School	152	166	164	198	214	211	218	201	196	205	200
High & Prep Schools	56	60	69	80	81	70	61	64	28	55	66
Transfers	12	22	22	16	14	19	23	30	17	17	76
According to residence											
Connecticut	80	72	70	74	82	89	96	108	90	100	92
New England (excluding Connecticut)	26	40	38	45	33	39	36	33	35	24	37
New York State	88	69	78	97	116	102	109	89	60	83	98
East of the Mississippi (excluding the above)	81	108	113	120	107	122	117	119	95	89	134
West of the Mississippi	24	35	43	40	55	33	35	46	33	36	59
Possessions and Foreign Countries	3	5	6	7	8	7	2	5	3	6	7
Total Entering	302	329	348	383	401	392	395	400	316	338	427

Source. Table reproduced from G. W. Pierson, Yale: The University College, 1921-1937 (1955), p. 670.

FRESHMAN ADMISSIONS, 1920-1936
Freshman Classes Analyzed According to Origins, Training, and Method of Admission

	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	
-21	-22	-23	-24	-25	-26	-27	-28	-29	-30	-31	-32	-33	-34	-35	-36	-37	
According to Residence																	
New Haven	96	98	124	103	73	98	91	92	96	83	78	81	78	93	72	67	57
New England (outside of New Haven)	186	227	216	204	202	186	211	241	203	201	211	210	218	181	176	189	203
New York State	180	170	180	195	189	189	189	203	230	227	222	236	230	224	177	226	227
East of the Mississippi (excluding the above)	232	270	271	279	319	294	280	279	303	249	271	249	265	259	270	301	280
West of the Mississippi Possessions and Foreign Countries	80	88	80	73	85	90	102	65	55	68	62	73	81	58	77	85	72
	7	13	5	9	6	7	8	4	7	6	6	1	12	14	9	10	9
According to Location of Preparatory School																	
New England	457	513	552	512	531	552	555	593	578	551	598	591	558	560	461	507	535
East of the Mississippi (excluding New England)	191	247	223	258	262	232	247	233	266	246	225	216	274	232	259	298	238
West of the Mississippi Possessions and Foreign Countries	28	28	36	29	37	39	37	30	30	26	23	30	35	27	44	45	46
	4	5	2	2	-	2	4	1	1	1	-	3	4	9	6	5	5
Transfers	81	73	73	62	50	39	38	27	19	10	4	10	13	11	12	23	24
According to Character of Preparatory School																	
High School	164	222	216	215	199	189	199	196	214	186	158	163	163	194	155	222	199
Prep School	311	379	364	354	381	371	345	390	416	408	421	456	492	454	404	430	416
High & Prep Schools	71	74	98	107	132	143	153	151	151	153	170	150	149	118	149	148	156
Tutoring School	80	56	63	74	79	86	121	80	76	64	90	61	45	47	25	31	31
Repeaters	24	62	72	55	40	37	26	41	18	13	7	10	23	15	36	23	22
Transfers	65	73	73	60	49	38	37	26	19	10	4	10	12	11	12	23	24
According to Method of Admission																	
Old Plan A	508	571	562	582	618	596	633	609	632	590	600	598	587	509	389	295	245
New Plan B	81	160	179	166	173	193	185	208	225	221	230	232	282	304	344	537	557
Transfers	68	73	73	60	49	38	37	26	18	10	4	10	12	11	12	23	24
Repeaters	24	62	72	55	40	37	26	41	18	13	7	10	23	15	36	23	22
Total Entering	681	866	886	863	880	864	881	884	894	834	850	850	884	839	781	878	848

Note: Discrepancies in statistics for 1920-21 are accounted for by the fact that some of them were calculated on the basis of the candidates accepted and the rest on the basis of the freshmen actually entering. Transfers and repeaters are not classified according to Method of Admission.

Source: Table reproduced from G. W. Herson, Yale: The University College, 1921-1937 (1955), p. 671.

FRESHMAN ADMISSIONS, 1937-1952
Freshman Classes Analyzed According to Origins, Training, and Method of Admission

	1937	1938	1939	1940	1941	1946	1947	1948	1949	1950	1951	1952
	-38	-39	-40	-41	-42	-47	-48	-49	-50	-51	-52	-53
According to Residence												
New Haven	73	62	73	64	75	106	68	64	65	50	63	47
New England (outside of New Haven)	215	212	117	202	208	396	247	274	237	248	270	246
New York State	220	213	212	206	285	314	214	278	234	205	256	235
East of the Mississippi (excluding the above)	264	265	340	296	302	495	325	403	426	400	400	339
West of the Mississippi	80	90	84	83	111	154	119	142	152	136	159	136
Possessions and Foreign Countries	7	13	10	10	2	7	11	17	11	11	21	17
According to Location of Preparatory School												
New England	519	524	506	523	593	730	523	588	544	513	542	481
East of the Mississippi (excluding New England)	280	262	275	267	296	404	379	466	444	410	489	408
West of the Mississippi	34	55	39	50	76	102	75	104	123	108	131	120
Possessions and Foreign Countries	5	3	7	3	2	3	4	11	10	9	4	6
Transfers	21	11	9	18	16	2	3	9	4	10	2	5
According to Character of Preparatory School												
High School	224	213	196	213	271	520	359	414	416	380	509	423
Prep School	394	381	382	415	469	674	456	493	481	441	452	435
High & Prep Schools	161	203	194	183	199	335	254	285	231	205	197	156
Tutoring School	28	17	20	4	2	--	--	--	--	--	--	--
Repeaters	31	30	35	28	26	--	24	20	28	26	17	7
Transfers	21	11	9	18	16	2	3	9	4	10	2	5
According to Method of Admission												
Old Plan A	217	174	191	150	154	---	---	---	---	---	---	---
New Plan B	590	640	601	665	787	---	---	---	---	---	---	---
Total Entering	859	855	836	861	983	1529	1069	1182	1128	1053	1171	1023

Note: After 1946 repeaters and transfers are generally duplicated in the above totals.

Source. Table reproduced from G. W. Pierson, Yale: The University College, 1921-1937 (1955), p. 671.

came from west of the Mississippi by residence in 1920 we get 80, but from west of the Mississippi by location of school we get only 28. So five out of every eight students from west of the Mississippi had come east for some kind of additional education before entering Yale--which tells as much about schooling west of the Mississippi as it does about Yale and the Eastern universities. The same thing seems to have been true of those who were from east of the Mississippi but outside of the Northeast, many of whom had also proceeded to go to school away from their place of residence. Thus many boys were apparently coming from the West, from the Middle West, and from the South to school in New England before coming to Yale. In the year 1920, for example, there was a deficit of 52 candidates for the trans-Mississippi West between residence and schooling, and a deficit of 201 for the states east of the Mississippi outside of New England. These 253 migrants must have contributed to the high-and-preparatory group of 71 and to the tutoring school group of 90, and the transfer group of 65. Meanwhile New England would continue to be the final place of schooling for twice as many students as it had raised almost every year to 1942. In fact it would not be until after World War II (1946-48) that the Midwest and South and trans-Mississippi West were educating 70% of their own.

In 1953, unfortunately, the Yale Admissions Office changed its system of bookkeeping and its categories, so the story becomes more difficult to follow. Now the schools were classified as "public schools" or "independent schools," and admissions tables omitted any separate category for those who had attended both a high school and a private preparatory school. In fact they classified such students with the "independent" schools (as a glance at the year 1955-56 will make plain). The Admissions Office permitted itself also some rather questionable reclassifications. Instead of calling the college preparatory schools by their old names they now called them independent schools--and into that category were placed the parochial schools and the private day schools and any kind of school (whether college preparatory or not) that was not a public high school. In consequence the so-called "independent schools" were made to seem a source of 625 out of 1,033 members of the freshman class in 1953. So the Admissions Office deceived itself--or at least helped to deceive the later Directors and members of the Admissions staff--and enabled their successors in the 1960s to claim a great "reform" by reduction of Yale's reliance on "elite" schools. In point of fact the misclassification at the same time enabled Yale's officers to disguise the almost complete elimination of the older private preparatory schools from the places of consequence in the student supply. For out of the 400 independent school candidates of 1967-68 a good many came from parochial schools, which could hardly be called

FRESHMAN ADMISSIONS, 1953-1964
Freshman Classes Analyzed According to Regional Origins and Character of Schooling

	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
	-54	-55	-56	-57	-58	-59	-60	-61	-62	-63	-64	-65
According to Residence												
New Haven	56	53	37	29	49	29	30	39	33	28	29	14
New England (outside of New Haven)	205	218	229	221	209	196	218	186	201	172	167	193
New York State	233	185	206	190	181	214	173	179	165	187	169	196
East of the Mississippi (excluding the above)	362	422#	385#	402#	417#	424##	447#	413#	443#	450#	427#	460#
West of the Mississippi	160	107	136	177	130*	124*	138**	148**	157**	152**	190**	163**
Possessions and Foreign Countries	17	17	15	15	20†	20†	24	35	25	35	55	55
According to Character of Preparatory School												
Public Schools	407	388	395	440	435	446	458	436	483	506	536	597
Independent (i. e. non-public) Schools	625	611	527	594	571	561	572	564	541	518	501	464
Transfers Both Public and Non-Public	1	3	2									
Total Entering	1033	1002	1008	1034	1006	1007	1030	1000	1024	1024	1037	1061

Source. Data supplied by the Office of University Admissions.

Includes also Texas and Oklahoma

Includes also Texas, Oklahoma, and Puerto Rico

* Includes Hawaii

** Includes Hawaii and Alaska

† Includes foreign countries only

FRESHMAN ADMISSIONS, 1965-1975
Freshman Classes Analyzed According to Regional Origins and Character of Schooling

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
	-66	-67	-68	-69	-70	-71	-72	-73	-74	-75	-76
According to Residence											
New Haven	7	6	5	0	22	16	11	43	12	10	11
New England (outside of New Haven)	205	184	151	153	185	180	215	208	243	237	248
New York State	184	177	190	197	268	251	282	264	323	262	277
East of the Mississippi * (excluding the above)	470#	505#	519#	434	498	499	465	502	436	471	487
West of the Mississippi *	102	124	119	189	240	252	276	266	234	256	268
Possessions and Foreign Countries	35	25	39	43	46	55	45	64	65	84	59
According to Character of Preparatory School											
Public Schools	551	593	623	606	782	729	787	821	779	781	830
Independent (i. e. non-public) Schools	504	428	400	419	477	524	507	526	534	539	520
Transfers											
Both Public and Non-Public											
Total Entering	1055	1021	1023	1025	1259	1283	1294	1347	1313	1320	1350

Source. Annual Class Profiles from Admissions Office.

* Counted from the freshman publication Old Campus for the years 1968-1975

Includes also Texas and Oklahoma

independent, or from day schools or other variations on the secondary school theme. (That this historian's charge is not without foundation is perhaps confirmed by the recent decision of the Admissions Office to reclassify its "independent" schools once again, this time as "non-public" rather than "independent").

Two further facts are worth remarking. The first is that the swelling popularity of going to college had after World War II considerably transformed the role of the public high schools. Once most of them had been finishing schools, or final schools with small college-preparatory departments; now they had all, to a considerable degree, become college preparatory.

At Yale, in consequence, a reciprocal shift became unavoidable. Until World War II all the entering classes had consisted of a major group of candidates who had satisfied all the academic and moral expectations plus a dwindling minor group who in one way or another seemed questionable (i.e., who originally had entered with a "condition" or later had to compete against each other for the last places). Then in 1946, for the first time, Yale found there were more "satisfactory" applicants than could be accommodated. Hence all had to compete! And this freedom for Yale to choose has continued since. However, the unprecedented number of applicants, the inevitable proliferation of paper work, the multiplication of admissions staff, the practice of multiple applications by the candidates, and the uncomfortable knowledge that other good colleges and universities had reached the same freedom of selection: all these have qualified the pleasures of this new situation. And laymen are sometimes slow to grasp that the new democratic liberty to attend (and even to choose between colleges) has been bought perhaps less by the improvement of secondary schooling than by the broadening and relaxation of entrance standards, specifically by the abandonment of subject and language requirements and of written tests of verbal and literary skill in favor of a wide range of acceptable school studies (some of them perhaps of only quasi-intellectual character) checked only by tests of a multiple-choice sort. So for even the best of our independent universities, achievement has largely given way to aptitude, and attainment to promise of performance, by the new collegiate meritocracy.

And how goes the new meritocracy's curve of promise? Tables B-3.6 and B-3.7, showing College Board Scholastic Aptitude mean scores and percentile scores, will tell a story that by now is familiar, though it has not been entirely explained. One sees that Yale shared in the rising aptitude curve of the college-going population until that curve peaked out in 1967-69—since when there has been a quite noticeable decline. Indeed the Yale Freshmen in

COLLEGE BOARD SCHOLASTIC APTITUDE MEAN SCORES
1941-1975

<u>Year</u>	<u>Class</u>	<u>Verbal</u>	<u>Mathematical</u>
1941	1945	549	---
1951	1955	582	619
1956	1960	602	634
1957	1961	603	---
1958	1962	627	---
1961	1965	639	667
1962	1966	653	681
1963	1967	668	690
1964	1968	661	704
1965	1969	668	703
1966	1970	683	697
1967	1971	683	703
1968	1972	686	709
1969	1973	687	702
1970	1974	686	697
1971	1975	673	690
1972	1976	672	691
1973	1977	654	678
1974	1978	650	682
1975	1979	654	673

Sources. For the years 1941-1967 figures were taken from statistical report entitled "C. E. E. B. Test Data" (June 7, 1967) and the booklet, "The Classes of 1961 and 1962" (April 30, 1963) put out by the Office of Educational Research of Yale. For the years 1969-1973 figures were taken from the Yale Admissions Office, Admissions Data Tapes Completed--AASK4T, and for the years 1968, 1974 and 1975 from the Office of Educational Research.

COLLEGE BOARD SCHOLASTIC APTITUDE PERCENTILE SCORES, 1957-1975

Year	Class	Percentile Standing Scholastic Aptitude Test Verbal					Percentile Standing Scholastic Aptitude Test Mathematical				
		10	25	50 (Median)	75	90	10	25	50 (Median)	75	90
1957	1961	506	554	607	650	693	533	594	648	710	756
1958	1962	534	581	634	680	717	560	610	666	726	770
1959	1963	532	578	632	681	715	572	628	679	723	759
1960	1964	553	598	647	686	722	562	623	667	716	753
1961	1965	547	597	645	686	724	573	618	674	717	756
1962	1966	563	609	656	700	740	581	644	692	737	753
1963	1967	585	631	676	715	743	599	650	702	739	766
1964	1968	578	623	668	706	736	606	659	718	757	786
1965	1969	591	631	675	708	738	610	664	716	748	777
1966	1970	596	640	697	731	757	605	659	711	744	775
1967	1971	590	640	697	734	762	608	659	716	758	784
1968	1972	569	631	687	732	763	604	658	709	750	771
1969 *	1973	586		688		757	587		703		780
1970	1974	570	635	699	751	782	599	644	711	758	786
1971	1975 M	560	630	675	720	740	590	640	700	750	780
	W	560	640	700	730	760	540	610	680	720	760
1972	1976 M	552	619	680	721	749	571	647	711	753	781
	W	544	620	692	728	759	532	597	668	719	753
1973	1977	520	595	645	695	725	535	605	675	715	755
1974	1978	550	621	674	714	743	569	639	699	740	763
1975	1979	539	607	666	713	747	563	623	681	735	765

Source. Office of Undergraduate Admissions: Statistics on Admissions and Financial Aid.

* In 1969 women were admitted to the freshman class for the first time. Except for the Classes of 1975 and 1976, where statistics were reported only for men and women separately, the percentiles reported are for the two groups combined.

their "aptitudes" dropped back to where they had been in 1962 or even earlier. One may note as well a greater resistance to decline in the 90th percentiles than in the 10th percentiles: which would seem to indicate that, whatever the University's professions, exceptions from even the current norms were being made on behalf of disadvantaged and less qualified groups. So still and once again Yale was trying to educate appreciable numbers of students of quite limited skills and cultural backgrounds.

B-4. Vital Statistics: Yale College

B-4 Vital Statistics: Yale College

Introduction: From Boys to Men

Our tables and graphs on the age levels and age distributions of Yale's graduates constitute an almost unique record across 275 years. And they speak persuasively to several themes.

First of all one is struck by the far wider distribution of age levels in the early years, then the gradual concentration or homogenization of the classes and the disappearance of the juveniles and the decline of older men (the A-4.2 graphs make this unmistakable).

Next it is instructive to see how our colonial youths graduated for the most part while still in their twentieth year or earlier. Small wonder they so often acted--and were treated--like boys.

In a later generation "Baldy" Wright (first Dean of Yale College, 1884-1909) got interested in this phenomenon and calculated that in Yale's first century the average age at entrance had been about 17. Our own statistics suggest that many entered a little or even a lot younger still, with a good quarter of each class matriculating before they were sixteen, substantial numbers when they were only 14 or 13, and a few even before their 12th birthdays. The most precocious of these last was apparently Charles Chauncey, who graduated in 1792 at the ripe age of 15 years and 21 days--and went on to become a leading lawyer in Philadelphia. (His record would stand until October 1944 when a musical prodigy, Merrill Kenneth Wolf, having transferred as a sophomore from Western Reserve, completed his studies under the accelerated war-time program and graduated at the age of 14 years, 57 days.)

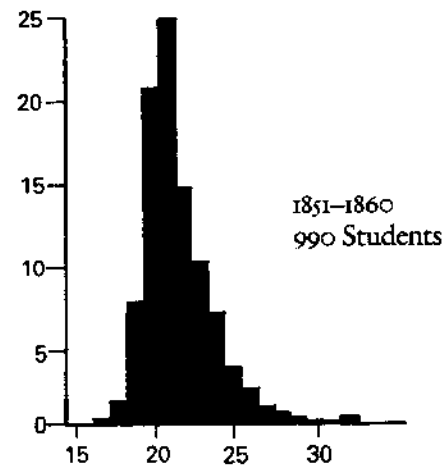
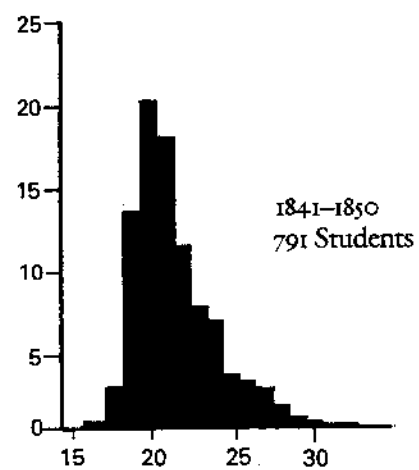
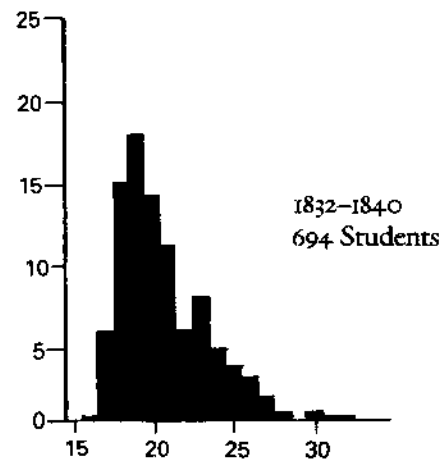
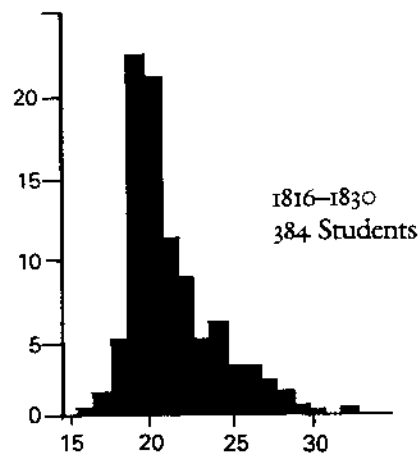
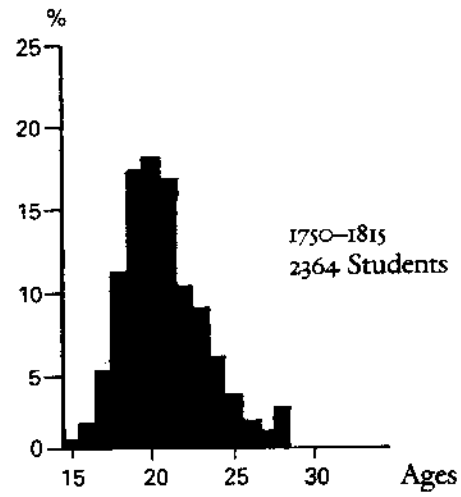
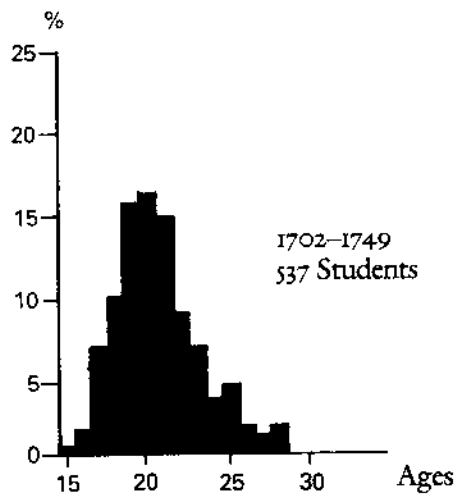
As for the students at the other end of the scale, the "older men" who came so belatedly to study at the colonial College, apparently they were not always welcome. The Laws of 1744 forbade the entrance of anyone over 21. Yet four years later that prohibition was dropped and thereafter for at least a century an appreciable number of individual "grey-beards" participated in the academic

YALE COLLEGE: AGE DISTRIBUTION AT GRADUATION, BY DECADES, 1702-1815

Decades	Ages at Graduation															Percentiles (to the nearest month)		
	15	16	17	18	19	20	21	22	23	24	25	26	27	28	25th %ile	Median	75th %ile	
1702-09			4	7	3	7	5	1	1		1			1	18 y. 6 m.	20 y. 2 m.	21 y. 4 m.	
1710-19		1	5	6	9	7	4	4	4	3	2		2		18 y. 11 m.	20 y. 6 m.	22 y. 10 m.	
1720-29	1	4	9	11	19	10	23	10	4	4	6	1	1		19 y. 3 m.	20 y. 9 m.	22 y. 3 m.	
1730-39	1	6	13	12	24	32	23	20	13	4	4	5	1	4	19 y. 4 m.	20 y. 8 m.	22 y. 7 m.	
1740-49	1	3	8	17	31	24	24	16	18	12	14	6	6	6	19 y. 6 m.	21 y. 4 m.	23 y. 10 m.	
1750-59	2	20	22	22	46	60	31	19	21	13	7	1	6	3	19 y. 5 m.	20 y. 8 m.	22 y. 6 m.	
1760-69	1	7	8	23	51	49	59	38	30	15	11	6	7	6	19 y. 9 m.	21 y. 4 m.	22 y. 12 m.	
1770-79	6	10	11	32	41	46	40	34	22	27	14	8	4	15	19 y. 6 m.	21 y. 3 m.	23 y. 7 m.	
1780-89	3	4	22	44	68	64	58	41	38	15	10	5	4	11	19 y. 5 m.	20 y. 10 m.	22 y. 8 m.	
1790-99	1	5	18	40	47	48	56	25	14	20	8	7	4	4	19 y. 3 m.	20 y. 10 m.	22 y. 4 m.	
1800-09		6	30	52	76	68	68	39	37	30	16	8	7	5	19 y. 4 m.	20 y. 11 m.	22 y. 10 m.	
1810-15	1	4	12	35	68	69	58	38	40	15	6	6	4	8	19 y. 8 m.	20 y. 11 m.	22 y. 10 m.	

Source. Number of students of each age at time of graduation, by decades, compiled from information in F. B. Dexter, *Biographies and Annals*.

Characteristic Age Profiles at Graduation



YALE COLLEGE: AVERAGE AND MEDIAN AGES AT GRADUATION, 1816-1860

Year	Average Age	Average Age	Median Age	Year	Average Age	Average Age	Median Age
1816	21 y. 8.4 m.		21 y. 3.0 m.	1842	22 y. 3.7 m.		21 y. 9.0 m.
1817	23 y. 1.2 m.		22 y. 2.5 m.	1843	22 y. 4.0 m.		21 y. 3.0 m.
1819	20 y. 8.0 m.		20 y. 6.5 m.	1844	22 y. 5.7 m.		21 y. 7.5 m.
1822	21 y. 9.2 m.		20 y. 9.5 m.	1845	21 y. 11.5 m.		21 y. 5.0 m.
1824	21 y. 9.4 m.		20 y. 10.5 m.	1846	21 y. 9.1 m.		21 y. 9.0 m.
1826	22 y. 2.0 m.		20 y. 11.0 m.	1847	22 y. 1.6 m.		21 y. 5.0 m.
1828	21 y. 7.1 m.		20 y. 1.5 m.	1848	21 y. 8.6 m.		21 y. 1.5 m.
1830	20 y. 5.0 m.		20 y. 0.0 m.	1849	22 y. 2.8 m.	(22 y. 4 m.)	22 y. 0.5 m.
1832 *	22 y. 7.4 m.		22 y. 2.0 m.	1850	22 y. 0.7 m.	(21 y. 11 m.)	21 y. 7.0 m.
1833	22 y. 3.5 m.	(22 y. 4 m.)	21 y. 2.0 m.	1851	23 y. 1.6 m.		21 y. 7.5 m.
1834	22 y. 0.7 m.		21 y. 6.0 m.	1852	22 y. 0.3 m.		21 y. 4.0 m.
1835	22 y. 1.5 m.		21 y. 4.0 m.	1853	21 y. 8.8 m.	(22 y. 2 m. 10 d.)	21 y. 2.5 m.
1836	22 y. 6.3 m.		21 y. 7.0 m.	1854	22 y. 3.1 m.		21 y. 5.5 m.
1837	21 y. 8.2 m.	(21 y. 10 m. 19 d.)	21 y. 1.0 m.	1855	21 y. 11.6 m.	(21 y. 11.6 m.)	21 y. 5.0 m.
1838	22 y. 8.2 m.	(22 y. 6 m.)	22 y. 4.0 m.	1856	21 y. 10.7 m.	(21 y. 8 m.)	21 y. 8.0 m.
1839	22 y. 5.5 m.	(22 y. 3 m.)	21 y. 11.0 m.	1857	22 y. 5.0 m.	(22 y. 5 m. 20 d.)	21 y. 11.0 m.
1840	22 y. 1.3 m.		21 y. 4.0 m.	1858	22 y. 4.5 m.		22 y. 0.5 m.
1841	21 y. 4.0 m.	(21 y. 10-1/3 m.)	20 y. 11.5 m.	1859	22 y. 8.6 m.	(22 y. 6 m.)	21 y. 11.5 m.
				1860	22 y. 7.5 m.	(22 y. 6 m.)	21 y. 10.0 m.

*Year of rebellion--younger students left class.

Source. Figures calculated from the information on birth dates in the classbooks. Figures in parenthesis are estimates originally worked out by certain classbook editors.

AGE DISTRIBUTION AT GRADUATION, BY CLASSES: 1835-1850
 Numbers of whole class in each age group.

Year	Total	Age Groups														
		17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1835	65	7	9	15	7	5	3	7	6	1	2	2	2	2	1	*
1836	73	2	12	6	18	9	7	3	4	3	2	3	1	1		
1837	96	4	17	24	16	13	9	2	4	4	3					
1838	66	4	12	9	6	9	3	9	5	2	1	4	1	1		
1839	60	7	11	16	5	8	6	9	6	4	1	4	1			*
1840	97	6	17	17	15	11	6	10	5	3	2	4				1
1841	78	1	4	18	16	10	8	6	5	2	3	1	3		1	
1842	102	3	14	20	19	10	12	9	4	6	4	1	1			1
1843	57		8	13	11	5	5	5	5	3						
1844	36	1	2	8	9	3	4	4	1	1	3					
1845	72	2	1	10	15	16	8	7	2	2	3	5				
1846	80	1	6	12	14	13	11	6	7	1	5	2		1	1	
1847	124	1	5	14	31	27	12	8	8	6	3	4	2	2		*
1848	74	1	13	19	13	13	7	2		2	2	2				*
1849	76	3	11	11	12	10	8	9	4	3	3	1				
1850	67	4	7	14	12	11	3	6	5	2	2	1				
1851	76	1	1	9	14	17	13	8	4	4	1	1	2	1		
1852	82	4	7	20	21	5	8	10	3	1	2					1
1853	108	3	9	34	26	12	11	7	1	3	1	1				
1854	100	1	1	9	18	28	11	11	7	5	2	6	1			
1855	85	1	8	21	25	12	5	4	3	3	1				2	
1856	93	1	2	11	15	26	17	7	9	2	1	1				
1857	99	2	7	22	20	17	7	7	10	4	1	1				*
1858	100	6	11	14	18	15	14	8	4	7	1	1	1	1		
1859	102	2	4	12	33	15	12	8	4	4	5	2	1			

Source. Figures compiled from information in the Classbooks.

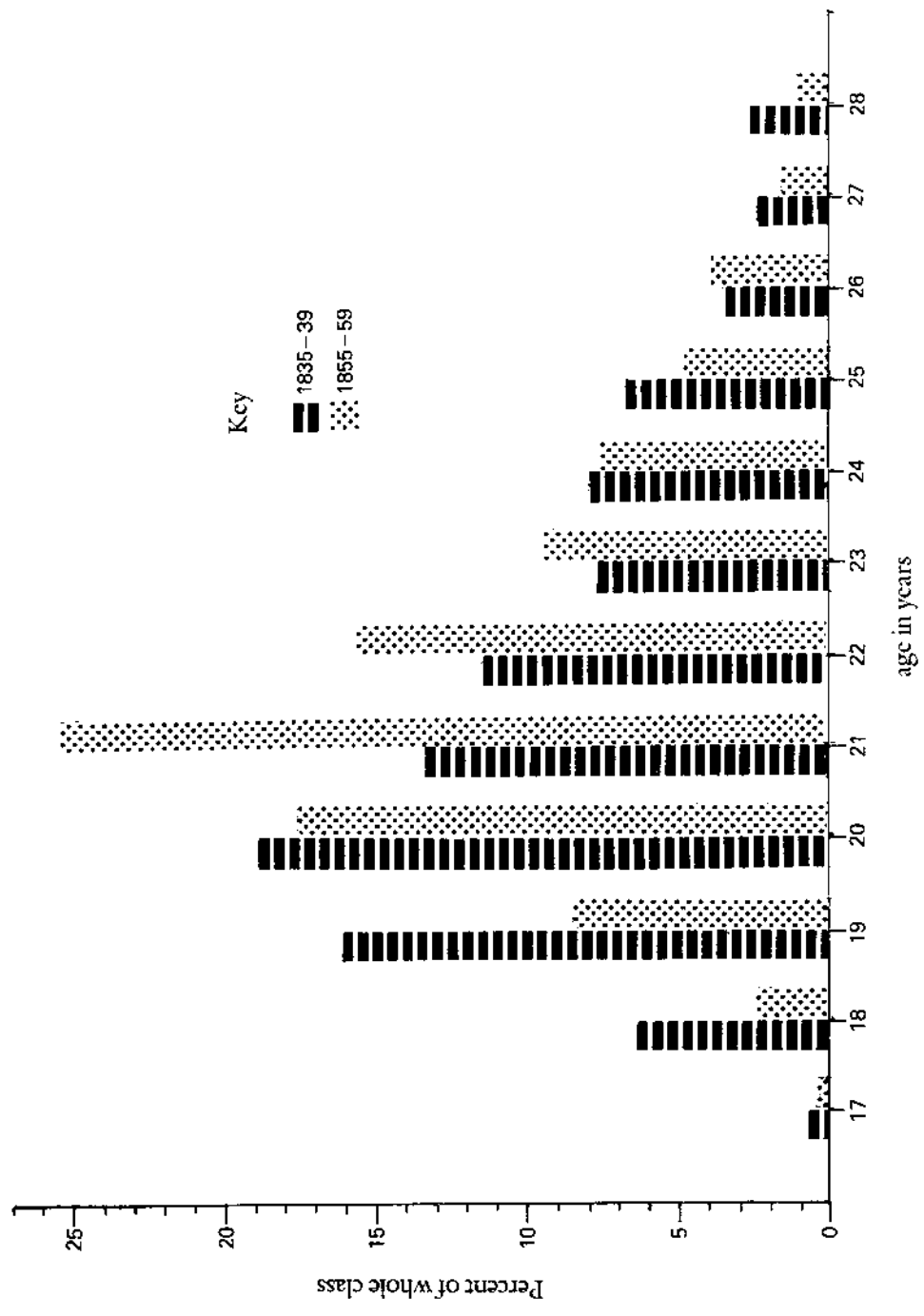
* 1 man at age 33 in 1836; 1 man at age 35 in 1847; 1 man at age 32 in 1849; 1 man at age 32 in 1857.

AGE DISTRIBUTION AT GRADUATION BY GENERATIONS, 1835-39 to 1855-59
Summary to show percentages of each generation in each age group

Classes	No. of students	Age Groups											
		17	18	19	20	21	22	23	24	25	26	27	28
1835-39	380	.26	6.32	16.05	18.95	13.68	11.58	7.37	7.89	6.58	3.68	2.37	2.89
1840-44	370	.27	3.78	15.95	20.00	17.30	10.00	8.92	8.92	4.59	4.32	2.70	2.43
1845-49	426	.94	3.76	14.08	21.13	19.01	12.91	8.45	6.57	3.05	3.76	3.76	1.17
1850-54	433	.46	3.00	9.47	23.09	24.02	12.01	9.47	7.85	4.16	2.08	2.54	.92
1855-59	479	.21	2.72	8.56	17.54	25.47	15.87	9.39	7.52	4.80	3.97	1.67	1.04

Source. Figures compiled from information in the classbooks.

Age Distribution at Graduation The Changing Profile, 1835-1859



YALE COLLEGE: AVERAGE AND MEDIAN AGES AT GRADUATION, 1861-1886

Year	Average Age (Wright)	Average Age (Class Books)	Median Age (1915 Report)	Year	Average Age (Wright)	Average Age (Class Books)	Median Age (1915 Report)
1861	22 y. 2 m.			1874	22 y. 3 m. 25 d.		
1862			22 y. 1 m.	1875	22 y. 3 m. 0 d.		
1863	22 y. 10 m. 17 d.			1876	22 y. 0 m. 29 d.		
1864	22 y. 0 m. 7 d.		22 y. 5 m.	1877	22 y. 6 m. 6 d.		
1865	22 y. 10 m. 10 d.		22 y. 6 m.	1878	22 y. 7 m. 11 d.		
1866	22 y. 2 m. 20 d.	22 y. 4 m. 17 d.		1879	22 y. 6 m. 16 d.		
1867	22 y. 5 m. 19 d.	22 y. 3 m. 19 d.		1880	22 y. 7 m. 23 d.		
1868	22 y. 7 m. 6 d.	22 y. 4 m. 28 d.		1881	22 y. 9 m. 26 d.		
1869	22 y. 2 m. 18 d.	22 y. 0 m. 29 d.		1882	22 y. 8 m. 4 d.		
1870	22 y. 5 m. 19 d.	22 y. 6 m. 14 d.		1883	22 y. 5 m. 29 d.		
1871	22 y. 9 m. 25 d.	22 y. 8 m. 3 d.		1884	22 y. 5 m. 21 d.		
1872	22 y. 5 m. 24 d.			1885	22 y. 7 m. 11 d.		
1873	22 y. 0 m. 16 d.		22 y. 11 m.	1886	22 y. 8 m. 13 d.		

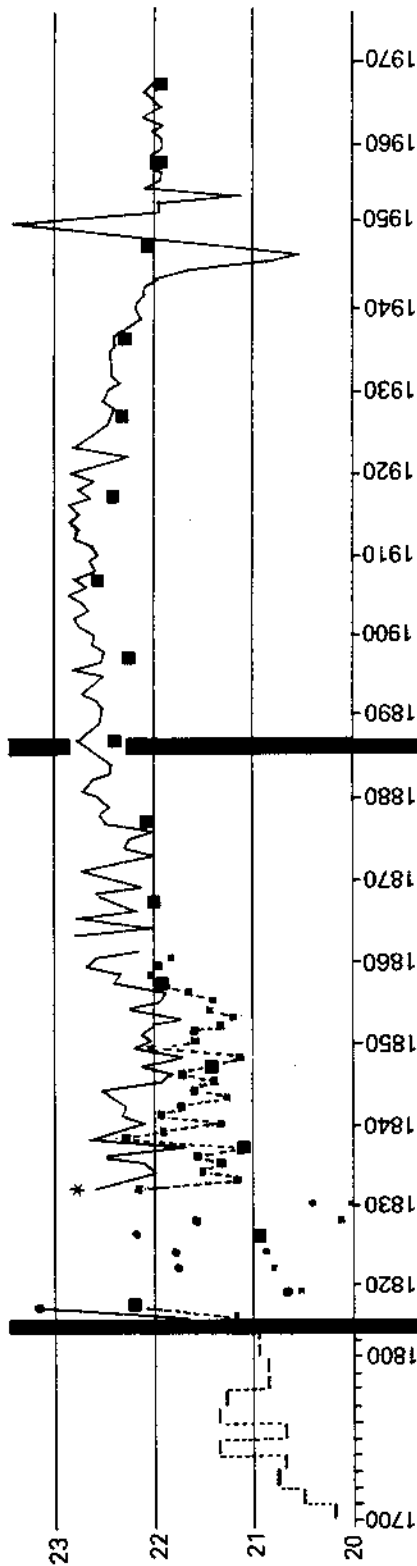
Sources. Average ages for 1863-1886 were taken from a statistical study by Dean Henry Parks Wright, published in Reports of the President and Deans, 1901-1902, pages 42-50. Other figures were drawn from classbook statements and from a 1915 report found in the Samuel H. Fisher Papers.

YALE COLLEGE: AVERAGE AND MEDIAN AGES AT GRADUATION, 1887-1967

Class and Year	Average Age	Median Age	Class and Year	Average Age	Median Age	Class and Year	Average Age	Median Age
1887	22.81	22 yrs. 5 mos.	1918	22.79		1946	20.20	
1888	22.73		1919	22.67		1946N	20.31	
1889	22.60		1920	22.87		1946M	20.34	
1890	22.59		1921	22.57		1946JU	20.44	
1891	22.55		1922	22.30		1947N	21.61	22 yrs. 1 mo.
1892	22.60		1923	22.85		1947M	22.44	
1893	22.76		1924	22.73		1948	22.45	
1894	22.64		1925	22.58		1949	22.95	
1895	22.54		1926	22.52		1950	23.45	
1896	22.86		1927	22.46	22 yrs. 4 mos.	1951	21.95	
1897	22.53		1928	22.42		1952	21.95	
1898	22.53	22 yrs. 3 mos.	1929	22.52		1953	21.15	
1899	22.67		1930	22.49		1954	22.15	
1900	22.66		1931	22.36		1955	21.95	
1901	22.78		1932	22.41		1956	21.95	
1902	22.85		1933	22.41		1957	22.05	22 yrs. 0 mos.
1903	22.69		1934	22.43		1958	22.05	
1904	22.77		1935	22.43		1959	21.95	
1905	22.90		1936	22.36		1960	21.95	
1906	22.71		1937	22.34		1961	22.05	
1907	22.83		1938	22.25		1962	21.95	
1908	22.63	22 yrs. 7 mos.	1939	22.16		1963	22.15	
1909	22.69		1940	22.20		1964	21.95	
1910	22.60		1941	22.19		1965	22.05	
1911	22.68		1942	22.16		1966	22.15	
1912	22.83		1943	22.15		1967	22.05	22 yrs. 0 mos.
1913	22.79		1944	21.59				
1914	22.87		1945	21.15				
1915	22.79		1945W	20.69				
1916	22.86		1945W	20.71				
1917	22.68	22 yrs. 5 mos.	1945WF	20.48				

Sources. For want of reliable statistics at graduation, or the manpower to analyze the classbooks of eighty classes in a constantly enlarging undergraduate population, the average ages at graduation have been estimated by adding 3 years and 9 months (3.75 years) to the average ages of each class at entrance, as supplied by T. Erwin Blesh in 1967, in part from earlier calculations by William Deegan, Assistant, Physical Education Department, Yale University (see Table B-4.9). By exception for the War classes (1944-1947M) the actual time spent at Yale was added to the average age at entrance to obtain an estimated average age at graduation. Median ages were calculated from the classbooks of the relevant years during 1969-70 by R. R. Willson, Class of 1971.

Average and Median Age at Graduation, 1701-1967



— Median Age by Year
 - - - Decade Averages 1701-1815
 . . . Median Age at Ten Year Intervals

We have no information for the classes of 1818, 1820, 1821, 1823, 1825, 1827, 1829, and 1831; and the figures for the classes of 1822, 1824, 1826, 1828, 1830, 1843, and 1844 are based on incomplete returns (up to 50 unknown).

The eccentric age levels shown for the class of 1817 probably are due to an insufficient sampling: we have data on fewer than a third of the class.

* Because of the Conic Sections Rebellion, this class lost many of its younger men.

Source: Table B-4.3

The Average Ages at Graduation have been estimated by adding 3.9 years to the average age of each class at entrance, 1887-1967. During the years 1944-1948 the course of study was accelerated, and the average age was estimated by adding actual time enrolled for each class.

Median ages were calculated from the Classbooks at 10-year intervals.

exercises, if not always in the schoolboy mischief and excitements of college life. A few would not graduate until in their mid-thirties, yet Dean Wright still thought their later careers showed that it was better to enter college late than not at all.

Until the War of 1812, as we can see, the median age of most graduating classes was apt to be between 20 and 21 or just under 21--but in the nineteenth century it began to exceed 21, and after the Civil War it rose to more than 22 (while the average ages continued at a still higher level until the mid-1920s). Whether popular custom or College Laws--or both--were responsible is not clear. Late in the administration of "Pope" Timothy Dwight a barrier against children was formally erected when it was ruled that "no person shall be admitted into the Freshmen Class till he has completed his 15th year; nor to advanced standing, without a proportional increase of age." Apparently this proved too drastic, for in 1817 the laws required instead the completion of the 14th year--which regulation continued until 1873 when 15 full years were again required; and this time the regulation stuck, and continued to 1912, when all age specifications were dropped.

Whatever the explanation, our tables show that by World War I the average and median ages of the graduating Seniors were much closer together than they had been and were each approaching 23 years: a net increase of more than two years in two centuries (cf. graphs B-4.6 and B-4.9).

Then the curve flattened and tilted down; and our figures record the slow drop. in median and average ages alike, to an expectation of graduation at almost exactly 22 years.

Whether the number of advanced-placement students, and three-year B.A.s, and pressure for earlier graduation will now level off, or will continue to lower the graduating ages remains to be seen. Quite possibly the recruitment of minority and disadvantaged students will have just the opposite effect.

Perhaps there is an irony concealed in the fact that almost to World War II the older professors, and notably C. B. Tinker, always referred to the undergraduates as "boys," but for the junior faculty between the Wars, as for everyone after World War II, though the students were now a little younger again, they were always "men."

Until 1969--and the arrival of women.

Thanks to the post-Civil War enthusiasm for sports, the interest in physical fitness, and the persistent efforts of the directors and medical men associated with the successive gymnasiums, the College took systematic measurements of its freshmen from 1883--and gradually built up an astonishing physical record.

At times, and especially in the early years, not all the freshmen came to the gymnasium or allowed themselves to be interrogated and measured. In 1883, for example, out of an entering class recorded as 254 strong only 108 left the record of their ages, and only 78 weights were computed, though 162 men were scaled for height. By 1900, however, the College was succeeding in measuring and weighing two out of every three freshmen; and from 1919 forward the sampling ranged from above 90 to almost 100 percent. So we can estimate the physical changes in a self-selected and highly educated fraction of the American population across more than eighty years. And what the figures tell us is impressive.

In the long view our young college-going Americans have seemingly been growing much heavier and taller--yet at the same time younger on their entrance to college. Thus, in the middle '80s the Yale freshmen seem to have averaged just under or just over 19 years of age, to have weighed on the average from 133 to 137 pounds, and a typical specimen might have stood 5 feet 7.5 inches tall. While a few six-footers appeared among these freshmen, not one in twenty could claim that altitude. By contrast, the generation of the 1960s, eighty years later, would enter at an average class age of 18.3 years, weigh 160 pounds, and stand 5 feet 10.3 inches tall--and one in every four or five freshmen would scrape the bar at six feet or better.

These changes were not distributed evenly across the years. The class of 1896, on entering in 1892, was the first to enroll with more than eight percent of its membership over six feet tall, and the first class also to weigh on the average over 137 pounds. Thereafter there seem to have been few gains and only minor relapses until the year 1909, when the average weight for the first time topped 140 pounds and the average height reached a plateau of 68.4 inches.

After World War I the great changes began. Starting in 1921 with the class of 1925 the average age began to drop from 19 to 18.8 to 18.7 to 18.6 to 18.5 in 1934, and finally to 18.1 in 1942 for the class of 1946 (the youngest of this century). Meanwhile the average weight rose faintly in the 1920s, more

FRESHMEN OF YALE UNIVERSITY: VITAL STATISTICS

Records showing the average age, weight, height
and percent of students over six feet for the entering classes, 1883-1967

YEAR	CLASS	No. of Men in Class	Average AGE (years)	No. of Ages Computed	Average WEIGHT (pounds)	No. of Weights Computed	Average HEIGHT (inches)	No. of Heights Computed	Men 6 feet and over	
									No.	Percent
1883	'87	254	19.1	108	137.8	78	67.7	162	7	4.3
1884	'88	219	19.0	139	136.9	116	67.8	139	9	6.4
1885	'89	226	18.9	203	136.2	219	67.5	219	10	4.5
1886	'90	267	18.8	252	133.5	255	67.5	255	11	4.3
1887	'91	314	18.8	300	134.2	299	67.5	299	8	2.6
1888	'92	326	18.9	298	134.7	306	67.6	306	10	3.2
1889	'93	340	19.0	271	135.5	292	67.6	293	13	4.4
1890	'94	394	19.0	302	135.0	305	67.7	307	12	3.9
1891	'95	469	18.8	328	136.3	277	67.9	278	13	4.6
1892	'96	508	19.1	226	137.7	237	68.0	237	20	6.4
1893	'97	546	18.8	299	133.7	257	68.0	257	4	1.5
1894	'98	588	18.8	381	136.8	378	68.0	381	27	7.1
1895	'99	479	18.9	248	138.5	326	67.9	328	16	4.8
1896	1900	527	18.9	342	138.9	339	68.1	339	18	5.3
1897	'01	482	19.0	329	137.0	376	67.9	377	19	5.0
1898	'02	526	19.1	420	135.4	414	68.0	416	18	4.3
1899	'03	532	18.9	428	137.5	433	68.2	434	28	6.4
1900	'04	546	19.0	400	137.0	405	68.1	405	23	5.6
1901	'05	612	19.2	424	138.1	418	68.1	419	25	5.9
1902	'06	609	19.0	407	136.1	406	68.3	406	29	7.1
1903	'07	767	19.1	498	138.3	496	68.4	497	37	7.4
1904	'08	738	18.9	415	136.1	408	68.1	408	23	5.6
1905	'09	785	18.9	424	136.7	428	68.0	428	27	6.3
1906	'10	756	18.9	430	138.6	460	68.0	461	28	6.0
1907	'11	785	18.9	471	137.4	479	67.9	478	21	4.3
1908	'12	785	19.1	444	138.9	459	68.2	459	25	5.4
1909	'13	747	19.0	473	140.9	430	68.4	430	29	6.7
1910	'14	782	19.1	477	139.3	506	68.5	506	36	7.1

Source: Data supplied by Erwin T. Blesh, Associate Professor of Physical Education, in 1967.

YEAR	CLASS	No. of Men in Class	Average AGE (years)	No. of Ages Computed	Average WEIGHT (pounds)	No. of Weights Computed	Average HEIGHT (inches)	No. of Heights Computed	Men 6 feet and over No.	Percent
1911	'15	835	19.0	476	142.1	492	68.3	491	38	7.7
1912	'16	849	19.1	545	140.9	501	68.4	501	34	6.7
1913	'17	837	18.9	484	142.0	505	68.4	505	41	8.1
1914	'18	874	19.0	481	141.3	478	68.6	478	47	9.6
1915	'19	907	18.9	476	143.1	454	68.7	455	49	10.7
1916	'20	792	19.1	637	142.0	706	68.4	707	65	9.2
1917	'21	585	18.8	513	140.0	532	68.3	532	47	8.8
1918	'22	809	18.6	90	121.2	18	64.8	18	-- none --	
1919	'23	781	19.1	687	142.0	659	68.4	660	67	10.1
1920	'24	679	19.0	634	140.2	662	68.9	660	71	10.7
1921	'25	860	18.8	756	142.7	826	69.1	856	117	13.7
1922	'26	883	18.8	776	143.6	785	68.8	765	82	10.7
1923	'27	860	18.7	770	141.5	798	69.0	750	99	13.2
1924	'28	881	18.7	794	143.9	800	69.1	849	128	15.0
1925	'29	863	18.8	810	142.8	847	69.0	848	120	14.1
1926	'30	879	18.7	818	143.3	878	69.3	878	130	14.8
1927	'31	877	18.6	807	143.8	877	69.1	879	137	15.6
1928	'32	894	18.7	847	142.3	861	69.3	880	135	15.3
1929	'33	833	18.7	798	144.6	830	69.5	830	141	16.9
1930	'34	850	18.7	799	145.4	832	69.4	832	152	18.2
1931	'35	853	18.7	851	145.6	853	69.6	853	141	16.5
1932	'36	883	18.6	879	147.1	880	69.7	880	144	16.3
1933	'37	839	18.6	782	148.6	829	69.6	829	150	18.0
1934	'38	781	18.5	716	148.1	778	69.5	777	132	16.9
1935	'38	878	18.4	871	149.1	863	69.8	864	160	18.5
1936	'40	846	18.5	843	149.0	842	69.7	842	158	18.7
1937	'41	859	18.4	834	149.7	842	69.8	842	124	20.6
1938	'42	855	18.4	851	152.1	850	69.9	848	165	19.4
1939	'43	836	18.4	836	151.1	836	70.0	836	168	20.0
1940	'44	859	18.4	859	151.6	856	70.1	856	188	21.9

YEAR	CLASS	No. of Men in Class	Average AGE (years)	No. of Ages Computed	Average WEIGHT (pounds)	No. of Weights Computed	Average HEIGHT (inches)	No. of Heights Computed	Men 6 feet and over No.	Percent
1941	'45	981	18.3	881	151.1	880	70.0	980	222	22.6
1942	'46	1207	18.1	1205	150.8	1205	70.0	1205	267	22.1
1943	'47	678	17.7	678	148.5	656	69.8	656	132	19.5
1944	'48	633	17.7	617	149.9	617	69.9	617	123	19.9
1945	'49	78	19.2	73	150.2	73	69.8	73	18	24.6
1946	'50	1067	19.7	1066	155.5	1066	70.2	1066	176	16.5
1947	'51	1048	18.2	1048	154.5	1048	70.2	1048	189	18.0
1948	'52	1177	18.2	1177	153.6	1177	70.2	1177	207	17.6
1949	'53	1125	18.4	1124	155.7	1124	70.5	1124	197	17.5
1950	'54	1050	18.4	1049	158.6	1049	70.5	1049	211	20.1
1951	'55	1168	18.2	1167	156.0	1167	70.3	1167	211	18.9
1952	'56	1018	18.2	1017	156.0	1017	70.2	1017	229	22.5
1953	'57	1032	18.3	1031	159.0	1031	70.4	1032	214	20.7
1954	'58	1002	18.3	1001	160.0	1001	70.4	1001	252	25.1
1955	'59	1007	18.2	1007	160.0	988	70.4	988	302	30.6
1956	'60	1013	18.2	1012	158.0	1012	70.5	1012	299	28.5
1957	'61	1007	18.3	1007	157.0	1007	70.5	1001	294	29.4
1958	'62	1004	18.2	944	158.0	1000	70.4	1001	267	26.7
1959	'63	1030	18.4	1018	157.0	1020	70.3	1020	278	27.2
1960	'64	1001	18.2	999	159.0	995	70.5	995	268	26.0
1961	'65	1032	18.3	1025	159.0	996	70.5	996	279	28.0
1962	'66	1022	18.4	1013	159.3	1017	70.3	1017	254	25.0
1963	'67	1035	18.3	1009	160.0	1009	70.3	1009	238	23.5
1964	'68	1057	18.3	1055	158.5	1055	70.3	1055	263	24.8
1965	'69	1053	18.3	1049	157.0	1039	70.4	1039	273	26.0
1966	'70	1025	18.2	1000	154.9	998	70.0	997	206	20.6
1967	'71	1028	18.2	935	156.8	942	70.2	930	242	26.0

Obit. These figures can be carried no further. With the coming of women to Yale, they would, in any case, have had to be changed. But with the arrival of the NOW generation of students and their insistence on individual privacy and their resentment of institutional requirements, it became very difficult to get them in to be examined. I am told that the Deans also hesitated to enforce the requirement. So the statistics for the men were dropped. And, as yet, no way has been found to resume them. -- G.W.P., Jan. 1974.

markedly in the 1930s, and reached 152.1 pounds in 1942, on the eve of American participation in World War II. As soon as the War was over the weight climb resumed until it hit an average of 160 pounds in the fall of 1954 and 1955 and again in 1963--a net gain in eighty years of some 23-27 pounds per man. Meanwhile the age average had bounced back from the low of 18.1 to about 18.3.

The really spectacular shift perhaps came in the height of Yale's freshmen. In 1915 (class of 1919) for the first time the six-footers constituted more than ten percent of the class sample examined on entrance. This beanpole percentage rose to 15 percent for the class of 1928, to 18 percent for the class of 1934, to more than 20 percent for the class of 1941--and then, after an interval, there came the extraordinary leap to 25 percent for the class of 1958 and to more than 30 percent for the class of 1959--after which came a slight two-step recoil to 26-29 percent for the next five years, then 20-26 percent for the years 1962-67. On the average the tallest delegations of students ever to have entered Yale seem to have been concentrated in the years 1949-1965.

Finally, in the most recent years one seems to notice signs of a faint decline in height and weight, but the statistics and our table end before we can learn whether the new admissions policies of the 1960s were changing the physical as well as the social constitution of the men now coming into Yale College.

B-5. Housing

B-5 Housing

Introduction: On the Housing of Yale Students

Contrary to the general impression, the housing of students for much of Yale's history has fallen a little short or very considerably short of the collegiate ideal of total and supervised accommodations.

From the very earliest times the governors of Yale believed in the social values of community living and the moral values both of supervision and of separation from the town. Yet Yale's reputation and enrollments kept growing faster than Yale's physical resources. So again and again there were not enough dormitory rooms and beds to go around; almost always a few of the students preferred to make their own more economical living arrangements with faculty families or in the town; and at certain periods--notably just before and after the turn of this century and again just before and after 1970--an appreciable number of the students seem to have preferred the greater freedom outside. Yet the ideal of collegiate living has persisted and even gained increasing emphasis.

In the years of precarious beginnings, of course, the little Collegiate School in Killingworth/Saybrook was not even collegiate--for it owned no buildings, and the handful of students had to board with the Rector or live around. Then from 1718, when the School moved to New Haven and occupied its brand new building or College, completed with the aid of Elihu Yale and named Yale College, the "sons of Yale" were for a time very well provided. Yet within 20-30 years, with student numbers rising to eighty and then to more than a hundred, they overflowed "Yale College," and another collegiate structure, Connecticut Hall, had to be built.

Again, in the Revolutionary Years, when the delapidated "old college" had to be torn down, there was a severe housing shortage--which perhaps helped ease the way into the compromise with the State whereby the Governor and Lieutenant Governor and six senior Assistants came on the Corporation, and in return the State let Yale College have some monies for the enlarging of the

Brick Row. By the 1830s and 1840s and 1850s, however, Yale was the largest college in the country, and (as the first figures in table B-5.1 show)--the Old Brick Row notwithstanding--once again less than one half of the students were living in college-owned buildings: a ratio that improved only slowly and uncertainly through the rest of the nineteenth century.

Meanwhile the students in the new Sheffield Scientific School found themselves entirely on the town. Starting with Berzelius (1848) and Book and Snake (1863) they began adding a group of Greek-Letter fraternities which rented meeting rooms, and then sometimes rooms where their members could live, in place of the dormitories which the School could not afford. Book and Snake seems to have rented the first house in 1874, replaced it with their own "Cloister" in 1888 and enlarged that in 1917. Delta Psi (1868) built a dormitory and meeting hall in 1893 and replaced it with a much larger "St. Anthony" in 1913. Chi Phi (1878) moved through a series of converted "York Halls" until it built its Venetian palace on College and Wall Streets in 1897. Berzelius erected its "Colony" in 1898. Theta Xi (1865) moved from rooms into its new "Franklin Hall" in 1911. Delta Phi (1889) built its "St. Elmo" in 1895 and enlarged it in 1912. And after two temporary arrangements Phi Gamma Delta completed its "Vernon Hall" in 1914. These various society rooming-and-eating halls provided their initiates with college-like accommodations but fell far short of housing all the scientific Juniors and Seniors, to say nothing of the Freshmen. Starting in 1902 Frederick W. Vanderbilt '76S made it possible to buy most of a whole block, and two Scientific School "Van Sheff" dormitories for 177 students were finally built (cf. the figures for 1905-06). Yet many of the Freshmen and non-society upperclassmen could not be accommodated. So by 1915, unless we count a miscellany of roominghouses, perhaps half of the scientific students were still unprovided.

After World War I the completion of the great Harkness Memorial Quadrangle afforded wonderful and romantic accommodation for all the Seniors in Yale College. Yet still a certain number of undergraduates, especially Freshmen, had to live in roominghouses on High or Wall or find individual quarters on other streets nearby.

Then, after 1930, came the building of the ten residential colleges, from the Harkness gift and the Sterling bequest, and these colleges proved so attractive that by World War II almost ninety percent of Yale's undergraduate students were housed and well housed in collegiate buildings: the Freshmen on the Old Campus and the rest in new Quadrangles, each with its own dining hall, common room, courtyard, Fellows' offices, and Master's House.

PERCENTAGE OF UNDERGRADUATES HOUSED IN UNIVERSITY DORMITORIES, 1850-51 to 1915-16

Year	Total Undergrad. Enrollment	Yale College		Sheffield Scientific School		% Undergrads. Living in College-owned Buildings
		Enrollment	No. Living in College-owned Buildings	Enrollment	No. Living in College-owned Buildings	
1850-51	453	432	194 **	21 *	14 **	46%
1855-56	536	473	167	63 *	8 **	33
1860-61	559	521	212	38 *	7	39
1865-66	523	490	224	33	5	44
1870-71	623	522	290	101	3	47
1875-76	779	582	376	197	22	51
1880-81	782	612	396	170	21	53
1885-86	791	563	383	228	34	53
1890-91	1182	832	489	350	6	42
1895-96	1731	1199	720	532	16	43
1900-01	1695	1190	820	505	3	49
1905-06	2207	1322	853	885 *	138	45
1910-11	2243	1226	932	1017 *	215	51
1915-16	2436	1479	1200	957	149	55

Sources. For the years 1850-51 to 1885-86, Catalogue of the Officers and Students in Yale College; and for 1886-87 to 1915-16, Catalogue of Yale University.

General Note. Discrepancies between the enrollment figures in these housing tables and the figures in the A-1 series (above) occur in large part because of uncertainties in the enumerations for the Sheffield Scientific School, but also in a minor way because each catalogue contained both a summary table and an address list (which was divided by schools and classes)--and beginning with 1925-26 these two sets of data were taken in different months of the same academic year (see table B-5, 2).

* The Sheffield Scientific School, which began as courses in analytical and applied chemistry in 1847, and added civil engineering and the Ph. B. degree in 1852, achieved its full title only in 1861 and a separate listing of its students only after 1866. From 1847 to 1866 its courses and students were included under the larger rubric of Department of Philosophy and the Arts, a department which encouraged graduate study in the liberal arts and sciences, in addition to undergraduate students in engineering and the sciences, and a number of special students. Prior to 1861 it has not been possible to distinguish between these different groups of students in the Department of Philosophy and the Arts. And after 1861 the Sheffield Scientific School continued to include special students and graduate students in the sciences and engineering in some of its total enrollment counts. By 1865, however, it appears that some 33 out of a total of 92 were actually candidates for the Ph. B., a cluster which grew to 101 by 1871 and to 197 by 1875-76.

** Whether the University had an interest in certain rooming houses is not altogether clear. Our count does not include for 1850-51: 7 College undergraduates living in St. John's Place, 2 in Townsend Block, 1 in Mitchell Building and 1 at 1 York Square. In the same year 1 scientific or graduate student was apparently living at the Tontine Hotel, and in 1860-61 2 in the Townsend Block and 1 in the Street Building; all counted as living outside.

PERCENTAGE OF UNDERGRADUATES HOUSED IN UNIVERSITY DORMITORIES, 1920-21 to 1946-47

Year	Total Undergr. Enrollm.	Common Freshman Year		Yale College		Sheffield Scientific & Engineering Schools		% in College-Owned Bldgs.
		Enrollm.	No. Living in College-owned Bldgs.	Enrollm.	No. Living in College-owned Bldgs.	Enrollm.	No. Living in College-owned Bldgs.	
1920-21	2385	684	564	997	902	704 **	22	62%
1925-26	3019	850	565 *	1452	1361	717 **	266	64 *
1930-31	3165	846	502 *	1672	1550	647 **	185	71 *
1935-36	3042	875	780	1520	1395	647 **	403	85
1940-41	3098	858	757	1520	1428	722 **	525	87
1946-47	5467	1767	1302 ***	2661 **	2245	1039 **	837	80 ***

Sources. For 1920-21, Catalogue of Yale University for that year; for 1925-26, Catalogue of Yale University for 1926-27; for 1930-31, Bulletin of Yale University: General Catalogue Number; for 1940-41 and 1946-47, Student Directories.

* These counts are uncertain because the University seems to have bought some old rooming houses and used them as freshman dormitories, without clear identification.

** The Sheffield-Engineering enrollment includes certain students not candidates for a degree: 16 in 1920-21, 4 in 1925-26, 2 in 1935-36 and 1940-41, and 16 in 1946-47. In that same year the Yale College count included 71 special students.

*** To accommodate the severe overcrowding by students coming back from the war, the University got permission to erect two quonset colonies; one on the playing fields near the Armory beyond the Bowl and the other on the site of the old tennis courts near the corner of Pierson-Sage Square. The quonset colony beyond the Bowl, located at 70 Central Avenue, housed 17 engineering students and 28 from the College. The quonsets at Pierson-Sage Square, called Sachem Woods Barracks, housed 148 freshmen and 1 upper-classman. None of these quonset colonists have been counted as living in College-owned buildings.

PERCENTAGE OF UNDERGRADUATES HOUSED IN UNIVERSITY DORMITORIES
1950-51 to 1975-76

Year	Total Undergraduate Enrollment	No. Living in College-Owned Buildings	% Living in College-Owned Buildings
1950-51	4243 *	4001	94%
1955-56	3930 *	3789	96
1960-61	3885 *	3759	97
1965-66	4126 *	3976	96
1970-71	4753 *	4261	90
1975-76	5161 *	4487	87

Source. Student Directories

* The total undergraduate enrollment includes certain students not candidates for a degree: 7 in 1950-51 and 1955-56, 10 in 1960-61, 16 in 1965-66, 25 in 1970-71, and 17 in 1975-76.

After World War II the percentage of institutional accommodations seems statistically to improve even further--but these appearances are extremely deceptive. What had happened was that during the War the armed services, in particular the Navy and Marines, had taken the beds out and installed double-decker bunks--which close-packing arrangements Yale retained and used. So the College was now able to house a far larger student population, but at the expense of doubling and tripling the occupancy of the rooms, until in the most recent years the overcrowding became so bad that many upperclassmen, spurred as well by the student alienation of the late 1960s, moved into private arrangements in the immediate environment or further out in town. The coming of coeducation in 1969 perhaps both encouraged and discouraged this dispersion. And had it not been for the deterioration of living conditions in the inner city of New Haven, the outflow might have been far greater. Whatever the balance of discomforts, the percentage of collegiate residents in the Bicentennial year of 1976 stood higher than had been true for most of Yale's long history. Yet essentially the old housing deficits remained, disguised rather than hidden by the overcrowding.

After 275 years one could observe that the collegiate (residential) ideal had rarely seemed stronger. Yet in all its long history, only for two short spans of time--the 1720s and the 1930s--had Yale ever been able to bring its ideal into fully satisfactory physical realization.

B-6. Student Academic Mortality

B-6 Student Academic Mortality

Introduction: Survival Rates and Trends in Academic Mortality

These tables attempt to estimate the numbers and calculate the percentages of entering Freshmen who went through in good order and earned their bachelor's degrees, over the past hundred years. Regrettably, such numbers and percentages can only be approximations. For each winter and spring, at least into the 1930s, a certain number of students would drop back a class and a few Seniors would graduate late; then, after World War II, the delayed graduations seem to have diminished but a few individuals, with advance credits on entrance, took advantage of the opportunity to accelerate, and went through in three or three and a half years. These graduations, behind or ahead of schedule, make our graduating totals for any given year a slightly defective measurement of the ultimate graduating success of that particular class. So, in order to smooth such yearly variations and absorb most of the early or late graduations, our percentage survival rates have been calculated for five-year groups of classes.

A second caveat is in order. To reach these survival rates for Freshmen it has been assumed that all those "entering by transfer" (i.e., after Freshman Year) also graduated. In fact a small percentage (perhaps 4% of the transfers?) did not graduate. The survival rates given in this table are therefore a little lower than the true survival-to-graduation rates, particularly for the classes of 1921-1928. Supposing that--instead of subtracting those entering by transfer from the eventual numbers receiving their bachelor's degrees--one were to add the transfers to the entering Freshmen (i.e., if one were to ask what percentage of those who ever entered an undergraduate class eventually graduated) one would reach survival rates between one-tenth and eight-tenths of a percent higher. For example, the classes of 1956-1960 would show a survival rate of 88.03 percent rather than 87.80 percent.

For the full century covered by this table the average survival rate was just under 82% (81.79%), but with somewhat marked generational variations. Thus, in the days of the old required curriculum under President Noah Porter

(classes of 1876 to 1885) the survival rates seem to have averaged around seventy-five percent--which is to say that three out of every four students who entered as Freshmen actually received their B.A. diplomas. With the coming of optional studies and early electives under Timothy Dwight II, the average survival rates jumped almost ten percent to the neighborhood of eighty-five percent. Then under Hadley and the richer but somewhat more organized curriculum created by the Permanent Officers of Yale College, the survival rates dropped substantially again. And the classes of the War years were so disrupted that eventually only some seventy percent seem to have achieved their bachelor's degrees: a perturbation that even intensified briefly for the first two classes after the War.

In the 1920s, once again as in Porter's day, three out of every four students could look forward to graduation. It was a restless, even riotous, decade, which however saw a distinct increase in attention to studies and intellectual matters, with the revised curriculum generating a seriousness which then carried the students with surprising steadiness through the trials of the Great Depression.

During World War II Yale's classes were both accelerated and badly shaken up, so a tabulation immediately thereafter would have shown a very low rate of success in achieving the bachelor's degree; but later returns and reclassifications have somewhat ameliorated that picture in our table, and the classes of the 1950s returned to the eighty-five percent expectations of Dwight's day. Then came the almost astonishing rise to nearly ninety percent for the 1960s and after.

In the 1960s and 1970s, if the Registrar's records are analyzed, it turns out that very few or even hardly anyone left college for academic reasons. Why? We do not altogether know. One obvious explanation was the increasing richness of the curriculum and the relaxation of absolute requirements--with the result that a student could "shop around" for subjects and for courses that he could pass. Another possible explanation was the tendency to attribute to disturbances in health (especially in mental or emotional health) performances which would once have been treated as simple academic failures and then let the student meet his own problem by temporary voluntary withdrawal. The pass-fail alternatives, so popular in many American colleges of that period, made only a partial inroad into Yale College. Nevertheless the grades showed a steady inflation (for example, it required from year to year an ever increasing number of honors or of A grades to qualify for Phi Beta Kappa).

YALE COLLEGE SURVIVAL RATES: Classes of 1876 to 1910
Statistics of Academic Mortality between Freshman Year and Graduation

Class	Year of Entrance	No. of Freshmen	Entering later by Transfer	No. Receiving B. A. with Class	Class	Survival Rate*
1876	1872-73	162	6 ?	127	1876	-75.00%
1877	1873-74	152	4 ?	120	1877	
1878	1874-75	164	6 ?	133	1878	
1879	1875-76	180	9	138	1879	
1880	1876-77	154	6	122	1880	
1881	1877-78	169	5	130	1881	-76.34%
1882	1878-79	174	6	122	1882	
1883	1879-80	184	7 ?	154	1883	
1884	1880-81	178	8	152	1884	
1885	1881-82	153	4	127	1885	
1886	1882-83	163	5	139	1886	-84.50%
1887	1883-84	167	6	150	1887	
1888	1884-85	141	9	125	1888	
1889	1885-86	134	9	124	1889	
1890	1886-87	163	6	146	1890	
1891	1887-88	208	8	186	1891	-84.65%
1892	1888-89	206	6	182	1892	
1893	1889-90	212	12	185	1893	
1894	1890-91	259	21	239	1894	
1895	1891-92	268	18	249	1895	
1896	1892-93	300	26	278	1896	-84.25%
1897	1893-94	315	16	275	1897	
1898	1894-95	331	22	301	1898	
1899	1895-96	331	16	298	1899	
1900	1896-97	355	18	321	1900	
1901	1897-98	300	17	254	1901	-77.96%
1902	1898-99	333	18	292	1902	
1903	1899-1900	337	34	316	1903	
1904	1900-01	329	34	288	1904	
1905	1901-02	362	40	288	1905	
1906	1902-03	351	46	297	1906	-81.64%
1907	1903-04	381	35	357	1907	
1908	1904-05	346	42	342	1908	
1909	1905-06	343	26	313	1909	
1910	1906-07	333	41	313	1910	

Sources. Annual Catalogues and the Office of Admissions. Transfer figures taken from "Wednesday List" in vault at Yale College Registrar's Office. Degree figures from Tables A-2.4, A-2.6, A-2.8.

* In the calculation of the survival rate for Freshmen it has been assumed that all those "Entering by Transfer" after Freshman year also graduated. In fact a small percentage (perhaps around 4% of the transfers) did not graduate. The survival rates given in this table are therefore a little lower than the true survival rates (and this would be particularly true for the later classes of 1921 to 1928).

YALE COLLEGE SURVIVAL RATES: Classes of 1911 to 1949
Statistics of Academic Mortality between Freshman Year and Graduation

Class	Year of Entrance	No. of Freshmen	Entering later by Transfer	No. Receiving Degree with Class	Class	Survival Rate*
1911	1907-08	345	27	297	1911	-79.42%
1912	1908-09	322	29	292	1912	
1913	1909-10	308	29	288	1913	
1914	1910-11	339	31	293	1914	
1915	1911-12	348	41	307	1915	
1916	1912-13	385	14	318	1916	-71.58%
1917	1913-14	394	21	340	1917	
1918	1914-15	392	33	342	1918	
1919	1915-16	395	21	266	1919	
1920	1916-17	387	19	240	1920	
1921	1917-18	310	43	228	1921	-75.01%
1922	1918-19	338	47	272	1922	
1923	1919-20	418	65	248	1923	
1924**	1920-21**	681**	29**	585**	1924**	
1925	1921-22	866	44	655	1925	
1926	1922-23	886	35	737	1926	-77.66%
1927	1923-24	863	35	688	1927	
1928	1924-25	880	45	720	1928	
1929	1925-26	864	39	710	1929	
1930	1926-27	881	30	726	1930	
1931	1927-28	884	44	728	1931	-75.35%
1932	1928-29	894	26	737	1932	
1933	1929-30	834	33	664	1933	
1934	1930-31	850	27	658	1934	
1935	1931-32	850	24	616	1935	
1936	1932-33	884	40	736	1936	-77.66%
1937	1933-34	839	34	624	1937	
1938	1934-35	781	24	657	1938	
1939	1935-36	878	32	734	1939	
1940	1936-37	848	28	692	1940	
1941	1937-38	859	23	712	1941	-70.21%
1942	1938-39	855	17	641	1942	
1943	1939-40	836	12	653	1943	
1944	1940-41	861	41	812	1944	
1945	1941-42	983	36	396	1945	
1942-43-44-45-46 . . . War Years . . .						

Sources. Annual Catalogues, Office of Admissions, and Office of Institutional Research. Transfer figures taken from "Wednesday List" in vault at Yale College Registrar's Office, and for 1937 forward from O. I. R. files. Degree figures from Tables A-2.8 and A-2.10.

* See footnote, Table B-6.1

** From the opening of the Common Freshman Year in 1920 the calculations include the entire undergraduate body--Scientific and Engineering as well as Academic--i.e., all candidates for the B.A., Ph.B., B.S., or B.E.

VALE COLLEGE SURVIVAL RATES: Classes of 1950 to 1975
 Statistics of Academic Mortality between Freshman Year and Graduation

Class	Year of Entrance	No. of Freshmen	Entering later by Transfer	No. Receiving Degree with Class	Class	Survival Rate*
1950	1946-47	1529	9	1402	1950	-85.81%
1951	1947-48	1169	20	1049	1951	
1952	1948-49	1182	24	984	1952	
1953	1949-50	1128	37	994	1953	
1954	1950-51	1053	28	923	1954	
1955	1951-52	1171	13	985	1955	-87.80%
1956	1952-53	1023	19	925	1956	
1957	1953-54	1033	21	960	1957	
1958	1954-55	1002	23	877	1958	
1959	1955-56	1008	19	913	1959	
1960	1956-57	1033	17	901	1960	-89.40%
1961	1957-58	1006	11	910	1961	
1962	1958-59	1007	15	886	1962	
1963	1959-60	1030	11	935	1963	
1964	1960-61	1000	18	946	1964	
1965	1961-62	1024	51	959	1965	-89.17%
1966	1962-63	1024	52	1010	1966	
1967	1963-64	1037	25	967	1967	
1968	1964-65	1061	20	970	1968	
1969	1965-66	1055	21	957	1969	
1970	1966-67	1021	29	878	1970	-89.68%
1971	1967-68	1023	234 **	1127	1971	
1972	1968-69	1025	160 ***	1131	1972	
1973	1969-70 ****	1259	0	1143	1973	
1974	1970-71	1253	54	1181	1974	
1975	1971-72	1294	72	1188	1975	

Sources. Annual Catalogues, Office of Admissions, and Office of Institutional Research. Transfer figures taken from "Wednesday List" in vault at Yale College Registrar's Office, and for 1937 forward from O.I.R. files. Degree figures from Tables A-2, 10 and A-2, 12.

* See footnote, Table B-6.1

** The class of 1971 received 198 women students by transfer in Junior year and so became the first Yale class to graduate with women members.

*** 147 of these were women admitted by transfer.

**** 230 women admitted as Freshmen: the first Freshmen women in Yale history. The class of 1973 therefore became the first to go through all four years with women members.

A tilting of the admissions process toward academic promise and away from consideration of personality or athletic ability may also have had something to do with the decline in academic mortality--though the decline in SAT scores in the most recent years perhaps undermines that assumption. No doubt the national fashion of going to college, and the intensified competition for entrance to professional schools, had a good deal more to do with the whole matter--as possibly did the sympathy and more relaxed attitude of the College faculty.

It would be a fair guess that the survival rates at some of Yale's chief competitors among the liberal arts colleges and universities have followed similar patterns. The contrast with the State universities, however, would be very great. Being open to all sorts of studies as college preparation, and being unable for political reasons to screen their own state high school applicants for quality with any thoroughness, the State universities long knew a very high mortality. Thus in the 1920s such an institution as Minnesota might lose up to fifty percent of its entering class by the end of their freshman year and might finally graduate no more than twenty to twenty-five percent of all the students it had admitted, male and female. One has only to think about a twenty-five percent survival rate to understand why alumni loyalty in the State university could only have been a pale shadow of that achieved at Princeton and Harvard and Yale. Today, of course, the survival rates of the major public universities have greatly improved--which should show later in alumni support--but one gathers that their rates still do not equal those of the "Ivy Colleges."

One other observation deserves emphasis. At Yale (as no doubt also at Princeton and other liberal arts colleges of limited size and intimate supervision) it has long been harder to get in than to stay in. Once a student has been accepted, our better colleges have tried very sympathetically to make it possible for him or her to keep on and to graduate. Whether this has led to a lowering of standards, either for individual students or across the board, it would be hard to say. Much clearer--as demonstrated by these tables--is the fact that, considering the hazards of life and the levels of academic expectations, the academic mortality or human wastage, over the four-year period required for earning the B.A. degree, has been impressively low.

Had the unmotivated and untalented already been eliminated? That may well be. So one product of this exercise may be the discovery that if Yale has been selective of talent for the nation, much of the choosing or elimination must have occurred at entrance, or perhaps even before.

B-7. Sheffield Scientific School and
School of Engineering

B-7 Sheffield Scientific School and School of Engineering

Introduction: On the Rise and Decline of Engineering

Our figures on Yale's Sheffield Scientific School (1852-1945) and School of Engineering (1833-1961) speak volumes--but also vacuums. By themselves they may invite misinterpretation.

First we must recognize that these tables are quite limited: they span only 110 years of undergraduate science and engineering; and within that stretch of years they record only certain areas or particular programs of scientific activity.

The sciences, of course, had been important in Yale College from the beginning. Mathematics and natural philosophy, as two of the liberal arts and philosophies inherited from Harvard and the European tradition, had been indispensable structural elements in Yale's colonial curriculum; and to these, as was proper, astronomy was soon added. With the nineteenth century a whole galaxy of new sciences came streaming in from the Continent and were incorporated into the academic instruction, so that by 1870 the required B.A. program embraced almost three full years of mathematics, a year of physics, and term courses in chemistry, geology, anatomy and physiology, a little more than a term course in astronomy, a little less in hygiene. By 1876, zoology and evolution had been added. And through the 1880s, as optionals turned into electives, and the required parts of the course of study shrank, the sciences still commanded a good quarter of each B.A. candidate's time--just as in the century since they have never failed to draw from 20% to 30% of the course elections (see C-3 tables).

The early staffing of the academic faculty had testified to the same concern. Thus, the first professorship in Yale College had been dedicated to Divinity but the second to Mathematics and Natural Philosophy, and the fourth to the great pioneer and promoter of American sciences, Benjamin Silliman, who became Professor of Chemistry, Mineralogy, Pharmacy and Geology (see table D-1.1). President Jeremiah Day, with whom and under whom Silliman served, was

a mathematician. And there came to be Denison Olmsted in Astronomy and Natural Philosophy, the two Danas in Geology and in Physics, O. C. Marsh in Paleontology, and in 1871 the quiet, shy, incomparable J. Willard Gibbs, appointed Professor of Mathematical Physics, like all the others in Yale College.

One could name many others since. Nor in the context of the larger university should the growing role of the Medical School in attracting scientists and developing the applications of science to medicine be overlooked.

Civil and mechanical engineering, on the other hand, and chemistry applied to agriculture, and mining and metallurgy, and engineering applied to industry, to economics, or to administration: these were the additions, the creatures, and the special responsibilities, first in 1846-52 of the new Department of Philosophy and the Arts, then of the Yale Scientific School which in 1852 awarded the Ph.B. degree, in 1861 was renamed the Sheffield Scientific School, and under the directorship of the metallurgist George J. Brush, then of Russell H. Chittenden, Professor of Physiological Chemistry, developed its own faculty of distinction, and its loyal student clientele. The distribution of the Sheffield and (later) Engineering School graduates, by fields of study, makes possible some measurement of what was achieved.

To be noted is the substantial overall production of trained engineers. Beginning with just two small programs, in chemistry and its applications and in civil engineering, Yale's Sheffield Scientific School developed systematic three-year instruction also in mechanical engineering, biology (and pre-medical studies), electrical engineering, sanitary engineering, forestry, mining and metallurgy--as well as a general arts and sciences course of study without the classics, which was entitled: Selected Studies in Language, Literature, History and the Natural and Social Sciences. From six or seven graduates in the earliest years the Scientific School progressed to scores, in 1892 to 100, and finally just before World War I to more than 300 Bachelors of Philosophy a year, which surpassed for the moment the total production of Yale College (cf. table A-2.8).

In this surge the growing popularity of the so-called "Select Course" played an important role. It attracted students who wanted a general but non-classical education, with science and social studies, and a modicum of modern language but certainly no Latin. With only three years needed for Yale's Ph.B. degree, and without the engineers' overburden of laboratory work, the Select Course also drew students with social and athletic ambitions. The rivalry with

SHEFFIELD SCIENTIFIC SCHOOL
Distribution of Graduates by Course Programs, 1852-1922

	Civil Engineering	Mechanical Engineering	Electrical Engineering	Sanitary Engineering	Mining Engineering	Mining	Mineralogy	Metallurgy	Industrial Engineering and Chemistry	Chemistry	Natural History	Agriculture	Forestry	Zoology and Botany	Pre-Medical	Combined Medical	Physiological Chemistry and Bacteriology	Biology	Mathematics and Physics	Select Course	Total
1852										6											6
1853	5									13											7
1854	7																				7
1855	7																				7
1856	9									3											12
1857	9									5											9
1858	7																				12
1859	3									4											7
1860	3									3											6
1861	5									1											7
1862	4									2											6
1863	3																				3
1864	3									2										4	9
1865	6									1											5
1866	1									1	1										5
1867	4									2	2										12
1868	7	1			2					1	1										25
1869	11				3					4											26
1870	15				1					2											24
1871	15									4		1									23
1872	10									2								2			22
1873	9	10								1											28
1874	17	6					2			3								5			36
1875	22	9								4	1							2			42
1876	19									7	1							3			49
1877	22	5								3								6			52
1878	7	5								3	1	2						2			39
1879	7	7								3	1	1						5			40
1880	6	10								5	2							6			42
1881	7	13								4	2							8			43
1882	6	9								4		1						7			36
1883	5	15								7	1							8			45
1884	9	16								5								6			43
1885	17	16								6		1						7			69
1886	15	17								6		2						4			51
1887	12	16								10		1						7			59
1888	15	14								7		2						13			77
1889	14	25								7								9			70
1890	19	15								9		1						9			64
1891	14	37								10								6			87

(Continued on next page)

SHEFFIELD SCIENTIFIC SCHOOL
Distribution of Graduates by Course Programs, 1852-1922

	Civil Engineering	Mechanical Engineering	Electrical Engineering	Sanitary Engineering	Mining Engineering	Mining	Mineralogy	Metalurgy	Industrial Engineering and Chemistry	Chemistry	Natural History	Agriculture	Forestry	Zoology and Botany	Pre-Medical	Combined Medical	Physiological Chemistry and Bacteriology	Biology	Mathematics and Physics	Select Course	Total	
1892	25	33							8	1							9			26	102	
1893	23	36							7								10			31	107	
1894	32	35	22						7								15			30	141	
1895	21	23	34						16								16			49	159	
1896	34	35	28						7								9			45	159	
1897	34	28	23						14	1							16			60	176	
1898	17	32	9						9								10			33	110	
1899	22	32	14						23								8			40	139	
1900	33	26	12						9	2							10			43	135	
1901	14	33	13	16					12	1							14			39	142	
1902	11	34	16	5					23			1					10			39	130	
1903	19	22	10	5	5			5	15		2						7			43	133	
1904	32	28	15	4	10			4	14		3						11			53	174	
1905	21	32	22	1	15			1	11		7						9			47	166	
1906	51	40	30	1	17			9	16		1						5			43	213	
1907	38	37	40	2	12	1		7	15		12						10			43	217	
1908	53	46	39	3	29			9	12		7						7			67	272	
1909	48	34	24	1	20		1	4	13		15						7			57	224	
1910	36	40	34	4	15			7	12		10						6			53	217	
1911	38	39	33	3	21			21	15		14	2					9			78	275	
1912	56	56	15	10	16		1	7	18		17						12			97	305	
1913	38	50	25	7	16			6	20		20	3					9	2		98	284	
1914	28	63	26	10	13			12	17		12	1					15	4		123	324	
1915	27	70	27		6			4	29		8	1					16			97	285	
1916	44	54	41		6			4	17		7	1					12	2		101	287	
1917	17	61	24		6			8	20		7						13	3		80	239	
1918	10	26	15		1				24		4		3				11			43	137	
1919	11	38	11		1				26		4		2				9			55	157	
1920	10	31	10		1				26		3		16	8			2			56	163	
1921	23	57	16		5	4			15		3		12	13						148	148	
1922	12	26	12			1			21								2				74	74
Total	1245	1444	640	72	221	6	2	110	21	619	18	12	147	8	33	21	2	412	11	1906	7030	

Sources. The figures in this table differ slightly from the totals in the A-2 series on degrees (above) because the breakdown is taken from the Report of Dr. Russell H. Chittenden, Director, in Report of the President of Yale University, 1906-1907 for years 1852 to 1906; for the years 1907 to 1923 the figures are taken from Catalogue of the Sheffield Scientific School.

SHEFFIELD SCIENTIFIC SCHOOL
Distribution of Graduates by Course Programs, 1923-1932

	Civil Engineering	Mechanical Engineering	Electrical Engineering	Mining Engineering	Metallurgy	Bldg. Construction	Chemical Engineering	Industrial Chemistry	Industrial Engineering	Adminat. Engineering	Science Applied to Engineering	General Science	Geology	Pre-Forestry	Combined Forestry	Zoology & Biology	Plant Science	Biological Science	Pre-Medical	Combined Medical	Physiological Chemistry and Bacteriology	Chemistry	Physics	Mathematics	TOTAL
1923	7	20	16	6	10			16		45	9		6	1					1	7	2	4			150
1924	11	19	15	6	3		11			49			4	3					8	10	2	7			191
1925	11	14	25	3	8	7	5	9		62			1		1		20		10	10	1	8			230
1926	8	22	18	5	1	12	12		51				47	3					20	13	1	11	-	-	225
1927	9	13	19	1	1	23	11		53			48	2	4					20	7	5	5	-	-	218
1928	12	16	14	1	1	16	14		62			43			4	4			13	5	3	9	-	-	219
1929	5	18	18	3	4	12	10		54			51	2			1	9		8	8	7	4	2		208
1930	8	22	17	3	2	17	8		50			40	2			5	13		7	7	9	3	3		203
1931	11	12	12	3	5	7	10		56			37	1			7	11		13		10	1	3		189
1932	10	21	12	1	7	7	11		26							3	12				8	3			121
Total	92	177	167	29	41	101	92	25	352	156	9	353	8	18	4	5	20	65	72	70	9	78	13	8	1964

Source. Figures supplied by the Office of Loomis Havemeyer, Associate Dean of the Sheffield Scientific School and Registrar of the School of Engineering.

SCHOOL OF ENGINEERING AND SHEFFIELD SCIENTIFIC SCHOOL
Distribution of Graduates by Course Programs, 1933-1962

CLASS	SCHOOL OF ENGINEERING								SHEFFIELD SCIENTIFIC SCHOOL													TOTAL	
	Civil Engineering	Mechanical Engineering	Electrical Engineering	Industrial Administration	Metallurgy	Bldg. Construction	Chemical Engineering	Mining Engineering	TOTAL	Science Applied to Industry	Applied Economic Science	Geology	Plant Sci./Forestry	Plant Science	Biological Science	Combined Medical	Psychology	Physiological Chemistry and Bacteriology	Chemistry	Physics	Mathematics		Naval Science
1933	9	18	13		7	8	8	3	66	36	68	1		2	9	2			6	1	3		128
1934	8	14	6		9	2	13	1	53	39	60			3	14	1			6	2	3		128
1935	10	10	6		3	2	11		42	34	58	2		1	17	1			6	4	5		128
1936	8	18	11		3		9		49	39	62	6		4	15	10		2	10	2	4		154
1937	4	15	10				12		41	28	73	3		2	4	3		3	9	2	5		132
1938	7	20	8		5		12		52	40	58		5	1	23	5	2		16	4	3		157
1939	3	22	8		11		20		64	45	57			1	15	8		2	12	1	4		145
1940	7	25	10		4		28		74	36	47	6	1	3	13	2	3		20	3	3		137
1941	5	10	8		3		28		54	38	44	1	4	2	8	7	4	2	16	5	4		135
1942	9	33	13		7		29		91	47	26	5	3	1	7	15	1	2	15	9	7		138
1943	5	27	6		11		27		76	44	41	4		3	14	15	3		21	5	4	1	155
1944	7	37	5		11		27		87	59	19	3			7	31			16	12	1		142
1945	3	27	7		6		23		66	16	1				2	45			19	11		1	95
1945	1	18	4		1		1		25	2													2
1945W	3	17	13		3		20		56	23		1			2	34			7	6	1	4	78
1945WO	8	34	8		3		4		57	8	1	1			1				3	9	1		24
1945WF	4	10	7		3		5		35	6													
1946	16	69	55		1		4		154	9												30	
1946N	20	35	4		1		8		79	11												22	
1946M	8	26	1	19	1		2		57														
1947	22	54	14	95	3		16		204														
1947N	18	16	4	36	2		4		80														
1947M	25	43	34	123	3		30		258														
1948	11	29	16	54	3		13		126														
1949	28	39	30	156	6		19		278														
1949M	5	9	8	20	0		1		43														
1950	33	50	32	170	4		26		315														
1950F	0	4	6	15	0		2		27														
1951	20	36	22	98	4		12		194														
1952	22	40	22	94	2		13		193														
1953	13	44	17	79	2		16		171														
1954	20	36	19	71	2		20		168														
1955	18	34	17	92	1		10		172														
1956	15	40	28	102	3		21		209														
1957	18	40	32	89	4		23		206														
1958	12	23	28	68	4		23		158														
1959	15	30	26	63	5		19		158														
1960	18	26	20	51	2		15		132														
1961	7	22	28	58	2		19		136														
TOTAL	465	1102	606	1553	145	12	593	4	4506	560	609	33	13	23	151	179	13	11	182	76	48	58	1878

Sheffield Scientific School discontinued as an undergraduate school - 1 July 1945

In 1962 the Engineering School was terminated and some elements of its undergraduate programs were absorbed into Yale College.

Sources. Figures supplied by the Office of Loomis Havemeyer, Associate Dean of the Sheffield Scientific School and Registrar of the School of Engineering. For the years 1946M - 1951 the statistics were supplied by the Yale College Registrar's Office.

Yale College became intense. And in the great reorganization of 1919-20 the Yale Corporation required a Common Freshman Year and four years of study for all Yale's undergraduates, whether in Ac. or Sheff.--abolished the Select Course--and transferred the social sciences with their non-Latin clientele and the Ph.B. degree into the College.

From 1920 the Scientific School, now with the B.S. degree in four years, continued with its main-line instruction in Civil, Mechanical and Electrical Engineering; added substantial programs in Industrial Engineering and General Science; and made specialization possible in a wider range of the sciences. Yet the attractions of Freshman instruction in the humanities, the upperclass Academic opportunities in the social sciences, and the prospect of seemingly easier or less confining work in the science majors themselves, seem to have arrested the growth of Yale's famous Scientific School.

Then in 1931 Yale College abandoned its requirement of Latin for the B.A. (and dropped the Ph.B. degree); and in 1932 the basic engineering programs were set apart and given their own independent organization in a new School of Engineering, with the B.E. degree. The Sheffield Scientific School kept Industrial Engineering in the form of Science Applied to Industry, and added a new major in Applied Economic Science to its modest enrollments in chemistry, physics, mathematics, biological and pre-medical sciences. But such industrial and commercial applications were apparently not enough to generate the necessary vigor. And in 1945 the Sheffield Scientific School, as an undergraduate division, was discontinued. Applied Economic Science moved to the College, lingered for some seven years, then disappeared. And Science Applied to Industry was transferred to the Engineering School in the form of Industrial Administration.

In turn the Engineering School failed to develop the vigor that had been anticipated. Under President A. Whitney Griswold pressure was brought to make Engineering--like law or medicine or divinity or architecture--a graduate program built upon a more general and diversified undergraduate education. And in 1962 the Engineering School ceased to be a school and became a department of Engineering and Applied Science in the College. In this department metallurgy was dropped but the other engineering components continued, with electrical engineering developing toward electronics, and civil and mechanical engineering converging into the mechanics of solids and fluids; while Industrial Administration as a separate department converted to Administrative Science, and ultimately made its way into the new School of Organization and Management.

By 1976 the decisions had not all been made, but the future of undergraduate engineering at Yale seemed limited.

B-8. Graduate Students: The 1967 Survey
and Recent Statistics

B-8 Graduate Students: The 1967 Survey and Recent Statistics

Introduction: "The Yale Graduate School Alumni: An Overview"

In December 1969 John Perry Miller, Dean of the Graduate School, reporting on a survey of Graduate School Alumni that his office had just completed, began his "Overview" with the following sentences:

The alumni and alumnae of the Graduate School represent about 19 percent of the total alumni of Yale, and their proportion is increasing. For a long time they were the forgotten men and women of Yale. Yet it is to a large extent upon the achievements of these men and women, as well as those of the professional schools, that Yale's reputation as a major university depends. It is the work of these men and women, and their professors, who are engaged in research and education at the highest level, that is the distinguishing characteristic of a major university. These graduates are both male and female. Only the myopic have thought of Yale as a male bastion! These alumni and alumnae are at work throughout the world They are of many nationalities. Although their contributions to the Alumni Fund are modest, their importance to the University as a generator of revenue is enormous. This is best indicated in the Treasurer's Annual Report under gifts and grants from foundations and government, an item which supports about 35 percent of the University's annual expenditures, for it is the past and prospective achievements of the graduate and professional students and their faculty that largely determine the flow of these funds.

"Who are these alumni?", Dean Miller asked. "Where did they come from? What are they doing?" To answer these and related questions, a questionnaire had been sent to 10,864 degree recipients, presumed to be living in 1967. Usable replies had been received from 5,567; and these replies had made possible a series of tables--the most significant of which are here reproduced. On the information thus organized Dean Miller proceeded to make a number of observations.

Beginning with the distribution by discipline, he pointed out that Yale's prominent position in graduate education in the humanities, its early emphasis on the sciences, and its slow development in the social sciences were reflected in the distribution by field, with the humanistic disciplines accounting for 35 percent of the alumni and 39 percent of the Ph.D. recipients, the social

GRADUATE SCHOOL: NUMBER OF DEGREE RECIPIENTS PRESUMED LIVING IN 1967
By Divisions and Departments

	Ph. D.		Masters		Total	
	No.	%	No.	%	No.	%
<u>Humanities</u>						
Total	2378	39	1473	30	3851	35
English	640	11	428	9	1068	10
History	315	5	267	6	582	5
Philosophy	241	4	97	2	338	3
Religious Studies	475	8	203	4	678	6
Romance Languages	216	4	109	2	325	3
<u>Biological Sciences</u>						
Total	1075	18	437	9	1512	14
Biology	315	5	113	2	428	4
Psychology	278	5	88	2	366	3
<u>Physical Sciences</u>						
Total	1627	27	751	16	2378	22
Chemistry	705	12	153	3	858	8
Engineering	127	2	127	4	309	3
Physics	429	7	202	4	631	6
<u>Social Sciences</u>						
Total	697	12	950	20	1647	15
Economics	205	3	416	9	621	6
Political Sci. & Int. Rel.	207	3	356	7	563	5
Education incl. M. A. T.	251	4	930	19	1181	11
<u>GRAND TOTAL</u>	6034	100	4830	94	10,864	97

Source. John Ferry Miller, The Yale Graduate School Alumni: An Overview, December 1969.

Note. In 1967 the total number of living degree recipients from the Yale Graduate School was estimated at 10,864. The total number of living alumni and alumnae (i. e., all those who had registered in the Graduate School for one semester or more and had been candidates for a degree) was about 14,000. The grand totals given in this table include some miscellaneous degrees not here specified.

GRADUATE SCHOOL: YEAR OF RECEIPT OF DEGREE BY ALUMNI IN 1967
By Decades

Year of Receipt of Degree	Ph. D. Alumni	Masters Alumni (Including M. A. T.)	Total
Before 1920	155	162	317
1920-29	364	249	613
1930-39	1005	301	1306
1940-49	946	830	1776
1950-59	1755	1317	3072
1960-67	1809	1971	3780

Source. John Perry Miller, The Yale Graduate School Alumni: An Overview, December 1969.

sciences 15 percent and 12 percent, the biological sciences 14 percent and 18 percent, and the physical sciences 22 percent of the alumni and 27 percent of the Ph.D.s. The six departments responsible for the largest number of living Ph.D. recipients were Chemistry, English, Religious Studies, Physics, History and Biology.

Analyzing the sources of supply, Dean Miller observed that there was a heavy reliance on the more established and prestigious institutions. Seventeen percent of the responding alumni were graduates of 13 outstanding liberal arts colleges or of the "Seven Sisters" (the notable women's colleges on the East coast); 36 percent came from one of the universities in the Association of American Universities; and 8 percent from abroad; while only 4 percent came from the "Big Ten" and the University of Chicago, and 3 percent from Catholic colleges and universities.

Turning to the careers of Yale's Graduate School alumni, Dean Miller noted that 84 percent of those Ph.D. recipients in the humanities on whom we had employment information were engaged in education, as were 70 percent in the social sciences, 61 percent in the biological sciences, but only 42 percent in the physical sciences. Of these educators, 61 held appointments as president or chancellor, 21 as vice-president or provost or vice-chancellor, 17 as dean of faculty or dean of arts and sciences, 59 as dean of college and 13 as dean of graduate school, while 3,740 were known to hold the rank of professor or associate professor or assistant professor. Of these academic alumni 234 were then at Yale; while 38 held such ranks at Cornell, 37 at Wisconsin, 35 each at Columbia and the University of Michigan, 34 at Duke, 30 at Texas, 29 at Princeton, 27 at Stanford, 25 at Berkeley, 22 at Michigan State, 20 each at Harvard and Brown, 17 at Toronto, and 13 at McGill. Also there were 25 professors, associate professors or assistant professors at Wesleyan, 19 each at Smith and Amherst, 18 at Oberlin, 15 each at Wellesley and Bryn Mawr, 14 at Williams, 9 at Vassar and 8 at Swarthmore (figures which were probably understated for lack of full information). Outside of education some 50 were employed at Dupont, 38 at Bell Telephone, 30 at American Cyanamid, 23 at General Electric, etc.

Turning to the question of publication and further research, Dean Miller stated that only 14 percent of the respondents admitted that they had not published anything since earning their Ph.D. degree--while a surprising number had earned additional Ph.D. or professional degrees afterwards.

As for women in the graduate school, apparently Yale's women graduates

GRADUATE SCHOOL: UNDERGRADUATE COLLEGES OF DEGREE RECIPIENTS
RESPONDING TO 1967 ALUMNI QUESTIONNAIRE

Undergraduate Colleges*	Ph. D.		Masters Incl. M.A.T.		Total	
	No.	%	No.	%	No.	%
AAU Universities	1331	39	650	31	1981	36
Selected (13) liberal arts colleges (except Seven Sisters)	303	9	184	9	487	9
Seven Sisters	204	6	262	12	466	8
Big Ten and University of Chicago	166	5	77	4	243	4
Catholic	82	2	88	4	170	3
Other Private U. S. Institutions	946	28	513	24	1459	26
Other Public U. S. Institutions	615	18	334	16	949	17
Foreign Institutions	261	8	188	9	449	8
No Information	<u>18</u>		<u>12</u>		<u>30</u>	
	3437	*	2130	*	5567	*

Source. John Perry Miller, The Yale Graduate School Alumni: An Overview, December 1969.

* Categories overlap so there is duplication.

GRADUATE SCHOOL EMPLOYMENT OF DEGREE RECIPIENTS
RESPONDING TO 1967 ALUMNI QUESTIONNAIRE

	Male		Female		Total		M & F No.	%				
	Masters*		Ph. D.		Masters*				Ph. D.			
	No.	%	No.	%	No.	%			No.	%		
Total Responding to Questionnaire	2928		1355		509		775		1284		5567	
In Education	2129	72	532	39	394	77	451	59	855	66	3516	63
College & University	2088	71	376	27	374	73	187	24	561	43	3025	54
Secondary & Jr. College	41	1	156	11	20	3	274	35	294	22	491	9
Educationally Related	88	3	24	1	18	3	19	2	37	2	149	3
Business & Industry	347	11	213	15	18	3	49	6	67	5	627	11
Military	7		53	3	0	-	0	-	0	-	60	1
Hospital & Welfare	17		19	1	3		19	2	22	1	58	1
Foundation	14		15	1	1		12	1	13	1	42	1
Church & Religious Organizations	49	1	52	3	1		11	1	12	1	113	2
Government	204	6	160	11	27	5	43	5	70	5	434	7
Self-Employed	60	2	64	4	15	2	24	3	39	3	163	3

Source: John Perry Miller, *The Yale Graduate School Alumni: An Overview, December 1969.*

* Including M. A. T.

GRADUATE SCHOOL: PUBLICATION BY PH. D. RECIPIENTS
RESPONDING TO 1967 ALUMNI QUESTIONNAIRE

	No.	%
Published Ph. D. Dissertation and other works	1856	54
Published Ph. D. Dissertation only	187	5
Published other works only	896	26
No publication	<u>498</u>	<u>14</u>
TOTAL	3437	99

Source. John Perry Miller, The Yale Graduate School Alumni: An Overview, December 1969.

GRADUATE SCHOOL: WOMEN DEGREE RECIPIENTS AS
A PERCENT
OF TOTAL BY YEAR OF GRADUATE SCHOOL DEGREE
By Decades

Year of Degree	Percent of Degrees Awarded to Women		
	Ph. D.	including M. A. T.	Total
Before 1920	11	4	8
1920-1929	18	33	24
1930-1939	18	29	20
1940-1949	16	40	27
1950-1959	10	37	21
1960-1967	14	32	24

Source. John Perry Miller, The Yale Graduate School Alumni: An Overview, December 1969.

represented some 14 percent of the living recipients of the Ph.D. and 34 percent of those whose highest degree from Yale was a masters degree (both percentages a little higher than the national averages). Some 60 percent of the responding women graduates held full-time positions, two thirds of those in education at the college or university level.

Dean Miller's report then concluded with an impressive review of the presidencies, public officers, governmental responsibilities, and business positions that had been earned by Yale's Graduate School alumni, including three Nobel Prizes and three editorships of the papers of American founding fathers.

More Recent Tabulations

Dean Miller's report was the result of a survey of living alumni made in 1967. The returns were highly suggestive but necessarily incomplete. Thanks to more recent tabulations by the Graduate School we now have complete returns: since 1960 for fall registration by divisions and departments (with precise figures also for sample years back to 1947); and since the year 1931 for Ph.D. degrees awarded, by departments. The two tables thus generated (B-8.7 and B-8.8) not only bring the story down to 1976 but illuminate Yale's post-graduate development in interesting ways.

One finds, for example, that the total registrations in the humanities and in the sciences were remarkably similar, though in only four years did the sciences surpass the humanities. Just as in Dean Miller's survey, the social sciences prove to have been less strong or at least less inviting; yet some improvement can be detected in the 1970s.

Clearly reflected in the humanities figures are the strength of English and history, the predominance of French among the romance languages, and the rise of Slavic languages and literatures to second place ahead of German among the foreign languages as a whole. The science figures show a rise and decline for astronomy, consistent strength in biology, some apparent tapering in chemistry and physics, considerable increase in psychology, and the beginnings of concentration in human genetics. The steady rise of molecular biophysics is also worth remarking.

In the block of figures on the social sciences one can observe the continuing strength in economics and political science, some improvement in

GRADUATE SCHOOL: TOTAL FALL REGISTRATION BY DIVISIONS AND DEPARTMENTS, 1947-1976

	1947	1952	1957	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Ph. D. Programs	-48	-53	-58	-61	-62	-63	-64	-65	-66	-67	-68	-69	-70	-71	-72	-73	-74	-75	-76	-76
Total	1109	1146	1288	1552	1698	1804	1930	2092	2192	2332	2420	2466	2571	2286	2486	2316	2324	2261	2318	2318
HUMANITIES																				
Amer. Studies	12	19	12	24	29	26	35	35	36	35	28	40	48	50	55	61	63	59	66	66
Classics	15	9	16	24	28	25	23	31	43	41	37	47	49	33	39	34	34	33	25	25
Compar. Lit.	3	13	21	21	19	21	21	23	23	31	36	39	46	40	33	43	50	42	46	46
E. & S. Asian L&I.	-	-	-	9	8	8	11	10	12	15	14	11	11	6	3	5	6	9	15	15
English L&I.	108	95	106	118	114	116	122	114	137	153	155	148	146	125	139	138	160	144	160	160
Germanic L&I.	18	16	10	21	26	28	33	27	31	34	38	34	30	25	23	25	26	21	20	20
History of Art	67	40	62	84	97	106	105	128	126	150	148	142	155	148	134	153	163	158	161	161
Hist. Sci. & Med.	14	14	14	24	32	28	31	31	36	41	43	49	53	45	39	48	54	72	72	72
Hist. of Theater	-	-	-	7	6	7	12	13	16	14	16	14	13	13	18	12	13	11	12	8
Indic, Far E. L&I.	-	6	8	5	6	3	4	7	11	13	10	13	13	8	6	4	2	2	2	2
Indic, Far E. L&I.	11	4	3	6	6	3	4	7	11	11	11	19	25	29	22	23	18	22	20	20
Medieval Studies	-	-	-	-	-	4	7	7	11	11	11	19	25	29	22	23	18	22	20	20
Music	15	19	20	19	16	18	22	24	27	30	36	37	37	35	33	34	38	40	39	39
Near Eastern L&I.	4	4	8	9	11	12	14	12	12	19	18	25	27	26	23	25	29	33	25	25
Philosophy	21	50	69	71	73	67	79	61	74	74	68	73	80	72	66	69	75	76	71	71
Religious Educ.	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Religious Studies	58	49	75	80	80	80	87	95	83	85	88	89	100	89	65	66	65	77	79	79
Romance Languages																				
French	45	36	48	46	69	66	78	72	85	99	110	123	120	111	92	85	85	86	81	81
Italian	1	-	3	2	2	3	6	5	5	7	8	10	10	7	4	8	8	6	7	7
Portuguese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spanish	10	9	10	8	17	12	25	23	24	27	34	32	29	19	15	21	22	22	23	23
Slavic L&I.	-	-	1	11	14	17	28	29	31	32	35	33	32	24	21	27	33	37	38	38
SCIENCES	384	413	410	524	586	652	721	809	829	849	882	894	917	869	835	888	814	769	823	823
Anatomy	3	3	1	4	5	5	6	7	6	5	4	5	6	6	5	5	3	6	4	4
Astronomy	4	4	4	8	13	13	41	26	26	21	18	20	14	11	9	8	9	10	13	13
Bacteriology	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Biochemistry	-	-	11	20	20	24	19	26	27	29	24	21	(Mol. Biophys.)	-	-	-	-	-	-	-
Biology	-	-	-	66	67	67	73	79	103	125	132	127	136	131	117	108	113	113	113	113
Botany	25	21	21	24	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zoology	33	19	34	36	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cell Biology	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: Annual reports of the Dean of the Graduate School, 1964 et. seq. The totals will differ slightly from those given in A-1, 6 and A-1, 7 because the counts were made at a different time of the year.

1947-1976 (Continued)

	1947	1952	1957	1960	1961	1962	1963	1964	1965	1966	1967	1968	1968	1970	1971	1972	1973	1974	1975	1975
	-48	-53	-58	-61	-62	-63	-64	-65	-66	-67	-68	-69	-70	-71	-72	-73	-74	-75	-76	-78
Ph. D. Programs	79	77	85	95	115	129	127	142	143	143	134	130	145	128	111	117	86	77	104	
Sciences (Cont.)																				
Chemistry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Computer Science	-	7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conservation	11	14	4	13	16	18	46	93	113	131	143	137	141	124	93	83	76	68	63	
Eng. & Appl. Scis.	12	14	-	5	6	8	13	13	14	14	12	14	14	20	21	21	21	19	21	
Epidem. & Pub. Hl.	9	7	-	20	17	9	16	14	14	12	15	19	28	32	35	30	28	22	25	
Forestry	27	30	30	29	37	37	34	44	36	43	36	30	34	36	36	45	50	45	44	
Geology & Geophys.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Human Genetics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mathematics	23	32	30	48	57	63	63	65	60	69	63	63	65	57	55	60	52	55	45	
Mental H. Nursing	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Microbiology	-	19	9	16	13	16	15	14	17	19	27	23	20	17	18	25	16	9	7	
Molec. Biophys.	-	7	17	-	27	29	32	37	42	41	42	34	60	58	66	76	76	75	88	
Pharmacology	9	18	4	9	10	15	17	14	15	18	21	25	22	22	27	26	23	28	31	
Physics	80	71	96	137	120	124	140	159	154	168	166	157	139	124	112	133	101	86	81	
Physiology	4	3	3	3	3	8	13	14	14	10	7	9	6	8	11	10	12	8	12	
Psychol. Chem.	12	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Psychology	45	49	51	57	62	67	72	74	75	70	70	77	88	98	109	122	117	115	119	
SOCIAL SCIENCES	163	173	215	264	264	323	321	342	351	360	384	361	365	360	390	417	425	447	438	
Administ. Sci.	-	-	-	-	-	-	-	-	-	-	(Unsubst. Admin.)	28	26	31	32	40	37	43	48	
Anthropology	21	24	22	21	21	21	21	20	18	28	30	36	38	42	39	47	52	58	52	
Economics	30	48	78	111	113	120	113	102	111	111	120	108	116	113	137	134	137	146	148	
Geography	-	2	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	
Industr. Admin.	-	-	-	-	-	39	42	44	41	51	52	(Admin. Sci.)	-	-	-	-	-	-	-	
Internat'l Rel.	35	32	31	37	41	39	44	31	23	(see OTHER PROGRAMS, No longer Ph. D.)	26	26	27	19	21	18	16	18	14	
Linguistics	16	16	11	12	12	18	18	24	28	29	26	26	27	19	21	18	16	18	14	
Political Sci.	31	20	41	52	47	54	52	53	63	97	100	95	86	89	88	97	99	98	92	
Sociology	29	30	29	30	29	29	28	28	37	42	46	55	59	53	55	61	63	66	64	
Statistics	-	-	-	-	-	-	-	-	7	9	12	10	13	13	13	18	20	21	18	
Transportation	1	1	3	1	1	3	-	1	(see OTHER PROGRAMS, No longer Ph. D.)	-	-	-	-	-	-	-	-	-	-	
OTHER PROGRAMS	186	200	172	145	174	189	212	213	228	262	152	136	134	143	94	99	-	-	-	
African Studies	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
East Asian Studies	-	-	2	-	10	15	14	20	22	14	18	13	17	15	11	21	20	23	23	
Foreign Area St.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Russ. & E. Eur. St.	16	-	-	3	4	6	6	12	13	12	9	17	22	14	16	10	14	12	12	
Southeast Asia St.	-	-	-	5	16	14	15	16	10	17	17	21	22	10	3	(no longer Ph. D. Program)	-	-	-	
Internat'l Rel.	-	-	-	-	-	(see listing in Social Sci.)	10	17	17	25	25	22	30	21	22	25	19	16	19	
Transportation	-	-	-	-	-	(see listing in Social Sci.)	1	3	-	3	-	-	-	-	-	-	-	-	-	
M. A. S.	-	-	-	-	-	-	-	-	-	-	23	16	17	25	29	26	8	1	1	
M. A. T.	-	-	-	59	68	53	56	61	60	86	75	78	74	7	(Discontinued)	-	-	-	-	
Education	108	86	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
I. P. A.	-	-	-	-	-	-	-	-	23	7	3	10	7	10	12	18	13	9	9	
D. S. R.	3	-	110	94	91	78	49	54	81	31	56	51	71	61	49	37	46	22	35	

GRADUATE SCHOOL: PH. D. DEGREES AWARDED, BY DEPARTMENTS, 1931-1976

DEPARTMENT	1931	1936	1941	1946	1951	1956	1961	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
TOTAL	585	606	457	615	919	910	1106	290	287	278	305	334	339	345	341	346	348	334
HUMANITIES	241	254	201	229	345	371	493	113	99	114	111	136	152	150	132	139	139	167
American Studies	-	-	-	8	14	10	19	6	9	4	2	5	4	5	5	10	6	6
Classical L&L	25	14	8	7	6	15	23	5	1	6	3	8	9	5	2	3	6	8
Comparative Lit.	-	-	-	1	9	9	23	2	3	1	4	3	6	3	6	5	2	9
E. & S. Asian L&L	-	-	-	5	2	3	4	1	2	-	1	1	2	-	2	-	1	1
English L&L	96	80	73	68	74	76	99	21	24	25	17	26	21	31	30	26	25	30
Germanic L&L	11	10	4	6	13	6	14	5	1	4	9	6	6	3	2	3	4	4
History	28	39	27	24	57	38	59	16	15	13	14	19	27	27	13	22	25	25
History of Art	-	-	2	7	5	14	16	2	3	4	5	2	4	3	8	10	5	6
History, Arts & Letters	1	9	8	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
History of Music	-	-	2	2	8	9	-	-	-	-	-	-	-	-	-	-	-	-
Hist. of Sci. & Med.	-	-	-	-	-	-	1	2	1	2	2	2	4	2	2	1	2	3
Hist. of the Theater	-	5	8	3	4	6	3	2	2	2	1	3	2	2	2	1	2	1
Medieval Studies	-	-	-	-	-	-	-	-	1	2	2	2	2	2	2	2	6	3
Music	-	-	-	-	-	-	15	1	-	3	6	4	6	6	1	6	5	5
Near Eastern L&L	-	-	-	2	2	5	8	1	2	2	2	3	4	4	3	1	5	4
Philosophy	12	10	4	8	37	57	69	16	10	11	13	13	14	13	13	11	8	11
Religious Studies	30	44	37	48	62	78	92	19	13	22	16	13	21	16	17	9	23	7
Religious Education	23	23	12	14	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Romance Languages	8	17	13	24	45	44	47	14	11	11	10	23	18	22	21	20	14	19
French	-	-	-	21	41	34	41	8	11	8	5	15	11	16	18	15	12	14
Italian	-	-	-	-	-	2	-	-	-	1	2	-	-	2	1	2	-	-
Portuguese	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Spanish	-	-	-	3	4	8	5	6	-	2	3	8	6	4	2	3	2	5
Semitics & Oriental St.	8	3	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Slavic L&L	-	-	-	-	-	-	1	-	1	2	4	3	2	6	4	4	4	5
SCIENCES	255	251	179	269	406	389	461	135	120	116	147	147	146	131	152	145	138	122
Anatomy	3	3	4	-	2	2	3	-	2	-	-	1	-	1	2	-	-	-
Applied Physiology	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Astronomy	4	-	2	2	-	4	8	7	4	6	9	3	3	2	2	2	-	2
Bacteriology	17	14	19	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Biochemistry	-	-	-	-	4	11	17	6	5	1	5 (See Molecular Biophysics)	9	23	13	19	23	18	16
Biology	-	-	-	-	-	-	47	11	9	9	9	23	23	13	19	23	18	16
Botany	6	9	6	13	19	16	-	-	-	-	-	-	-	-	-	-	-	-
Zoology	29	24	17	10	23	26	-	-	-	-	-	-	-	-	-	-	-	-
Chemistry	50	72	64	59	93	85	85	30	24	16	31	25	19	17	34	19	15	17

1931-1976 (Continued)

	1931	1936	1941	1946	1951	1956	1961	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	
	-35	-40	-45	-50	-55	-60	-65	-66	-67	-68	-69	-70	-71	-72	-73	-74	-75	-76	
SCIENCES (Cont.)																			
Clinical Med. & Path.	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Computer Science	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eng. & Appl. Sci.	21	12	7	13	15	14	21	10	7	14	12	30	33	31	15	15	15	15	6
Chemical Eng.	12)	-	-	-	2)	4)	-	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Eng.	1)	4)	3)	9)	11)	7)	-	-	-	-	-	-	-	-	-	-	-	-	-
Mechanical Eng.	1)	1)	1)	1)	1)	2)	-	-	-	-	-	-	-	-	-	-	-	-	-
Metalurgy	7)	7)	3)	4)	1)	1)	-	-	-	-	-	-	-	-	-	-	-	-	-
Epidemiology & Pub. H.	4	5	4	7	1	2	4	2	5	1	2	2	3	2	2	3	6	3	3
Forestry	-	-	-	-	-	-	23	3	5	3	2	3	2	2	2	8	6	13	3
Geology & Geophysics	8	19	6	17	32	34	32	2	5	5	7	3	5	9	5	7	5	10	10
Immunology	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mathematics	10	11	4	10	19	34	38	11	10	10	9	11	13	7	8	8	15	12	12
Microbiology	-	-	-	-	23	11	13	-	1	5	3	2	-	5	2	5	2	1	1
Molec. Bio. & Biophy.	-	-	-	1	8	15	13	4	6	8	9	10	5	7	4	11	15	10	10
Pharmacology	1	-	-	6	16	3	9	5	1	-	3	2	3	7	3	3	3	2	2
Physics	25	25	10	65	78	67	89	26	21	20	29	21	23	20	23	20	15	10	10
Physiological Chem.	17	12	8	7	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Physiology	5	1	3	1	7	1	4	3	3	1	3	-	-	1	2	-	4	1	1
Psychology	26	34	12	38	43	45	55	15	12	17	13	11	13	6	22	17	15	24	24
SOCIAL SCIENCES																			
Administr. Sciences	43	59	40	70	111	116	152	51	38	48	48	51	41	64	57	62	71	59	59
Anthropology	-	-	-	-	-	-	-	1	-	7	4	4	5	6	5	11	9	6	6
Economics	5	11	6	13	20	15	16	2	8	-	3	4	-	3	6	8	6	5	5
Geography	14	10	9	18	15	32	50	23	14	17	17	22	17	24	21	17	23	20	20
International Relations	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-
Linguistics	1	6	1	15	26	18	25	7	-	4	4	1	1	1	1	3	1	-	-
Political Science	5	2	2	5	12	7	7	3	4	2	1	4	-	3	1	5	4	2	2
Race Relations	5	10	6	7	10	27	29	7	4	12	12	8	11	16	13	11	16	16	16
Sociology	-	6	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statistics	13	14	12	11	28	17	24	7	7	4	7	7	5	8	8	7	10	11	11
EDUCATION																			
INTERDISCIPLINARY	49	42	37	47	55	33	-	-	1	2	-	-	2	3	-	2	3	5	5

Source. Annual reports of the Dean of the Graduate School, 1964 et seq. Totals differ slightly from catalogue figures recorded in A-2, 12.

B-8, 8
(Cont.)

SOURCES OF GRADUATE SCHOOL ENROLLMENT, 1960-1976
 Institutions Represented by Ten or More Undergraduate Degree Holders

	Year																	Total
	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	
Yale	135	151	145	188	246	231	222	209	210	112	92	105	110	106	92	94	2438	
Harvard	44	46	42	49	57	66	79	96	99	56	55	47	53	46	53	38	928	
Princeton	49	37	35	33	46	54	54	59	51	36	29	29	37	47	47	49	692	
Cornell	29	25	26	22	30	35	37	42	51	35	30	37	37	33	31	33	533	
Stanford	16	30	20	22	26	30	37	42	54	47	47	35	34	26	24	23	513	
Columbia	35	37	29	39	38	43	36	34	33	18	16	22	22	24	21	18	465	
Oberlin	36	36	31	22	34	29	25	34	28	18	16	16	20	16	16	22	403	
Smith College	25	27	19	22	27	32	24	31	27	20	17	13	15	18	17	20	354	
Wellesley	20	30	29	21	28	28	34	30	27	19	13	10	11	10	8	13	331	
Univ. of Calif. Berkeley	10	14	14	24	21	27	29	32	26	14	18	22	23	17	18	21	330	
City College of New York	20	23	29	30	31	23	24	30	21	20	9	13	11	13	13	10	320	
Dartmouth	18	16	14	17	22	25	29	27	18	11	17	17	17	19	18	12	309	
Chicago	25	15	14	15	15	19	23	24	29	10	14	20	23	26	17	7	295	
Chicago	11	0	12	17	20	25	23	30	28	20	22	16	17	13	15	19	288	
Mass. Inst. of Tech.	13	18	16	20	21	16	21	24	29	28	26	25	12	8	4	7	286	
Barnard	24	26	25	19	24	26	26	23	29	15	13	9	7	3	4	10	283	
Swarthmore	14	13	24	23	33	33	28	27	23	13	7	15	6	3	10	2	280	
Brooklyn College	11	14	16	17	22	20	23	23	19	17	22	18	20	14	10	13	278	
Michigan	5	5	9	11	17	34	29	29	33	18	17	17	16	14	11	12	277	
Taiwan National Univ.	20	17	18	16	17	21	22	24	26	17	16	17	10	12	6	4	263	
Bryn Mawr	11	16	20	22	24	18	16	16	16	17	16	11	14	15	14	13	259	
Amherst	13	24	13	10	18	24	22	21	18	14	11	13	11	14	12	17	255	
Brown	11	27	18	12	13	17	19	23	24	13	12	11	10	11	15	12	251	
Rutcliffe	17	13	12	15	16	21	21	19	20	18	13	12	15	15	12	9	248	
Vassar	21	25	21	15	18	20	17	21	16	13	10	7	7	7	12	11	241	
Williams	13	17	15	17	23	22	23	19	25	15	14	8	8	7	3	3	232	
Cambridge	13	16	17	19	24	19	23	19	19	10	10	11	5	4	6	3	219	
Univ. of Toronto	16	19	12	16	20	10	18	20	15	10	13	10	8	10	7	7	205	
Duke	17	16	16	12	12	15	15	20	23	19	3	12	7	6	6	3	204	
Queens College	10	9	11	10	19	18	21	17	20	12	11	10	10	9	8	6	201	
Notre Dame	10	14	12	11	21	19	18	11	9	10	9	5	8	11	16	15	200	
Wesleyan Univ.	17	16	10	19	17	16	16	14	13	13	5	10	7	10	7	9	199	
New York Univ.	15	15	13	17	18	16	14	15	14	11	7	10	7	8	5	6	191	
Mount Holyoke	17	11	8	14	10	11	8	10	14	14	14	11	9	7	12	15	185	
Pennsylvania	12	15	11	10	9	11	14	10	10	12	9	12	13	10	12	11	181	
Univ. of Calif. Los Angeles	15	16	13	13	20	22	21	20	20	4	3	4	2	2	2	1	178	
Oxford	6	5	7	8	8	13	16	13	23	12	15	15	12	9	6	6	174	
Fordham	10	8	10	8	14	18	13	17	16	7	10	10	10	8	6	5	172	
Carleton	6	5	7	11	8	7	9	12	15	7	12	13	13	17	15	13	170	
Brandeis Univ.	9	7	7	8	14	13	12	10	13	9	6	12	13	11	12	14	170	
Haverford																		

Source. Dean's Office Yale Graduate School from statistical appendices and unpublished annual reports; research by Candace Bryce. No figures were compiled for colleges which never sent as many as ten.

SOURCE OF GRADUATE SCHOOL ENROLLMENT (Cont.)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	Total Year Registrations
	-61	-62	-63	-64	-65	-66	-67	-68	-69	-70	-71	-72	-73	-74	-75	-76	
Wisconsin	5	7	7	7	11	14	20	14	17	13	12	8	11	7	7	6	166
Johns Hopkins	15	14	6	12	12	13	17	15	14	10	7	12	7	4	8	5	185
Reed	6	7	11	10	14	15	16	11	12	7	12	11	9	6	9	8	164
McGill Univ.	11	11	11	12	13	12	17	13	7	10	6	13	8	3	4	6	157
Northwestern	6	7	4	7	14	17	16	12	15	10	9	10	11	9	4	6	157
Rochester	6	14	5	10	11	13	14	14	16	12	1	7	7	9	11	157	
New York State Univ.	3	3	0	3	2	3	4	6	6	3	16	12	19	22	23	23	155
Washington Univ. Missouri	12	17	7	13	13	12	11	13	12	7	6	13	9	5	2	2	152
Univ. of Connecticut	13	16	15	12	10	10	10	7	11	8	3	5	2	7	6	9	150
Minnesota	0	10	6	8	11	8	11	15	19	11	9	9	6	7	10	8	148
Rice	15	12	11	8	11	6	10	12	10	8	7	10	9	6	5	4	144
Univ. of No. Carolina	12	16	10	11	6	14	9	17	16	15	0	0	1	1	2	5	135
Rutgers	8	8	5	2	2	2	2	11	10	9	11	2	3	3	4	1	134
Georgetown	3	5	2	2	2	2	2	11	10	11	4	5	2	12	15	11	133
Univ. of Texas	7	8	13	9	9	8	18	14	13	3	3	4	6	7	6	4	130
Michigan	4	10	9	9	9	10	12	10	9	4	6	4	8	6	7	5	122
Univ. of Washington	11	8	8	9	7	12	11	13	13	10	3	6	5	3	1	1	121
Trinity College	6	7	6	11	17	17	20	16	9	7	1	2	1	0	0	0	120
Holy Cross	7	7	7	9	7	5	4	7	12	13	9	5	5	5	7	10	119
Southern Methodist	5	10	8	8	10	10	10	8	10	4	3	4	4	2	2	6	104
Univ. of Illinois	10	13	12	11	12	11	6	8	7	1	3	2	2	2	1	3	104
Hunter College	6	7	8	8	9	8	11	10	11	10	7	4	3	4	6	7	102
Rensselaer Poly. Inst.	6	7	8	7	7	1	3	9	11	8	3	5	0	2	2	1	100
Indiana	6	8	9	6	13	14	12	9	9	3	5	2	1	0	0	0	97
Lehigh	2	3	4	2	10	7	7	12	11	3	8	10	7	4	4	3	97
British Columbia	6	6	6	8	11	13	7	6	2	2	6	3	7	3	2	4	93
Tufts	5	6	7	5	8	9	10	8	7	1	4	2	3	3	5	6	91
Roston Univ.	4	6	5	3	10	10	9	7	14	2	3	1	1	1	5	4	90
Hamilton	1	2	1	4	6	9	9	11	15	11	2	5	5	3	2	3	89
Vanderbilt	6	6	7	8	8	6	10	10	7	2	2	3	2	3	6	2	88
Boston College	3	2	4	6	6	11	15	14	10	2	1	1	2	1	1	2	83
Geo. Washington Univ. D. C.	3	5	4	4	5	10	8	4	5	0	3	5	5	10	6	5	83
Manhattan College	1	3	2	6	6	6	8	4	7	10	8	5	6	5	0	4	81
Univ. of Tokyo	4	5	4	12	11	13	8	7	14	0	0	0	1	0	0	0	76
London Univ.	4	0	0	4	5	7	10	11	9	2	3	6	5	3	1	2	72
Iowa State	2	6	5	10	8	5	5	4	3	3	3	4	3	3	3	3	72
Grinnell	0	0	0	6	7	4	10	14	10	6	2	2	5	4	1	0	71
Worcester Poly. Inst.	3	4	6	10	10	8	7	6	4	1	5	2	2	1	0	0	70
Union College and Univ.	8	10	11	6	7	5	2	1	1	2	2	1	0	1	1	1	59
Wabash	2	5	10	6	4	0	3	5	3	4	1	1	2	1	3	2	64
Lafayette	2	2	1	11	0	1	4	1	2	0	0	0	7	1	2	5	39
Univ. of Oklahoma																	
Douglas College																	

sociology, and the recognition of statistics as a Ph.D. field--whereas industrial administration and administrative science betray Yale's uncertainties about social engineering.

Again, one might note the irregularities in "Other Programs": e.g., the strong but brief career of Master of Arts in Teaching after the termination of the Ph.D. in Education, and most especially the peaking of popularity for the "Other Programs" as a whole in 1969-70, Yale's year of unrest and rebellion.

The table on Ph.D. degrees awarded by departments (B-8.8) can be analyzed in comparable fashion except that here our figures are inclusive from as early as 1931. Once again the strength of the humanities and the sciences is clear, and the almost even division of degrees between them is also demonstrated. One puzzling difference is the apparent lag in humanities degrees for the years 1965 to 1970. Can we account for this on the supposition that it was the humanities students who were most upset by the Vietnam War and other national problems?

Yale's "Feeder Colleges"

Finally I should like to call attention to the rather striking table on "Sources of Graduate School Enrollment" for the years 1960-76 (B-8.9). These figures, unlike those for the degrees, are overlapping; i.e., the majority of the students from any single college in any one year were likely to have been registered also the year before or the year after. The total year-registration figures nevertheless give a fair picture of the relative numerical contributions of Yale's "feeder colleges." Thus one can see that the Yale Graduate School has been strongly attractive to Yale's own undergraduates. Harvard and Princeton undergraduates have also looked to Yale. So between them the "big three" colleges supplied as many students as did the next eleven colleges combined.

Among those eleven it is interesting to find Cornell and Stanford outranking Columbia and CCNY; while Oberlin and Smith prove to have been the most productive of Ph.D. candidates among the colleges, and the University of California among the state universities. Over the years Smith, Wellesley, Barnard, Bryn Mawr and Radcliffe were all consistently strong--Mount Holyoke, surprisingly, a little weaker. Foreign institutions sending students to graduate work at Yale were led by Cambridge, Toronto and Oxford, with British Columbia, Tokyo and London some distance behind. In this comparison I have omitted Taiwan

National University (which produced a total of 277 annual registrations and so ranked in nineteenth place) for the reason that its registrations were peculiarly concentrated in the area of engineering and applied science. On reflection, it is surely ironical that Yale--which awarded the first B.A. to any Chinese in the world (Yung Wing, 1854), and which then attracted Yung Wing's protegees--has lost the great majority of Chinese registrations to the state and polytechnic institutions, and kept drawing them only to its own rather marginal programs in applied science. All too plainly an educational stream which began in the missionary movement and the liberal arts tradition has shifted into engineering and military technology.

Two other facts are worthy of remark. This table shows that more than eighty colleges across the country and abroad sent to the Yale Graduate School at least ten students in at least one of the years from 1960 to 1976, while forty-three of these institutions averaged ten or more students a year across that stretch of time. Which is testimony of a positive sort to the quality and diversity of Yale's graduate resources.

B-9. Women Ph.D. s from Yale

Introduction: Women Ph.D.s: An Uneven Story

In the series of tables on "Women Ph.D.s from Yale" we are able for the first time to present an extremely informative statistical record of the achievements of women in the programs of highest scholarship at this university.

By way of background it should be observed that until almost the end of the nineteenth century the Ph.D. was not much sought after by anyone in this country. Few Americans wished to be scholars, and those who did studied privately, perhaps as resident graduates, or resorted for a time to the centers of learning abroad. No degree beyond the Bachelor's was required for teaching; indeed the Doctorate of Philosophy had not even been thought of until 1815 when George Ticknor, Edward Everett, George Bancroft and Joseph Cogswell went to study at the University of Göttingen and discovered there the new German scholarship and the new degree. For the next 45 years American scholars wishing to receive the highest training continued to go abroad, by preference to the German universities, where sometimes they stayed long enough to earn the P.D. or Ph.D., but the systematic professionalization of college faculties was still to come.

Then in 1861 Yale offered and awarded the Ph.D. in America for the first time, and three Yale graduates earned it during that first year of the Civil War. For nine more years no other college or university had the courage (or the desire?) to offer this strange post-graduate exercise in original scholarship. But in 1871 Pennsylvania, then in 1873 Harvard, then Columbia, Michigan, Johns Hopkins, Princeton and Ohio State (1879) began giving instruction and awarding the degree, and so finally domesticated in this country the systematic cultivation of the most advanced scholarship. By 1892 Yale was being surpassed, though it had held the lead almost until that point and had awarded 163 Ph.D.s (or 11% of all Ph.D.s to date) to the graduates of Yale College and others willing to expose themselves to such ventures into the unknown. Belatedly, in 1892 Yale reorganized its rather informal graduate instruction, appointed a dean of graduate studies (Professor Arthur Twining Hadley, later President), and admitted women to the program for the first time. The result was

WOMEN PH. D. s FROM YALE, AND TOTAL PH. D. s, 1861-1960

YEAR	WOMEN PH. D. s	TOTAL PH. D. s	YEAR	WOMEN PH. D. s	TOTAL PH. D. s	YEAR	WOMEN PH. D. s	TOTAL PH. D. s
1861		3	1894	7 *	21	1928	11	60
1862		1	1895	4	19	1929	14	89
1863		3	1896	8	31	1930	16	83
1864		-	1897	1	22	1931	17	95
1865		-	1898	9	34	1932	22	118
1866		4	1899	2	30	1933	18	123
1867		1	1900	5	26	1934	19	118
1868		-	1901	9	39	1935	20	134
1869		4	1902	4	29	1936	17	118
1870		1	1903	4	36	1937	26	135
1871		3	1904	6	39	1938	21	106
1872		3	1905	5	36	1939	22	132
1873		8	1906	3	29	1940	12	114
1874		4	1907	1	22	1941	15	137
1875		4	1908	4	32	1942	23	122
1876		6	1909	3	44	1943	16	85
1877		6	1910	7	27	1944	13	66
1878		7	1911	5	31	1945	11	46
1879		3	1912	2	31	1946	16	56
1880		5	1913	4	39	1947	15	103
1881		-	1914	6	32	1948	21	138
1882		2	1915	1	36	1949	15	151
1883		1	1916	10	50	1950	13	167
1884		2	1917	5	37	1951	18	179
1885		6	1918	1	21	1952	17	174
1886		3	1919	2	14	1953	13	177
1887		4	1920	5	29	1954	16	201
1888		4	1921	5	38	1955	21	186
1889		13	1922	8	39	1956	22	175
1890		9	1923	10	52	1957	21	194
1891		23	1924	7	46	1958	11	168
1892		15	1925	20	68	1959	20	176
1893		13	1926	8	62	1960	24	195
			1927	10	70			
GRAND TOTALS							767	5695 **

Sources. Total Ph. D. s from Tables A-2.3 to A-2.8; Women Ph. D. s from Yale University Doctors of Philosophy, 1861-1960 (New Haven, 1961) and from the Dean's Office and Registrar's Office, Yale Graduate School.

*Women were first admitted to candidacy for the Ph. D. in 1892, and first received the Ph. D. in 1894.

**This total differs slightly from total to be found in Table B-9.3 because of a different source used.

WOMEN Ph. D. s FROM YALE, 1892-1960
Yearly Awards by Department, 1894-1928*

DEPT. ** Awarded	Year																																					
	1894	95	96	97	98	99	1900	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	19		
Astronomy (1877-)																																						
Bac., Pacha Publ. ^a (1900-50)																																						
Botany ^b (1899-)																																						
Chemistry (1866-)																																						
Classical L.&L. (1861-)																																						
Econ. Soc. Gov. ^c (1872-1930)																																						
Education (1893-1958)																																						
English L.&L. (1875-)																																						
Geology ^d (1867-)																																						
Germanic L.&L. (1896-)																																						
History (1862-)																																						
Mathematics (1832-)																																						
Pharm. & Tox. (1924-)																																						
Phil. & Psych. (1861-1927)																																						
Physiol. & P ^h Chem. ^e (1880-1930)																																						
Religion (1885)																																						
Romance L.&L. (1873-)																																						
Sem. & Bibl. L.&L. (1888-1935)																																						
Zoology (1869-)																																						
TOTALS	7	4	8	1	9	2	5	9	4	4	6	5	3	1	4	3	7	5	2	4	6	1	10	5	1	2	5	5	6	10	7	20	8	10	11			

Source. Yale University, Doctors of Philosophy, 1861-1960 (New Haven, 1961); Yale University Graduate School Registrar's Office

* Women were first admitted to candidacy for the Ph. D. in 1892, and first received the Ph. D. in 1894.

** There were no women Ph. D. s in the following fields: Applied Physiology (1933-42); Chemical Engineering (1930-); Clinical Medicine and Pathology (1922-42); Electrical Engineering (1935-); Forestry (1929-); Mechanical Engineering (1934-); Mining and Metallurgy (1928-60); Near Eastern Languages and Literatures (1948-);

+ One of the 3 women listed under Bacteriology in 1932, Leona Baumgartner, received her degree in Immunology.

a From 1931, separate degrees were offered in Public Health.

b From 1950 through 1956, the Department was called Plant Science. In 1957, Department again called Botany.

c After 1930, this general subject split into its component elements: Economics, Government, and Sociology. In 1934, International Relations was added; and after 1952 the Government Department was called Political Science.

d Including Geography down to 1931.

e After fifty-one years (1880-1930), Physiology and Physiological Chemistry separated into: Physiology (1933-), and Physiological Chemistry (1931-52), which was renamed Biochemistry. First degree in Biochemistry awarded in 1954.

f Included under Zoology before 1932.

g Department called Theatre and Dramatic Criticism, 1937 through 1947.

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impressive. A handful of bright and able girls came from the leading women's colleges and in 1894 had the honor of earning the first Ph.D.s ever bestowed by Yale on women, as it was reported to great applause. In seven years some 36 candidates earned the degree and these women composed approximately 20% of the graduate student crop. By 1900 Yale had awarded more Ph.D.s to women than any other university.

What followed was perhaps a little disappointing. In the decade 1901-1910 46 women earned the degree; in the next decade, 48. If growth had been expected it had not come, for the average number of awards had dropped to a little below 5 per year. Then in the 1920s some 109 women earned the degree, for an annual average of almost 11. In the 1930s the yearly average almost doubled again, to more than 19. But in the '40s it dropped to 16, and in the '50s it stood at no more than 18. Only in the '60s did the number of women Ph.D.s rise to an average of 43 per year--which level was raised again in the first four years of the '70s to more than 70 per year.

Examining these figures in the large one finds that between 1894 and 1960 Yale's 767 women Ph.D.s composed just under 14 percent of the total crop, counting both men and women, even though in the first seven years their contribution had stood at 20 percent and again in the 1920s and '30s it had stood close to 20 percent. What had happened? What had happened, apparently, was that when real public interest in the Ph.D. developed in the 1920s they came forward with the men, and when the flow almost doubled in the Depression years, they kept their share of that increased flow. But in the late 1940s and 1950s comparatively few women were applying or coming through to their doctorates, and it would not be until the late 1960s and the 1970s that they would again match even the 20 percent share that at certain earlier periods they had achieved. The reasons for this curious hesitation or very modest success are not altogether clear; but increasing prejudice against women at Yale or in the academic world seems not the answer. Was it the returning soldiers who resisted? Or was it perhaps in part because the women's colleges were beginning to favor men in their faculties? Or were the disciplines (and Ph.D. program) becoming too demanding or narrowly specialized? We do not know. From what we do know of our cultural history, as from personal experience, it can simply be asserted that the desire and demand by women for the Ph.D. declined sharply at the very time when such prejudices as might have restrained them earlier were generally diminishing. For whatever reasons, the bright women students of the World War II and post-war generation evidently chose to marry and raise families, or opted for other careers instead.

WOMEN PH. D. s FROM YALE, AND TOTAL PH. D. s, 1892-1960
Cumulative totals by Department*

DEPARTMENT	WOMEN PH. D. s	TOTAL PH. D. s
American Studies	4	32
Anatomy	3	14
Anthropology	8	70
Applied Physiology	0	3
Astronomy	3	20
Bacteriology, Pathology, and Public Health	32	126
Biochemistry	29	65
Biophysics	3	24
Botany	18	99
Chemical Engineering	0	22
Chemistry	54	651
Classical Languages & Literatures	36	195
Clinical Medicine and Pathology	0	4
Comparative Literature	3	19
Economics, Sociology & Government	11	204
Education	54	288
Electrical Engineering	0	35
English Language & Literature	152	673
Forestry	0	86
Geology	5	210
Germanic Languages & Literatures	13	78
Government	2	31
History	44	302
History, the Arts, and Letters	3	19
History of Art	9	28
History of Music	8	21
History of the Theatre	7	26
Indic & Far Eastern Lang. & Literatures	1	10
Interdisciplinary	1	3
International Relations	4	67
Linguistics	6	32
Mathematics	18	157
Mechanical Engineering	0	6
Microbiology	5	34
Mining and Metallurgy	0	25
Near Eastern Languages & Literatures	0	10
Oriental Studies	2	3
Pharmacology and Toxicology	4	30
Philosophy and Psychology	12	106
Philosophy	13	130
Physics	4	349
Physiology & Physiological Chemistry	39	126
Political Science	1	34
Psychology	48	211
Public Health	11	23
Race Relations	1	11
Religion	10	336
Religious Education	4	103
Romance Languages & Literatures	29	183
Semitic & Biblical Lang. & Literatures	3	86
Sociology	15	95
Zoology	35	177
GRAND TOTALS	757	5692**

Sources. Yale University Doctors of Philosophy, 1861-1960 (New Haven, 1961) and Registrar's Office, Yale Graduate School.

*Women were first admitted to candidacy for the Ph. D. in 1892 and first received the Ph. D. in 1894.

**This total differs slightly from total to be found in Table B-9.1 because of a different source used.

WOMEN Ph. D.'s FROM YALE, 1892-1960
By Institution Where They Received Their Undergraduate Education*

Institution	MAJOR FEEDERS					OTHER MAJOR INSTITUTIONS					Total
	1892-1901		1921-1941		Total	1892-1901		1921-1941		Total	
	to	to	to	to		to	to	to	to		
Vassar College	8	4	28	22	62						9
Smith College	9	8	29	12	58						8
Mount Holyoke College	1	5	32	15	53						8
Wellesley College	2	11	17	20	50						7
Bryn Mawr College	2	3	10	23	38						7
Barnard C./Columbia U.	1	1	13	16	31						7
City U. of New York (CUNY)	-	-	3	25	28						6
(Hunter 15, Bklyn. 8, Queens 3, CCNY2)											3
University of Chicago	1	3	4	9	17						8
Swarthmore College	-	-	1	13	14						5
Oberlin College	-	2	4	7	13						5
University of Kansas	1	5	6	1	13						5
Cornell University	-	4	1	6	11						5
New York University	-	-	3	8	11						5
Radcliffe College	1	3	3	4	11						5
Goucher College	-	-	5	5	10						5
FOREIGN	-	2	8	22	32						5
Total					452						104
Number of Degrees from Other U.S. Institutions**: 208					GRAND TOTAL: 767*						

Sources. Yale University Doctors of Philosophy, 1861-1960 (New Haven, 1961); Registrar's Office, Yale Graduate School.

*This table represents where 764 women Ph. D.'s from Yale (1892-1960) received their undergraduate education. There were also 3 women (1 in 1900 and 2 in 1901) who had no formal undergraduate education or for whom none is recorded.

**Other U.S. INSTITUTIONS: Acadia U., Adelphi C., U. Alaska, Allegheny C., American U., Bates C., Bethany C., Teachers C. of the City of Boston, Boston U., Brandeis U., Carleton C., Carnegie Inst., Colby C., Colorado C., Colorado State Teachers C., U. Colorado, Columbia C. (Iowa), Teachers C. Connecticut, U. Connecticut, The Cooper Union, Dalhousie U., Denison U., U. Denver, Douglass C. (Rutgers), Earlham C., Elmira C., Fitchburg State Teachers C., Florida State C. for Women, George Peabody C. for Teachers, Georgetown U., George Washington U., Grinnell C., Gustavus Adolphus C., Hartford Sch. of Religious Education, Hollins C., Houghton C., U. Idaho, Illinois C., U. Illinois, Iowa State C., State U. of Iowa, Upper Iowa U., Juniata C., Kansas State Agricultural C., U. Kentucky, Lawrence C., Lincoln C., Macalester C., U. Maine, Manhattanville C. of the Sacred Heart, U. Maryland, Maryville C., Massachusetts Inst. Technology, Massachusetts State C., Meredith C., Middlebury C., Mills C., Millsaps C., Mississippi State C. for Women, U. Mississippi, Southwest Missouri State Teachers C., Missouri Valley C., C. of Mt. St. Vincent, U. Nashville, U. Nebraska, U. New Hampshire, New Jersey C. for Women, C. New Rochelle, North Carolina C. for Women, U. North Carolina, Notre Dame C. of Staten Island, Occidental C., Ohio Northern U., Ohio State U., Ohio Wesleyan U., Pennsylvania State U., U. Pennsylvania, U. Pittsburgh, Pomona C., Purdue U., U. Omaha, Otterbein C., Pennsylvania C. for Women, Pennsylvania State U., U. Rhode Island State C., Rice Inst., U. Rochester, Rockford C., Rollins C., Roanoke C., C. St. Elizabeth, Randolph-Macon Woman's C., Regis C., Rhode Island State C., St. Joseph C. for Women, St. Mary's C., U. St. Mary of the Springs C., C. St. Theresa, San Francisco State U., St. John's U. (New York), St. Joseph C., St. Joseph C. for Women, St. Mary's C., U. South Dakota, Southern Methodist U., U. Southern California, Sweet Teachers C., Sarah Lawrence C., Seton Hill C., Shorter C., Simmons C., U. South Dakota, Southern Methodist U., U. Southern California, Sweet Briar C., Temple U., U. Tennessee, Texas Christian U., Texas State C. for Women, Thiel C., Trinity U. (Texas), Tulane U., Uppsala C., Vanderbilt U., U. Vermont, Washburn C., Washington U., Wayneburg C., Wesleyan U., Western C. for Women, Wheaton C., C. Wooster.

The reader will find a second aspect of these tables of some curiosity and interest, i.e., the subject preferences of the women in our two almost evenly populated periods, 1894-1960 and 1961-1974. For example, it appears that in the first period 152 women out of 767 earned their Ph.D.s in English and in the second somewhat fewer, yet still the substantial number of 110 out of 717. In history the figures were 44 and 33. But in psychology they were 48 and 56, and in romance languages and literatures, 29 and 77! Biology also showed a rising curve, but chemistry a substantial decline. Students of higher education will find it of interest to compare these preferences with the total numbers of Ph.D.s earned at Yale, or with the masculine record in such subjects as physics and engineering and economics.

Where did the women candidates come from? Our two tables B-9.4 and B-9.8 suggest that they came from all over the country and from a very large variety of colleges of greater or lesser distinction. Among these, certain institutions stand out as substantial contributors. In the first 67 years Vassar, Smith, Mt. Holyoke, and Wellesley were the major feeders, followed by Bryn Mawr, Barnard College of Columbia and City College of New York. In the last 14 years of our tables, 1961-1974, Barnard rose to leadership, followed by Wellesley, Bryn Mawr, Smith, CUNY, Radcliffe and Vassar. Putting the totals together, one finds Smith College at 92, Vassar at 88, Wellesley at 86, Bryn Mawr at 72, Barnard at 71, Mt. Holyoke at 70, and Radcliffe at 40: a tribute to the quality of the "Seven Sisters" and to their work in preparing American women for a role in the highest scholarship.

At the head of the coeducational colleges were Swarthmore with 32 Ph.D.s, Cornell with 30, Oberlin with 29, University of Chicago with 25, University of California at Berkeley with 24, Stanford with 23 and N.Y.U. with 19.

If we analyze the flow by 20-year periods, we can see that Bryn Mawr started very modestly (Bryn Mawr was offering its own Ph.D.s). It also seems to have taken time for Yale to attract students from Barnard or from Swarthmore, while Radcliffe was presumably affected by the attractions of its masterful university at Cambridge.

The figures on enrollment from abroad bear witness to the fact that the drawing power of Yale's Graduate School has been, to a measurable and increasing degree, international as well.

WOMEN PH. D. s FROM YALE, AND TOTAL PH. D. s, 1961-1974

YEAR	WOMEN PH. D. s	TOTAL PH. D. s
1961	34	213
1962	20	195
1963	31	209
1964	42	223
1965	39	266
1966	51	299
1967	39	256
1968	41	278
1969	62	305
1970	70	334
1971	54	339
1972	74	345
1973	73	341
1974	87	346
GRAND TOTALS	717	3949

Sources. Women Ph. D. 's from degree list supplied by the Graduate School Registrar's Office and from Yale University Commencement Programs. Total Ph. D. s from Table A-2. 12 with the exception of the reduced figure for 1974 which is from the Graduate School Registrar's Office.

WOMEN PH. D. s FROM YALE, 1961-1974
Yearly awards by Departments

DEPT. * (Years Ph. D. s Awarded)	Year														Totals
	1961	62	63	64	65	66	67	68	69	70	71	72	73	74	
Admin. Sci. (1968-)														1	1
Amer. Studies (1947-)				1		1	2	1	1	1	1		3	5	16
Anatomy (1932-)					1		2					1	1		5
Anthropology (1932-)			1			1			1				3	3	10
Astronomy (1877-)							1								1
Biochemistry (1954-)	2		3	1	1		2	1	4						14
Biology (1963-)			1	1	1	5	5	3	3	10	4	4	1	4	42
Biophysics (1950-62)		1													1
Botany (1899-1962)	2														2
Chemistry (1866-)	3		1	2	2	4	2		2	2	4	1	5	2	30
Classical L&L (1861-)			2	1	4	2		1	2	3		2	1	2	20
Comp. Lit. (1948-)	2					2	1	1			2	1		1	11
East&S. Asian L&L (1964-71)						1	1		1						3
Economics (1931-)	1		1		1	1	1	1	1	4		1		1	13
Eng. & App. Sci. (1963-)										1	1	1	1	1	5
English L&L (1875-)	7	2	9	8	6	9	5	8	5	9	9	14	13	6	110
Epidem. & Pub. Health (1963-)				1		2	2	1	1						2
French (1974-)															7
Geology (1867-1968)								1							1
Geology & Geophysics (1969-)									1		1	2			4
Germanic L&L (1896-)	1	1		1	2	1	1	2	4	4	1	2	2	2	24
History (1882-)	2	1	2	5	4	2	1	1	1	6	3	2	2	1	33
Hist. of Art (1942-)		1	1		1		1		2		1	3	4	5	19
Hist. of Music (1942-65)	2				3										5
Hist. of Sci. & Med. (1964-)						1		1	1		2	1	1	1	8
Hist. of the Theatre (1937-)	1							1				1			3
Int'l Rel. (1934-74)		1	1	1		2			1			1	1		8
Italian (1974-)														2	2
Linguistics (1932-)				2				2						1	5
Mathematics (1832-)	1			1	1	2	1	1		1			1	2	13
Medieval Studies (1967-)								1			1	1	1	2	6
Microbiology (1951-)		1	1	1			1	2	2			4	2	4	18
Mol. Biol & Biophys (1963-66)					1										1
Mol. Biophysics (1967-69)							2	1	3						6
Mol. Biophys & Biochem (1970-)										2	1	2		6	11
Music (1966-)						1			2	2	1	1			7
Near Eastern L&L (1948-)										1	1				3
Pharmacology (1924-)					1				1		1	1	2	1	7
Philosophy (1928-)	1	3	3	1	1	1		1	1	4	1	3	4	2	26
Physics (1861-)					1	1			1					1	4
Physiology (1933-)	1			2	1	1			1					1	7
Pol. Sci. (1954-)			1	2	1			2	1	1	2	3	2	3	18
Psychology (1928-)	4	4	2	1	4	3	3	3	6	4	6	3	6	7	56
Religion (1889-1964)			1	2											3
Rel. Studies (1965-)					1							1		2	4
Romance L&L (1873-1973)	1	3	1	7	2	6	3	3	10	10	6	12	13		77
Slavic L&L (1965-)								1	1		1	4	1	1	9
Sociology (1931-)	1	1		1		1	2	1	2	2	1	2	1	5	20
Spanish (1974-)														3	3
Zoology (1869-1962)	2	1													3
TOTALS	34	20	31	42	39	51	39	41	62	70	54	74	73	87	717

Sources. Yale University Commencement Programs, Yale University Graduate School Degree Lists, Registrar's Office, Yale University Graduate School.

* There were no women Ph. D. s in the following fields: Chemical Engineering (1930-62); Computer Science (1973-); East Asian L. & L. (1973-); Electrical Engineering (1935-62); Forestry (1929-); Indic & Far Eastern L. & L. (1947-63); Mechanical Engineering (1934-62); Statistics (1957-).

WOMEN PH. D.'s FROM YALE, AND TOTAL PH. D.'s, 1861-1974

Cumulative Totals by Department

DEPARTMENT	WOMEN Ph. D.'s	TOTAL Ph. D.'s	DEPARTMENT	WOMEN Ph. D.'s	TOTAL Ph. D.'s
Administrative Science (1968-)	1	42	Hist. of Sci. & Med. (1964-)	8	19
American Studies (1947-)	16	69	History of the Theatre (1937-)	3	20
Anatomy (1932-)	5	9	Indic. & Far East. L&L (1947-63)	-	1
Anthropology (1932-)	10	51	International Relations (1934-74)	8	47
Astronomy (1877-)	1	46	Italian (1974-)	2	2
Biochemistry (1954-69)	14	34	Linguistics (1932-)	5	30
Biology (1963-)	42	168	Mathematics (1832-)	13	125
Biophysics (1950-62)	1	6	Mechanical Engineering (1934-62)	-	2
Botany (1899-1962)	2	9	Medieval Studies (1967-)	6	16
Chemical Engineering (1930-62)	-	3	Microbiology (1951-)	18	36
Chemistry (1866-)	30	300	Molec. Biol. & Biophys. (1963-66)	1	11
Classical Lang. & Lit. (1861-)	20	65	Molecular Biophysics (1967-69)	6	23
Comparative Lit. (1949-)	11	56	Molec. Biophys. & Biochem. (1970-)	11	37
Computer Science (1973-)	-	3	Music (1966-)	7	33
East. & So. Asian L&L (1964-71)	3	10	Near Eastern Lang. & Lit. (1948-)	3	30
East Asian L&L (1973-)	-	2	Pharmacology (1924-)	7	36
Economics (1931-)	13	222	Philosophy (1928-)	26	183
Electrical Engineering (1935-62)	-	3	Physics (1861-)	4	292
Engin. & App. Sci. (1963-)	5	180	Physiology (1933-)	7	19
English Lang. & Lit. (1875-)	110	320	Political Science (1954-)	18	123
Epidem. & Public Health (1963-)	12	30	Psychology (1928-)	56	181
Forestry (1929-)	-	57	Religion (1889-1964)	3	72
French (1974-)	7	15	Religious Studies (1965-)	4	166
Geography (1947-)	-	2	Romance Lang. & Lit. (1873-1973)	77	177
Geology (1867-1968)	1	44	Slavic Lang. & Lit. (1965-)	9	77
Geology & Geophysics (1969-)	4	36	Sociology (1931-)	20	84
Germanic Lang. & Lit. (1896-)	24	53	Spanish (1974-)	3	3
History (1882-)	33	225	Statistics (1966-)	-	11
History of Art (1942-)	19	57	Zoology (1869-1962)	3	9
History of Music (1942-65)	5	15			
TOTALS:			717 3950 *		

Sources. Women Ph. D.'s from Table B-9, 6; Total Ph. D.'s from degree list supplied by the Graduate School Registrar's Office and from Yale University Commencement Programs.

*This total is larger by 1 (one) than that given in certain other tables because of different sources used: the discrepancy occurs in the count for the year 1967, which is given as 256 in the University Catalogue, but 257 in the Registrar's records.

WOMEN PH. D.'s FROM YALE, 1961-1974
By Institution Where They Received Their Undergraduate Education*

MAJOR FEEDERS		OTHER MAJOR INSTITUTIONS	
INSTITUTION	NO. OF DEGREES	INSTITUTION	NO. OF DEGREES
Barnard College/Columbia U.	40	Brandeis U.	9
Wellesley College	36	U. of Michigan	9
Bryn Mawr College	34	U. of Chicago	8
Smith College	34	Connecticut College	8
City U. of New York	29	U. of Minnesota	8
Radcliffe College/Harvard U.	29	New York U.	8
Vassar College	26	Albertus Magnus College	7
Cornell U.	19	Douglas College/Rutgers--the State U.	6
Stanford U.	18	U. of Pennsylvania	6
Swarthmore College	18	Pomona College	6
Mount Holyoke College	17	Duke U.	5
Oberlin College	16	Pembroke College/Brown U.	5
U. of California	15	Trinity College (D.C.)	5
		Washington U.	5
Foreign* (including U.S. Possessions)	79	Wheaton College (Mass.)	5
Total	410	Total	100
Number of Degrees from Other U.S. Institutions**: 211		GRAND TOTAL: 721*	

Sources: Yale University Commencement Program, and Graduate School Degree List from Registrar's Office.

*This table represents where the 717 women Ph. D.'s from Yale (1961-1974) received their undergraduate education and degrees studies beyond their undergraduate degrees in English-speaking countries are counted twice). Some women may have pursued English-speaking countries are also not counted. Women who received only foreign degrees of any level from non English-speaking countries are counted once under foreign. If a woman received 2 undergraduate degrees from the same institution, this was counted only once.

**OTHER U.S. INSTITUTIONS: Agnes Scott C., U. of Akron, Annhurst C., Antioch C., Bard C., Baylor U., Beaver C., Beloit C., Bennington C., Birmingham-Southern C., Boston U., U. of Bridgeport, Bucknell U., Caldwell C. for Women, Calvin C., Carleton C., Catholic U. of America, Chatham C., Colby C., Colorado C., Colorado State U., U. of Colorado, U. of Connecticut, Converse C., Cornell C. (Iowa), U. of Dayton, U. of Delaware, Denison U., DePaul U., U. of Detroit, Dickinson C., Drew U., Earlham C., Elmira C. (N.Y.), Emmanuel C., Georgetown U., George Washington U., Gettysburg C., Goucher C., Grinnell C., Hanover C., U. of Hartford, Hiram C., U. of the Holy Names, C. of Idaho, U. of Illinois, Indiana U., Iowa State U. of Science and Technology, Kent State U., U. of Kentucky, Lake Forest C., Lawrence U., Loyola U. (Chicago), MacMurray C., Manhattan C., Manhattanville C., Marietta C., Mary Baldwin C., U. of Maryland, Marymount C. (N.Y.), Maryville C., Marywood C., Massachusetts College of Art (B.F.A. degree), Massachusetts Inst. of Technology, U. of Massachusetts, Mercyhurst C., Miami U. (Ohio), Michigan State U., Middlebury C., Mills C. (Oakland), Missouri Valley C., New College, U. of New Hampshire, New Jersey C. for Women, C. of New Rochelle, Newton C. of the Sacred Heart, State U. of New York, North Central C., Northwestern U., Ohio State U., Ohio U., Ohio Wesleyan U., U. of Oklahoma, U. of Oregon, C. of Our Lady of the Elms, Park C., Pennsylvania State U., U. of Pittsburgh, Portland State C., Purdue U., Randolph-Macon Woman's C., Reed C., U. of Rhode Island, Rice U., U. of Richmond, U. of Rochester, St. Francis Xavier C. for Women, St. John's U. (N.Y.), St. Joseph's C. for Women, C. of St. Mary of the Springs (Ohio), Sarah Lawrence C., Scripps C., Seton Hill C., Simmons C., Skidmore C., Southern Methodist U., Stetson U., Susquehanna U., Syracuse U., Texas Technological C., U. of Texas, Tufts U., Upstate C., Ursinus C., U. of Utah, Vanderbilt U., U. of Virginia, Washington State U., U. of Washington, Wayne State U., Webster C. for Women, Wheaton C. (Illinois), Whitworth C., Willamette U., C. of William and Mary, William Smith C., Wilson C. (Penn.), U. of Wisconsin, C. of Wooster, U. of Wyoming, Yale U. (B.F.A. degree), Youngstown U.

B-10. Foreign and Post Doctoral Students

B-10 Foreign and Post-Doctoral Students

Introduction: Two Kinds of Talent Flow

In the nineteenth century American colleges sent their most promising young teachers to Europe to learn to be scholars and scientists as well; in the twentieth the currents have begun to flow the other way.

Commenting in 1969 on these B-10.1 figures for the "Brain Drain to the U.S.", via the Graduate School at Yale, Dean J. P. Miller wrote: "Yale's purpose was to fulfill an individual's aspirations--not a national purpose such as helping a foreign country to meet its manpower needs, the furthering of United States foreign policy, much less helping the United States fulfill its manpower needs by drawing manpower from abroad. Yet many of these young men and women have remained in the United States to live and work." And Miller went on to report that the proportion of foreign students who had changed citizenship had been especially large in the humanities and the social sciences.

Table B-10.2 measures another but related educational stream: the comparative flow of young scholars and professionals, both from abroad and from the fifty states, to some of our leading universities for post-doctoral training. In 1966 Harvard led in most subjects of study, and overall this earliest and most celebrated of our universities was clearly the great magnet, both at home and abroad. Yale ranked second, for American post-doctorals and in the overall count, but was fourth for foreign scholars, behind Wisconsin and Johns Hopkins. Yale's best showing was in the arts and humanities--which large clusters of disciplines, however, drew discouragingly few post-doctoral students to any of the universities. Clearly the medical sciences (basic and applied) and the physical sciences were the prime fields of interest for most of the young men and women who were now venturing beyond their Ph.D. training to seek further university instruction and experience.

BRAIN DRAIN TO THE U.S.
As Indicated by the Yale Graduate School Degree Recipients
Responding to the 1967 Alumni Questionnaire

Country	Citizenship at Matriculation (1)		Citizenship in 1967 (2)		Principal Area of Employment Since leaving YGS (3)		Net Change (Col. 2-1)		Net Change (Col. 3-1)	
	Ph. D.	Masters*	Ph. D.	Masters*	Ph. D.	Masters*	Ph. D.	Masters*	Ph. D.	Masters*
U. S. A.	3121	1923	3225	1955	3303	1784	104	32	182	**
Canada	94	35	72	36	65	29	-22	+1	-29	-6
Latin America	10	17	9	15	8	16	-1	-2	-2	-1
Great Britain	50	49	37	44	14	34	-13	-5	-36	-15
Other European	75	44	28	29	12	20	-47	-15	-63	-24
Africa	5	3	3	3	5	2	-2	0	0	-1
Near East	10	6	7	6	4	5	-3	0	-6	-1
Asia and South Pacific	67	47	55	41	24	28	-11	-6	-43	-19
Other	5	6	0	1	0	2	-5	-5	-5	-4
Still Student At Yale	3437	2130	3427	2130	3437	2130	0	0	+2	**

Source. John Perry Miller, The Yale Graduate School Alumni: An Overview, December 1969

*Including M. A. T.

**Not relevant since 210 were still students.

COMPARATIVE ENROLLMENTS OF POST-DOCTORAL STUDENTS IN U.S. UNIVERSITIES, 1965-1967

	Physical Sciences			Biological Sciences			Engineering			Social Sciences			Arts and Humanities			Basic Med. Sciences			Medical Sciences			Other			Total			Grand Total
	U.S.	Foreign	Total	U.S.	Foreign	Total	U.S.	Foreign	Total	U.S.	Foreign	Total	U.S.	Foreign	Total	U.S.	Foreign	Total	U.S.	Foreign	Total	U.S.	Foreign	Total	U.S.	Foreign	Total	
Harvard	58	71	21	20	3	5	30	14	16	2	75	57	120	101	13	7	344	280	624									
Yale	40	39	19	17	2	1	12	13	9	10	28	32	67	23	5	2	185	141	326									
Wisconsin	35	55	15	24	1	0	7	1	3	0	46	65	16	8	0	1	128	157	285									
Johns Hopkins	5	16	10	15	0	1	4	0	0	2	34	37	72	72	0	0	134	150	284									
M.I.T.	67	62	20	15	26	18	9	4	0	3	21	25	1	7	3	1	142	137	279									
California, Berkeley	56	51	20	15	7	19	12	11	4	0	27	28	7	10	0	6	136	142	278									
Stanford	48	52	17	5	3	10	13	3	1	0	25	18	37	16	4	2	150	109	259									
Chicago	57	83	11	11	0	2	1	0	1	4	15	14	11	12	4	3	105	130	235									
Illinois	37	58	3	10	0	9	5	1	0	1	24	20	35	11	4	3	112	123	235									
Minnesota	19	28	8	9	0	5	11	1	0	0	34	26	57	16	4	0	143	89	232									
Calif. Inst. of Tech.	61	78	7	15	3	15	1	0	0	0	15	21	0	1	0	0	90	133	223									
Cornell	33	47	10	7	0	1	4	2	1	2	22	17	41	11	4	3	116	94	210									
Pennsylvania	12	16	8	9	2	5	2	2	2	0	29	25	57	25	0	1	118	85	203									

Source, The Invisible University, Postdoctoral Education in the United States. (A Report of a Study Conducted under the Auspices of the National Research Council) National Academy of Sciences. Washington, D. C. 1969.

B-11. Professional Students and Studies

B-11 Professional Students and Studies

Introduction: Professional Students--A Study of Origins and Destinations

Our series of tables on professional students provides a great deal of information, not hitherto readily available, on the origins and destinations of two different yet overlapping groups. By the device of periodic sampling one learns both where Yale undergraduates tended to go for their professional training, and where Yale's professional school students came from.

Our first table (B-11.1 "Advanced Degrees Taken by Yale B.A.s: 1871-1916") shows at five-year intervals where representative classes of Yale Bachelors went on to further study, and in what proportionate numbers they did so. This editor was surprised to find that in the last quarter of the nineteenth century as many as 40% of Yale's undergraduates were taking professional degrees either at Yale or elsewhere. If these degrees were in the arts and sciences (M.A. or Ph.D.) two-thirds of them were taken at Yale, but if they were in law or medicine only one in four or one in five Yale graduates seems to have stayed on in New Haven for the professional instruction. In forestry only a very few Yale Bachelors were interested, but if they were they stayed in New Haven. In engineering one finds a like story, except just reversed: the very few almost all went elsewhere.

In volume as between the learned professions, the overwhelming flow was in one direction. More than half of all the Bachelors coming out of Yale College into professional training of any sort were drawn to the law, and three out of every four so drawn took their legal training elsewhere. Before 1890 it seems to have been the Columbia Law School which most attracted them (B-11.2); from 1890 to 1906 it was the New York Law School and Harvard; and in the generation before World War I, especially Harvard--while Yale's own Law School continued to exercise a moderate and rather unconvincing appeal.

In medicine, even with the addition of the Ph.B.s from Sheff., the enrollments were so limited that percentages seem less convincing; yet once again the

ADVANCED DEGREES TAKEN BY YALE B. A.'s, 1871-1916

Yale Class of:	M. A.		Ph. D.		LL. B.		B. D.		M. D.		M. F.		Engineers Degrees		Other Degrees		No. Receiving Higher Degrees	Total No. of Higher Degrees	Percentage of Graduates Receiving Higher Degrees	
	at Yale	E	at Yale	E	at Yale	E	at Yale	E	at Yale	E	at Yale	E	at Yale	E	at Yale	E				
1871	0	1	3	0	4	16	5	0	0	9	0	0	0	1	3	0	38	105	42	36
1876	1	0	2	1	8	36	4	0	4	16	0	0	0	0	1	2	70	127	75	55
1881	7	4	3	3	17	15	4	0	1	8	0	0	0	0	1	1	58	130	64	45
1885	13	4	11	2	6	16	4	0	1	13	0	0	0	1	1	2	63	139	74	45
1891	16	11	9	3	11	35	1	6	1	9	0	0	0	1	2	1	83	186	106	45
1896	14	6	17	4	20	58	1	6	7	11	1	0	0	2	2	8	137	278	157	49
1901	25	5	3	2	9	38	3	1	1	15	2	0	0	1	2	6	101	254	113	40
1906	29	10	11	3	11	44	1	4	0	6	4	0	0	4	3	3	108	297	133	35
1911	16	13	4	3	12	47	0	3	5	8	2	0	1	2	1	8	118	297	125	40
1916	6	8	4	2	11	30	3	2	5	15	0	0	0	2	1	1	81	318	90	25
Sub-totals	127	62	67	23	109	335	26	22	25	110	9	0	1	14	17	32	857	2131	979	40
Totals	189		90		444		48		135		9		15	49			85.7*	213.1*	97.9*	

Source: C. W. Pierson, Yale College: An Educational History, 1871-1921, page 721 (revised).

E = Elsewhere

* Average per year.

WHERE YALE UNDERGRADUATES TOOK THEIR LAW DEGREES, 1871-1916

Yale Class of:	Yale Law School	Harvard Law School	Columbia Law School	New York Law School	Other Law Schools	Totals	Percentage Taking L.L. B. Outside Yale Law School
1871							
B. A.	4	0	12	0	4	20	80
Ph. B.	0	0	0	0	0	0	---
Total	4	0	12	0	4	20	80
1876							
B. A.	8	0	23	0	13	44	82
Ph. B.	0	0	2	0	2	4	100
Total	8	0	25	0	15	48	83
1881							
B. A.	17	1	9	0	5	32	47
Ph. B.	4	0	0	0	1	5	20
Total	21	1	9	0	6	37	43
1886							
B. A.	6	0	8	1	7	22	73
Ph. B.	1	0	1	1	2	5	80
Total	7	0	9	2	9	27	74
1891							
B. A.	11	6	4	13	12	46	76
Ph. B.	2	0	0	1	3	6	67
Total	13	6	4	14	15	52	75
1896							
B. A.	21	8	4	21	25	79	73
Ph. B.	1	1	1	2	1	6	83
Total	22	9	5	23	26	85	74
1901							
B. A.	9	14	5	9	10	47	81
Ph. B.	1	1	1	0	0	3	67
Total	10	15	6	9	10	50	80
1906							
B. A.	11	12	7	11	14	55	80
Ph. B.	1	1	3	2	0	7	86
Total	12	13	10	13	14	62	81
1911							
B. A.	12	26	10	1	10	59	80
Ph. B.	1	1	0	1	4	7	86
Total	13	27	10	2	14	66	80
1916							
B. A.	11	20	3	1	6	41	73
Ph. B.	3	0	1	0	1	5	40
Total	14	20	4	1	7	46	70

Source: G. W. Pierson, Yale College: An Educational History, 1871-1921, page 719

WHERE YALE UNDERGRADUATES TOOK THEIR MEDICAL DEGREES, 1871-1916

Yale Class of:	Yale Medical School	Harvard Medical School	Columbia Medical School	Johns Hopkins Medical School	Other Medical Schools	Totals	Percentage Taking Medical Degrees Outside Yale Medical School
1871							
B. A.	0	0	5	0	4	9	100
Ph. B.	0	0	0	0	0	0	---
Total	0	0	5	0	4	9	100
1876							
B. A.	4	2	7	0	7	20	80
Ph. B.	2	0	1	0	1	4	50
Total	6	2	8	0	8	24	75
1881							
B. A.	1	3	4	0	1	9	89
Ph. B.	1	0	4	0	2	7	86
Total	2	3	8	0	3	16	88
1886							
B. A.	1	6	6	0	1	14	93
Ph. B.	1	0	3	0	2	6	83
Total	2	6	9	0	3	20	90
1891							
B. A.	1	2	5	0	2	10	90
Ph. B.	0	0	5	0	1	6	100
Total	1	2	10	0	3	16	94
1896							
B. A.	7	0	5	2	4	18	61
Ph. B.	0	0	2	2	4	8	100
Total	7	0	7	4	8	26	73
1901							
B. A.	1	2	4	1	8	16	94
Ph. B.	0	2	1	0	4	7	100
Total	1	4	5	1	12	23	96
1906							
B. A.	0	0	2	4	0	6	100
Ph. B.	2	0	0	0	2	4	50
Total	2	0	2	4	2	10	80
1911							
B. A.	5	2	6	0	0	13	62
Ph. B.	2	0	1	3	0	6	67
Total	7	2	7	3	0	19	63
1916							
B. A.	5	5	4	1	5	20	75
Ph. B.	4	0	1	4	0	9	56
Total	9	5	5	5	5	29	69

Source. G. W. Pierson, Yale College: An Educational History, 1871-1921, page 720

attractions of Columbia are evident, with Harvard playing a more modest role, joined after 1891 by the new Johns Hopkins School.

After World War I (tables B-11.4 to B-11.8) we find that the flow of talent out of Yale College gradually broadened, and shifted perceptibly in direction. Among the learned professions the law was still the most attractive, but no longer did it enlist one-half of all Yale's post-bachelor candidates. Academic preparation for careers in business (which might once have seemed unnecessary or even laughable) began to draw considerable numbers, especially to the Harvard Business School. Medicine increased its appeal. And an impressive number of Yale's graduating Seniors were going on to further training in the arts and sciences, as witness the earned M.A. and Ph.D. degrees.

If we ask where Yale's bachelors, after World War I, chose to go for their further training, our sampling of their 10-year and 25-year class books and the Alumni Records Office consolidation sheets suggest two major trends. Yale University was growing stronger and more appealing to them--and otherwise they were scattering ever more widely. Obviously the number of competent professional schools in the country had multiplied.

As for particular professions, our statistics show that right through the half century following World War I the Yale Law School ranked first in the esteem of Yale's graduates, with Harvard a clear second, and with Pennsylvania, Michigan, Chicago and Virginia rising to challenge the long-standing attractions of Columbia.

In medicine we can read a similar story: the magnetic domination of the Yale Medical School, the continuing appeal of Harvard and Columbia, the growing dispersion to medical schools across the country.

For their M.A.s and Ph.D.s Yale's Bachelors continued to prefer the Yale Graduate School, with Harvard and Columbia next, and both Berkeley and Stanford rising in importance.

Two further notes: between them, law and business administration still dominated the field; but the overwhelming attraction of Harvard's Business School seems finally to have been countered in the 1960s by the rise of Columbia and Stanford. How long it will be before Yale's new School of Organization and Management becomes an effective competitor it will be interesting to observe.

ADVANCED DEGREES TAKEN BY YALE GRADUATES IN THE CLASS OF 1920*

LL. B. or J. D.	M. D.	M. A.	Ph. D.	M. B. A.
21 Yale	10 Yale	5 Yale	9 Yale	2 Harvard
10 Harvard	4 Columbia	2 Harvard	2 Columbia	1 Dartmouth
7 Columbia	1 Bellevue Med.	2 Oxford	1 Duke	
4 Fordham	1 Howard	1 Berkeley	1 Fordham	
2 Buffalo	1 Johns Hopkins	1 Boston U.		
2 NYU	1 Pennsylvania	1 Columbia		
1 Berkeley	1 Tulane	1 Columbia Tea. Col.		
1 Boston U.	1 Union	1 Pennsylvania		
1 Chicago	1 Washington U.	1 Penn State		
1 Franklin Univ.		1 Texas		
1 Geo. Washington		1 Wayne State		
1 Hartford Col. Law				
1 Hastings, U of Calif.				
1 Illinois				
1 Montana				
1 Northeastern				
1 Northwestern				
1 Ohio State				
1 Pennsylvania				
1 Pittsburgh				
1 St. Lawrence				
1 USC				
1 U. Washington				
1 Virginia				

Sources. Twenty Years of 1920 Classbook and consolidation sheets of alumni information, filed at Yale Alumni Records Office 1948-50.

*Note. 413 students graduated in the Class of 1920. The twenty-year classbook (Twenty Years of 1920) contained biographies on 307 living and 22 dead members of the class. Of these, 70 had taken advanced degrees while some others had studied after college without taking a degree. The Classbook and the consolidated Alumni Records indicated post-graduate attendance at Yale and more than 50 institutions of higher learning. Also, receipt of degrees (in addition to degrees in law, medicine, scholarship, and business administration) in the following areas: fine arts, science, education, engineering and theology.

ADVANCED DEGREES TAKEN BY YALE GRADUATES IN THE CLASS OF 1930*

L.L. B. or J. D.	M. D.	M. A.	Ph. D.	M. B. A.
31 Yale	13 Yale	6 Columbia	17 Yale	29 Harvard
27 Harvard	11 Columbia	6 Yale	4 Columbia	2 NYU
4 NYU	9 Harvard	3 NYU	2 Harvard	1 Bridgeport
2 Boston U.	8 Johns Hopkins	1 American	2 Wisconsin	1 Pennsylvania
2 Brooklyn	4 L. I. Col. Med.	1 Brown	1 Bucharest	
2 Columbia	3 Cornell	1 Chicago	1 Gottingen	
2 Northwestern	2 Ohio State	1 Delaware	1 Inst. Paper	
2 Oklahoma	2 Pennsylvania	1 Harvard	Chemistry	
2 Western Reserve	2 Tufts	1 Mexico City Col.	1 Lawrence Col.	
1 Albany	1 Chicago	1 Missouri	1 MIT	
1 Chicago	1 Edinburgh	1 NJ St. Teachers	1 Princeton	
1 Cornell	1 Jefferson	Col.		
1 Denver	1 McGill	1 NY St. Col.		
1 Fordham	1 Northwestern	Teachers		
1 Georgetown	1 Oregon	1 Northwestern		
1 Geo. Washington	1 Rochester	1 Ohio State		
1 John Marshall	1 Rush Med. Col.	1 Oxford		
1 Michigan	1 St. Bartholomew's	1 Stanford		
1 National Univ.	Hospital	1 Syracuse		
1 Pennsylvania	1 Temple U.	1 Virginia		
1 Pittsburgh	1 U. Cincinnati	1 Wisconsin		
1 St. John's	1 Washington			
1 Southwestern				
1 Stanford				
1 Temple				
1 Tulane				
1 U. Cincinnati				
1 U. Connecticut				
1 Virginia				
1 Wisconsin				

Sources. Ten-Year and Twenty-Year Classbooks, and Yale Alumni Records Office consolidation sheets, put together in 1949-50.

Note. The Class of 1930 entered Yale College 876 strong and graduated 726 in 1930. 477 members of the Class responded to the ten-year questionnaire; 219 of them had taken advanced degrees, while some others had studied after college but apparently had not taken a degree. 529 members of the Class responded to the twenty-year questionnaire and indicated that they had received 253 advanced degrees. After 30 years the Alumni Records Office mustered 544 consolidation sheets, with 234 degrees listed. These three individually incomplete samplings at 10, 20 and 30 year intervals have been conflated in such a way as to credit each university named in any one sampling. In addition to the degrees in law, medicine, scholarship and business administration, above listed, the Yale graduates of 1930 took bachelor degrees in science, fine arts, electrical engineering, architecture, music and letters; masters degrees in science, education, public health, engineering, forestry and letters; doctors degrees in law, science, dentistry and public health, to a cumulative total of well over 70 degrees. No fewer than 41 institutions contributed such instruction, with Yale's 5 BFA's and 4 MS's the largest concentrations. Overall, more than 80 other institutions of higher learning had a hand in the career preparation of the Yale graduates of 1930.

ADVANCED DEGREES TAKEN BY YALE GRADUATES IN THE CLASS OF 1941*

L.L. B. or J. D.	M. D.	M. A.	Ph. D.	M. B. A.
38 Yale	15 Yale	18 Yale	26 Yale	17 Harvard
18 Harvard	13 Columbia	5 Columbia	3 NYU	3 NYU
9 Columbia	7 Harvard	3 Harvard	1 Chicago	1 Chicago
4 Virginia	3 Tufts	2 Geo. Washington	1 Columbia	1 Columbia
2 Boston U.	2 Cornell	2 Middlebury	1 Michigan State	1 Denver
2 Cornell	2 Georgetown	1 Chicago	1 Minnesota	1 Geo. Washington
2 Fordham	2 L. I. Coll. Med.	1 Iowa State	1 Princeton	1 Rutgers
2 Georgetown	2 Pennsylvania	1 Maine	1 Rice	1 Stanford
2 Michigan	1 Hannemann Med. Col.	1 NYU	1 Stanford	
2 Pennsylvania	1 Jefferson Med. Col.	1 Pennsylvania	1 U. Berne	
2 St. John's U.	1 NYU	1 Pittsburgh	1 U. St. Louis	
1 Denver	1 Northwestern	1 Princeton		
1 Georgia	1 Rochester	1 Texas		
1 La Salle	1 Stanford	1 Vanderbilt		
1 U. Louisville	1 SUNY-Buffalo	1 Virginia		
1 Maryland	1 Tulane			
1 Miami	1 Western Reserve			
1 NYU				
1 Northwestern				
1 Southwestern-LA				
1 Western Reserve				
1 Wisconsin				

Sources. 1941 Commencement Program, Corporation Records, and Yale Alumni Records Office consolidation sheets, analyzed by R. C. Carroll.

*Note. The Commencement Program listed 661 candidates of the graduating class of 1941 for the degrees of B. A., B. S. and B. E., and in November of the same year 27 additional members of the class received their degrees, making a total of 688. Following graduation, and in some instances after military service, 259 members earned 309 advanced degrees at 57 institutions. Of these 259 individuals, 50 took two advanced degrees each. And of the 309 degrees earned, 113 were at Yale, 50 at Harvard, 33 at Columbia, 12 at NYU and 5 each at Georgetown, Northwestern, Pennsylvania, and Virginia. In addition to the degrees in law, medicine, scholarship and business administration, tabulated above, the Yale graduates of 1941 took bachelors degrees in architecture, music, divinity or sacred theology; masters degrees in science (18), architecture, fine arts, education, engineering, forestry, law, music, public administration, public health, and sacred theology; and one doctorate each in forestry and education. Altogether the Class of 1941 earned 98 degrees in law, 57 in medicine, and 38 Ph. D. s.

ADVANCED DEGREES TAKEN BY YALE GRADUATES IN THE CLASS OF 1955*

LL. B. or J. D.	M. D.	M. A.	Ph. D.	M. B. A.
32 Yale	22 Yale	14 Yale	18 Yale	41 Harvard
30 Harvard	14 Columbia	5 Columbia	10 Harvard	14 NYU
19 Columbia	12 NY Med. Col.	4 Middlebury	7 Cornell	8 Columbia
9 Virginia	7 Harvard	4 Western Reserve	5 Columbia	7 Pennsylvania
7 Michigan	7 Johns Hopkins	3 Pennsylvania	5 Stanford	3 Northwestern
7 U. California	6 Pennsylvania	2 Brown	5 U. California	3 Rutgers
5 NYU	6 SUNY-Buffalo	2 Harvard	4 Pennsylvania	1 Boston U.
4 Georgetown	4 Cornell	2 Oxford	4 Princeton	1 Bridgeport
4 Pennsylvania	4 NYU	2 Wesleyan	4 Northwestern	1 Chicago
4 Texas	4 Tufts	1 American U.	3 Indiana	1 Dartmouth
3 Cornell	3 Chicago	1 Boston U.	2 Chicago	1 Golden State
3 Stanford	3 Northwestern	1 Cambridge-Engl.	2 Michigan S. U.	1 Michigan
2 Northwestern	3 Temple	1 Cincinnati	2 NYU	1 Pittsburgh
2 Temple	3 Western Reserve	1 Cornell	1 Boston U.	1 Texas
2 U. Connecticut	2 Baylor	1 Danbury State	1 Brown	
2 U. Washington	2 Boston U.	1 Delaware	1 Calif. Tech.	
2 Washington U.	2 Kansas	1 Fordham	1 Claremont	
1 Boston U.	1 Florida	1 Georgetown	1 Colorado	
1 Chicago	1 G. Washington U.	1 G. Washington U.	1 Florida State	
1 Cleveland S. U.	1 Jefferson	1 Hebrew Union	1 Illinois	
1 Colorado	1 McGill	1 Johns Hopkins	1 Lehigh	
1 Denver	1 Pittsburgh	1 Melbourne-Austr.	1 MIT	
1 Dickinson (Law)	1 Rochester	1 No. Colorado	1 Minnesota	
1 Duke	1 Stanford	1 Northeastern	1 No. Carolina	
1 Fordham	1 Tennessee	1 Oklahoma	1 Purdue	
1 Kentucky	1 U. California	1 Princeton	1 Rice	
1 Miami	1 U. Washington	1 Rochester	1 Rochester	
1 Minnesota	1 Vermont	1 Rutgers	1 Temple	
1 Oklahoma	1 Virginia	1 Stanford	1 U. Connecticut	
1 Oxford	1 Yeshiva	1 Toronto	1 U. Washington	
1 SUNY-Buffalo		1 Trinity	1 Washington S. U.	
1 Suffolk U.		1 U. California	1 Washington U.	
1 Syracuse		1 Vanderbilt		
1 Tennessee		1 Virginia		
1 U. New Mexico				
1 Wayne State				

Sources. Commencement Program 1955, Yale University Catalogue 1955-56, and Alumni Records Office consolidation sheets, analyzed by R. C. Carroll.

*Note. There were 834 members of the graduating class in Yale College and 172 in the School of Engineering, making a total of 1006 who were candidates for the B. A., B. S., or B. E. degrees. Almost all of these graduated either then or in November. Following graduation 587 members (more than half of the Class) earned 614 advanced degrees at 99 institutions (41 took 2 degrees, 3 took 3). Of the 614 degrees earned, 124 were taken at Yale, 100 at Harvard, 55 at Columbia, 27 at NYU, 25 at Pennsylvania, 17 at Berkeley, 15 at Cornell, 13 at Stanford, 12 each at NY Medical College and Northwestern, 11 at Virginia, 10 at Michigan, and 8 each at Boston Univ., Johns Hopkins and Princeton. In addition to the degrees in law, medicine, scholarship and business administration tabulated above, the Yale graduates of 1955 took 17 B. D. s., and 19 bachelor degrees in architecture, music science or sacred theology; 22 Masters of Science and 48 other Master degrees; and 8 doctorates. Altogether the Class of 1955 earned 159 degrees of one sort or another in law, 121 in medicine, 87 in business and 90 Ph. D. s.

ADVANCED DEGREES TAKEN BY YALE GRADUATES IN THE CLASS OF 1964*

L.L.B. or J.O.	M.D.	M.A.	Ph.D.	M.B.A.
48 Yale	17 Yale	18 Yale	38 Yale	46 Harvard
36 Harvard	9 Harvard	10 Columbia	13 Harvard	23 Columbia
18 Pennsylvania	7 Columbia	7 Harvard	5 Pennsylvania	20 Stanford
17 Michigan	6 Virginia	4 U. Calif. Berkeley	5 Stanford	7 Pennsylvania
15 Columbia	5 Tufts	4 Stanford	4 Chicago	5 Chicago
11 Chicago	4 Baylor	3 Tufts	4 MIT	4 Michigan
11 Virginia	4 Tulane	3 U. Washington	3 U. Calif. Berkeley	3 Dartmouth
9 U. Calif. Berkeley	3 Pennsylvania	3 Wisconsin	3 Cornell	2 Virginia
8 Vanderbilt	2 Cornell	2 Cambridge (Eng.)	2 Columbia	1 Cornell
7 Stanford	2 Albert Einstein	2 Chicago	2 Johns Hopkins	1 Denver
5 Texas	2 Georgetown	2 Illinois	2 Michigan	1 Emory
3 Cornell	2 Johns Hopkins	2 Johns Hopkins	2 Minnesota	1 Long Island U.
3 Maryland	2 Michigan	2 U. Mass.	2 North Carolina	1 Michigan State
2 Boston U.	2 Minnesota	2 Michigan	2 Northwestern	1 NYU
2 Duke	2 Northwestern	2 Pennsylvania	2 Texas	1 Ohio State
2 Illinois	2 NYU	2 Princeton	2 UCLA	1 Oregon
2 NYU	2 Ohio State	2 U. So. Calif.	2 U. Wash. (Seattle)	1 Rutgers
2 Western Reserve	2 SUNY-NY	2 U. So. Calif.	1 Carnegie Tech.	1 U. So. Calif.
1 Colorado	2 UCLA	1 Amer. U. (Beirut)	1 Claremont	1 So. Methodist
1 Georgetown	2 U. Washington	1 Amer. U. (D.C.)	1 Colorado	1 U. Wash. (Seattle)
1 Georgia	1 Alabama Med. Sch.	1 Boston U.	1 Duke	1 Wisconsin
1 Kentucky	1 Albany Med. Sch.	1 Cincinnati	1 Edinburgh	
1 Maine	1 U. Calif. Berkeley	1 Claremont	1 Indiana	
1 Memphis State	1 Dublin (Eire)	1 U. Connecticut	1 U. zu Köln (Gy.)	
1 Northwestern	1 Duke	1 Cornell	1 Lawrence	
1 Ohio State	1 Indiana	1 Dartmouth	1 Memphis State	
1 U. of the Pacific	1 Jefferson Med. Coll.	1 Indiana	1 NYU	
1 Queens (Ont.)	1 Kentucky	1 Louisiana	1 Ohio State	
1 Seton Hall	1 Maryland	1 Middlebury	1 Pittsburgh	
1 UCLA	1 Missouri	1 North Carolina	1 Princeton	
1 Utah	1 North Carolina	1 Notre Dame	1 Purdue	
1 Villanova	1 NY Med. Coll. (Flower)	1 Oxford (Eng.)	1 Syracuse	
1 Geo. Washington	1 St. Louis U.	1 San Francisco State	1 Tennessee	
1 Washington & Lee	1 U. So. Calif.	1 So. Florida	1 Tufts	
1 Wisconsin	1 Stanford	1 Texas	1 Union Theological	
	1 Temple	1 Toronto	1 Union Grad. Sch. (O)	
	1 Tennessee	1 UCLA	1 Virginia	
	1 Geo. Washington	1 Geo. Washington	1 Washington (St. L.)	
	1 Western Reserve	1 Washington U. (St. L.)	1 Western Reserve	
		1 Wesleyan	1 Wisconsin	

Sources: 1964 Commencement Program, University General Catalogue for the next year, and Yale Alumni Records Office consolidation sheets, analyzed by R. C. Carroll.

*Note. The Commencement Program listed 964 candidates for the B.A. and B.S., of whom 952 received their degrees before the end of the year. Following graduation a large majority of this class went on to graduate work. Of the 952, 678 (71%) earned 816 advanced degrees at 105 institutions, with 109 individuals taking two or more degrees. And of the 816 degrees earned, 194 were at Yale, 123 at Harvard, 60 at Columbia, 40 each at Pennsylvania and Stanford, 30 at Michigan, 24 at Chicago, 20 at Virginia, 19 at Berkeley, 12 each at Cornell and N.Y.U., 11 at M.I.T. and 10 at Texas. In addition to the degrees in law, medicine, scholarship and business administration tabulated above, the Yale graduates of 1964 earned 43 M.S. (11 at Yale), 26 M.Phil. (24 at Yale), 26 M.Arch. (18 at Yale), 12 M.A.T., and 10 B.D.; also 21 other degrees in the arts, 8 in some form of business management, 6 L.L.M., and 2 in Forestry.

Prior Education of Yale's Professional School Students

Turning now to Yale's own professional schools, if we ask where Yale's professional school students came from, the answers are supplied by tables B-11.9 through B-11.14. These answers, be it noted, are subject to qualification. Because of the way Yale's schools kept records, their catalogue figures for prior schooling from 1920 to 1975 reflect the whole student bodies, i.e., not just the candidates for the L.L.B., M.D., or B.D. degrees, but also the interns, research fellows, post-graduate and post-doctoral students, etc. (see Sources).

Looking first at our tables of prior education in the earlier years (B-11.9, B-11.10, B-11.11), the statistics seem to indicate that between the Civil War and World War I quite a number of Yale's professional school students had earned no prior college degrees. Which is to suggest that the professions were not demanding a liberal education, and the professional schools were competing for talent with the colleges. At Yale, for example, only in divinity could one count on a liberally educated student body. By 1920, however, all this had changed, and the number of colleges and universities represented in each of Yale's professional school enrollments was beginning to reach into the hundreds.

Analysis of the prior education of the Yale Law School students shows that Yale College itself was the largest contributor, and after 1920 continued to be the prime feeder by a wide margin. It was followed by Princeton and by Harvard, then by Dartmouth and Cornell. Until after World War II Columbia as a college apparently contributed fewer students to the Yale Law School than Yale as a college sent to the Columbia Law School. In the last fifty years Amherst and Pennsylvania have been steady feeders. For a time Williams and Wesleyan sent impressive delegations to New Haven; more recently Stanford, Brown and Berkeley have turned this way.

In medicine, likewise, Yale College has been since 1920 the chief source of supply--with Harvard and Columbia following--then Stanford, Princeton, N.Y.U. and Cornell. The other colleges seem to have been less steady in their contributions. Yet, just as in law and divinity, the jump after World War I in the number of colleges represented is impressive.

As for divinity, almost all the great institutional names disappear, save that of Yale. Duke, Bethany, Ohio Wesleyan, Worcester, Wesleyan University, Oberlin and DePauw outrank Princeton and Harvard and Columbia as significant

PRIOR EDUCATION OF YALE LAW SCHOOL STUDENTS, 1871-1916

School Year Ending	Total Number of Students	Yale Graduates	Graduates of Other Colleges	Total Number of College Graduates	Percentage of College Graduates
1871	23	4	1	5	22
1876	75	19	6	25	33
	Spec. Stud. 1				
1881	58	27	4	31	53
	Grad. Studs. 6	1	2	3	
1886	52	15	6	21	40
	Grad. Studs. 8	1	1	2	
	Spec. Studs. 2	0	0	0	
1891	111	30	17	47	42
	Grad. Studs. 5	0	0	0	
1896	186	45	24	69	33
	Grad. Studs. 24	3	2	5	
	Spec. Studs. 14	0	0	0	
1901	194	40	25	65	32
	Grad. Studs. 12	1	1	2	
	Spec. Studs. 7	0	2	2	
1906	240	37	19	56	23
	Grad. Studs. 13	0	1	1	
	Spec. Studs. 25	1	2	3	
1911	219	31	46	77	35
	Grad. Studs. 19	1	5	6	
	Spec. Studs. 47	1	3	4	
1916	101	54	45	99	98
	Grad. Studs. 9	0	0	0	
	Spec. Studs. 9	0	1	1	

Source. Yale University Catalogues.

PRIOR EDUCATION OF YALE MEDICAL SCHOOL STUDENTS, 1871-1916

School Year Ending	Total Number of Students	Yale Graduates	Graduates of Other Colleges	Total Number of College Graduates	Percentage of College Graduates
1871	33	5	1	6	18
1876	42	9	3	12	29
1881	25	5	1	6	24
1886	25	8	2	10	40
	Grad. Studs.	2	1	1	
	Spec. Stud.	1	1	1	
1891	62	18	4	22	35
	Spec. Stud.	1			
1896	119	21	10	31	26
	Spec. Studs.	6	1	1	
1901	131	19	6	25	19
	Spec. Studs.	2	1	1	
1906	133	9	8	17	13
	Spec. Studs.	4			
1911	81	14	5	19	23
	Spec. Studs.	1			
1916	58	25	13	38	66

Source. G. W. Pierson, Yale College, An Educational History, 1871-1921, p. 717, table revised.

PRIOR EDUCATION OF YALE DIVINITY SCHOOL STUDENTS, 1871-1916

School Year Ending	Total Number of Students	Yale Graduates	Graduates of Other Colleges	Total Number of College Graduates	Percentage of College Graduates
1871	53	21	19	40	76
	Licentiates	2	1	2	
1876	97	17	67	84	87
	Licentiates	2	1	1	
1881	86	10	55	65	76
	Licentiates	2	0	1	
	Grad. Studs.	5	1	4	
1886	98	13	65	78	80
	Licentiates	2	1	2	
	Grad. Studs.	10	2	8	
1891	119	13	94	107	89
	Licentiates	4	0	1	
	Grad. Studs.	16	4	12	
1896	87	10	63	73	84
	Licentiate	1	0	0	
	Grad. Studs.	17	3	10	
1901	67	8	49	57	85
	Licentiates	12	2	8	
	Grad. Studs.	10	2	7	
1906	52	4	45	49	94
	Grad. Studs.	19	3	16	
	Spec. Studs.	11	2	4	
		*4	1	2	
1911	71	2	56	58	82
	Grad. Studs.	18	3	15	
	Spec. Studs.	4	0	1	
		*17			
1916	78	3	57	60	77
	Grad. Studs.	16	1	15	
	Spec. Studs.	12	2	4	
		*13			

Source. G. W. Pierson, Yale College, *An Educational History, 1871-1921*, p. 718, table revised. The 1906 figures differ slightly from the University Catalogue Summary figures (A-1.5).

*Students from other Schools, not listed before 1906.

PRIOR EDUCATION OF YALE LAW SCHOOL STUDENTS, 1920-1975

	1920- 1921	1925- 1926	1930- 1931	1935- 1936	1940- 1941	1946- 1947	1950- 1951	1955- 1956	1960- 1961	1965- 1966	1970- 1971	1975- 1976
Yale	64	123	134	171	116	161	95	84	137	139	87	67
Princeton	-	7	13	28	45	34	28	12	43	61	55	21
Harvard	-	6	5	14	27	21	43	30	26	45	61	38
Dartmouth	2	5	8	25	16	23	12	15	25	25	23	16
Cornell	3	11	9	4	13	11	7	11	18	19	28	11
Columbia	2	2	2	6	4	11	19	20	17	16	21	11
Amherst	1	1	4	16	12	18	12	12	24	12	11	10
Pennsylvania	-	11	6	3	5	4	12	26	16	9	12	12
Stanford	-	-	2	2	2	2	5	3	6	19	28	24
Williams	-	-	-	7	13	15	15	7	18	11	-	7
Brown	1	3	4	3	5	3	1	5	11	10	9	15
Georgetown	2	10	-	1	2	-	-	2	8	4	5	7
C. C. N. Y.	-	3	3	3	4	7	23	7	4	5	4	2
Wesleyan	2	6	2	8	11	13	12	3	2	5	4	3
New York Univ.	-	2	5	5	5	8	8	11	5	7	5	6
Michigan	1	3	1	2	2	7	4	6	2	5	8	9
Chicago	2	2	-	2	1	3	11	12	4	2	3	8
Holy Cross	9	28	5	-	1	1	1	6	1	2	2	3
Trinity (Ct.)	6	7	7	4	3	6	1	3	2	3	3	3
North Carolina	-	-	4	5	5	6	5	3	4	2	3	10
Swarthmore	-	-	7	1	3	5	7	-	4	3	4	11
Berkeley	1	-	-	-	1	2	6	-	3	10	9	10
Rutgers	2	2	4	-	1	3	9	5	3	3	2	7
Syracuse	-	4	4	1	3	5	6	5	6	2	1	3
Vanderbilt	5	6	3	2	3	6	2	2	3	1	2	5
Wisconsin	1	2	1	1	2	4	3	5	4	6	5	5
Notre Dame	-	3	2	-	1	4	3	4	2	7	1	10
Northwestern	-	-	1	-	2	7	3	5	8	2	5	3
Kansas	4	2	4	3	1	4	3	1	2	1	3	7
Wellesley	-	-	3	3	1	5	3	1	5	1	8	2
Virginia	2	1	2	1	-	4	4	1	3	1	7	3
Colgate	-	-	1	-	3	3	6	6	5	1	2	-
Illinois	-	2	5	2	-	1	4	1	3	2	2	5
Fordham	-	3	2	-	-	1	1	2	1	5	5	4
Total Number of Institutions Represented	63	98	96	79	92	140	153	162	184	157	148	189
Total Enrollment of Regular Students*	185	367	330	382	386	511	554	468	591	628	626	590

Source. Law School Catalogues.

* The total enrollment figures may differ slightly from the figures given in Tables A-1. 5, 6, 7, as they were compiled at different times of the academic year. Undergraduates taking combined courses were excluded in the counts for 1920-21 and 1930-31. Sterling Fellows or Graduate Fellows were included in the counts for 1930-31 and 1950-51. The counts for 1946-47 included the summer term as well as the winter enrollment.

PRIOR EDUCATION OF YALE MEDICAL SCHOOL STUDENTS, 1920-1975

	1920- 1921	1925- 1926	1930- 1931	1935- 1936	1940- 1941	1946- 1947	1950- 1951	1955- 1956	1960- 1961	1965- 1966	1970- 1971	1975- 1976
Yale	64	69	79	77	57	59	99	117	151	105	88	94
Harvard	-	5	7	12	10	16	33	37	52	59	15	58
Columbia	-	17	8	10	11	7	25	26	16	17	12	15
Stanford	-	2	3	1	7	5	11	9	18	13	16	31
Princeton	-	-	1	4	5	2	7	28	34	18	3	9
New York Univ.	1	4	7	3	9	11	19	9	21	15	5	2
Cornell	-	2	7	10	3	4	10	11	21	10	15	12
Dartmouth	2	3	5	7	3	3	8	8	9	7	12	9
Amherst	-	3	4	3	5	4	5	7	17	12	8	6
Tufts	-	4	2	1	1	4	9	12	21	13	4	4
Wesleyan	2	4	3	5	3	4	7	6	6	5	9	13
Berkeley	-	4	1	1	2	7	9	7	12	8	7	8
Pennsylvania	-	2	2	5	2	5	3	4	14	8	8	11
Trinity (Ct.)	3	12	13	3	4	2	4	6	3	4	9	1
Rochester	-	-	-	-	1	1	4	12	17	12	6	4
Johns Hopkins	-	2	-	2	4	1	11	7	15	9	-	5
Holy Cross	-	4	2	2	2	-	5	13	11	6	4	3
MIT	-	1	1	1	2	3	3	3	8	3	7	21
Chicago	-	1	-	1	1	6	7	6	7	6	5	7
Univ. of Connecticut	-	-	-	-	4	10	3	10	1	4	2	11
Michigan	-	-	2	1	-	1	7	5	7	10	7	6
Rutgers	-	2	1	-	-	-	2	8	11	7	9	2
Swarthmore	-	-	-	-	-	1	3	10	11	7	4	6
Bowdoin	-	1	6	2	7	6	3	8	3	2	-	2
Duke	-	-	-	2	3	2	4	5	8	6	4	4
CCNY	-	12	5	1	2	2	4	4	1	2	4	3
Lafayette	1	3	2	4	6	2	2	7	7	-	-	3
Georgetown	-	1	1	2	-	1	1	4	6	14	3	1
Boston Univ.	-	-	-	-	2	1	1	6	8	6	2	6
Virginia	-	1	-	-	2	1	5	2	5	5	5	1
Wisconsin	1	1	2	-	1	6	3	4	2	2	3	5
Fordham	-	-	1	-	-	-	4	3	5	7	3	3
Total Number of Institutions Represented*	24	66	97	77	98	151	180	183	221	238	179	195
Total Enrollment of Regular Students**	88	193	207	212	249	284	300	349	349	404	499	629

Source. Medical School Catalogues.

* The colleges which sent Fellows or research or post-graduate students not candidates for the degrees were counted in, in the catalogues in 1930-31, 1950-51, 1955-56, 1950-61, 1965-66.

** The total enrollment figures may differ slightly from the figures given in Tables A-1.5, A-1.6, A-1.7, as they were compiled at different times of the academic year. They include only students enrolled for degrees (MD, and Master and Doctor of Public Health).

PRIOR EDUCATION OF YALE DIVINITY SCHOOL STUDENTS, 1920-1976

	1920- 1921	1925- 1926	1930- 1931	1935- 1936	1940- 1941	1945- 1946	1950- 1951	1955- 1956	1960- 1961	1965- 1966	1970- 1971	1976- 1977*
Yale	11	21	35	30	35	32	64	71	71	14	29	28
Duke	-	6	2	6	6	17	8	10	9	10	10	7
Bethany (W. Va.)	-	6	10	7	4	8	3	7	4	6	9	2
Ohio Wesleyan	-	1	2	10	7	8	7	8	9	6	1	2
Wooster	-	-	3	4	6	3	12	11	5	10	1	6
Wesleyan U.	2	4	3	3	6	3	6	8	7	4	3	5
Oberlin	2	4	1	5	1	4	7	4	10	2	11	4
DePauw	-	1	2	4	3	1	2	3	10	11	10	1
Princeton	-	2	1	1	2	1	3	13	11	3	8	2
Harvard	-	1	-	4	1	1	8	6	10	9	2	3
Northwestern	1	1	5	2	4	5	3	6	9	3	1	2
Emory	3	11	5	5	2	4	4	1	2	1	-	1
Phillips (Okla.)	3	2	6	5	2	3	4	6	2	-	1	-
Brown	-	1	2	1	2	4	2	2	3	3	7	5
Drew	-	-	-	1	1	5	6	-	5	4	4	5
Southern Methodist	-	4	6	1	-	-	1	9	4	4	-	-
Amherst	1	-	-	4	2	2	1	6	5	3	2	2
Boston U.	-	2	6	3	2	4	2	3	-	2	1	3
Carleton	3	5	-	1	1	1	1	4	1	2	5	4
Union Theol.S.(NY)	2	1	2	2	-	6	4	4	5	1	1	-
Bates	1	4	1	-	7	3	3	2	1	2	-	2
Princeton Theol. S.	-	2	3	3	1	5	6	4	-	-	-	1
Trinity (Ct.)	3	1	-	-	2	-	2	2	3	5	3	4
Texas	2	5	2	-	1	3	3	4	2	1	-	2
Vanderbilt	-	6	1	1	5	4	1	3	3	1	-	-
Haverford	-	-	-	3	1	1	5	5	6	1	1	1
U. Calif. Berkeley	-	2	1	1	1	4	2	2	6	1	1	1
Wake Forest	-	2	2	-	2	4	5	1	5	2	-	1
Total Number of Institutions Represented	69	147	204	148	173	185	223	211	235	216	202	231
Total Enrollment of Regular Students**	111	228	258	226	266	300	390	410	430	319	319	388

Source. Divinity School Catalogues.

* Figures for the year 1975-1976 are not available.

** The total enrollment figures may differ slightly from the figures given in Tables A-1.5, 6, 7, as they were compiled at different times of the academic year. These totals include graduate students but they do not include students principally enrolled in the Berkeley Divinity School in New Haven (21 in 1930-31; 19 in 1935-36; 21 in 1940-41; 19 in 1945-46; 42 in 1950-51 and 23 in 1955-56). Nor do they include Visiting Fellows (1 each in 1940-41 and 1945-46) or Interns (16 in 1965-66; 28 in 1970-71, 14 in 1976-77), or Research Fellows (14 in 1970-71 and 23 in 1976-77). However, all but the Berkeley Divinity School students figure in the "Institutions Represented".

sources of religious talent. Indeed the whole list (B-11.14) suggests a quite different orientation and overall source of supply: a layer of society but distantly related to the ambitious lawyers and doctors, and a sector of academia at a quite noticeable remove.

One other statistical characteristic of the enrollments in the Yale professional schools is worth remarking. Not only did the students come from a wide variety of colleges, but they came from so many different colleges that many of the students, and sometimes most of them, were the only representatives of their college in their Yale professional community. Especially has this been true of Yale's religious constituency (as witness the very modest differences between total enrollments and number of schools represented).

To put this in quite another way: in the twentieth century Yale came to play University to hundreds and hundreds of colleges as well as to thousands of students across the country.

C

UNDERGRADUATE STUDIES
YALE COLLEGE

C-1. The Course of Study

Introduction: From the Classical Curriculum to Modern Diversity

From student statistics one moves naturally to their studies. What had been the shape and content and meaning of the liberal arts at Yale? What studies had been required for the Bachelor of Arts degree? How can one measure or quantitatively define the education that Yale expected its graduates to achieve? And how across 275 years did those expectations change?

Such questions are too great for full answer here. For they involve the whole evolution of higher education in this country. In any case the theory and philosophy of a liberal education, with its trials and its failures, can only awkwardly be expressed in numbers--indeed can be found already better expressed elsewhere. For the great statement on the traditional classical curriculum, and an understanding of what it was all about, we should still go to the 1828 Faculty "Report of the Course of Instruction": a report which states superlatively the reasons for a broad foundation and the need for exercising and training the variety of human faculties which a liberal education should strengthen. Again, for the modernization of that curriculum, one should consult Frederick Rudolph's "Curriculum: A History of the American Undergraduate Course of Study since 1636" (1977) and Pierson's two volumes on modern Yale. It would be hard to understand the full meaning of the modern curriculum, here or anywhere else, without some such studies.

So what has been attempted here, instead of philosophic exercise, is a kind of stratigraphic record: i.e., a reproduction of the requirements of the course of study in each of the four years as they were stated in Colonial times and then gradually developed. Not all the minor changes could be included, but all the more important developments and shifts are here recorded and can be analyzed with considerable success. For example, one can see the studies becoming ever less elementary, or more sophisticated and advanced. One can witness the demotion of some exercises from the upperclass curriculum to Sophomore or even Freshman year; one catches some exercises being dropped entirely; one can watch the educational elevator rise. In the second place, one can at the

same time observe the diversification of the curriculum, as new sciences and more languages and social studies are put into the elevator. By comparing successive courses of study one can as it were measure the broadening as well as the deepening culture of our country. For as more and more intellectual disciplines flooded in from Europe in the nineteenth century one finds our forefathers struggling desperately to introduce them into the curriculum. The three terms each year made it possible to insert here a little bit of this, there a little taste of that, until finally in desperation, since all the study hours had been taken, one sees the attempt still to keep up with the expansion of knowledge by adding to the prepared recitations special lectures from the learned Professors.

By 1870, all too obviously, the old required classical curriculum had reached its limits. There was just no more room for more new studies--and of course no room for the pursuit of particular studies to more advanced levels. So came the introduction of optionals, and then of freer electives, and then of totally free electives and of more advanced courses for at least some portions of the students' time. I have developed the rationale of the so-called "elective system" and followed Yale's repeated and sequential experiments in full detail in my histories. Here the reader can find not the reasons for the changes but the record of the changing requirements as laid down stratum upon stratum in the catalogues.

After 1875 one notes first the systematic intrusion of the optionals, then of the electives, generally at the Senior and Junior levels, whence they move down to the Sophomore and finally the Freshman years. Next come the efforts to restore balance by a long series of experiments with required distributions. Recorded here also is the gradual development of upperclass concentration or "majors," so that by 1940, unmistakably, mastery had been added to the old ideals of foundation and of breadth. Finally after World War II we come to the abandonment of any absolute requirements in favor of a philosophic statement or counsel of self-education. And in that counsel one finds emerging once again the ideals of a liberal education, now most broadly and permissively defined.

Anyone who troubles to read through the successive efforts to frame a satisfactory curriculum will of course see not only the hand of change but the signs of compromise and of human fallibility. At the same time one cannot but be impressed by the earnestness and persistence of the educational effort. Reviewing the long series one begins to appreciate as well the almost staggering increase in the wealth of intellectual opportunities. Our next series

(C-2) will provide some figures on that growth. And the later series (C-3, C-4, C-5) will then show what advantage the undergraduates took of their liberties and their really astonishing intellectual opportunities.

Concerning Scholastic Exercises. (1774)

1. **E**VERY Student shall diligently apply himself to his Studies in his Chamber, as well as attend constantly upon all public Exercises appointed by the President or his Tutor; and no Student shall walk abroad, or be absent from his Chamber without Liberty, except half an Hour after Breakfast, and an Hour and half after Dinner, and from Prayers at Night to Nine o'Clock, upon Penalty of Two Pence, or more, to Six Pence, at the Discretion of the President or Tutors.

2. Both before and after Noon, and after Nine o'Clock, the Tutors in their Turn shall daily visit all the Chambers of the Students, to observe whether they be there and at their Studies; and shall punish all those that shall be absent without Liberty or Necessity.

3. The President and each of the Tutors, according to the best of their Discretion, shall teach and instruct his own Class in the three learned Languages, and the liberal Arts and Sciences. In the first Year the Students are principally to learn the Languages and Arithmetic; and through the two next following Years they are required to pursue the Study of the Languages in some measure. The second Year they recite Logic, Rhetoric, Geometry and Geography; the third the other Branches of the Mathematics, Natural Philosophy and Astronomy; in the fourth Metaphysics, Ethics, History and civil Policy. The respective Classes shall recite the usual Books, and in the accustomed Manner, or such other Books and in such Manner as the President, with the Advice of the Tutors, shall appoint; but every Saturday shall be devoted chiefly to the Study of Divinity.

And each Class through the whole Time of their Pupilage shall recite either the Assembly's Catechism, the Confession of Faith received and approved by the Churches of this Colony, Wallenius, Ames's Medulla, or some other System of Divinity approved of by the President

and Fellows. On Tuesdays and Fridays every Undergraduate in his Turn, about Six at a Time, shall declaim in the English, Latin, Greek or Hebrew Tongue, and in no other, without special Liberty from the President, and shall presently after deliver up his Declamation to his Tutor, fairly written, with his Name subscribed. The two Senior Classes shall dispute twice a Week in the Chapel; and if any Undergraduate shall be absent from Recitation or Disputation without Liberty, he may be fined Two Pence, and if from declaiming Six Pence.

4. If any Student shall very frequently neglect the public Exercises aforesaid, or perform them very slightly; or if he be frequently absent from public Prayers, or from his Chamber in studying Time, or spend the main of his Time in Sloth and Idleness, he shall be punished by Fine, Admonition, the having some extraordinary Exercises appointed him, or by Dismission from College, as the Nature and Degree of the Crime shall require.

5. The Senior Sophisters shall attend Recitation and the other public Exercises, until the Twentieth Day of July, yearly; nor may they depart from College before they have completed their Theses, and the other necessary Preparations for the public Commencement, nor then without the President's Liberty.

6. About the twentieth of July, (on a Day appointed by the President) the Senior Sophisters shall appear in the Chapel, to be examined by the President, Fellows, Tutors, or any other Gentlemen of liberal Education, touching their Knowledge and Proficiency in the learned Languages, the liberal Arts and Sciences, and other Qualifications requisite for receiving a Bachelor's Degree.

7. All resident Masters and Bachelors are required to attend Prayers, Lectures, and all other Exercises of divine Worship in the Chapel, under Penalty of being deprived the Privilege of the Library.

8. All resident Bachelors shall dispute in the Hall before the President every Week, or otherwise, according to the President's Direction, upon Penalty of four Pence for Absence without sufficient Reason.

9. The President shall order the resident Bachelors and Undergraduates to make Analysis, or perform any other scholastic Exercises in the Chapel, for the Improvement and Tryal of their skill and Learning, as he shall judge proper.

10. Whereas the Marriage State is very incongruous with a State of Pupilage in this College, it is ordered, that if any Undergraduate shall contract Matrimony, he shall be dismissed from College.

Source. LAWS of Yale-College, 1774. Photo Reproduction from the University Archives.

Note. This chapter of the LAWS is a translation of the LAWS of 1748 except that the last section of the 1748 LAWS prescribed the use of Latin in discourse instead of proscribing the Marriage State.

Of the COURSE of ACADEMIC LITERATURE and INSTRUCTION in the COLLEGE. (1795)

I. **T**HE President, Professors and Tutors shall instruct the Undergraduate-Students in the three learned Languages, the liberal Arts and Sciences, and the whole course of Academic Literature.

II. THE Senior Class shall be under the especial instruction of the President: Each Tutor shall take the care of, and instruct the particular Class committed to his charge by the President: The Professors shall deliver public lectures in the Chapel, and private lectures and instructions to the Classes and Students, in the several branches of science which they severally profess, under the direction of the Corporation, or of the Prudential Committee; and where no particular direction is given by the Corporation, or the Prudential Committee, under the direction of the President.

III. THE President, with the advice of the Professors and Tutors, shall appoint all classical exercises and examinations, and the authors which shall be read and recited by the respective Classes: And it shall be the duty of the President annually at the Commencement to lay before the Corporation the state and method of instruction, the Authors recited, and the progress of literary improvement in the College.

IV. THE first year of their standing at the College, the Students shall be instructed in the learned Languages, and Arithmetic; and the study of the Languages shall be continued the two following years: In the second year they shall also be instructed in Geography, the elements of Chronology, and History, in Algebra, and plane Geometry: In the third year in English Grammar, in Trigonometry, Navigation, Surveying, and other branches of the Mathematics, in Natural Philosophy and Astronomy: In the fourth year, in Rhetoric, Ethics, Logic, Metaphysics, and the history of Civil Society; and throughout the two last years of their Pupilage, on Saturdays, in some approved system of Theology. The Senior-Sophisters, and also the Junior-Sophisters shall dispute twice a week; and on Tuesdays and Fridays, the Undergraduates, about four on each day, shall declaim in the English, Latin, Greek, or Hebrew tongue, as shall be directed by the President; and in no other without his special leave: And each one, whenever required, shall deliver his declamation to the President, or to his Tutor, fairly written, with his name subscribed. The Monitors shall previously notify those who are to declaim;

and at the time of declaiming deliver a catalogue of them to the President, Professor or Tutor, who shall be in the desk.

V. If any Scholar shall be absent from any lecture, recitation, disputation, or other classical exercise duly appointed, he may be fined three cents ; and if from declaiming, six cents ; and every Scholar shall be obliged to attend every examination, public or private, appointed by the President, Professors, and Tutors, on penalty of fine, or any other College punishment, as the nature of the offence may require.

VI. If any Student shall appear on examination deficient in those branches of knowledge, which according to the regular course of literature in the College he hath been pursuing, it shall be the duty of the President, or his Tutor, to admonish him of such deficiency, that he may be incited to apply with greater diligence to study : and if, notwithstanding, at the next succeeding public examination, holden after an interval of at least three months, he shall appear so deficient as to be unfit for his standing, and unable with profit and reputation to pursue his studies with his Class, he shall be degraded by the President, Professors and Tutors, to the next lower Class, or dismissed from the College.

VII. If any Scholar shall frequently neglect the public exercises of religion and instruction, or if he shall spend the hours of study in idleness and manifest a prevailing inclination to wickedness and a dissolute behaviour ; or if he entice others from their studies and draw them into bad practices, he shall be dismissed from the College, or suspended for a year and put back into the next Class.

VIII. On the third Wednesday of July, annually, the Senior-Sophisters shall be examined, under the direction of the President, by the Professors, Tutors and other Gentlemen of a liberal education, who may be present, as to their knowledge and proficiency in the learned Languages, and the liberal Arts and Sciences ; and being found well skilled in them, and the whole course of academic literature, shall be advanced to the standing of Candidates for the degree of Bachelor of Arts ; and having made all necessary preparations for Commencement, the President may give them leave of absence from the College, until the Friday before the Commencement.

Source. LAWS of Yale-College, 1795. Photo Reproduction from the University Archives.

COURSE OF INSTRUCTION. (1822-23)

The Academical Faculty, to whom is committed the government and instruction of the students, consists of a President, a Professor of Chemistry, Mineralogy, and Geology, a Professor of the Hebrew, Greek, and Latin Languages, a Professor of Mathematics, Natural Philosophy, and Astronomy, a Professor of Divinity, a Professor of Rhetoric and Oratory, and eight Tutors.

The whole course of instruction occupies four years. In each year, there are three terms or sessions.

The three younger classes are divided, each into two or three parts; and each of the divisions is committed to the particular charge of a Tutor, who, with the assistance of the Professors, instructs them. The Senior class is instructed by the President and Professors. Each of the four classes attend three recitations or lectures in a day; except on Wednesdays and Saturdays, when they have only two. The following scheme gives a view of the authors recited, each term.

<p><i>Freshman Class.</i></p> <p>I. { Livy begun. Adams' Roman Antiquities. Webber's Arithmetic revised. Murray's English Grammar. Livy continued through five books.</p> <p>II. { Elegantiæ Latinae. Græca Majora, the Historical parts. Dew's Algebra. Græca Majora continued.</p> <p>III. { Morse's Geography. Murray's Grammar reviewed.</p>	<p><i>Sophomore Class.</i></p> <p>I. { Græca Majora continued. Playfair's Euclid begun. Horace begun. Euclid finished. Horace finished.</p> <p>II. { Day's Mathematics, Parts II. and III. Græca Majora continued. Cicero de Officiis begun. Day's Mathematics, Part IV. Conic Sections and Spheric Geometry.</p> <p>III. { Jamieson's Rhetoric. Cicero de Officiis, de Senectute and de Amicitia, finished.</p>
<p><i>Junior Class.</i></p> <p>I. { Spheric Trigonometry. Græca Majora, finished. Enfield's Philosophy begun. Cicero de Oratore begun. Homer's Iliad. Enfield's Philosophy continued.</p> <p>II. { Cicero de Oratore continued. Tacitus, omitting the Annals. Enfield's Astronomy. Tyler's History. Fluxions } at the option of</p> <p>III. { Greek or } the student. Hebrew. }</p>	<p><i>Senior Class.</i></p> <p>I. { Blair's Rhetoric. Hedge's Logic. Locke's Essays. Paley's Natural Theology.</p> <p>II. { Stewart's Philosophy of the mind. Paley's Moral Philosophy.</p> <p>III. { Paley's Evidences of Christianity.</p>

In addition to the recitations in the books here specified, the classes receive lectures and occasional instruction from the Professor of Languages; the Junior class attends a course of experimental lectures on Natural Philosophy; and the Senior class, the courses on Chemistry, Mineralogy, Geology, and the principles of Natural Philosophy. The members of the several classes attend also the private exercises and lectures of the Professor of Rhetoric and Oratory. Specimens of English Composition are exhibited daily by one or more of each of the divisions of the Sophomore and Junior classes. Written translations from Latin authors, are presented by the Freshman class. The lower classes are also instructed in Latin Composition. The Senior and Junior classes have Forensic Disputations once or twice a week, before their instructors. There are very frequent exercises in Declamation, before the Tutors, before the Professor of Oratory, and before the Faculty and students in the chapel.

The Berkelian Premium, of about fifty dollars a year, is given to the scholar in each class who passes the best examination in Latin and Greek; provided he reside as a graduate in New-Haven, one, two, or three years. Premiums are also given for Latin and English Composition, and Declamation in public.

There are two public examinations of the classes in a year, one in May, the other in September; which are continued from four to six days each. The candidates for degrees are also examined, at the close of their course of study.

There are three vacations in a year; one of six weeks, beginning at Commencement, the second Wednesday in September; the second two weeks from the second Wednesday in January; and the third, four weeks from the first Wednesday in May. No student is allowed to be absent, without special leave, except in vacations.

Source. Catalogue, 1822-23. Photo Reproduction from the University Archives.

Course of Instruction 1823-43

1823-24	Unchanged
1824-25	John Locke dropped from Part I. of the Senior year; Greek and Latin added to Part I. and Part II. of the Senior year; Say's Political Economy made Part III. of the Senior year; Paley's theology moved to Part I. and Part II. of the Senior year.
1825-26	French elective added to Part III. of the Junior year.
1826-27	Spanish elective added to Part III. of the Junior year.
1827-28	Hedge's Logic moved to Part III. of the Junior year; Brown's Do added to Part I. of the Senior year.
1828-29	Unchanged
1829-30	Unchanged
1830-31	Unchanged
1831-32	Unchanged
1832-33	Unchanged
1833-34	Kent's Commentaries on American Law added to Parts I. and II. of the Senior year.
1834-35	Unchanged
1835-36	Unchanged
1836-37	Unchanged
1837-38	Unchanged (Wayland substituted for Say in Political Economy.)
1838-39	Unchanged
1839-40	Unchanged
1840-41	Unchanged
1841-42	German elective added to Part III. of the Junior year.
1842-43	Unchanged

Source. Annual Catalogues.

COURSE OF INSTRUCTION (1850-51)

Terms of Admission.

CANDIDATES for admission to the Freshman Class, are examined in Cicero's Select Orations, the whole of Virgil, Sallust, Jacobs's, Colton's or Felton's Greek Reader, the first three books of Xenophon's Anabasis, Andrews and Stoddard's or Zumpt's Latin Grammar, Sophocles's, Crosby's or Kühner's Greek Grammar, Andrews's Latin Exercises, Latin Prosody, Thomson's Higher Arithmetic, English Grammar, Geography, and Day's Algebra to Quadratic Equations.*

Candidates for advanced standing, whether from other Colleges or not, in addition to the preparatory studies, are examined in those previously pursued by the classes which they propose to enter. No one can be admitted into the Senior Class after the close of the January vacation.

The regular examination for admission into College, commences on the Monday preceding the public Commencement; but persons may be examined for an advanced standing in any other

* The deficiency of most candidates for admission, in the Latin and Greek Grammars, Latin Prosody and Composition, Geography, and the theoretical part of Arithmetic, makes it necessary to remark, that the examination in these subjects will be strict and comprehensive.

part of the collegiate terms. It is requested that they may not be offered in the vacations, except for very special reasons.

No one can be admitted to the Freshman Class, till he has completed his fourteenth year, nor to an advanced standing without a proportional increase of age.

Testimonials of good moral character are in all cases required; and those who are admitted from other Colleges must produce certificates of dismissal in good standing. The students are not considered as regular members of the College, till, after a residence of at least six months, they have been admitted to matriculation, on satisfactory evidence of an unblemished moral character. Before this they are only students on probation. The laws of the College provide for the final separation from the institution of those, who, within a specified time, do not so far approve themselves to the Faculty as to be admitted to matriculation.

Course of Instruction.

The Faculty, to whom are committed the government and instruction of the undergraduate students, consists of a President; a Professor of Chemistry, Mineralogy, and Geology; a Professor of the Latin Language and Literature; a Professor of Divinity; a Professor of Natural Philosophy and Astronomy; a Professor of the Greek Language and Literature; a Professor of Rhetoric and English Literature; a Professor of Mathematics; a Professor of Moral Philosophy and Metaphysics; an Assistant Professor of the Latin Language; an Assistant Professor of the Greek Language; and seven Tutors.

The whole course of instruction occupies four years. In each year there are three terms or sessions.

The three younger classes are divided each into three parts; the Senior Class into two parts. Each of the four classes attends three recitations or lectures in a day; except on Wednesdays and Saturdays, when they have only two. The following scheme gives a general view of the studies pursued in each term:—

FRESHMAN CLASS.

- I. { Lincoln's Livy, begun.
Roman Antiquities.
Day's Algebra.
Homer's Odyssey, begun.
- II. { Livy, continued.
Homer's Odyssey, continued through six books.
Algebra, reviewed; Playfair's Euclid, four books.
Horace, begun.
- III. { Herodotus, begun.
Euclid, finished.
Parts of the Greek Testament are read during the year.

SOPHOMORE CLASS.

- I. { Horace, continued.
Herodotus, continued; Xenophon's Memorabilia, two books.
Day's Mathematics; Nature and Use of Logarithms, Plane Trigonometry,
and Mensuration of Superficies and Solids.
- II. { Horace, finished; Cicero de Amicitia and de Senectute.
The Alcestis of Euripides.
Day's Mathematics; Isoperimetry, Mensuration of Heights and Distances,
and Navigation.
The Prometheus of Aeschylus.
Cicero de Oratore, begun.
- III. { Day's Mathematics; Surveying.
Bridge's Conic Sections.
Stanley's Spherical Geometry and Trigonometry.
Whately's Rhetoric, with the exception of Part IV, on Elocution.

JUNIOR CLASS.

- I. { Cicero de Oratore, continued; Tacitus, Manners of the Germans, and
Agricola; the Hercules Furens of Seneca.
The Antigone of Sophocles; Plato's Gorgias, begun.
Olmsted's Natural Philosophy; Mechanics, Hydrostatics, Hydraulics.
- II. { Tacitus, continued; the History.
Plato's Gorgias, finished.
Natural Philosophy; Pneumatics, Acoustics, Electricity, Magnetism.
Natural Philosophy; Optics.
Olmsted's Astronomy, to the Planets.
- III. { Whately's Logic.
Ancient History.
Analytical Geometry; Fluxions; } *At the option of the student.*
Select Greek; Hebrew; or Modern Languages; }

SENIOR CLASS.

- I. { Astronomy, finished.
Modern History.
Reid's Essays, (Walker's edition.)
Cousin's Psychology.
Oration of Demosthenes on the Crown.
Blair's Rhetoric.
Moral Philosophy.
Political Philosophy and Law of Nations.
- II. { Paley's Natural Theology.
Select Latin or Greek; Modern Languages; Practical } *At the option of the student.*
Astronomy; or Fluxions; }
- III. { Political Economy, Wayland's.
Evidences of Christianity.

Changes in the Greek and Latin authors recited are sometimes introduced in the latter part of the course; but these changes do not affect the *amount* of Greek and Latin required of those who apply for admission to an advanced standing.

The Kent Professor of Law gives instruction to the Senior Class during the third term.

A short course of Anatomy and Physiology, consisting of about twenty lectures, illustrated by natural and artificial preparations, is given to the Senior Class in the second term.

In addition to the recitations in the books here specified, the classes receive lectures and occasional instruction from the Professors of the Greek and Latin languages; the Junior Class attends a course of experimental lectures on Natural Philosophy; and the Senior Class, courses of lectures on Chemistry, Mineralogy, Geology, Meteorology, Astronomy and History.

The lectures of Professor SILLIMAN on Chemistry, are given daily during the first term, except on Monday which is devoted to review; his lectures on Mineralogy are given in the second term, and those on Geology during the third term. The lectures of Professor OLSTED, on Experimental Philosophy, commence about the first of December, and are continued at the rate of nearly two a week, during the remainder of the College year. His lectures on Meteorology and Astronomy are given during the second term, concluding about the first of March, when those of Professor KNIGHT on Anatomy addressed to the Senior Class, commence, and occupy the remainder of the term.

In the department of Elocution, the Freshman Class, in several divisions, have during the year recitations and exercises upon the elementary principles of the science, conducted by the Teacher of Elocution; and the Sophomore and Junior Classes, frequent private exercises, preparatory to public declamation in the Chapel before the Professor of Rhetoric and the members of the class.

The members of the several classes attend also the private exercises and lectures of the Professor of Rhetoric. A course of lectures is delivered to the Senior Class, on the Oration of Demosthenes on the Crown. The Senior Class have exercises twice a week in English composition; the Senior and Junior classes twice a week in forensic disputation; the Sophomore Class once a week in English composition; the Freshman Class once a week in written translation from the Latin. The Junior, Sophomore and Freshman Classes are also instructed in Latin composition.

Students, who desire instruction in the modern languages, may receive it, at their own expense, from competent teachers, engaged for the purpose by the Faculty.

The object of the system of instruction to the undergraduates in the College, is not to give a *partial* education, consisting of a few branches only; nor on the other hand, to give a *superficial* education, containing a little of almost every thing; nor to *finish* the details of either a professional or a practical education; but to *commence* a *thorough* course, and to carry it as far as the time of

the student's residence here will allow. It is intended to maintain such a proportion between the different branches of literature and science, as to form a proper *symmetry* and *balance* of character. In laying the foundation of a thorough education, it is necessary that *all* the important faculties be brought into exercise. When certain mental endowments receive a much higher culture than others, there is a distortion in the intellectual character. The powers of the mind are not developed in their fairest proportions by studying languages alone, or mathematics alone, or natural or political science alone. The object, in the proper collegiate department, is not to teach that which is peculiar to any one of the *professions*; but to lay the foundation which is common to them all. There are separate schools of Theology, Law and Medicine, connected with the College, as well as in various parts of the country, which are open to all who are prepared to enter on professional studies. With these the undergraduate course is not intended to interfere. It contains those subjects only which ought to be understood by every one who aims at a thorough education. The principles of science and literature are the common foundation of all high intellectual attainments. They give that *furniture*, and discipline, and elevation to the mind, which are the best preparation for the study of a profession, or of the operations which are peculiar to the higher mercantile, manufacturing, or agricultural establishments.

For a more particular view of the plan of education in the College, see Reports on the Course of Instruction, published in Vol. XV, of the American Journal of Science.

Public examinations of the classes are held at the close of each term on the studies of the term; and twice in the College course, at the close of the Sophomore and Senior years, on the studies of the two preceding years.

The public Commencement is held on the last Thursday in July of each year. The first term begins seven weeks from the day before Commencement and continues fourteen weeks; the second begins on the first Wednesday in January and continues fourteen weeks; the third, of twelve weeks, begins on the first Wednesday in May and continues till Commencement. The intervening periods of seven, two, and three, or as the case may be, four weeks, are assigned for vacations. The first term of the current year closes Tuesday, Dec. 24th, 1850; the second term opens Wednesday, Jan. 8th, 1851, and closes Tuesday, April 15th; the third term opens Wednesday, May 7th, and closes at Commencement, Thursday, July 31st. The first term of the ensuing year will open Wednesday, Sept. 17th, 1851.

No student is allowed to be absent, without special leave, except in vacations. The absence of a student in term time, even for a few days, occasions a much greater injury than is commonly supposed by parents or guardians. During the vacations, on the contrary, parents are earnestly advised not to allow their sons to remain at the College.

Source. Catalogue, 1850-51. Photo Reproduction from the University Archives.

COURSE OF INSTRUCTION. (1860-61)

The whole course of instruction occupies four years. In each year there are three terms or sessions.

The members of the several classes meet for recitation and instruction by divisions:—the Senior class consisting of two divisions, the Junior, Sophomore and Freshman classes of two, three or four each, according to their numbers.

Each of the four classes attends three recitations or lectures in a day; except on Wednesdays and Saturdays, when they have only two.

The following scheme gives a general view of the studies pursued in each term:—

FRESHMAN CLASS.**FIRST TERM.**

Greek.—Homer's Iliad, two books.
Latin.—Livy; Arnold's Latin Prose Composition.
Mathematics.—Day's Algebra; Playfair's Euclid.

SECOND TERM.

Greek.—Homer's Iliad, continued through four books; Herodotus; Arnold's Greek Prose Composition.
Latin.—Livy; Latin Composition.
Mathematics.—Playfair's Euclid.
History.—Pütz and Arnold's Ancient History.

THIRD TERM.

Greek.—Herodotus; Greek Testament; Greek Composition.
Latin.—The Odes of Horace; Latin Composition.
Mathematics.—Day's Algebra; Stanley's Spherics.
Rhetoric.—Lectures on the Structure of Language, with Recitations. Compositions.

SOPHOMORE CLASS.**FIRST TERM.**

Greek.—Champion's Select Orations of Demosthenes; Alcestis of Euripides.
Latin.—The Satires, Epistles and Ars Poetica of Horace; Latin Composition.
Mathematics.—Day's Mathematics; Stanley's Mathematical Tables.
Rhetoric.—Lectures on Elocution, with Practice. Declamations. Compositions.

SECOND TERM.

Greek.—Prometheus of Æschylus; Panegyricus of Isocrates.
Latin.—Cicero de Officiis; Latin Composition.
Mathematics.—Day's Mathematics; Stanley's Spherics.
Rhetoric.—Declamations. Compositions.

THIRD TERM.

Greek.—Antigone of Sophocles.
Latin.—Cicero de Officiis.
Mathematics.—Day's Mathematics; Loomis's Conic Sections, (see Elective Studies).
Rhetoric.—Whately's Rhetoric, (with the exception of Part IV, on Elocution). Declamations. Compositions.

JUNIOR CLASS.**FIRST TERM.**

Greek.—Gorgias of Plato.
Latin.—Tacitus; Latin Composition.
Mathematics.—(See Elective Studies).
Natural Philosophy.—Snell's Olmsted's Natural Philosophy:—Mechanics. Lectures.
Rhetoric.—Forensic Disputations.

SECOND TERM.

Greek.—Thucydides.
Latin.—Cicero de Natura Deorum; Latin Composition.
Mathematics.—(See Elective Studies).
Logic.—
Natural Philosophy.—Hydrostatics, Hydraulics, Pneumatics, Acoustics, Electricity, Magnetism. Lectures.
Rhetoric.—Forensic Disputations.

THIRD TERM.

Natural Philosophy.—Optics. Lectures.
Chemistry.—Lectures.
Astronomy.—Olmsted's Astronomy, to the Planets.
Elective Studies.—Modern Languages. Ancient Languages. Mineralogy.

SENIOR CLASS.

FIRST TERM.

Astronomy.—Olmsted's Astronomy, finished.
History.—Guizot's History of Civilization. Lectures. Political Economy, begun.
Mental Philosophy.—Hamilton's Metaphysics. Lectures.
Rhetoric.—Oration of Demosthenes on the Crown. Lectures on Eloquence. Compositions. Forensic Disputations.
Chemistry.—Silliman's Chemistry. Lectures, with Recitations.

SECOND TERM.

Moral Philosophy.—Stewart's Active and Moral Powers; Butler's Sermons; Whewell's Elements of Morality. Lectures.
Political Philosophy.—Political Economy, finished; Lieber's Civil Liberty and Self Government. Lectures.
Constitution of the United States.—Lectures.
Theology.—Paley's Natural Theology. Butler's Analogy. Lectures.
Rhetoric.—Oration of Demosthenes on the Crown. Recitations and Lectures. Compositions. Forensic Disputations.
Meteorology.—Lectures.
Astronomy.—Lectures.
Anatomy.—Lectures.

THIRD TERM—until the Examination, May 23.

Political Philosophy.—Law of Nations.
Mineralogy and Geology.
Theology.—Paley's Evidences of Christianity. Lectures.

LECTURES TO ACADEMICAL STUDENTS.

FIRST TERM.

SENIOR CLASS.

History.—The President, Monday and Thursday, during the first half of the term, at 3 o'clock, at No. 131 Lyceum.
Mental Philosophy.—Professor Noah PORTER, at 3 o'clock, Monday and Thursday, during the last half of the term, at No. 131 Lyceum.
Chemistry.—Professor SILLIMAN, JR., three days in the week, during the first twelve weeks of the term, at the Chemical Laboratory, at 5 o'clock.
Astronomy.—Professor Loomis.
English Literature.—Professor LARNED.

JUNIOR CLASS.

Natural Philosophy.—Professor Loomis, at the Philosophical Chamber, Cabinet Hall.

SECOND TERM.

SENIOR CLASS.

Meteorology and Astronomy.—Professor Loomis, at Philosophical Chamber, Cabinet Hall.
Anatomy.—Professor KNIGHT, daily, for three weeks, from March 1st, at 5 o'clock, at the Medical College.

Political Philosophy—The PRESIDENT, Monday, Tuesday, Thursday and Friday, the first half of the term, at 3 o'clock, at No. 131 Lyceum.

Moral Philosophy—Professor NOAH PORTER, Monday, Tuesday, Thursday and Friday, for the last half of the term, at 3 o'clock, at No. 131 Lyceum.

Constitution of the United States—Professor DUTTON, at 5 o'clock, at No. 131 Lyceum—fourteen lectures.

JUNIOR CLASS.

Natural Philosophy—Professor LOOMIS, during the term, at the Philosophical Chamber, Cabinet Hall.

THIRD TERM.

SENIOR CLASS.

Evidences of Christianity—Professor FISHER, four times a week, for three weeks, at 5 o'clock, at No. 131 Lyceum.

Geology—Professor DANA, at Philosophical Chamber, Cabinet Hall.

JUNIOR CLASS.

Optics—Professor LOOMIS, at Philosophical Chamber, Cabinet Hall.

EXERCISES IN DECLAMATION AND COMPOSITION.

The Senior and Junior Classes have exercises in forensic disputation twice a week.

The Senior Class have exercises in English composition twice a week.

The Sophomore Class, during the whole year, and the Freshman Class, during the third term, have exercises in English composition once a week.

The Sophomore Class have regular exercises in Elocution, during the whole year, and once a week have an exercise in Declamation in the Chapel, before the Professor of Rhetoric and the members of the Class.

ELECTIVE STUDIES.

Those students, who are desirous of pursuing the higher branches of the Mathematics, are allowed to choose Analytical Geometry in place of the regular Mathematics, in the third term of Sophomore Year, and the Differential and Integral Calculus, during the first two terms of Junior Year, in place of the Greek or the Latin studies of those terms.

During the third term of Junior Year, in addition to the required studies of the term, the members of the class receive at their option instruction in the French or German Languages, in select Greek or Latin, or in Mineralogy.

Students who are desirous of pursuing Hebrew, may obtain gratuitous instruction in that language from the Professor of Sacred Literature.

VOCAL MUSIC.

Instruction in vocal music is given twice a week during the year. The exercises in this department are open to all the classes.

The entire course extends through two years, and has especial reference to sacred music.

Source. Catalogue, 1860-61. Photo Reproduction from the University Archives.

COURSE OF INSTRUCTION. (1870-71)

THE COURSE OF INSTRUCTION occupies four years. In each year there are three terms or sessions.

The members of the several Classes meet for recitation and instruction by divisions:—the Senior Class consisting of two divisions, the Junior, Sophomore, and Freshman Classes, of three or four each, according to the size of the Classes.

The following is a scheme of the studies, or the equivalents which will be accepted from candidates for advanced standing:—

FRESHMAN YEAR.**FIRST TERM.**

Greek.—Homer's *Odyssey*, begun. *Latin*.—Livy, begun. *Mathematics*.—Loomis's *Algebra*; Playfair's *Euclid*.

SECOND TERM.

Greek.—Homer's *Odyssey*, continued through four books; Herodotus, begun; Arnold's *Greek Composition*. *Latin*.—Livy, continued through a hundred pages; Arnold's *Latin Composition*. *Mathematics*.—Playfair's *Euclid* (with the Supplement) finished. *History*.—Liddell's *Rome*.

THIRD TERM.

Greek.—Herodotus, continued through half of the first book; Arnold's *Greek Composition*. *Latin*.—Odes of Horace, three books; Arnold's *Latin Composition* (to page 150). *French*.—French Inflection; Fénelon's *Télémaque*, one book. *Mathematics*.—Loomis's *Algebra*, finished; Loomis's *Conic Sections*. *Rhetoric*.—Compositions.

SOPHOMORE YEAR.**FIRST TERM.**

Greek.—Four Orations of Demosthenes. *Latin*.—Satires and Epistles of Horace. *French*.—French Syntax; Fénelon's *Télémaque*, continued through six books. *Mathematics*.—Loomis's *Trigonometry*; Stanley's *Spherical Geometry*. *Rhetoric*.—Lectures on Elocution, with practice. Declamations. Compositions.

SECOND TERM.

Greek.—Prometheus of *Æschylus*; Xenophon's *Memorabilia*, one book. *Latin*.—Cicero de Senectute; Latin Composition. *Mathematics*.—Davies's *Analytical Geometry*. *Rhetoric*.—Declamations. Compositions.

THIRD TERM.

Greek.—Antigone of Sophocles. *Latin*.—Satires of Juvenal. *Mathematics*.—Loomis's *Trigonometry*. *Rhetoric*.—Whately's *Rhetoric* (except Part IV, on Elocution), or Day's *Art of Discourse*. Declamations. Compositions.

JUNIOR YEAR.**FIRST TERM.**

Greek.—Plato's *Gorgias*, or two books of Arrian's *Anabasis*. *Mathematics*.—(See Elective Studies, page 42.) *Natural Philosophy*.—Snell's Olmsted's *Natural Philosophy*:—Mechanics. *Rhetoric*.—History of English Literature. Forensic Disputations. Lectures.

SECOND TERM.

Latin.—*Tacitus*; Latin Composition. *German*.—German Grammar and Reader. *Mathematics*.—(See Elective Studies, page 42.) *Natural Philosophy*.—Snell's Olmsted, finished. Lectures. *Rhetoric*.—Forensic Disputations.

THIRD TERM.

Greek.—Demosthenes on the Crown, or half a book of *Thucydides*. Lectures. *Astronomy*.—Loomis's *Astronomy*, to Chapter xii. *Logic*.—Bowen's *Treatise on Logic*. *German*.—(See Elective Studies, page 42.)

SENIOR YEAR.

FIRST TERM.

Political Philosophy.—Political Economy. Lieber's Civil Liberty, begun. *Mental Philosophy.*—Porter's Human Intellect. Lectures. *Astronomy.*—Loomis's Astronomy, finished. *Meteorology.*—Loomis's Meteorology. *Rhetoric.*—Compositions. Forensic Disputations. *Modern European History.*—From 1517 to Peace of Westphalia. *Latin.*—Cicero pro Cluentio. *German.*—(See Elective Studies, page 42.)

SECOND TERM.

Political Philosophy.—Lieber's Civil Liberty, finished; International Law; Lectures on Natural Right. *Natural Theology and Evidences of Christianity.*—Recitations and Lectures. *Moral Philosophy.*—Recitations and Lectures. *Geology.*—Dana's Geology. *Rhetoric.*—Compositions. Forensic Disputations. *Modern European History.*—continued. *Anatomy and Physiology.*—Lectures. *Botany.*—Lectures. *Chemistry.*—Lectures and Recitations.

THIRD TERM.

Political Philosophy.—International Law, finished. *Constitution of the United States.*—Lectures. *History of Philosophy.*—Recitations. *Roman Law.*—Lectures. *Modern European History.*—continued. *Botany.*—Lectures.

LECTURES.

FIRST TERM.—SENIOR CLASS.

Mental Philosophy.—Professor PORTER, two days in the week, at 5 P. M.
History.—Professor WHEELER, four days in the week, at 3 P. M.

FIRST TERM.—FRESHMAN CLASS

Hygiene.—Professor SANFORD, five lectures, at the Medical College.

SECOND TERM.—SENIOR CLASS

Political Philosophy.—The PRESIDENT, two days in the week, during the first half of the term, at 5 P. M.
Moral Philosophy.—Professor PORTER, two days in the week, at 5 P. M.
Anatomy and Physiology.—Professor SANFORD, daily, for three weeks, from about March 1, at 3 P. M., at the Medical College.
History.—Professor WHEELER, during the term.
Botany.—Professor EATON, during the second half of the term, once a week.
Chemistry.—

SECOND TERM.—JUNIOR CLASS

Natural Philosophy.—Professor LOOMIS, two days in the week, at 11½ A. M., at the Philosophical Chamber, Cabinet Hall.

THIRD TERM.—SENIOR CLASS

Constitution of the United States.—Fourteen lectures.
Roman Law.—Professor HADLEY, ten to twelve lectures.
History.—Professor WHEELER, during the term.
Botany.—Professor EATON.

THIRD TERM.—JUNIOR CLASS

Greek History.—Professor PACKARD, sixteen lectures.

...

EXAMINATIONS.

Public examinations are held at the close of the first and second terms, on the studies of the term; and, at the close of the year, on all the studies of the year.

The annual examinations are conducted wholly in writing, and are continued (except the Senior examination, which extends through several weeks) for a period of nine or ten days.

...

Source. Catalogue, 1870-71. Photo Reproduction from the University Archives.

Course of Instruction. (1875-76)

THE COURSE OF INSTRUCTION occupies four years. In each year there are three terms or sessions.

The following is a scheme of the studies, or, more correctly, of equivalents which will be accepted from candidates for advanced standing:—

FRESHMAN YEAR.

FIRST TERM.—*Greek*—Homer's *Odyssey*, begun. *Latin*—Livy, begun. *Mathematics*—Todhunter's *Euclid*; Loomis's *Algebra*.

SECOND TERM.—*Greek*—Homer's *Odyssey*, continued through four books; Herodotus, begun; Arnold's *Greek Composition*. *Latin*—Livy, continued through a hundred pages; Arnold's *Latin Composition*. *Mathematics*—Chauvenet's *Geometry*. *History*—Liddell's *Rome*.

THIRD TERM.—*Greek*—Herodotus, continued through half of the first book; Arnold's *Greek Composition*. *Latin*—Odes of Horace, three books; Arnold's *Latin Composition* (to page 150). *Mathematics*—Chauvenet's *Geometry*; Loomis's *Trigonometry*. *Rhetoric*—Recitations and Lectures. Compositions.

SOPHOMORE YEAR.

FIRST TERM.—*Greek*—Six Orations of Demosthenes. *Latin*—Satires and Epistles of Horace. *Mathematics*—Loomis's *Trigonometry*; Loomis's *Analytical Geometry*; Loomis's *Conic Sections*. *Rhetoric*—Lectures on Elocution, with practice. Declamations. Lectures on Composition. Compositions. Criticism.

SECOND TERM.—*Greek*—Prometheus of Æschylus; Xenophon's *Memorabilia*, one book. *Latin*—Cicero *de senectute* and *de officiis*; *Captivi* of Plautus. *Mathematics*—Loomis's *Trigonometry*. *Rhetoric*—Declamations. Compositions.

THIRD TERM.—*Greek*—Antigone of Sophocles; Plato's *Apology* of Socrates and Crito. *Latin*—Satires of Juvenal. *Mathematics*—Peck's *Mechanics*. *Rhetoric*—Declamations. Compositions.

JUNIOR YEAR.

FIRST TERM.—*Greek*—Plato's *Gorgias*, or two books of Arrian's *Anabasis*. *Mathematics*—(See Elective Studies, page 55). *Physics*—Ganot's *Physics*; *Mechanics*. *Rhetoric*—Morris and Skeat's *Specimens of Early English*. Craik's *History of English Literature*. Forensic Disputations. Lectures. Logic—Jevons's *Logic*.

SECOND TERM.—*Latin*—The *Adelphi* of Terence, the *Agricola* of Tacitus, and the *Octavius* of Suetonius. *French or German*. *Mathematics*—(See Elective Studies, page 55). *Natural Philosophy*—Ganot's *Physics*. Lectures. *Rhetoric*—Forensic Disputations.

THIRD TERM.—*Astronomy*—Loomis's *Astronomy*, to Chapter xii. *Physics*—Recitations and Lectures. *Greek*—Demosthenes on the *Crown*, or half a book of Thucydides. Lectures. *French or German*.

SENIOR YEAR.

FIRST TERM.—*Mental Philosophy*—Porter's *Human Intellect*. Lectures. *Political and Social Science*—Fawcett's *Political Economy*. Lectures. *Astronomy*—Loomis's *Astronomy*, finished. *Rhetoric*—Compositions. Criticism. *History*—Guizot's *History of Civilization*. *Chemistry*—Lectures and Recitations.

SECOND TERM.—*Natural Theology and Evidences of Christianity*—Lectures. *Moral Philosophy*—Recitations and Lectures. *Geology*—Dana's *Geology*. *Rhetoric*—Compositions. *History*—Hallam's *Constitutional History*. Lectures on English History in xvi. and xvii. centuries. *Political and Social Science*—Lieber's *Civil Liberty*. Lectures. *Anatomy and Physiology*—Lectures.

THIRD TERM.—*History of Philosophy*—Schwegler's *History*. *Political and Social Science*—Woolsey's *International Law*. *Constitutional History*—De Tocqueville's *Democracy in America*. Lectures. *Constitution of the United States*—Lectures. *Languages and the Study of Language*—Lectures.

LECTURES.

FIRST TERM.

SENIOR CLASS.—*Intellectual Philosophy*—THE PRESIDENT. *Chemistry*—PROFESSOR WRIGHT. *Political Economy*—PROFESSOR SUMNER.
 JUNIOR CLASS.—*History of Greek Literature*—PROFESSOR PACKARD. *History of English Literature*—PROFESSOR BEERS.
 SOPHOMORE CLASS.—*Rhetoric*—PROFESSOR NORTHROP.
 FRESHMAN CLASS.—*Hygiene*—PROFESSOR SANFORD.

SECOND TERM.

SENIOR CLASS.—*Natural Theology and Evidences of Christianity*—THE PRESIDENT. *Moral Philosophy*—THE PRESIDENT. *Anatomy and Physiology*—PROFESSOR SANFORD. *History*—PROFESSOR WHEELER. *Political Philosophy*—PROFESSOR SUMNER.
 JUNIOR CLASS.—*Natural Philosophy*—PROFESSOR LOOMIS.

THIRD TERM.

SENIOR CLASS.—*Language and the Study of Language*—PROFESSOR WHITNEY. *History*—PROFESSOR WHEELER. *Elements of Jurisprudence, and American Constitutional Law*—PROFESSOR BALDWIN.
 JUNIOR CLASS.—*Physics*—PROFESSOR WRIGHT.

EXERCISES IN DECLAMATION AND COMPOSITION.—The Senior and Junior Classes have exercises in forensic disputation twice a week.

The Senior Class have exercises in English composition twice a week.

The Sophomore Class during the whole year, and the Freshman Class, during the third term, have exercises in English composition once a week.

The Sophomore Class have regular exercises in elocution; and once a week, during a part of the year, have an exercise in declamation before the Professor of Rhetoric and the members of the Class.

ELECTIVE STUDIES.—Those students who are desirous of pursuing the higher branches of the Mathematics, are allowed to choose the Differential and Integral Calculus, during the first two terms of junior year, in place of the Greek or the Latin studies of those terms.

PUBLIC EXAMINATIONS are held at the close of the first and second terms, on the studies of the term; and, at the close of the year, on all the studies of the year. The annual examinations are conducted wholly in writing, and continue for about two weeks.

VOCAL MUSIC.—Gratuitous instruction in Vocal Music is given during a part of the year (the exercises being open to members of all the Departments of the College), subject, however, to a small charge for fire and lights.

Source. Catalogue, 1875-76. Photo Reproduction from the University Archives.

Course of Instruction (1876-77).

THE COURSE OF INSTRUCTION occupies four years. In each year there are two terms or sessions.

The following is a scheme of the studies, or, more correctly, of equivalents which will be accepted from candidates for advanced standing:—

FRESHMAN YEAR:

FIRST TERM—*Greek*—Homer's *Odyssey*, begun. *Latin*—Livy, begun; Cicero's Second Philippic; Arnold's Latin Composition (to page 150). *Mathematics*—Loomis's Algebra; Todhunter's Euclid; Chauvenet's Geometry; Loomis's Trigonometry. *Hygiene*—Lectures.

SECOND TERM—*Greek*—Homer's *Odyssey*, continued through four books; Herodotus, continued through half of the first book; Arnold's Greek Composition. *Latin*—Livy, continued through one book; Cicero *de senectute*; Ovid, Ramsay's Selections; Roman Antiquities. *Rhetoric*—Recitations and Lectures. Compositions.

SOPHOMORE YEAR:

FIRST TERM—*Greek*—Six Oration of Demosthenes. *Latin*—Odes of Horace; Agricola of Tacitus. *Mathematics*—Loomis's Trigonometry. *Rhetoric*—Lectures on Composition. Compositions. Criticism.

SECOND TERM—*Greek*—Prometheus of *Æschylus*; Xenophon's *Memorabilia*, one book; Antigone of Sophocles; Plato's Apology of Socrates and Crito. *Latin*—Satires and Epistles of Horace; Satires of Juvenal; Cicero *de officiis*. *Mathematics*—Loomis's Trigonometry; Loomis's Conic Sections; Loomis's Analytical Geometry; Mechanics. *Rhetoric*—Lectures on Elocution, with practice. Declamations. Compositions.

JUNIOR YEAR:

FIRST TERM—*Physics*—Ganot's *Physics*. *German*—Whitney's Grammar and Reader; German Composition. *English*—Shakespeare's *Macbeth*; Craik's History of English Literature; Forensic Disputations. *Chemistry*—Barker's Chemistry; Lectures.

For optional studies (*Latin, Greek, Mathematics, French*) see page 54.

SECOND TERM—*Natural Philosophy*—Ganot's *Physics*. Lectures. *English*—Recitations. Forensic Disputations. *German*—Whitney's Grammar and Reader; German Composition. *Zoology*—Huxley's *Physiology*. Lectures. Laboratory Practice. *Astronomy*—Loomis's *Astronomy*, to Chapter xii. *Logic*—Jevons's *Logic*.

For optional studies (*Latin, Greek, Mathematics, French, Anglo-Saxon, Zoology*) see page 54.

SENIOR YEAR:

FIRST TERM—*Mental Philosophy*—Porter's *Human Intellect*. Lectures. *Geology*—Dana's *Geology*. *Political Science*—Fawcett's *Political Economy*. Lectures. *Rhetoric*—Compositions. Criticism.

For optional studies (*Latin, Greek, French, German, Sanskrit, Mathematics, Astronomy, Mineralogy, History*) see below.

SECOND TERM—*Natural Theology and Evidences of Christianity*—Lectures. *Moral Philosophy*—Recitations. Lectures. *History of Philosophy*—Schwegler's *History*. *History*—Hallam's *Constitutional History*. Lectures. *Evolution and Cosmogony*—Lectures. *Rhetoric*—Compositions. Criticism. *Political and Social Science*—Recitations. Lectures. *International Law*—Woolsey's *International Law*. *Elements of Jurisprudence and American Constitutional Law*—Lectures.

For optional studies (*Latin, Greek, French, German, Sanskrit, Linguistics, Mathematics, Physics, Meteorology, Geology, Palæontology, Political Science*) see below.

LECTURES

FIRST TERM:

SENIOR CLASS—*Intellectual Philosophy*—The PRESIDENT. *Political Economy*—Professor SUMNER. *German*—Professor CARTER.

JUNIOR CLASS—*Chemistry*—Professor A. W. WRIGHT. *History of English Literature*—Professor BEERS.

FRESHMAN CLASS—*Hygiene*—Professor SANFORD.

SECOND TERM:

SENIOR CLASS—*Natural Theology and Evidences of Christianity*—The PRESIDENT. *Moral Philosophy*—The PRESIDENT. *Evolution and Cosmogony*—Professor DANA. *History*—Professor WHEELER. *Political Philosophy*—Professor SUMNER. *Elements of Jurisprudence, and American Constitutional Law*—Professor BALDWIN.

JUNIOR CLASS—*Natural Philosophy*—Professor LOOMIS. *Heat, Light, and Electricity*—Professor A. W. WRIGHT. *Zoology*—Mr. J. K. TRACHER.

SOPHOMORE CLASS—*Rhetoric*—Professor NORTROP.

OPTIONAL STUDIES—The following courses of optional studies are provided for Junior and Senior years.

Every student is required to have four exercises a week in an optional study, during Junior and Senior years. Change from one optional to another is allowed at the end of Junior year, and also whenever in the course of a year a new optional is begun. Any student who can on examination show thorough acquaintance, in advance, with one or more of the required studies of Junior or Senior year, may add another optional in the place of each study thus anticipated.

I. PHILOLOGY

1. ANCIENT LANGUAGES: (a) GREEK, through Junior and Senior years, four exercises a week, with Professor Packard; in Junior year, the *Gorgias*, *Phaedo*, and *Symposium* of Plato; in Senior year, the *Republic* of Plato. (b) LATIN, through Junior and Senior years, with Professor Thacher, four exercises a week; beginning with the *Adelphi* of Terence in Junior year, and with Latin Composition in Senior year. (c) Sanskrit, through Senior year, with Professor Whitney, two double exercises a week.

2. MODERN LANGUAGES AND LITERATURE: (a) FRENCH, through Junior and Senior years, four exercises a week, with Professor Coe; in Junior year, French Composition, Modern French Comedy, Racine; in Senior year, French Composition, Corneille, Molière, Boileau, LaFontaine. A knowledge of the elements of the French language is required of students who choose French as an optional study in Junior year. The examination may be passed at the time of the Sophomore annual examination, or at the beginning of Junior year, and will be upon Chardenal's First French Course. (b) GERMAN, through Senior year, four exercises a week, with Professor Carter; Schiller's *Die Piccolomini* and *Wallenstein's Tod*, Goethe's *Faust*, Lessing's *Laocoon*, German Composition. (c) ANGLO-SAXON, through the second half of the second term of Junior year, with Professor Beers, four exercises a week.

3. LINGUISTICS: Through the first half of the second term of Senior year, two exercises a week, with Professor Whitney.

II. HISTORY AND POLITICAL SCIENCE

1. HISTORY, through the first term of Senior year, with Professor Wheeler, four exercises a week; Bancroft's *History of the United States*.

2. POLITICAL ECONOMY, through the second term of Senior year, with Professor Sumner, four exercises a week.

III, MATHEMATICS AND ASTRONOMY

1. MATHEMATICS, through Junior and Senior years, four exercises a week, with Professor Newton; Loomis's Calculus, followed by Analytical Mechanics or Higher Geometry.
2. ASTRONOMY, through the first term of Senior year, four exercises a week, with Professor Loomis; Loomis's Astronomy.

IV, MOLECULAR AND TERRESTRIAL PHYSICS

1. PHYSICS, through the second term of Senior year, four exercises a week, with Professor A. W. Wright.
2. METEOROLOGY, through the second term of Senior year, four exercises a week; Loomis's Meteorology.

V, NATURAL SCIENCE AND GEOLOGY

1. ZOOLOGY, through the second half of the second term of Junior year, four exercises a week, with Mr. J. K. Thacher.
2. MINERALOGY AND MATHEMATICAL CRYSTALLOGRAPHY, through the first term of Senior year, with Professor Dana, four exercises a week; Dana's Text Book.
3. GEOLOGY, through the second term of Senior year, with Professor Dana; Dana's Manual.
4. PALEONTOLOGY, through the first half of the second term of Senior year, with Mr. J. K. Thacher, and through the second half of the term, with Professor Marsh and Mr. Thacher; Dana's Manual of Geology. [Geology and Paleontology make together one course, the exercises alternating each week; those taking this course must have first taken the course in Mineralogy and Crystallography.]

EXERCISES IN DECLAMATION AND COMPOSITION—The Senior Class have exercises in English composition, and the Junior class, in forensic disputation, through the year.

The Sophomore Class during the whole year, and the Freshman Class, during the latter half of the second term, have exercises in English composition.

The Sophomore Class have regular exercises in elocution; and once a week, during a part of the year, have an exercise in declamation before the Professor of Rhetoric and the members of the Class.

PUBLIC EXAMINATIONS are held at the close of the first term, on the studies of the term; and, at the close of the year, on all the studies of the year. The annual examinations are conducted wholly in writing, and continue for about two weeks.

VOCAL MUSIC—Gratuitous instruction in Vocal Music is given during a part of the year (the exercises being open to members of all the Departments of the College), subject, however, to a small charge for fire and lights.

Source. Catalogue, 1876-77. Photo Reproduction from the University Archives.

THE OLD COURSE OF INSTRUCTION, 1875-76

	Term	Full-time Studies		Part-time Studies
Freshman Year	Fall	Greek	Latin	Hygiene
	Winter	Greek	Latin	Roman History
	Spring	Greek	Latin	Rhetoric (Comp. --one hour)
Sophomore Year	Fall	Greek	Latin	Rhetoric (Declam. and Comp.)
	Winter	Greek	Latin	Rhetoric (Declam. and Comp.)
	Spring	Greek	Latin	Rhetoric (Declam. and Comp.)
Upper-class Studies				
Junior Year	Fall	Greek	Math.	Rhetoric (Disput. & Eng. Lit.)
	Winter	Latin (or) Math.	Logic	Rhetoric (Disput.)
	Spring	Greek	Ger. or Fr. * Ger. or Fr.	
Senior Year	Fall	Mental Philos.	Astron. or Ger.	Pol. & Soc. Sci. History (Europe)
	Winter	Moral Philos. and Evid. of Christianity	Chemistry Geology Anat. & Physiol.	(Econ.) History (England)
	Spring	History of Philos.	Jurisprudence & Law	(Polit.) History (Amer. Constit'n)

*After the year had started, the schedule of the winter term was altered by allowing Juniors to take two out of three languages: Latin, French, German. In the third term Juniors were allowed to take a new course in Anglo-Saxon, as well as either French or German.

Source. Reproduced from George W. Pierson, Yale College: an Educational History, 1871-1921, p. 706.

COURSE OF INSTRUCTION WITH OPTIONAL, 1876-77

Year	Full-time Studies			Part-time Studies	
Freshman Year	First Term	Greek	Latin	Hygiene	
	Second Term	{ First Half Second Half	{ Greek Latin (w. Hist.) Greek Latin	Mathematics	
Sophomore Year	First Term	Greek	Latin	Rhetoric	
	Second Term	{ First Half Second Half	{ Greek Latin Greek Latin	Rhetoric	
Junior Year	First Term	Physics	Chemistry	English Lit. & Disput.	Optional Studies
	Second Term	Physics	Zoology	English Lit. & Disput.	Greek 10 (Latin) Hist. 7 Math. 28 French 81
	First Half	Physics	Astronomy	Logic	Greek 13 Latin 17 Math. 14 French 85 French 54 Latin 13 Physiology 40 Math. 8 Anglo-Saxon 6
	Second Half	Physics	Geology	Political Economy	Greek 6 German 52 (Latin) History, U. S., 48 Math. 3 Astronomy 11 (French) German 30
Senior Year	First Term	Moral Philosophy	Evolution & Cosmogony	Science History (England)	Greek 5 (Latin) Polit. Econ. 60 Math. 4 Physics 6 (French) (Meteorology) English 16 Geol. & Paleont. 5
	Second Term	History of Philosophy	International Law	Political Science	Greek 4 German 21 (Latin) Polit. Econ. 60 Math. 4 Physics 6 (French) (Meteorology) English 18 Geol. & Paleont. 3
	First Half	History of Philosophy	International Law	Political Science	Math. 4 Physics 6 (French) (Meteorology) English 18 Geol. & Paleont. 3 Linguistics 6

Note: Figures indicate number of students who elected each optional in 1876-77. Parentheses indicate course planned but either not given or not elected. In 1877-78 the Junior enrollment in French was curtailed (in favor of Latin) by requiring a previous knowledge of the elements; and the Seniors elected Political Science particularly, then German and English.

Source. Reproduced from George W. Pierson, Yale College: an Educational History, 1871-1921, p. 707.

COURSE OF INSTRUCTION WITH ELECTIVES, 1885-86

	Greek	Latin	Mathematics	Modern Languages German (or adv. French or German)	Term Hours
Freshman Year					
Sophomore Year					
	Required: 7 year-hours		Electives: 8 year-hours to be chosen from:		
	Logic		Group of Subjects		
	Psychology		Ancient Languages & Linguistics		32
	Physics		Modern Languages		57
	Astronomy		Natural & Physical Science		6
	Geology		Mathematics		19
			History		10
			--Totals--		124
Junior Year					
	Required: 3 year-hours		Electives: 12 year-hours to be chosen from:		
	Psychology		Group of Subjects		
	Ethics & Natural Theol.		Ancient Languages & Linguistics		44
	Evid. of Christianity		Modern Languages		70
			Natural & Physical Science		24
			Mathematics		31
			Mental & Moral Science		12
			Political Science		12
			History		18
			--Totals--		211
Senior Year					

Notes: A number of the Senior electives were the same courses as were open to Juniors. In all 79 electives were offered. Four themes annually in English Composition were required of Juniors and Seniors.

Source. Reproduced from George W. Pierson, Yale College: an Educational History, 1871-1921, p. 708.

THE COURSE OF INSTRUCTION UNDER DWIGHT, 1894-99

Year	Year-Hours Required Elective	Choice	Subject
Freshman Year	15	All Required	Greek, Latin, Mathematics (with Mechanics): 11 hours French or German: 3 hours English: 1 hour
Sophomore Year	12	Single Option	5 out of 6: Greek, Latin, Mathematics, French or German, English, Physics: all 3 hours
Junior Year	3 12 or 15	Single Require- ment	Logic--Psychology--Ethics Free Electives
Senior Year	2 13 or 10	Single Require- ment	Philosophy: 1 course Free Electives
	32 60		

Source. Reproduced from George W. Pierson, Yale College: an Educational History, 1871-1921, p. 709.

INCREASE OF UPPER-CLASS ELECTIVE OFFERINGS

Subject	Term-Hours Offered		Subject	1898-99		Year-Hours Offered
	1876-77	1883-84		Courses Offered*	Courses Starred†	
I. Philology or Languages			I. Ancient Languages & Linguistics	21	8	37
Ancient Languages		117	Greek	7	3	13
Greek	67	57	Latin	12	3	20
Latin	41	16	Sanskrit & Linguistics	2	2	4
Sanskrit & Linguistics	16	16	II. Biblical Literature	11		17
Modern Languages & Lit.	9	9	III. Modern European Languages & Lit.	21	15	50
French	16	60	French	6	6	14
German	8	16	German	9	5	21
Spanish	0	8	Spanish	2	1	5
Italian	0	16	Italian	2	2	5
English	2	12	Scandinavian	2	1	5
II. Mental and Moral Philosophy	0	2	IV. English	14		25
III. History and Political Science	8	13	V. Psychology, Ethics, Philosophy	22	5	37
IV. Mathematics and Astronomy	20	20	VI. Political Science & Law	11	2	25
V. Molecular & Terrestrial Physics	8	10	VII. History	11		22
VI. Natural Science & Geology	10	10	VIII. Mathematics	10	2	22
VII. Fine Arts	0	4	IX. Physical & Natural Sciences	15	6	36
			Physics	3	1	7
			Chemistry	4	1	11
			Geology & Mineralogy	3	2	6
			Physical Geography & Botany	2	1	5
			Biology	3	1	7
			X. Fine Arts	4		8
			XI. Music	6		11
			XII. Physical Education	1		2
			XIII. Military Science	1		1
			Totals:	148	38	293

Total Term-Hours: 113

For convenience in comparison the groups in all three tables have been renumbered and reorganized. Because of the uneven length of the terms in 1876-77 and 1883-84, it is not possible to make an exact comparison with the total year-hours offered in 1898-99. *Figures include starred courses, but not courses listed though not given. †Starred courses required that permission be obtained from the instructor.

Source. Reproduced from George W. Pierson, Yale College: an Educational History, 1871-1921, p. 710.

"CLASSIFIED" ELECTIVES, 1901-03

Year	Year-Hours	Choice	Courses
Freshman Year	15	None (Fr.-Ger.)	All 3-hour courses: 1. Greek 4. English 2. Latin 3. French or German (elem. or 2d yr.) 5. Mathematics 6. Mathematics (3 courses) 7. Physics 8. Chemistry 9. History 10. Psychology and Ethics 11. Philosophy
Sophomore Year	15 or 18	Limited Option	All 3-hour courses: 1. Greek 2. Latin 3. French (3 levels) 4. German (3 levels) 5. English (Distribution-Concentration)
Junior Year	15 to 18	Electives	One Major and Two Minors Each student required to complete connected courses of levels A-B-C totaling at least seven year-hours in one of the following Divisions of Study, and connected courses of levels A-B totaling at least five year-hours in each of the other two Divisions: I. Language & Literature Latin Greek Classical Archaeology Sanskrit, Linguistics, & Comp. Philology Semitic Langs. & Biblical Lit. French, Spanish, Ital., German, Scandinavian English II. Math. & Natural & Physical Sciences Math. & Astronomy Physics Chemistry Geology, Phys. Geog., & Mineralogy Biology Anat. & Histology Botany & Forestry III. Philosophy, Hist., & Social Sciences Psychology Ethics Logic Philosophy Pedagogics Ancient, Medieval, & Modern History Economics Politics & the Science of Society
Senior Year	12 to 15	Electives	

Source. Reproduced from George W. Pierson, Yale College: an Educational History, 1871-1921, p. 711.

REGULATED ELECTIVES: THE SECOND PHASE, 1903-08

Year	Year-hours	Choice	I. Language & Lit.	II. Math. & Sciences	III. Philos., Hist., Soc. Sciences
Freshman Year	15	Limited Option 3 of 5 courses to continue subjects offered for entrance	<ol style="list-style-type: none"> 1. Greek (3 courses) 2. Latin 3. French (3 levels) 4. English or German (2-3 levels) 	<ol style="list-style-type: none"> 5. Mathematics 6. Chemistry 	<ol style="list-style-type: none"> 7. History
Sophomore Year	15 or 18	Wide Option*	<ol style="list-style-type: none"> 1. Greek 2. Latin 3. French (3 levels) 4. German (3 levels) 5. Spanish (elementary) 1905- 6. Biblical Lit. 7. English 	<ol style="list-style-type: none"> 8. Math. (2 courses) 9. Physics (1-2 courses) 10. Chemistry (1-3 courses) 11. Physical & Commercial Geography 12. Biology 1907- 	<ol style="list-style-type: none"> 13. Psychology with Logic or Ethics 14. History of Philosophy 15. History 16. Economics
Junior Year	15 to 18	Electives	(Distribution-Concentration)		
Senior Year	12 to 15	Electives	Two Majors† of at least 7 hours each Three Minors of at least 5 hours each		

*Physiology, and Mineralogy and Crystallography, could be elected, but not within the fifteen hours.
†In 1908 the two majors were consolidated into a single major of 12 hours; and the minors were increased to 18 hours, to be completed before Senior year.

Source. Reproduced from George W. Pierson, Yale College: an Educational History, 1871-1921, p. 713.

GROUP PROGRAMS FOR LOWERCLASSMEN, 1911-14

The Dana-Day Course of Study Committee designed these lower-class curricula for those interested primarily in languages, in science, or in social studies. At the same time upper-class specialization was encouraged by converting the distributional major-minors into a related major-minor of 12-15 hours in a single Division of Study.

Freshman Groups

- Group I
1. Latin or Greek
 2. French or German
 3. Mathematics or Physics or Chemistry
 4. The alternative ancient or modern language
 5. English or History

Sophomore Groups

- Group I
- 1.} Two of the following: Latin, Greek, French,
 - 2.} German (or Italian or Spanish)
 3. Mathematics or Physics or Chemistry or Biology
 4. Psychology (with Logic) or History or Economics
 5. English or any other Sophomore subject

- Group II
1. French or German
 2. Mathematics
 3. Physics or Chemistry
 - 4.} English and History, or, in place of one of these,
 - 5.} either Latin or Greek or the alternative modern language

- Group II
1. French or German (or Italian or Spanish)
 - 2.} Two of the following subjects: Mathematics,
 - 3.} Physics, Chemistry, Biology
 4. Psychology (with Logic) or History or Economics
 5. English or any other Sophomore subject

- Group III
1. Latin or Greek
 2. French or German
 3. Mathematics or Physics or Chemistry
 4. English
 5. History

- Group III
1. Latin or Greek or French or German (or Italian or Spanish)
 2. Mathematics or Physics or Chemistry or Biology
 - 3.} Two of the following: Psychology (with Logic),
 - 4.} History, Economics
 5. English or any other Sophomore subject

Source. Reproduced from George W. Pierson, Yale College: an Educational History, 1871-1921, p. 726.

COURSE OF STUDY, 1925-26

COURSES OF STUDY IN THE FRESHMAN YEAR

THE FRESHMAN YEAR in Yale University is common to both Undergraduate Schools, Yale College and the Sheffield Scientific School. Its function is to prepare first year students for the more advanced work in the two Schools and to assist them in making a wise choice of course.

The general aims of the Freshman Year are to secure the best teaching available; to maintain solid standards of scholarship; and to help students properly to find themselves.

To assist students in working out their individual problems, the Dean, or Registrar, or any instructor is always at their disposal. More specifically, however, each Freshman is assigned to a counselor chosen from among his instructors to whom he can go for information or advice. Each counselor has a group of not more than twenty Freshmen whom he is ready to help in any way possible.

Official registration of candidacy for any one of the three degrees, Bachelor of Arts (B.A.), Bachelor of Philosophy (Ph.B.), or Bachelor of Science (B.S.), will not be required until the spring of Freshman year.

During the summer before entering Freshman Year, each applicant for admission will receive from the office of the Dean of Freshmen a choice of course blank and a Catalogue of the Undergraduate Schools. Although mainly prescribed, the course of study in Freshman Year permits of certain choices, dependent in some measure, however, upon the student's preparation.

The following courses are open to Freshmen:

I	English 10 History 10	II
Greek 10, 20, 30 Latin 11, 12, 13 French 12, 22, 32* German 10, 20, 30* Spanish 10, 20, 30* Drawing 10 Social Science 10		Biology 10 Chemistry 11, 12, 13 Physics 10, 13a and b Mathematics 10, 13a and b
	Military Science 10a and b	

* Students who have passed French C, German C, or Spanish C for admission will be admitted to advanced courses in these languages.

RULES GOVERNING CHOICE OF COURSE

1. Every Freshman must take both English and History.
 2. Every Freshman must choose three courses selected from the subjects listed under I and II above, subject to the following restrictions:

(a) all three courses may not be chosen from the same group (I or II);

(b) if two courses in Language are chosen, at least one of them must be in Latin or Greek (both Latin and Greek may be chosen, but not two modern languages).

In subjects where assignment to courses (i.e., in Language, Mathematics, Chemistry, and Physics) depends on the admission examinations, students entering under Plan B will be assigned to such courses upon the basis of their preparatory school records, in case these subjects were not included in their entrance examinations.

3. Military Science may be elected as an optional (extra) study by Freshmen whose schedules will permit.

LANGUAGE REQUIREMENTS

In general it is desirable that a student should complete the language requirements for his degree as soon as possible. Students are advised to continue in Freshman Year a modern language which they have offered for entrance, rather than to begin a new language.†

Language is not one of the prescribed subjects for those specializing in Engineering (including Mining) in the Sheffield Scientific School. The completion of French 32, German 30, or Spanish 30 is required for those who specialize in other groups.

Latin 13 (or Greek 30) is required for the B.A. degree.* There is no Latin requirement for the Ph.B. or B.S. degree.

Every candidate for the B.A. or Ph.B. degree before graduation must either pass a special examination in Sophomore or Junior year to test his proficiency in one modern language, or pass French 32, German 30, Italian 30, or Spanish 30.

† If, however, a student has an entrance condition in any of these languages and elects to continue the same language, he will be required to enter the corresponding course in Freshman Year (e.g., French 12, if conditioned in French A). The passing of such corresponding course will remove the entrance condition, but will not give college credit.

* Candidates for the B.A. degree must also pass four years of required Latin for admission. Courses in Cicero and Vergil are offered for those who wish to make up deficiencies in their preparation in Latin, but these courses will not be credited toward either the B.A. or the Ph.B. degree.

Three units of Greek may be substituted for four units of Latin in preparation for the B.A. degree provided all other requirements for admission are satisfied.

...

" COURSES OF STUDY IN YALE COLLEGE "

YALE COLLEGE offers courses of study in the liberal arts leading to the degrees of Bachelor of Arts and Bachelor of Philosophy.

Those students who have presented the full requirement of Latin or Greek for admission to college and have completed one year of collegiate grade in the subject offered for admission will be candidates for the degree of Bachelor of Arts. All others will be candidates for the degree of Bachelor of Philosophy.

Three-fifths of the work leading to each degree is in the humanities, this being construed to include all subjects not mentioned in paragraph 2, Group E, of the Requirements for Degrees.

" REQUIREMENTS FOR DEGREES "

The following conditions must be fulfilled by all candidates for the degree of B.A. or Ph.B. The studies of Freshman Year are credited in the fulfillment of these requirements.

1. Every student must elect at least twenty-four credit hours in one subject of instruction, specified in Groups A-H below, and may not take more than thirty-six credit hours, unless he be a student of honors grade exempted by the Dean from this limitation.

2. Every student must elect a full year course in each of the following fields and must take two such courses in five of the fields; in four of these the courses chosen must be progressive, i.e., must continue subjects already studied in college.

- A. English, Biblical Literature, or Art;
- B. History, European or American;
- C. Anthropology or Economics or Government†;
- D. Psychology, Philosophy, Education, or Mathematics;
- E. Physics or Chemistry or Geology or Biology;
- F. Physics or Chemistry or Geology or Biology*;
- G. Greek, Latin, or Classical Civilization;
- H. ‡ Modern Languages.

* Subject not elected under E.

† Social Science 10 with Anthropology 10 or Government 10 will constitute a "progressive."

‡ Every student before graduation must either pass French 32 or German 30 or Spanish 30 or Italian 30, or pass a special examination in Sophomore or Junior year to test his proficiency in one modern language.

Half credit only will be given for beginning courses in classical or in modern languages, unless followed by a second course in the same language.

3. Students entering with either physics or chemistry must, nevertheless, to meet the minimum requirement, take two courses in science at Yale; these courses must be either advanced courses in the subject or subjects passed for entrance, or courses from other sciences in Group E.

4. Every student must take at least one laboratory course (Physics 13a and 13b, Chemistry 11, 12, or 13, Biology 10).

5. Every candidate for the B.A. and Ph.B. degrees must, normally, take seventy-two credit hours of his work in the humanities, understanding by the humanities all subjects except those included under E.

6. Students desiring to pursue intensive work (twenty-four or more credit hours) in Music or in Military Science may, if they are recommended by the department, and if they comply with the above requirements, substitute work in one of those departments for an intensive course required by paragraph 1.

...

HONORS COURSES

Purpose. Honors courses in Yale College aim to offer special opportunities for individual development and academic distinction in a single field of study. Honors candidates may be released from certain specific requirements of the classroom but are required to pursue, under individual direction, at least an equivalent amount of work during Junior and Senior years.

Admission requirement. Admission to honors work requires the recommendation of the department concerned and the approval of the Dean of Yale College. In general, such admission presupposes a scholarship standing averaging 80 or higher during Freshman year and the first term of Sophomore year. In special cases, men with a lower average standing may be accepted provided they have no actual scholastic deficiencies. Special registration at the Dean's Office is required of all students admitted to honors work.

Maintenance of general standing. In order to continue eligible for honors, candidates must maintain an average of at least 80 for the second term of Sophomore year, and throughout Junior and Senior years, in all studies outside of their honors work. In cases of withdrawal or deficiency of candidates, the Committee on Honors in Yale College, in consultation with the Dean, shall determine the curriculum requirements.

Program of study. Honors candidates are assigned individually to an instructor of the department in which their honors work falls, who will plan their entire program of study, subject to the approval of the department, and supervise that part which consists of their special honors work.

Honors examinations and awards. At the end of Junior year, candidates must pass an examination upon the whole of their honors work for the year. A Preliminary (Junior) Honors List is published based largely upon the results of this examination. Final honors are awarded upon the basis of special comprehensive examinations, given at the end of Senior year by the department concerned, but not solely by the special honors instructor concerned.

The subjects in which honors courses may be taken, together with the requirements in each, are as follows:

...

Source. Catalogue, 1925-26. Photo Reproduction from the University Archives.

COURSE OF STUDY, 1939-40

THE FRESHMAN YEAR

The function of the Freshman Year is to prepare first-year students for the more advanced work in the upper schools (Yale College, the Sheffield Scientific School, and the School of Engineering). Organized under its own dean and faculty, it aims to maintain high standards of scholarship, to secure the best teaching available, and to help the student to become oriented in his new environment.

Each Freshman is assigned to a counselor to whom he can go for information and advice. On the opening day of college, Freshmen consult with their counselors on their choice of courses.

METHOD OF CHOOSING COURSES FOR
THE FRESHMAN YEAR

1. Soon after submitting his formal application for admission to Yale, each candidate will receive a booklet entitled *Planning a Course of Study*, which presents general information about the types of work in the upper schools, and specific information about the courses which may be elected in Freshman Year. Each candidate is urged to consult his advisers, at school and at home, and to plan, with their aid, a Freshman program which looks forward to more intensive work in his chosen field of study during his later college years.

2. Having formed his plan, each candidate will fill out and return to the Board of Admissions a program blank which will be enclosed with the booklet. This preliminary choice will be studied by the Chairman of the Board of Admissions in the light of the candidate's records to date, and will serve as a basis for further discussion as to its adaptability both to the requirements of the upper schools and to the aims of the candidate himself.

3. When a candidate is notified of his admission to the Freshman Year, he will receive a statement of his choice of courses and will be given a final opportunity to revise or complete his program. On the basis of this revision, which must be returned to the Chairman of the Board of Admissions by August 7, his schedule for Freshman Year will be determined. All programs are subject to the final approval of the Dean of Freshmen.

THE FRESHMAN PROGRAM

The regular Freshman program will consist of five courses, which should be distributed among various subjects or fields of study. (Engineering 10a, a one-hour course for part of the year, may be carried in addition to five regular courses.) Not more than one course in a subject may be chosen.

1. *Courses regularly offered in Freshman Year.* The Freshman Year regularly offers courses in the following subjects:

Art*	English*	Italian*	Philosophy*
Biology	French*	Latin*	Physics*
Chemistry*	Geology	Mathematics*	Religion
Economics	German*	Military Science*	Spanish*
Engineering	Greek*	Music*	Zoology*
Engineering Drawing	History*	Naval Science	

In some of these courses special sections are formed for Freshmen whose previous records indicate their ability to carry work more intensive or more advanced than that of the regular sections. In some subjects several courses are offered, either on different levels of attainment or covering different portions of the same general field.

2. *Advanced courses offered to qualified Freshmen.* Freshmen may apply for admission to upper-class courses in the subjects marked with an asterisk (*) in the list above and also in the following subjects:

Architecture, Astronomy, Botany, Classical Civilization, Government, Psychology, and Sociology. Admission to these courses will depend upon (a) the excellence of the applicant's entrance record as a whole, (b) a recommendation from his school, and (c) the number of places open to Freshmen. Admission will be determined during the summer by the placement officers of the departments of study concerned.

...

YALE COLLEGE

YALE COLLEGE offers courses of study in the liberal arts leading to the degree of Bachelor of Arts (B.A.). The work of Sophomore year is designed to carry on work begun in Freshman year and to introduce the student to new fields of study. In Junior and Senior years opportunity is provided for a greater degree of concentration in a field of major interest, the student's comprehension of which is tested by a departmental examination at the close of Senior year.

Award of honors. The degree with honors in the work of any department may be awarded a Senior who, in the opinion and on the recommendation of the department concerned, merits such award in view of his course work and his final departmental examination in his major subject.

Departmental students. A student whose work qualifies him for the Dean's List may, with the permission of the department of his major and the Dean, elect four courses instead of five. Such a student will then do work equivalent to that of a fifth course under the direction of the department of his major. A departmental student may, at the discretion of the department, be freed from course examinations in the field of his major.

GENERAL PROVISIONS

1. The following requirements in distribution of work must be satisfied before graduation:

- (a) A full-year course in one of the following sciences: Astronomy, Biology, Botany, Chemistry, Geology, Physics, Zoology.
- (b) A course numbered 30 or above in French * or German or Italian or Spanish. (The requirement may be satisfied by an anticipatory examination.)
- (c) A course in Latin (13) or Greek (30) or Classical Civilization.

2. Every student shall take each year not more than five full-year courses (i.e., courses requiring one fifth of the student's working time), or their equivalent.

3. Every student shall elect a subject in which he will do his major work during his last two years. In general, the major will be the continuation of a subject studied in Freshman or Sophomore year (counting Biology as an introduction to Botany or Zoology); departures from this rule, to provide for the election of subjects not taken in the first two years, require the permission of the Dean of Yale College. The student shall frame his schedule of courses in his *major subject* in consultation with the department concerned and must secure the written approval of the department before his schedule is handed in. He should acquaint himself fully with all requirements of the department of his major study, with regard not merely to his immediate choices of Junior courses but to the plan of his entire work in preparation for the departmental examination at the close of his Senior year. This departmental examination, required of every student, will test his proficiency in his major subject as a whole. Schedules including more than two courses in the major subject require the approval of the Dean.

* A satisfactory grade gained on the French 4 examination for admission will also fulfill the modern language requirement.

The list of subjects in which majors may be taken is as follows: Architecture; Art; History of Art; Botany; Chemistry; Classical Civilization (including Ancient History and Archeology); Classics (Greek and Latin combined); Economics; English; French; Geology; German; Government; Greek; History; History, the Arts, and Letters; International Relations; Italian; Latin; Mathematics; Music; Philosophy; Physics; Psychology; Religion; Sociology; Spanish; and Zoology. Astronomy may be elected, provided the plan of work embracing courses in related subjects is approved by the department and the Dean.

4. During the reading periods Seniors and Juniors will read in their major subjects under the direction of the departments concerned. In the winter reading period Sophomores will attend recitations; in the spring reading period Sophomores will either attend recitations or read in their major field under the direction of the department concerned. Seniors and Juniors enrolled in courses open primarily to Sophomores will conform with the practice of these courses. Sophomores enrolled in upper-class courses will read in the winter reading period in those courses.

5. No credit will be given for beginning courses in classical or in modern languages unless followed by a second course in the same language. However, credit for one three-hour course is given upon completion of French 10-20, German 10-20, or the work of the five-hour division of Greek 10.

6. Subject to the written consent of the instructor, students may attend as auditors any course in Yale College.

...

SOPHOMORE YEAR

Every student must choose five of the following subjects: Astronomy, Biology (or Zoology), Chemistry, Classical Civilization, Economics, English, Fine Arts (Architecture, Art, Drama, History of Art), French, Geology, German, Government, Greek, History, Italian, Latin, Mathematics, Military Science, Naval Science, Philosophy, Physics, Psychology, Religion, Sociology, Spanish. Certain other subjects are open to Sophomores under special conditions explained in the statements of the individual courses.

Courses numbered 30 or above, except in the modern languages, are not generally open to Sophomores unless a statement to that effect appears in the description of the course.

In general, a Sophomore will not be allowed to take more than one course in a subject; a student having serious reasons for taking more than one course in the same subject must submit a written statement, pinned to his schedule blank.

Students must meet the modern language requirement (a course numbered 30 or above, passed or anticipated, in French* or German or Italian or Spanish) in their Junior year at the latest.

Required in Sophomore schedules. Five courses, including a modern language, unless the requirement has been fulfilled, and Latin 13 or Greek 30, unless already passed in college, or Classical Civilization.

* A satisfactory grade gained on the French 4 examination for admission will also fulfill the modern language requirement.

Source. Catalogue, 1939-40. Photo Reproduction from the University Archives.

Distribution of Studies, 1884-1944

YEARS	REQUIRE D				LIMITED ELECTIVES				FREE ELECTIVES				According to Subject Matter and Method of Study	
	Courses	Subjects	Fields	Total Hours	Basic	Breadth	Minors	Major	Total Electives	Fresh Yr.	Soph. Yr.	Jun. Yr.		Sen. Yr.
1883-84	22†	0	0	52	0	4	0	0	4	0	0	4	4	<p>22 Req'd Basic—2 courses Cr., 2 Lat., 2 Math., 2 Mod. 20 Breadth—10 Hours—Physics, Astronomy—Geol., Logic—Psych—Ethics Concentration: 0 hours.</p>
1884-85	31	0	5	40	0	0	0	0	0	0	8	12	20	
1885-86	"	"	"	40	0	0	0	0	0	0	"	"	20	<p>22 Req'd Basic—Cr., Lat., Math., M.L., Engl. and 5/6 of same list plus Phys., 8 Req'd. Breadth—Logic, Ethics, Philos., 8 Concentration.</p>
1886-87	34	0	5	39	0	0	0	0	0	0	9	12	21	
1887-88	"	"	"	40	0	0	0	0	0	0	"	"	21	
1888-89	33	0	6	39	0	0	0	0	0	0	0	0	21	
1889-90	33	0	5	40	0	0	0	0	0	0	9	13	22	
1890-91	32	2	5	39	0	0	0	0	0	0	0	0	22	
1891-92	31	2	5	38	0	0	0	0	0	0	10	13	23	
1892-93	16	2	3	21	12	3	0	0	15	0	12+	25	25	
1893-94	15	2	3	20	"	"	"	"	15	"	"	"	25	
1894-95	"	"	"	20	"	"	"	"	15	"	"	"	25	
1895-96	"	"	"	20	"	"	"	"	15	"	"	"	25	
1896-97	"	"	"	20	"	"	"	"	15	"	"	"	25	
1897-98	"	"	"	20	"	"	"	"	15	"	"	"	25	
1898-99	"	"	"	20	"	"	"	"	15	"	"	"	25	
1899-00	"	"	"	20	"	"	"	"	15	"	"	"	25	
1900-01	15	0	3	18	6†	9†	0	0	15	0	12+	13+	27	
1901-02	12	0	3	15	3†	12-	10	7	23†	0	0	22+	22	
1902-03	12	0	3	15	3†	12-	10	7	23†	0	0	22	22	
1903-04	0	0	0	0	15	13+	15	14	44+	0	0	16+	16+	
1904-05	"	"	"	0	"	"	"	"	44+	"	"	"	16+	
1905-06	"	"	"	0	"	"	"	"	44+	"	"	"	16+	
1906-07	"	"	"	0	"	"	"	"	44+	"	"	"	16+	
1907-08	"	"	"	0	"	"	"	"	44+	"	"	"	16+	
1908-09	"	"	"	0	"	"	"	"	44+	"	"	"	16+	
1909-10	"	"	"	0	"	"	"	"	44+	"	"	"	16+	
1910-11	"	"	"	0	15	13+	18	12	45+	0	0	12-16	12-18	
1911-12	0	0	12-13	12+	3†	9†	0	34†	30-	0	0	16	18	
1912-13	"	"	"	12+	"	"	"	"	30-	"	"	"	18	
1913-14	"	"	"	12+	"	"	"	"	30-	"	"	"	18	
1914-15	"	"	"	12+	"	"	"	"	30-	"	"	"	18	

RISE OF FREE ELECTIVES
 First Limited Elects.

ERA OF DISTRIBUTION & LIMITED ELECTIVES
 Divisions... Groups... Major-Minors... Major...
 10-Group Reqs... 8 Group Reqs (honors)

1884

1908

1901

22 Req'd Basic—2 courses
 Cr., 2 Lat., 2 Math., 2 Mod.
 20 Breadth—10 Hours—Physics,
 Astronomy—Geol., Logic—Psych—Ethics
 Concentration: 0 hours.

22 Req'd Basic—Cr., Lat., Math., M.L.,
 Engl. and 5/6 of same list plus Phys.,
 8 Req'd. Breadth—Logic, Ethics, Philos.,
 8 Concentration.

15 Req'd Basic—5 of Cr., Lat., M.L.,
 Math.,
 15 Req'd Breadth—Engl., Hist., Chem and
 5 Mins. (15 hr)
 14 Concentration—2 Majors, 7 hrs. per

12/15 Req'd Basic—M.L., 2 Math/Sc.
 12 Breadth
 15/18 Concentration—Major of 12 hrs,
 4 of 2 groups.

Distribution of Studies, 1884-1944 (Continued)

YEARS	REQUIREMENTS				LIMITED ELECTIVES				FREE ELECTIVES				According to Freedom of Choice				According to Subject Matter and Method of Study
	Courses	Subjects	Fields	Total Hours	Basic	Breadth	Minor	Major	Frsh. Yr.	Soph. Yr.	Jun. Yr.	Sen. Yr.	Frsh. Yr.	Soph. Yr.	Jun. Yr.	Sen. Yr.	
1884-1885	0	0	12-15	12+	31	91	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.
1886-1887	0	0	9-12	9-12	51	91	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Engl., 2 Natl., Econ, 10 Group Reqs., 5 Group Reqs. (Honors)
1888-1889	7	0	12-15	12-15	37	97	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.
1890-1891	7	0	12-15	12-15	7	7	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Engl., 2 Natl., Econ, 10 Group Reqs., 5 Group Reqs. (Honors)
1892-1893	12	0	18	30	0	0	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.
1894-1895	0	0	0	30	0	0	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Engl., 2 Natl., Econ, 10 Group Reqs., 5 Group Reqs. (Honors)
1896-1897	0	0	0	30	0	0	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.
1898-1899	7	0	7	30	0	0	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Engl., 2 Natl., Econ, 10 Group Reqs., 5 Group Reqs. (Honors)
1900-1901	6	0	18	24	0	0	0	12-18	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.
1902-1903	0	0	0	24	0	0	0	12-18	0	0	0	0	0	0	0	0	15 Req'd Basic:—Engl., 2 Natl., Econ, 10 Group Reqs., 5 Group Reqs. (Honors)
1904-1905	0	0	0	24	0	0	0	12-18	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.
1906-1907	0	0	0	24	0	0	0	12-18	0	0	0	0	0	0	0	0	15 Req'd Basic:—Engl., 2 Natl., Econ, 10 Group Reqs., 5 Group Reqs. (Honors)
1908-1909	0	0	0	24	0	0	0	12-18	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.
1910-1911	0	0	15-18	15-18	37	37	0	12-18	0	0	0	0	0	0	0	0	15 Req'd Basic:—Engl., 2 Natl., Econ, 10 Group Reqs., 5 Group Reqs. (Honors)
1912-1913	0	0	0	15-18	0	0	0	12-18	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.
1914-1915	0	0	12-15	12+	07	67	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Engl., 2 Natl., Econ, 10 Group Reqs., 5 Group Reqs. (Honors)
1916-1917	0	0	0	12+	0	0	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.
1918-1919	0	0	0	12+	0	0	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Engl., 2 Natl., Econ, 10 Group Reqs., 5 Group Reqs. (Honors)
1920-1921	0	0	0	12+	0	0	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.
1922-1923	0	0	0	12+	0	0	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Engl., 2 Natl., Econ, 10 Group Reqs., 5 Group Reqs. (Honors)
1924-1925	0	0	0	12+	0	0	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.
1926-1927	0	0	0	12+	0	0	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Engl., 2 Natl., Econ, 10 Group Reqs., 5 Group Reqs. (Honors)
1928-1929	0	0	0	12+	0	0	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.
1930-1931	0	0	0	12+	0	0	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Engl., 2 Natl., Econ, 10 Group Reqs., 5 Group Reqs. (Honors)
1932-1933	0	0	15-18	15-18	37	37	0	12-18	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.
1934-1935	0	0	0	12-15	12+	07	67	0	0	0	0	0	0	0	0	0	15 Req'd Basic:—Engl., 2 Natl., Econ, 10 Group Reqs., 5 Group Reqs. (Honors)
1936-1937	0	0	0	12+	0	0	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.
1938-1939	0	0	0	12+	0	0	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Engl., 2 Natl., Econ, 10 Group Reqs., 5 Group Reqs. (Honors)
1940-1941	0	0	0	12+	0	0	0	12+	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.
1942-1943	0	0	18	18	0	0	0	Exam	0	0	0	0	0	0	0	0	15 Req'd Basic:—Engl., 2 Natl., Econ, 10 Group Reqs., 5 Group Reqs. (Honors)
1944-1945	0	0	18	18	0	0	0	Exam	0	0	0	0	0	0	0	0	15 Req'd Basic:—Chemica, M.L., 2 Sc.

Source: Mathematical calculations, derived from annual catalogues.

COURSE OF STUDY, 1945-46-47

YALE COLLEGE offers courses of study in the liberal arts and sciences leading to the degrees of Bachelor of Arts (B.A.) and Bachelor of Science (B.S.). The two requirements of a liberal education are the achievement of a liberal breadth, and the mastery of a particular study. The work of Sophomore year is designed to carry on work begun in Freshman year and to introduce the student to new fields of study. In Junior and Senior years opportunity is provided for a greater degree of concentration in a field of major interest, the student's comprehension of which is tested by his independent work in the field during his last two years and by a departmental examination at the close of his Senior year.

Award of honors. The degree with honors in the work of any department may be awarded a Senior who, in the opinion and on the recommendation of the department concerned, and with the concurrence of the Committee on Honors, merits such award in view of his course work and his achievement in his major subject.

GENERAL PROVISIONS

A. COURSES OF STUDY LEADING TO THE BACHELOR OF ARTS DEGREE

The student who began his studies at Yale before September, 1946, and men coming to college from service in the armed forces are expected to meet the requirements for graduation as they are set forth in the bulletin, *Undergraduate Courses of Study*, published in the fall of 1945. For the convenience of the student, the distributional requirements of that program are repeated here. That bulletin reads as follows:

1. *Basic program.* Each program of courses leading to the B.A. degree must provide first of all for the breadth of distribution which is essential to a rounded experience and basic to sound progress and concentration in the major field. Students are required to take before graduation one two-term course or two term courses in the same subject in each of the six groups listed below, and in the first three groups the term courses must be consecutive or paired.

*The *Undergraduate Courses of Study* bulletin lists the individual courses, hours, and credits of subjects of instruction open to undergraduates.

I. *Classical Languages and Civilization:*

Latin or Greek at level of 30 or above, or Classical Civilization.

II. *Modern Language:*

A course numbered 22 or above in French, German, Italian, Russian, or Spanish. In intensive courses, numbered 25, the student must obtain a grade of 80 to satisfy the requirement.

III. *Natural Science:*

Astronomy, Biology, Botany, Chemistry, Geology, Physics, Zoology, or one of the following: Science I, II, III.

IV. *Social Science:*

Anthropology, Economics, History, Political Science, Psychology, Religion, Sociology.

V. *The Arts and Letters:*

The Fine Arts, Music, Literature—ancient or modern.

VI. *Systematic Thinking:*

Mathematics, Philosophy, or an advanced natural science. A course in the history of language.

Other requirements for graduation, such as the major, scheduling of courses, etc., remain as printed in that bulletin.

Students entering Yale for the first time in the fall of 1946 and planning to become candidates for the Bachelor of Arts degree may follow either the Standard Program or the Program of Directed Studies as set forth below. The Program of Directed Studies is limited to forty men chosen from those students who apply for it. The group chosen will represent a cross section of the upper half of the class.

I. THE STANDARD PROGRAM IN THE LIBERAL ARTS

Each program of courses for the Bachelor of Arts degree must provide first of all for the fundamental studies and the breadth of distribution which are essential to a well-rounded education and basic to sound progress and concentration in the major field. To qualify for the degree the student must satisfy the requirements of the Faculty under these several heads: (1) Basic Studies; (2) Program of Distribution; (3) Requirements of the Major Field; and (4) Summer Reading. An explanation of each of these headings is given below.

1. *Basic studies.* The liberal education of the student is grounded upon the assumption that there are certain techniques and abilities essential to further progress in learning which the student must possess at an early stage in his college career. These are the ability to read and write English with facility and accuracy, to think and reason clearly and correctly, and to use a modern foreign language with ease. The College therefore expects every student to complete successfully a course in each of the following groups:

I. *English:*

English 10a,b; 15a,b.

II. *Formal Thinking:*

Mathematics 10a,b; 11a,b; 12a,b; 14a,b (for majors in Architecture); *Philosophy* 10a and 10b; *Linguistics* 20a,b.

III. *Modern Language:*

A course in French, German, Italian, Spanish, or Russian at a level of 22 or higher.* In the intensive language courses, numbered 25, a grade of 80 is required to satisfy this requirement.

These requirements may be anticipated by excellent work in school and upon entrance tests. See the SCHEDULE OF EXEMPTIONS below.

2. *Program of distribution.* The purpose of the program of distribution is to provide the student with a broad view of the world he lives in and to equip him with the means of understanding it. This entails a knowledge of inanimate and animate nature through the appropriate sciences, a large view of man in the perspective of time, an acquaintance with the great ideas which have influenced the actions of men in the past, and continue to do so in the present, and a knowledge of the significant institutions of modern society. It also entails a comprehension of the arts, the ideas, and the aspirations of men. To obtain so large a view in all its fullness is properly the occupation of a lifetime. Practical considerations compel the division of knowledge into certain large and reasonably well-defined areas. To lay strong foundations and to ensure a comprehensive view the College requires every student to elect a full year course or two term courses in each of the following fields. As in the case of the *Basic Studies*, several of these requirements may be anticipated by excellent work in school. See the SCHEDULE OF EXEMPTIONS below.

*If the student wishes to satisfy the requirement in modern language through another European or through an Oriental language, he must secure the permission of the Dean of Yale College.

- IV. *Inorganic Science** (Freshman year):
Science I (Chemistry—Physics) or if qualified
Science II (Geology—Astronomy).
- V. *Organic Science** (Sophomore year):
Science III (Botany—Zoology—Psychology) or if qualified
Science II (Geology—Astronomy).
- VI. *The Ancient World*:
 Greek or Latin at the level of 30 or above.
Classical Civilization 10a,b; 20a and 20b; 21a and 21b;
 23a,b; 24a and 24b; 25a,b.
Philosophy 12†; *Religion* 26†.
- VII. *Studies of Society*:
 Anthropology, Economics, History, Political Science, Psychology, Sociology.
- VIII. *Literature and the Arts*:
 Literature, ancient, biblical, or modern, above the elementary level, the Fine Arts, Music.
- IX. *Interrelationships of Knowledge* (Junior or Senior year):
History 61a,b; *Political Science* 80a,b; *Philosophy* 37a,b;
History of Art 49a,b.

A single course may not satisfy more than one requirement.

*These courses are described in the *Undergraduate Courses of Study* bulletin. Freshmen undecided concerning the degree for which they may be candidates, and B.A. men wishing to complete premedical requirements, may take *Chemistry* 11a,b, 12a,b, or 14a,b, instead of *Science I*. Sophomores who are candidates for the B.A. degree, but are completing premedical requirements, may substitute *Biology* 10a,b, or *Zoology* 11a,b for *Science III*.

†The requirement in *The Ancient World* may be met by a combination of *Classical Civilization* 10a followed by *Philosophy* 12 or *Religion* 26, if the student so desires.

...

II. PROGRAM OF DIRECTED STUDIES IN THE LIBERAL ARTS

In September, 1946, the College will offer a program, known as *Directed Studies*, to a limited number of Freshmen. Not more than forty Freshmen will be chosen from those who apply. The purpose of the program is to provide a common background of knowledge for the students in the work of their first two years. In contrast to the combination of election and distribution of the Standard Program, the work of the first two years is entirely prescribed. This is done in order to explore the values a completely and carefully organized system of distribution may possess as a common intellectual basis for the work of the last two years. In their Freshman year the students in this program are responsible to the Dean of Freshman Year; in their Sophomore year to the Dean of Yale College. The student should observe, in electing this program, that by the very nature of the plan no anticipation of requirements can be allowed.

In his Freshman year the student will take specially designed courses in Mathematics, Literature, Language, and Science, and as a fifth course a discussion course in Philosophy whose purpose is to integrate and illuminate the work of the other four courses.

In his Sophomore year the student will take special courses in Social Science, Historical Perspective, a second course in the language he has studied in Freshman year, and a second course in Science, and as a fifth course will take a second discussion course in Philosophy whose purpose again is to integrate and illuminate the work of the other four courses.

A more detailed description of these courses is given in the *Undergraduate Courses of Study* bulletin.

B. PROGRAMS OF STUDY LEADING TO THE DEGREE OF
BACHELOR OF SCIENCE

The basic program of courses leading to the Bachelor of Science degree follows the distribution given below.

- I. *Classical Languages and Civilization:*
Not required but may be elected.
- II. *Modern Language:*
French or German at the level of 22 or above. In the intensive courses, numbered 25, a grade of 80 is necessary to meet this requirement. Spanish may be offered in the applied economics program and also in the mathematics major.
- III. *Natural Science:*
Two terms in Astronomy, Biology, Botany, Chemistry, Geology, Physics, or Zoology.
- IV. *Social Science:*
Two year courses (four terms) in Economics, History, Political Science, Sociology, or Psychology.
- V. *The Humanities:*
Literature, Philosophy, Religion, Music, and Art. Two year courses (four terms), one year of which must be satisfied by *English 24* (a required course). *English 10* should be anticipated.
- VI. *Formal Thinking:*
Mathematics.

It is important that the student entering the Freshman Year and planning to become a candidate for the Bachelor of Science degree should take the subjects in or essential to the field of his concentration in definite sequence. It is necessary to make sure that Freshman and Sophomore programs include all prerequisite subjects. These prerequisites in each case may be ascertained by consulting the separate departmental statements regarding the Bachelor of Science courses of study. Programs of study for the Freshman and Sophomore years in preparation for the Bachelor of Science degree can be so arranged as to permit a change at the end of either year to the Bachelor of Arts program. The converse is not generally feasible.

The several programs of study are as follows: Chemistry, Physics, Geology, Biology (including Botany, Agricultural Science, Zoology, General Biology), Combined Biological and Medical Studies, Combined Plant Science and Forestry Studies, Physiological Chemistry, Bacteriology, Mathematics, and Applied Economics. They are described in full in the *Undergraduate Courses of Study* bulletin.

Source. Catalogue, 1946-47. Photo Reproduction from the University Archives.

COURSE OF STUDY, 1965-66

SINCE 1701 Yale College has offered courses of study leading to the bachelor's degree. A course is simply a group of students examining a particular subject under the direction of someone who has studied it before. Yale College today offers more than 700 courses. A student working for a bachelor's degree ordinarily takes five in a year and receives his degree after four years.

Twenty courses do not necessarily make an education. Unless the courses bear such a relationship to one another that they both broaden the student's understanding in several areas and deepen it in one or two, he may emerge with a collection of miscellaneous information but no wiser than when he entered. The College insists not only that students perform satisfactorily in a given number of courses but also that they follow a rational program of study, choosing their courses according to prescribed rules. The purpose of these rules, which are set out below, is to ensure that breadth of distribution is achieved as well as mastery of a particular study or group of studies.

FRESHMAN YEAR

A student must begin planning a program of study as soon as he enters college. To assist him, the University furnishes special advisers. A Freshman may always consult the dean of the college to which he is assigned, but he also enjoys the help of a faculty program adviser who is a fellow of his college and of a Freshman counselor, who will guide him in applying the rules given below. Within the limits prescribed by those rules, he is free to formulate his own program.

The Freshman's choice of courses is more limited than that of upperclassmen, because in most fields most Freshmen will be qualified to take only elementary courses. In order to qualify himself for advanced work in a variety of subjects and to develop basic intellectual skills, a Freshman must ordinarily devote most of his program to satisfying the Distributional Requirements imposed by the University. Unless he secures advanced credit (see p. 125) he cannot fulfill the Distributional Requirements in a single year, but he will be expected to satisfy as many as he can by the end of Sophomore year.

The purpose of the Distributional Requirements is to widen the student's intellectual opportunities not only in college but in later life. They seek this goal in two ways: first, by requiring every student to perfect his skills in the use of language (his own and another); and second, by exposing every student to a variety of widely different fields of modern knowledge. Although the advancement of learning proceeds by specialization—and every student must later specialize—a man's understanding of himself, of the world around him, and even of his own chosen field of study will be impoverished if he is not aware of what men have learned in other fields of knowledge. To understand another people, another time, another way of looking at things often gives new and richer meaning to familiar truths. Yale therefore requires that every student elect a full year course or two term courses from each of the seven categories listed below, unless he has received credit for one or more of them under the program of college and distributional credits.

DISTRIBUTIONAL REQUIREMENTS

It is expected that the majority of students will satisfy these requirements by the end of the Sophomore year. There are cases, however, in which the postponement of requirement 6 or 7 until Junior year is preferable.

1. English 15.
2. A Foreign Language, ancient or modern, at the level of 22 or higher. French, German, or Russian is required for science majors and is strongly recommended for those in engineering and applied science. Students electing an elementary intensive language numbered 25 must secure a grade of 80 or better to satisfy this requirement.
3. History, ancient or modern; or History of Art; or History of Music; or History of Science and Medicine.
4. A Social Science (Anthropology, Sociology, or Psychology; Economics, Geography, or Political Science).
5. A Natural Science.
6. Classical Civilization; or Philosophy; or Religious Studies.
7. A second Natural Science; or Mathematics (two terms at the level of 20 or above); or a Foreign Literature (Latin or Greek at the level of 30 or higher; or a modern foreign literature at the level of 40 or above taught in the foreign language).

Source. Catalogue, 1965-66. Photo Reproduction from the University Archives.

COURSE OF STUDY, 1966-67

FRESHMAN YEAR

Much of the lasting benefit of the student's undergraduate years at Yale will depend on how he selects his courses. To assist him the University furnishes special advisers—the dean of his Residential College, the faculty program adviser from the fellowship of that college, and a Freshman counselor.

One of the distinguishing features of a liberal education is that it has no single definition. Rather, therefore, than prescribing which specific courses must be taken by all students, Yale College requires that each student design his own program of study, suited to his particular needs and interests, from the multitude of courses available to college students within a university. Only two specific rules will limit selection of courses outside the major.

1. A Freshman may take no more than one course (or two term courses) in a single department and no more than three courses (or six term courses) in a single division (there are three divisions: Natural Sciences, Social Sciences, and Humanities, see p. 148). He may, however, take as many as two courses (or four term courses) in a department that embraces several different disciplines, such as Classics or Romance Languages.

2. Every student during his four years at Yale must take at least eight courses (or sixteen term courses) outside the department of his major, of which at least six courses (or twelve term courses) must be outside the division of his major.

The purpose of these requirements is to ensure exposure to a variety of ideas and ways of thinking. Many students come to Yale with advanced preparation in several fields. Such students should, at some point in their college careers, take advantage of any head start they may have in a subject to pursue it at a higher level than would otherwise be possible (a college course in a familiar subject often discloses unfamiliar and exciting prospects). But in the first year students should probably aim for the maximum of novelty—to explore and to try out some subjects they have never tried before. At the end of the Freshman year students ought to make at least a tentative choice of the department or program in which they wish to major (science majors *must* do so). In choosing Freshman courses, therefore, attention should be given to the prerequisites for any major in which there is a particular interest. But a student should not close his mind to other possibilities and should not hesitate to change his mind in his second year. If courses have been selected wisely, he will have the ground work to enter most majors during or at the end of Sophomore year.

Although the student will not be required to take specific courses in specific departments, he must distribute his courses according to a plan, a plan designed not only to open the maximum variety of subjects to him but also to improve his chances of gaining the most elusive of goals, a liberal education.

Educated men by no means agree about everything that a liberal education should include, but nearly all would agree on the following propositions which should serve as guidelines.

1. An educated man should be able to express himself clearly in his own language, both in speech and in writing. It is a frequent illusion to suppose that a person can think clearly if he cannot write clearly. Words are the basic tools of thought. If a man cannot use them skillfully, he will be handicapped not only in communicating his ideas to anyone else but also in developing, defining, and understanding them himself. The student should therefore take at least one course, and preferably several, that will require him to write papers and have them criticized for clarity of expression by the instructor. The most obvious department in which to look for such courses is English; but several other departments offer courses that

give strict attention to writing. Among them are several courses in Classical Civilization, History, and Philosophy.

In whatever department the student studies writing it would be well for him to take at least one course in English literature. Although language is an essential tool for any kind of study, a man will not fully understand its possibilities and the avenues of thought and feeling it can open unless he can appreciate the use made of it by its greatest masters. He will be missing one of the rewards made possible by his own increased skill unless he follows or accompanies the study of writing by the study of literature.

2. Besides attaining skill in English, the student should be able to understand, speak, read, and write a language other than his own. Mastery of a foreign language will increase subtlety of mind and sharpen sensitivity to the use and meaning of words in one's own language. Most students will have been exposed to a foreign language, but knowledge of it should be carried to the level where they can not only speak it freely (if it is a modern language) but also read its literature fluently. Again, the skill should not be acquired without using it. Indeed, if it is not used, it is not likely to be retained. Only if the literature is studied will the acquired skill serve its purpose of widening perspectives by opening the doors of another culture. A person may speak a foreign language perfectly and yet remain provincial.

The question of which language or languages is studied will depend on previous preparation and future goals. If, for example, a student plans to do graduate work after college he should study French, German, or Russian or, depending on the field of graduate work, Greek or Latin. It will be advantageous to acquire more than one foreign language; there is little to be gained, however, by taking only one course in a new language. If a new language is begun, at least two years of work or an intensive, double course taken in a single year is usually necessary to permit effective use of the language either in speech or writing.

3. The study of a foreign language and literature will help to overcome geographical provincialism, but there is also such a thing as temporal provincialism. An educated man should seek historical perspective on his own times by studying the older civilizations from which our own has developed. A student should not leave college without having studied the history, art, music, philosophy, religion, or literature of the ancient world or the middle ages (before the sixteenth century). Courses in the more recent history of these subjects may serve a similar purpose (and students who have not had a good general course in American history in high school should take one in college). Ideally the art, artifacts, and ideas both of the modern and of the ancient world should be studied. But if a choice must be made between the two, it would be wise to begin with the ancient.

4. A man should not consider himself educated today unless he has an understanding of the mathematics that underlies many of the basic fields of study. Mathematics is not only necessary for an understanding of most subjects in the natural and social sciences, but it proves a useful tool in some of the humanities. Not every subject requires the same kind of mathematics, and the most useful course may not be given in the Mathematics department itself but in the following departments: Economics, Engineering and Applied Science, Industrial Administration, Philosophy, Political Science, Psychology, Sociology, or Statistics. Each of these departments offers courses in the mathematical and statistical methods used in its discipline.

Unless, however, he has already attained proficiency in mathematics at the level of calculus, the student should probably acquire this degree of mathematical skill in Mathematics 10a and 15b before

proceeding further. If he wishes to widen his opportunities for advanced study in a variety of fields, he should continue to pursue the study of mathematics in his Sophomore or Junior year. Skill in mathematics, as in the languages, is likely to vanish if it is not used and increased.

5. As the study of languages and writing should be coupled with the study of literature, so should mathematics be coupled with the sciences. Therefore, building on the mathematical foundation the student has already gained in school or is developing at Yale, he should become acquainted with at least one of the natural sciences. These are areas where human reason and imagination have made their most dramatic progress in the last three hundred years and especially during this century. Indeed, the creative effort of the sciences so dominates modern culture that no person today may consider himself educated without an understanding of science.

Students intending to major in a science may need different introductory courses from those who are studying a science simply as part of their general education. Before selecting a science course such students should consult with their college deans and the director of undergraduate studies or placement officer in the department concerned.

6. Finally, to understand the duties and problems facing him as a human being among other human beings, the student should become familiar with at least one of the social sciences. The social sciences like the natural sciences often rely heavily on mathematics; but the subject matter is people rather than things. At a time when the people of the world are increasing in both their numbers and their discontents, their future and the future of all that they have hitherto achieved depends heavily on the social sciences. An educated man should have some understanding of what men have learned and are learning about living together. Moreover, he cannot afford to be totally ignorant of the peoples of Eastern Europe, Asia, Africa, or Latin America. The Yale curriculum contains a wide variety of courses on these areas dealing with comparative social systems, governments, economies, and histories.

In applying these guidelines each student should seek advice not only from his college dean, counselor, and faculty program adviser but also from directors of undergraduate studies or other faculty members in different departments and divisions. Although no adviser will prescribe a particular set of courses for a student, use should be made of all the advice available in order to construct the most effective program. The courses by which the educational needs of each man are fulfilled must depend on his interests and his needs, but they should be selected according to a reasoned plan of study in which none of the principles outlined above is ignored.

The final check on specific course selections will be a general screening of all student programs to identify those that depart markedly from these general principles. A student whose program does this will be obliged to persuade the dean of his college and his faculty program adviser that it will achieve for him in its own way the goals of a liberal education. Every student's program must be approved by his dean and adviser, and every reasonable program will be approved.

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SOME MODIFICATIONS OF 1972-73

FRESHMAN AND SOPHOMORE YEARS

Much of the lasting benefit of undergraduate study at Yale will depend on careful planning of the student's program of study. It is important here to seek aid and counsel from advisers. Freshmen in particular should seek help from resident Freshman counselors, the faculty program advisers assigned to them from the fellowships of their residential colleges, their College Deans, and placement officers and directors of undergraduate studies in the various departments and programs in Yale College. Even with such assistance, however, it is probably impossible, and in fact it would be imprudent, for a student to map out at the beginning of Freshman year a firm schedule of studies for the next eight terms. Yet it is important to think ahead, and to keep certain principles and requirements in mind during the first two years of college.

One of the distinguishing features of a liberal education is that it has no single definition. Yale consequently does not prescribe any specific course to be taken by a student, but instead urges each undergraduate to design for himself his own program of study, suited to his particular needs and interests, from the multitude of courses available to college students in a university.

But it is also true of a liberal education that it is neither too narrowly focused nor too diffuse. Yale College has always, as a matter of educational policy, stood behind the principle of distribution in studies as strongly as it has supported the principle of concentration. Yale thus requires each student in his later years in college to choose an area of concentration in one of the major programs, whether departmental, divisional, or special. Yale also desires that the student's course of study be characterized, particularly in the earlier years, by a reasonable diversity of subject matter and approach. The Faculty of Yale College has therefore formally declared its support of the principles embodied in the Distributional Guidelines given below. In addition, all undergraduates must fulfill the following Distributional Requirements, which constitute the only specific rules* limiting the selection of courses outside a student's major program:

1. A Freshman may take no more than four term courses in a single department, and no more than six term courses in a single distributional Group. He must take at least two term courses in Group I or II and two term courses in Group III or IV.

2. To qualify for the bachelor's degree, a student must receive credit for a total of at least twelve term courses drawn from outside the distributional Group which includes his major. No more than six term courses in a single Group may be employed to meet this requirement.

For the purpose of distribution in Yale College, courses are classified into four Groups according to the following general scheme:

Group I includes courses in language and literature, English and foreign, ancient or modern.

Group II includes courses in architecture, art, classical civilization, history, history of art, history of science and medicine, music, philosophy, and religious studies.

Group III includes courses in administrative sciences, anthropology, archeology, economics, geography, linguistics, political science, psychology, sociology, and study of the city.

Group IV includes courses in astronomy, biology, chemistry, computer science, engineering and applied science, geology and geophysics, mathematics, molecular biophysics and biochemistry, physics, and statistics.

*Members of the Class of 1973 have the option of the Distributional Requirements in effect at the time of their admission. Consult page 3 of *Yale College Programs of Study 1970-71*.

A student is required to elect courses from a variety of departments in the Freshman year in order to ensure exposure to different ideas and ways of thinking. Many students come to Yale with advanced preparation in several fields. Early in his college career, such a qualified student ought to take advantage of any head start he may have in a subject to pursue it at a higher level than would otherwise be possible; a college course in a familiar subject often discloses unfamiliar aspects. In addition, in disciplines like mathematics and languages, where the maintenance and improvement of skills greatly depend on continuity of application, the student ought not lightly to interrupt the progress of his studies during Freshman year. During his first year, nevertheless, he should also explore some subjects that he has never studied before. At the end of Freshman year the student should make at least a tentative choice of the department or program in which he will major; science majors *must* do so. In choosing Freshman courses, therefore, the student should give attention to the prerequisites for any major in which he anticipates particular interest. But he should not close his mind to other possibilities. He should use his first year to explore, and not hesitate to change his mind during his second year. If the student has selected his courses wisely, he will have the ground work to enter most majors during or at the end of Sophomore year.

A student will not be required to take specific courses in specific departments. Instead, he is encouraged to design his own program with three interrelated purposes in mind: first, he ought to consider what program might best reflect his own intellectual interests; second, he ought to plan a program that will open up the maximum variety of subjects to him, so that he can expand those interests; and third, he ought always to keep before him the relevance of his program to that most elusive of goals, a liberal education.

Educated men and women by no means agree about everything that a liberal education should include, but nearly all would agree on the propositions below, which should serve the student as Guidelines. In applying these Guidelines, a student should seek advice not only from his college dean, counselor, and faculty program adviser, but also from directors of undergraduate studies or other faculty members in the various departments and divisions. Although no adviser will prescribe a particular set of courses, the student should make use of all the advice he can get in order to plan the most effective program. The courses by which a student achieves his educational goals must depend on his individual interests and needs, but courses ought to be selected according to a reasoned plan of study in which none of the principles outlined below is ignored.

The final check on specific course selections will be a screening of each student's program to identify any that departs markedly from these Guidelines. A student whose program does so will be obliged to persuade the dean of his college and his faculty program adviser that it will achieve for him in its own way the goals of a liberal education. Every student's program must be approved by his dean and adviser, and every reasonable program will be approved.

GUIDELINES

1. It is a commonplace that educated men and women should be able to express themselves clearly in their own language, both in speech and in writing. It is a frequent illusion to suppose that one can think clearly if one cannot write clearly: words are the basic tools

...

Note. The foregoing extracts cover the main directions of the Course of Study. Students of the curriculum will of course want to go to the full statements in the annual catalogues to see what they have to add about admissions, advanced standing, the five-year B. A. program, Directed Studies, and the introduction in 1969-70 of the residential college seminars, etc., etc.

C-2. Expansion of the Course Offerings

C-2 Expansion of the Course Offerings

Introduction: Some Factors in the Growth of the Intellectual Opportunities

Statistics on the course of study can seem pretty unrewarding. However, the two statistical views of the increase of variety and opportunity in the curriculum from 1875 to 1972 will have something to say about both the kinds and the rates of change, since the first introduction of electives.

The two tables are not strictly comparable because of changes in the ways of counting the faculty and of accrediting the courses. Where once almost the entire program had been required, and students had been taught in separate divisions of the same courses rather than given the opportunity for variety of election, in the early part of this century there came to be offered an increasing variety of instruction: some full-year courses, some half-year courses, some one-hour or two-hour or three-hour courses. Since World War II, however, almost all the courses have been given the same credit value each term, whether they met for two or three or even five hours a week. Another change has been the evolution of advanced disciplinary levels. And still another has been the gradual absorption into Yale College of instruction that once had been given in the Sheffield Scientific School and the School of Engineering. Our first table therefore deals wholly or very largely with the courses reserved for Yale College students studying for the B.A., while the second table includes the courses now offered for the B.S. as well.

After making due allowances, one can nevertheless estimate comparative teacher-student ratios, the average numbers of students per course, and also a kind of ratio or proportion between tuition and course opportunity. Finally there is the possibility of estimating average annual rates of growth in this intellectual expansion, which for the first 63 years approximated 4.2%, but for the last 25 dropped to 1.2%.

Lest this drop be too hastily read as a measure of deterioration, let us notice the difference between individual possibility and total opportunity. In the 1920s the average Yale undergraduate was required to take and to pass

COURSE OF STUDY GROWTH: YALE COLLEGE
A Statistical View of the Increase of Variety and Opportunity in the Curriculum, 1875-1938

Year	Number in Faculty Giving Undergraduate Instruction	Teacher-Student Ratio	Number of Students (Yale College)	Number of Courses	Year-Course-Hour	Number of Students per Year-Course-Hour	Yearly Tuition	Ratio of Tuition to Year-Course-Hours	Average Annual Rate of Growth of Year-Course-Hours by Periods	Average Annual Rate of Growth over 63 Years
1875-76	27	1:21.56	582	32	69.3	8.40	\$140	\$2.02	1875	9.76%
1886-87	46	1:12.39	570	117	193	2.95	\$140	\$0.73		4.31%
1899-1900	106	1:11.55	1224	165 (192) ^a	334 ^a (385) ^a	3.66	\$155	\$0.46		2.54%
1914-15	167	1:8.54	1426	223 (249) ^a	486.5 (550.5) ^a	2.93	\$155 (\$160-- new students)	\$0.32 \$0.33		4.18%
1930-31	276 ^b	1:9.16	2529 (incl. Fr. Yr.)	319 (369) ^c	689 (794.5) ^c	3.67	\$450	\$0.65		2.20%
1937-38	284 ^b	1:8.43	2395 (incl. Fr. Yr.)	327 (366) ^d	876.5 () ^d	2.73	\$450	\$0.51	1938	3.50%

Sources. Catalogues; Annual Course of Study Pamphlets; Table D-1.2 (below); and for Enrollment, Tables A-1.4 to A-1.6.

^a numbers in parenthesis include bracketed courses (not offered that year).

^b number of individuals from all the schools and faculties offering courses in Yale College during that year.

^c all undergraduate courses except those "other courses open primarily to S. S. students."

^d all undergraduate courses except in Engineering.

COURSE OF STUDY GROWTH: YALE COLLEGE
 A Statistical View of the Increase of Variety and Opportunity in the Curriculum, 1947-1972

Year	Number in Faculty Giving Undergraduate Instruction	Teacher-Student Ratio	Number of Students Y. C., SSS, Sch., Eng'g.	Number of Courses Offered Fall Term	Average Number of Students per Course	Yearly Tuition	Ratio of Term Tuition to Term Course	Average Annual Rate of Growth of Courses by Periods	Average Annual Rate of Growth over 25 Years
1947-48	364	1:16.5	6016	521	11.5	\$ 600	\$.58		
1952-53	366	1:11.2	4106	484	8.5	\$ 800	\$.83	-1.46%	
1957-58	496	1:7.9	3885	549	7.1	\$1100	\$1.00	2.55%	
1962-63	524	1:7.6	3978	555	7.2	\$1550	\$1.40	.22%	1.26%
1967-68	588	1:6.8	4010	587	6.8	\$1950	\$1.66	1.13%	
1971-72	811 (722)*	1:5.8 (1:6.5)*	4727	703	6.7	\$2900	\$2.06	4.61%	

Sources. Undergraduate "Course of Study" published annually; Tables A-1.7 and A-1.8.

*Excludes those teaching only college seminars.

courses totalling 60 credit hours for graduation. Later this miscellaneous accumulation was regularized into five three-hour courses each term, or forty term courses in all--and if he were eager he might be allowed to take a few more. Still more recently, to accommodate the increasing emphasis on the major, the requirement has been for five term courses for each of the first two years, but four term courses thereafter, or a total of 36 term courses, again with permissible variations. In 1971-72, therefore, a student found himself or herself expected to take just 36 term courses in the four years, and he or she might manage perhaps 40 altogether--yet every fall term there would be offered some 700 courses for consideration, out of which the student could take no more than six. In the spring term it would again be only five or six out of more than 700. Granted that the next year most of these 700 would be offered over again. Granted also that each student would find some of these courses too elementary or too advanced, and some entirely out of range. Still, in four years any single student could not hope to take more than about 40 courses altogether, out of the uncounted multitude of offerings in his time (a guess might be: between 2500 and 3000 distinct courses).

In retrospect it could be argued that Yale College in its wealth of offerings had already passed the point of diminishing returns. It should in any case be noted that there was now one instructor for every six students--which suggests not only that a good deal of Yale's education was now being provided through seminars, discussion courses, and individual instructions, but that many of the professors were teaching in the Graduate or Professional Schools as well, and giving only a part of their time to the College. So the faculty-student ratio represents full-time students but often only part-time faculty. In other words, the figures on faculty giving instruction in the College grossly exaggerate the number of teachers thus engaged for their full time; they point instead to the numbers giving one or at most two courses in the College. Which brings one back to the extraordinary range of personalities and scholarly talents on muster for the undergraduates of the University.

C-3. Undergraduate Choice of Studies

C-3 Undergraduate Choice of Studies

Introduction: What Did the Students Study?

What did the students study? Perhaps no certain answer is possible. One can ascertain what courses students took, what majors they enrolled in, what honors they were awarded. But . . . did they study? And what did they really learn? A skeptic might call these permissible questions. Anyone with experience of academic life knows that sometimes students study much less than they pretend, but sometimes also a good deal more. And as for what they learn, one is reminded of the professor who, when asked what he taught, said he did not know: he only knew what he tried to teach. So we should approach our theme with a certain modesty and caution.

Notwithstanding such reservations, our tables seem to provide a quite unusual amount of information. They tell us what subjects once dominated the curriculum, how that curriculum proliferated, how certain massive changes slowly reshaped the liberal arts, and how the more volatile fashions came and went or how emotions and particular anxieties helped redistribute the students' attention.

To begin with the classes from 1886 to 1899, one is impressed by how the Classics dominated the curriculum yet gradually diminished in weight, from absorbing more than a third of all study time to taking only about a fifth for the Class of 1899. In this same era of Timothy Dwight II one can discover the compensating increase in political science--i.e., in government, political economy, and social anthropology--the comparatively steady course of modern languages, the slow rise of history, the uneven popularity of English. And all this while the attention to mathematics was dropping from almost 19% to less than 10%. Apparently this other great staple of the old required curriculum was also on its way down. By immemorial custom, the Sophomores had celebrated THE BURIAL OF EUCLID with hijinks and glee, but now their grandchildren were hastening the obsequies?

In the next twenty years (1901-1920) the Classics, and in particular

SHARE OF EACH DEPARTMENT IN THE COLLEGE EDUCATION OF THE CLASSES OF 1886 TO 1899

	Class of													
	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899
Ancient Languages	34.8	32.9	30.6	27.3	28.9	26.7	27.4	28.3	28.6	27.7	22.6	24.1	22.3	21.7
Political Science	3.5	4.3	6.0	7.9	8.3	8.5	7.6	8.9	9.8	11.2	10.3	12.7	10.9	13.1
Modern Languages	10.0	7.8	7.1	12.6	12.3	11.9	14.0	12.5	13.5	14.5	14.2	14.4	14.1	13.0
English	9.2	12.3	12.3	8.5	8.4	10.4	8.5	6.3	7.5	8.5	10.7	8.2	10.7	11.9
History	7.2	6.5	8.5	7.7	7.2	9.0	9.9	10.2	9.5	10.9	12.1	10.1	13.7	11.3
Philosophy	9.1	10.1	9.4	12.3	9.6	8.5	8.2	8.2	8.4	9.0	9.1	10.2	9.2	9.9
Mathematics	18.8	17.6	16.8	15.5	15.7	14.1	14.8	14.8	14.6	13.8	9.5	9.7	9.1	9.9
Natural Science	7.4	8.5	9.3	7.2	8.5	8.6	8.7	10.0	6.8	2.3	8.7	9.0	8.0	7.6
Biblical Literature	0	0	0	1.0	1.0	1.7	0.8	0.7	1.1	1.6	1.4	1.0	1.4	0.8
Art	0.05	0	0	0.02	0	0	0	0.07	0.2	0.3	0.5	0.4	0.2	0.3
Music	0	0	0	0	0	0.11	0.2	0.1	0.1	0.1	0.2	0.2	0.15	0.1
Physical Culture	0	0	0	0	0	0	0	0	0.03	0.1	0.1	0.01	0.1	0.05
Military Sciences	0	0	0	0	0	0	0	0	0	0	0.2	0.04	0.1	0.1

Source. L. S. Welch and W. Camp. *Yale--Her Campus, Classrooms and Athletics*, p. 245.

Greek, declined still further, so that by World War I these time-honored keys to civilization were commanding less than 10% (or two full-year three-hour courses) of the average student's time. The modern languages held their own at about 15% (or three full-year courses). English earned the greatest popularity, at a steady 17-18%; while history (except for a spurt in the War crisis, when it benefited from attention to diplomatic relations) absorbed 11-13% or about one-eighth of the undergraduates' time. The natural sciences, with some shifts of leadership within their group, but with biology making the greatest gains, improved their share from 10% to 18%--while mathematics continued its decline, from almost 9% to just over 3%. One notices finally that philosophy and psychology, which under Dwight had occupied 9-10% of the average program, now under Hadley accounted for 5-6% (in 1904-1905 philosophy, as a department, had almost been abolished by the Corporation and the Permanent Officers).

In 1920-37, when the Common Freshman Year flourished (to the ultimate benefit of Yale College but the detriment of the Scientific and Engineering Schools), one can observe (C-3.3) that every Freshman took English; up to 1929 everyone also took history; three out of four Freshmen chose chemistry as their science requirement and two out of every three studied French and mathematics. Indeed mathematics had now come close to being just a Freshman Year study. Whereas, except for a brief fling in 1923-25, the social sciences remained upperclass subjects until 1933--which year also witnessed the onset of a considerable diversification and enrichment of the curriculum for Yale's yearlings.

The College as a whole (table C-3.4) now no longer gave much more than 5% of its attention to the Classics (including classical civilization, taught in English!). Together, French and Spanish claimed the equivalent of about 10%, or two full-year courses per student. But German had collapsed in World War I, and that language of learning only began to recover in the 1930s. English meanwhile reigned as the most popular subject, with history a strong second, and the now differentiated social sciences each beginning to develop its own clientele. One may notice also the arrival of ROTC as a study for credit after World War I, and the development of the fine arts and of interdepartmental or interdisciplinary subjects after World War II.

By the 1960s the Classics had collapsed still further, or almost into insignificance. The modern languages had proliferated in the number of languages offered, yet had lost in aggregate appeal. English was now less dominant; with the new student mix, and in 1969 with the arrival of women, the

DISTRIBUTION OF UNDERGRADUATE ATTENTION BETWEEN THE FIELDS OF STUDY 1901-1920

Percentages of Man-Year-Hours Elected by all Four Classes*

	1901-	1902-	1903-	1904-	1905-	1906-	1907-	1908-	1909-	1910-	1911-	1912-	1913-	1914-	1915-	1916-	1917-	1919-
SUBJECTS	1901-	1902-	1903-	1904-	1905-	1906-	1907-	1908-	1909-	1910-	1911-	1912-	1913-	1914-	1915-	1916-	1917-	1919-
Latin	6.98	7.75	6.83	6.21	6.03	5.73	5.92	5.42	5.35	6.47	6.99	6.85	6.55	5.32	6.83	6.58	5.36	
Greek	7.69	7.05	6.13	5.56	4.89	4.26	4.49	3.86	3.47	3.40	3.79	3.64	3.50	2.94	2.78	2.57	1.09	
Cl. Archeology	.05	.03	.08	.51	.28	.29	.54	.21	.50	.13	.44	.42	.38	.15	.16	.26	.08	
"Linguistics"	.02	-	.01	-	.01	.02	.02	.01	.01	-	-	-	-	-	-	-	-	
Bib. Lit. & Semitic Lang.	.39	.52	.70	1.36	.59	.64	1.08	1.03	.76	.63	.21	.26	.15	.44	.40	.47	.33	
French	7.79	9.17	6.73	6.89	6.91	6.85	7.39	7.07	6.95	7.09	6.55	7.86	8.21	7.49	6.45	5.91	10.02	
Italian	.14	.11	.21	.24	.13	.35	.13	.38	.27	.51	.32	.26	.23	.27	.30	.24	.18	
Spanish	1.53	1.77	1.01	.74	1.05	1.19	2.07	2.33	1.54	1.42	1.01	.92	1.33	1.33	2.31	3.22	1.99	
German	6.87	5.55	5.81	6.58	7.01	7.05	6.97	6.69	6.65	6.47	7.02	6.84	6.55	7.13	6.12	4.86	2.48	
Scand. Languages	.01	.03	-	-	.01	-	-	-	.01	-	.01	-	-	-	-	-	-	
Russian	.02	-	-	-	-	-	.04	-	-	-	.02	.04	.01	.01	-	-	.10	
Japanese	-	-	-	-	-	-	-	.01	.01	-	-	-	-	.01	-	-	-	
English	17.89	16.45	16.89	18.45	18.49	17.99	17.83	17.59	17.83	18.56	18.64	17.54	17.33	17.05	18.10	18.48	16.41	
Fine Arts	.27	.27	.24	.36	.20	.54	.19	.20	.24	.29	.19	.19	.20	.71	.66	.42	.70	
Music	.17	.29	.45	.40	.47	.38	.45	.25	.41	.36	.39	.21	.51	.45	.46	.22	.25	
Mathematics	8.80	8.48	7.19	7.02	6.30	5.18	5.16	4.82	4.24	3.82	4.14	3.64	3.56	3.48	3.14	3.20	5.57	
Physics	3.99	2.92	2.72	3.37	3.47	3.63	2.85	2.51	3.05	2.44	4.86	5.66	5.12	4.67	3.18	3.94	3.78	
Chemistry	2.91	2.91	4.16	4.11	3.76	4.01	3.68	4.25	4.08	4.52	4.78	5.98	5.00	5.41	4.72	4.76	5.69	
Geol. Sciences	2.42	2.62	3.52	3.57	3.92	5.40	6.58	5.61	6.55	5.34	2.15	1.64	1.81	2.83	3.49	5.15	3.10	
Biol. Sciences	.69	.79	1.00	1.19	1.00	1.62	1.88	1.79	2.09	2.40	3.12	2.90	4.36	4.31	6.80	4.52	4.58	
Phil. & Psych.	6.47	6.01	5.09	4.41	4.13	4.05	4.98	6.11	5.65	5.59	4.24	6.98	6.45	5.78	5.89	5.49	6.93	
Education	-	-	-	-	-	.04	-	-	-	.17	.09	.15	.06	.13	.06	.09	.01	
History	12.33	12.04	13.89	12.65	13.96	12.82	11.34	12.06	12.23	14.06	12.76	12.37	11.81	12.86	12.62	17.35	14.97	
Anthropology	-	-	-	-	-	3.28	2.77	2.17	2.07	2.00	2.42	2.38	2.59	3.20	3.63	3.09	2.35	
Economics	12.63	15.24	17.25	16.37	17.41	14.75	13.83	15.63	11.23	10.26	11.03	11.45	11.06	9.48	8.21	6.26	10.18	
Law	-	-	-	-	-	-	-	-	3.77	4.08	4.97	1.70	3.21	4.56	3.48	2.90	2.60	
Military Sci.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.23

Source. Data from the Yale College Dean's Reports and Registrar's records.

*A scale for measuring intensity of interest is provided by the fact that one full-year, three-hour course in a given subject normally represented 5% of a student's total study time in college.

DISTRIBUTION OF UNDERGRADUATE ATTENTION BETWEEN THE FIELDS OF STUDY 1920-1937

Percentages of Man-Year-hours Elected by all Four Classes

SUBJECTS	1920-	1921-	1922-	1923-	1924-	1925-	1926-	1927-	1928-	1929-	1930-	1931-	1932-	1933-	1934-	1935-	1936-	1937-
	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	
Latin	3.43	4.27	4.16	4.45	4.48	4.24	4.71	4.28	4.19	3.98	3.86	3.31	2.78	2.39	1.90	2.02	1.80	
Greek	.84	.96	.89	.77	.77	.76	.73	.72	.82	.90	.84	.74	.66	.83	.66	.51	.55	
Classical Civ.	.02	.02	.02	.09	2.28	3.12	2.10	2.17	2.46	2.43	2.40	3.37	3.66	3.36	2.32	3.49	3.91	
French	7.42	8.40	7.76	7.11	7.72	8.34	8.58	7.74	7.39	8.16	8.06	7.63	7.56	7.65	8.09	7.34	7.36	
Italian	.13	.07	.13	.30	.22	.24	.34	.26	.32	.35	.54	.52	.51	.41	.53	.34	.39	
Spanish	2.29	2.27	2.47	2.69	2.32	1.81	1.80	1.67	1.70	1.83	1.88	2.20	2.04	2.26	2.55	2.21	2.06	
German	1.47	1.27	1.71	1.09	1.82	1.95	2.42	2.84	2.88	3.41	3.59	4.43	5.03	4.96	4.81	4.13	4.39	
Russian	.02	.04	.04	.04	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	
Swedish	.02	.04	.04	.04	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	
English	15.88	16.85	17.52	18.26	18.31	18.99	20.65	19.05	18.77	17.76	18.51	20.29	18.46	17.48	15.66	15.20	15.20	
Art	.41	.66	.75	.70	.75	.95	1.00	1.26	1.52	1.68	1.93	1.59	1.03	1.08	1.52	1.68	1.64	
Architecture	.28	.46	.52	.51	.72	1.18	.69	.79	.61	.65	.51	1.00	.97	.81	.72	.59	.60	
Drama	.22	.18	.52	.54	.57	.71	.48	.73	.98	.89	.67	1.02	1.22	1.15	1.13	1.07	1.56	
Music	.22	.18	.52	.54	.57	.71	.48	.73	.98	.89	.67	1.02	1.22	1.15	1.13	1.07	1.56	
History	17.71	17.17	17.73	17.76	14.11	13.64	14.49	13.19	12.72	11.65	10.68	12.87	12.12	10.57	10.14	10.54	12.43	
Philosophy	2.34	1.14	1.44	1.78	2.00	2.02	3.10	2.61	2.78	2.31	1.98	1.81	1.23	1.32	1.32	1.85	2.30	
Religion	.40	.25	.27	.24	.33	.26	.19	.26	.44	.35	.39	.19	.14	.23	.05	.04	.07	
Hist., Arts & Letters	2.33	1.60	.12	.36	.59	.32	.11	.41	.10	.13	.05	.01						
Law	2.33	1.60	.12	.36	.59	.32	.11	.41	.10	.13	.05	.01						
Mathematics	8.04	8.85	7.81	6.13	5.16	5.76	4.65	5.00	4.90	4.01	4.56	4.63	5.07	4.93	4.55	4.80	4.41	
Physics	1.61	2.62	2.58	1.80	2.03	1.57	1.48	1.74	2.00	1.58	1.91	1.87	1.65	2.19	1.88	1.60	1.81	
Chemistry	8.78	7.99	7.18	7.01	6.59	6.67	5.09	7.19	7.96	7.99	8.43	9.94	8.66	8.41	6.68	5.84	5.70	
Geology	2.53	1.74	2.51	3.28	4.45	3.91	4.02	3.65	2.90	3.75	3.29	1.32	1.94	1.42	1.05	2.91	1.50	
Biol. & Pre-Med. Sci.	3.96	4.13	5.37	4.14	4.49	4.62	4.89	5.16	5.36	7.01	6.72	4.34	4.28	4.88	5.97	5.74	6.32	
Eng'g. & Eng'g. Draw.	2.95	1.65	1.39	1.79	1.68	1.84	1.65	1.66	1.60	2.12	1.73	1.89	1.96	1.82	1.74	1.87	2.25	
Astronomy	.03	.07	.03	.03	.04	.03	.03	.03	.03	.03	.04	.09	.05	.15	.12	.14	.04	
Economics	9.56	8.13	7.91	9.79	8.67	7.92	7.88	7.72	7.94	7.81	7.14	6.17	6.16	7.16	9.28	9.51	9.26	
Political Science	3.93	4.62	5.18	4.88	4.35	3.21	3.05	2.77	1.93	1.48	3.22	2.22	2.36	1.93	3.19	3.02	3.35	
Psychology	2.16	2.79	2.21	2.90	2.60	3.03	3.05	2.97	2.89	2.95	2.68	4.87	4.47	4.12	4.44	3.61	3.52	
Sociology	2.16	2.79	2.21	2.90	2.60	3.03	3.05	2.97	2.89	2.95	2.68	4.87	4.47	4.12	4.44	3.61	3.52	
Mil. & Naval Sci.	1.22	1.89	1.77	1.40	1.66	1.52	1.50	1.55	1.96	2.06	1.86	1.81	2.16	2.47	2.47	2.12	1.93	
Miscellaneous	.10	.04	.07	.19	.26	.22	.28	.45	.74	.48	.73	.14	.10	.30	.11	.04	.05	

Source. Data from Yale College Registrar's Office, Records of Elections (Course of Study Pamphlets).

DISTRIBUTION OF UNDERGRADUATE ATTENTION BETWEEN THE FIELDS OF STUDY
1950-51, 1955-56, 1961-62

DEPARTMENT	COURSE	1950-51		1955-56		1961-62	
		No. of Students	% of Total	No. of Students	% of Total	No. of Students	% of Total
CLASSICS	Classics	1462	3.8	1227	3.2	746	2.0
MODERN FOREIGN LANGUAGES AND LITERATURES	Germanic Languages	849	2.2	763	2.0	986	2.6
	Indic & FE Languages	27	.1	12	.0	50	.1
	Romance Languages	2513	6.5	2147	5.6	2398	6.3
	Slavic Lang. & Lit.	216	.6	153	.4	422	1.1
	SUB-TOTAL	3605	9.4	3075	8.0	3866	10.2
FINE ARTS	Architecture	97	.3	198	.5	312	.6
	Art	190	.5	226	.6	391	1.0
	Drama	59	.2	52	.1	44	.1
	History of Art	540	1.4	1258	3.3	1359	3.6
	Music	503	1.3	549	1.4	438	1.2
	SUB-TOTAL	1389	3.6	2283	5.9	2445	6.5
ENGLISH	English	5396	14.0	5143	13.4	3708	9.8
OTHER HUMANITIES	History	2699	7.0	3446	9.0	4986	13.2
	Hist. of Sci. & Med.					162	0.4
	Philosophy	1975	5.1	2008	5.2	2365	6.3
	Religious Studies	620	1.6	544	1.4	594	1.6
	SUB-TOTAL	5294	13.7	5988	15.6	8107	21.4
MATHEMATICS AND NATURAL SCIENCES	Astronomy	48	.1	25	.1	64	.2
	Biological Sciences*	838	2.2	747	1.9	716	1.9
	Chemical Engineering	187	.5	302	.8	112	.3
	Chemistry	1479	3.8	1500	3.9	1327	3.5
	Civil Engineering	877	2.3	827	2.1	770	2.0
	Elec. Engineering	309	.8	842	2.2	603	1.6
	Geology	241	.6	254	.7	182	.5
	Mathematics	1820	4.7	1868	4.9	2044	5.4
	Mech. Engineering	548	1.4	639	1.7	420	1.1
	Metallurgy	75	.2	191	.5	64	.2
	Physics	1116	2.9	1495	3.9	1202	3.2
	Science (1, 2, 3, 4, & IX)	770	2.0	491	1.3	1049	2.8
	SUB-TOTAL	8308	21.6	9181	23.9	8553	22.6

DEPARTMENT	COURSE	1950-51		1955-56		1961-62	
		No. of Students	% of Total	No. of Students	% of Total	No. of Students	% of Total
SOCIAL SCIENCES	Anthropology	848	2.2	469	1.2	392	1.0
	Economics	3720	9.7	2813	7.3	2802	7.4
	Geography	300	.8	237	.6	209	.6
	Indus. Adm.	358	.9	678	1.8	359	.9
	Political Science	1924	5.0	1682	4.4	2053	5.4
	Psychology	1891	4.9	1561	4.1	1290	3.4
	Sociology	1222	3.2	897	2.3	557	1.5
	Studies in Society	68	.2	167	.4	86	.2
	SUB-TOTAL	10331	26.8	8504	22.1	7748	20.5
INTER-DIVISIONAL AND INTER-DEPARTMENTAL STUDIES	American Studies	446	1.2	1128	2.9	1110	2.9
	Culture & Behavior			90	.2	57	.2
	Literature	57	.1	221	.6	104	.3
	Pol. Sci. & Economics			56	.1	92	.2
	SUB-TOTAL	503	1.3	1495	3.9	1363	3.6
	15 Grad Depts. **	41	.1	36	.1	405	1.1
	34 Grad Depts. ***	58	.2	24	.1	78	.2
	Air Science	674	1.7	138	.4		
	Military Science	636	1.7	619	1.6	401	1.1
	Naval Science	775	2.0	579	1.5	291	.8
	Miscellaneous****	68	.2	192	.5	103	.3
	SUB-TOTAL	2252	5.8	1588	4.1	1278	3.4
TOTAL STUDENT COURSE ELECTIONS		38,540		38,494		37,814	

Sources. The figures were compiled by Paul Burnham's Office of Educational Research: for 1950-51 from the records of the Registrars of Yale College, the Freshman Year and the School of Engineering; for the years 1955-56 and 1961-62 from the Student Records Office IBM lists showing enrollment figures taken from the students' Choice of Courses blanks of the preceding spring.

* Includes Biology, Biophysics, Botany, Microbiology, Plant Science and Zoology.

** Includes Graduate Departments enrolling 10 or more undergraduates in 1961-62: Archeology, Biochemistry, Chemical Engineering, Chemistry, Egyptian, Electrical Engineering, Greek, History, Industrial Administration, Latin, Mathematics, Philosophy, Physics, Political Science and Statistics.

*** Includes Other Graduate Departments enrolling fewer than 10 students in 1961-62.

**** Includes Bibliography, Div. IV Essay, Education, H. A. L., Linguistics, M. A. T., Photography, Physical Education, Physics and Philosophy (Essay), Scholar of the House, Sociology and Philosophy of Law.

DISTRIBUTION OF UNDERGRADUATE ATTENTION BETWEEN THE FIELDS OF STUDY
1963-64 to 1970-71

DEPARTMENT	COURSE	1963-4	1964-5	1965-6	1966-7	1967-8	1968-9	1969-70	1970-1
		%	%	%	%	%	%	%	%
CLASSICS	Ancient History	.45	.40	.76	.70				.50
	Classics			.04	.03	3.27	1.12	1.67	.17
	Classical Civ.	1.03	1.01	.50	.75				1.33
	Greek	.25	.24	.29	.21				.31
	Latin	.55	.52	.41	.36				.36
	SUB-TOTAL		2.28	2.17	2.03	2.05	3.27	1.12	1.67
MODERN FOREIGN LANGUAGES AND LITERATURES	Cambodian						.01	.01	
	Chinese						.12	.15	.34
	Comp. Lit.			.01		.01		.01	
	Czech							.01	
	Dutch Sp. Reading E. & S. A. Lang.		.15	.27	.34	.42			.01
	French	5.16	5.98	4.80	4.58	4.78	4.27	4.00	3.76
	German	2.59	2.54	2.49	2.44	2.22	2.24	1.79	1.63
	Germanic			.01			.01		.01
	Indic & F. E. Lang.	.16					.01	.04	.02
	Indonesian						.01		.01
	Italian	.21	.18	.15	.17	.17	.11	.12	.20
	Japanese						.12	.07	.09
	N. E. Lang. & Lit.	.10	.03		.10	.30	.29	.30	.44
	Portuguese	.13	.14	.14	.10	.12	.12	.09	.07
	Romance					.01			
	Russian						1.10	1.05	1.26
	Semitic			.02					
	Slavic Lang.	1.18	.94	.94	.88	.91			.95
	Spanish	1.16	1.15	1.11	.86	.74	.87	.91	.95
	Swedish		.03	.02					.04
Serbo-Croatian						.02		.01	
Thai						.01	.01	.02	
Vietnamese						.01	.01	.01	
SUB-TOTAL		10.69	11.14	9.96	9.47	9.68	9.32	8.57	8.86
ENGLISH	English	12.33	11.40	11.46	12.03	12.15	11.18	11.34	9.74
FINE ARTS	Architecture	.44	.30	.21	.19	.19	.22	.26	.43
	Art*	.57	.96	1.18	1.25	1.72	1.92	2.19	2.08
	Drama	.08	.16	.15	.17	.30	.42	.50	1.36
	Drawing						.01		
	History of Art	3.04	3.05	2.87	3.19	2.46	4.45	2.69	3.44
	Music	1.29	1.47	1.76	1.81	2.30	2.17	2.26	2.15
	Sculpture						.01		
SUB-TOTAL		5.42	5.94	6.27	6.61	6.97	9.20	7.90	9.46
OTHER HUMANITIES	History	13.12	12.30	13.06	10.85	10.02	7.16	7.63	7.15
	Philosophy	5.56	6.57	5.68	5.25	5.22	5.21	6.75	6.81
	Religious Studies	2.26	1.78	2.65	1.52	1.37	1.18	1.66	1.57
	Hist. of Sci. & Med.	.21	.28	.08	.17	.20	.09	.16	.52
	SUB-TOTAL		21.15	20.93	21.47	17.79	16.81	13.64	16.20

Source. Data for the years 1963-4 to 1969-70 were obtained from studies made by the Office of Educational Research based on reports from the Student Records Office on departmental grade distributions. Data for 1970-1 are from the Office of Institutional Research study of the grade distributions reported by the Student Records Office.

* Includes Graphic Design in 1969-70 and 1970-71.

DEPARTMENT	COURSE	1963-4	1964-5	1965-6	1966-7	1967-8	1968-9	1969-70	1970-1	
		%	%	%	%	%	%	%	%	
MATHEMATICS AND NATURAL SCIENCES	Anatomy		.07	.18	.33	.16	.55	.09	.32	
	Archeology		.18	.26	1.03	.59	.17	.18	.15	
	Astronomy	.24	.06	.15	.07	.04	.07	.01		
	Biochemistry	2.73	2.71	2.99	3.03	3.09	3.54	4.43	4.13	
	Biology	.06	.07	.09						
	Biophysics	4.50	4.56	4.34	4.13	4.84	5.57	6.61	6.48	
	Comb. Sci.								.02	
	Computer Science							.06	.76	
	Eng'g App. Sci.	3.05	2.73	2.01	1.91	2.54	1.69	1.85	1.47	
	Epid. & Pub. Health			.01	.01	.02	.01		.01	
	Forestry			.02	.01	.02	.01	.07	.26	
	Geol. & Geophysics	.33	.17	.08	.55	.40	.59	.18	.41	
	Mathematics	5.29	5.07	5.01	5.28	5.37	5.06	4.69	4.67	
	Med. Sp. Rs.							.01	.01	
	Mental Health								.04	
	Microbiology					.02	.02			
	Molec. B. & B.				.11	.18	.13	.44	.28	
	Pharmacology							.01		
	Physics	3.24	2.83	3.12	2.95	3.03	3.06	2.75	2.12	
	Physiology				.01			.01	.02	
Psychiatry							.01	.26		
Sciences I & II	2.29	2.05	2.20							
Statistics		.17	.15	.22	.01	.01		.01		
SUB-TOTAL		21.83	20.67	20.61	19.64	20.32	20.48	21.41	21.42	
SOCIAL SCIENCES	Adm. Science					.85	.59	1.18	1.10	
	Anthropology	1.57	1.59	2.27	4.26	1.86	2.18	3.66	2.72	
	City Planning	.12	.08	.40	.49	.64	.99	.36	.16	
	Economics	7.76	8.63	7.76	7.40	7.70	8.20	6.00	5.11	
	Geography	.31	.42	.34	.16	.23	.07	.01	.04	
	Indus. Adm.	.75	1.08	1.31	1.18				.01	
	Jurisprudence								.01	
	Linguistics	.08	.09	.09	.14	.21	.16	.35	.51	
	Political Science	5.77	5.65	5.31	5.30	5.36	6.12	6.09	5.67	
	Psychology	4.23	4.89	5.03	6.37	6.03	6.83	7.26	7.41	
	Sociology	1.56	1.22	2.03	1.60	2.45	3.92	2.25	2.72	
	Study of the City							.71	.61	
	Human Experience							.01		
	SUB-TOTAL		22.15	23.65	24.54	26.90	25.33	29.01	27.87	26.06
	INTER- DIVISIONAL AND INTER- DEPARTMENTAL STUDIES	Afro-Amer. Studies							.11	.15
American Studies		2.74	3.00	2.70	4.03	3.23	3.76	2.99	3.60	
Chinese Studies							.01	.01	.02	
Culture & Behavior		.05	.09	.09	.09	.15	.19	.17	.18	
Div. IV Essay						.01	.01	.05	.08	
H. A. L.						.23	.18	.21	.27	
Hist. & Pol.					.28	.24	.30	.28	.26	
Japanese Studies									.01	
Latin Amer. Studies							.01	.03	.04	
Law & Society						.07	.08	.04	.65	
Literature					.26	.40	.36	.38	.61	
Lit. II				.03						
Physics & Phil. Essay									.01	
Pol. Sci. & Econ.		.05	.05			.27	.26	.20	.20	
Russian Studies					.02	.04	.06	.04		
Scholar of the House					.10	.08	.06	.06		
SUB-TOTAL		2.84	3.14	2.82	4.65	4.72	5.28	4.59	5.58	
OTHERS	Bibliography			.01						
	Lithographs		.02							
	M. A. T.					.02	.13	.22		
	Mil. Science	.61	.31	.27	.27	.38	.25	.12	.02	
	Naval Science	.73	.62	.57	.54	.38	.43	.13	.07	
	Physical Education		.03		.04					
	Teacher Prep.								.08	
Techniques			.01							
SUB-TOTAL		1.34	.98	.86	.85	.78	.81	.47	.17	

DISTRIBUTION OF UNDERGRADUATE ATTENTION BETWEEN THE FIELDS OF STUDY
1971-72 to 1975-76

DEPARTMENT	COURSE	1971-72 %	1972-73 %	1973-74 %	1974-75 %	1975-76 %
CLASSICS	Ancient History	.23	.71	.67	.73	.83
	Classics	.03	.02	.10	.15	.15
	Classical Civ.	.28	.36	.66	.36	.37
	Greek	.23	.29	.36	.39	.38
	Latin	.37	.43	.43	.52	.59
SUB-TOTAL		1.14	1.81	2.22	2.15	2.32
MODERN FOREIGN LANGUAGES AND LITERATURES	Chinese	.57	.39	.43	.42	.27
	Comb. Lit.		.01	.01		.01
	Comp. Lit.					.01
	Czech.			.01		.01
	French	3.62	3.31	3.02	2.78	2.69
	German	1.60	1.81	1.57	1.60	1.35
	Germanic	.03	.01		.01	
	Indic & F. E. Lang.	.01	.02	.02	.01	
	Indo European			.01	.01	
	Indonesian	.01	.01	.01	.01	.01
	Italian	.15	.26	.27	.47	.35
	Japanese	.13	.18	.20	.18	.20
	N. E. Lang. & Lit.	.35	.20	.33	.37	.36
	Polish		.01		.02	
	Portuguese	.07	.05	.10	.17	.16
	Romance			.01		
	Russian	1.74	1.85	1.10	1.04	1.28
	Scandinavian	.09	.05		.05	.01
	Serbo Croatian		.03	.01	.02	.01
	Slavic Lang.		.03			.01
	Spanish	1.03	1.17	1.36	1.60	1.29
Swedish	.02	.03	.04			
Tagalog Spec.				.01		
Urdu Spec. Course			.01			
Ukrainian				.02		
Vietnamese	.01					
SUB-TOTAL		9.43	9.42	8.51	8.79	8.01
ENGLISH	English	9.16	11.24	11.23	10.88	11.44
FINE ARTS	Architecture	.52	.43	.58	.46	.50
	Art & Graphic Design	1.78	2.26	2.25	1.31	1.85
	Drama	3.72	2.33	.76	.67	.34
	Drawing		.03	.02	.01	.01
	Film					.01
	History of Art	2.91	2.38	3.64	3.61	3.25
	Music	2.94	2.62	5.23	2.98	3.03
	Photography				.05	.03
	Printmaking			.01	.01	
	Sculpture	.01		.01		
	Theater Studies					.46
SUB-TOTAL		11.88	10.05	12.56	9.70	9.48
OTHER HUMANITIES	History	8.02	6.89	7.56	7.13	7.67
	Philosophy	7.18	5.18	3.72	3.91	4.29
	Religious Studies	.82	1.67	1.08	1.65	1.49
	Hist. of Sci. & Med.	1.05	1.03	.44	.72	.72
	Humanities			.07	.15	.14
SUB-TOTAL		17.07	14.77	12.87	13.56	14.31

Source. Data for the years 1971-72 to 1975-76 were obtained from studies made by the Office of Institutional Research based on reports from the Student Records Office on Departmental grade distributions.

DEPARTMENT	COURSE	1971-72 %	1972-73 %	1973-74 %	1974-75 %	1975-76 %
MATHEMATICS AND NATURAL SCIENCES	Anatomy	.01	.01	.01	.01	
	Archaeology	.01	.11	.22	.03	.17
	Astronomy	.84	.87	.42	.43	.47
	Biology	4.86	4.46	5.36	3.49	4.06
	Biometry	.01	.01	.01		
	Chemistry	7.18	7.44	5.22	4.56	5.48
	Combined Sci.	.07	.06	.03	.04	.02
	Computer Sci.	.71	.68	.98	1.25	1.12
	Eng'g. & Appl. Sci.	.87	1.19	1.39	1.62	1.81
	Environmental Health			.01	.01	.01
	Epid. & Pub. Health	.01	.01			.01
	Forestry & Env. Studies	.04	.13	.07	.16	.10
	Geology & Geophysics	.40	.50	.60	.68	.76
	Mathematics	4.22	4.83	4.71	4.69	4.54
	Medicine		.01	.01	.02	.01
	Microbiology	.01	.01			
	Molec. B. & B.	.25	.44	.53	1.60	1.65
	Nursing	.01				.01
	Pharmacology	.01	.01	.01	.01	.01
	Physics	2.45	2.55	4.17	4.33	4.65
	Physiology		.01			
	Psychiatry		.05	.01	.01	
	Pub. Health Prac.	.01	.03			
Statistics	.01	.02	.06	.21	.15	
SUB-TOTAL		22.58	23.45	23.82	23.15	23.05
SOCIAL SCIENCES	Admin. Sci.	.85	.82	1.13	1.46	1.23
	Anthropology	2.36	3.40	1.99	1.83	2.06
	Child Study				.08	.07
	City Planning	.04				
	Economics	4.81	5.56	5.95	5.95	7.18
	Geography	.01	.02			.05
	Health Serv. Adm.			.01	.01	.01
	Inst. Soc. Sci.		.01			
	Inst. Soc. & Pol. Studies			.03	.01	.01
	Law		.04	.01	.01	.02
	Linguistics	.34	.27	.27	.31	.42
	Political Science	4.80	4.82	3.33	4.49	3.11
	Psychology	7.23	5.14	5.73	5.11	4.61
	Sociology	.92	1.14	2.47	2.29	1.68
	Study of the City	.31	.24	.07	.43	.48
SUB-TOTAL		21.77	21.46	20.99	22.05	20.93
INTER- DIVISIONAL AND INTER- DEPARTMENTAL STUDIES	Afro-Amer. Studies	.23	.40	.53	1.41	.84
	American Studies	1.48	1.95	1.47	1.57	1.81
	British Studies			.03	.04	
	Chinese Studies	.01		.02	.03	.03
	Culture & Behavior	.04				
	Div. IV Essay	.06	.05	.06	.04	.03
	Hist., Arts & Letters	.32	.36	.18	.10	.14
	Hist. & Polit.	.27	.26	.23	.23	.18
	Japanese Studies	.01		.02		.01
	Latin Amer. Studies	.02	.02	.02	.04	.04
	Law & Society	.06				
	Literature	.82	.92	.92	.81	.69
	Persian Spec. St.	.01				
	Philosoph. & Psych.	.06	.04	.01	.02	
	Pol. Sci. & Econ.	.02		.08		.07
	Russian Studies	.02				
	Russ. & East. Eur. St.		.04	.05	.04	.07
Scholar of the House	.05	.05	.04	.06	.05	
SUB-TOTAL		3.48	4.09	3.65	4.39	3.90
OTHERS	Bibliography	.02		.01	.01	
	Teacher Preparation	.09	.28	.25	.45	.15
	SUB-TOTAL	.11	.28	.26	.46	.15
COLLEGE SEMINARS	Gp. I - Langs. & Lits.	.71	.35	.83	.74	.73
	Gp. II - Other Humanities	1.31	.92	.98	1.48	1.87
	Gp. III - Social Sciences	1.43	1.45	1.62	1.74	.95
	Gp. IV - Math. & Nat. Sci.	.28	.34	.20	.27	.24
SUB-TOTAL		4.63	3.06	3.63	4.23	3.80

RISE AND FALL OF THE FIELDS OF STUDY IN YALE COLLEGE, 1886-1976
 Percentages of Time Spent Over Four Years by Individual Classes, or by All
 Four Classes in a Single Selected Year

	Class of 1886	1890	1894	1898	Years 1901-02	1905-06	1909-10	1913-14	1916-17	1921-22	1925-26	1929-30
Classics	34.8	28.9	20.6	22.3	15.13	11.80	10.09	10.58	9.88	5.25	8.12	7.32
Modern Langs.	10.0	12.3	13.5	14.1	16.36	15.11	15.43	16.33	14.23	12.03	12.35	13.75
English	9.2	8.4	7.5	10.7	17.89	18.49	17.83	17.33	18.40	16.85	18.99	17.76
History	7.2	7.2	9.5	13.7	12.33*	13.96*	12.23*	11.81*	17.35*	17.17	13.64	11.65
Philosophy	9.1	9.6	8.4	9.2	6.47*	4.13*	5.65*	6.45*	5.49*	1.14	2.02	2.31
Biblical Lit.	0	1.0	1.1	1.4	(in Classics)				Religion:	.40	.26	.35
Fine Arts	.05	0	.2	.2	.27	.20	.24	.20	.42	1.12	2.48	2.41
Music	0	0	.1	.15	.17	.47	.41	.51	.22	.18	.71	.89
									History, The Arts and Letters ("H. A. L."):			
Total: All Humanities	70.4	67.4	68.9	71.8	68.62*	64.16*	61.88*	63.21*	66.07*	54.14	58.57	56.44
Economics							11.23	11.06	6.26	8.13	7.92	7.61
Political Science	3.5	8.3	9.8	10.9							.73	1.75
					Law		3.77	3.21	2.90	1.60	.32	.13
Sociology										2.79	3.03	2.95
Anthropology							2.07	2.59	3.09			
Psychology					(see Philosophy)					4.62	3.21	1.48
Total: All Social Sciences	3.5	8.3	9.8	10.9	12.63*	17.41*	17.07*	16.86*	12.25*	17.14	15.21	13.92
Mathematics	18.8	15.7	14.6	9.1	8.80	6.30	4.24	3.56	3.20	8.85	5.76	4.61
Physics					3.99	3.47	3.05	5.12	3.94	2.62	1.57	1.58
Chemistry	7.4	8.5	6.8	8.0	2.91	3.76	4.08	5.0	4.76	7.99	6.67	7.99
Biology					.69	1.0	2.09	4.36	4.52	4.13	4.62	7.01
Geology					2.42	3.92	6.55	1.81	5.15	1.74	3.91	3.75
Total: All Sciences	26.2	24.2	21.4	17.1	18.81	18.45	20.01	19.85	21.57	26.98	24.41	27.06
Total: Other Categories#			.03	.2				.06	.09	1.93	1.74	2.54

Sources. Tables C-3.1, 2, 4, 5, 7.

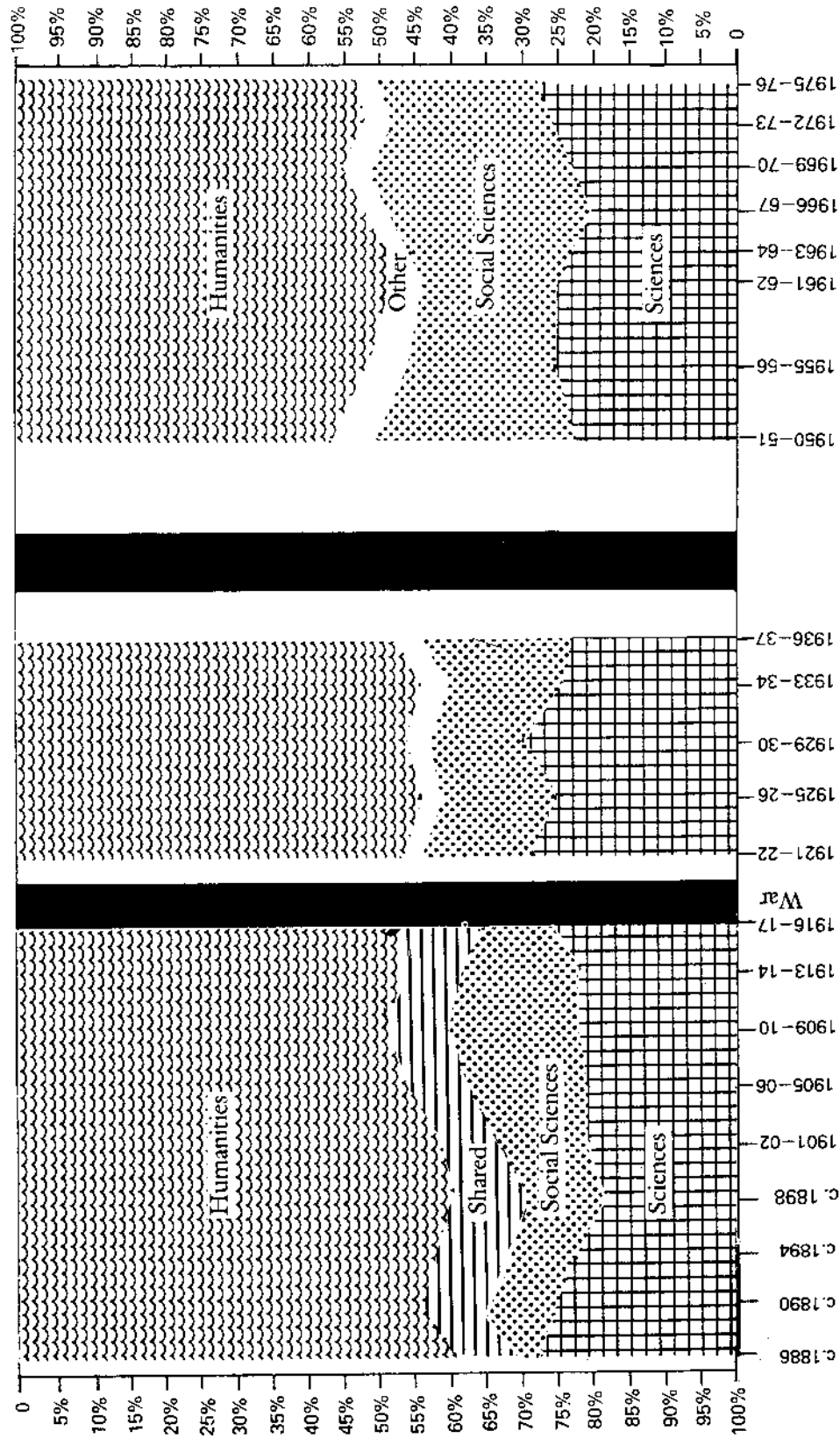
In these years History was classified as a Social Science but Psychology as part of Philosophy, hence in the Humanities. If we divide the credits evenly for each between the Humanities and the Social Sciences we get 59.22, 55.12, 52.94, 54.08 and 54.65 for the Humanities; and 22.03, 26.45, 26.01, 25.99 and 23.67 for the Social Sciences.

RISE AND FALL OF THE FIELDS OF STUDY IN YALE COLLEGE, 1886-1976

Years	1883-34	1936-37	1941-42	1946-47	1950-51	1955-56	1961-62	1963-64	1968-67	1969-70	1972-73	1975-76	
	5.58	6.26			3.8	3.2	2.0	2.28	2.05	1.67	1.81	2.32	Classics
	15.28	14.10			9.4	8.0	10.2	10.69	9.47	8.57	9.42	8.01	Modern Langs.
	17.48	15.20			14.0	13.4	9.8	12.33	12.03	11.34	11.24	11.44	English
	10.57	12.43			7.0	9.0	13.2	13.12	10.85	7.63	6.89	7.67	History
	1.32	2.30			5.1	5.2	6.3	5.56	5.25	6.75	5.18	4.29	Philosophy
	.23	.07	Religious Studies:		1.6	1.4	1.6	2.26	1.52	1.66	1.67	1.49	Religious Studies
	2.19	2.80			2.4	4.5	5.3	4.13	4.80	5.64	7.43	6.45	Fine Arts
	1.15	1.56			1.3	1.4	1.2	1.29	1.81	2.26	2.62	3.03	Music
	2.85		American Studies:		1.2	2.9	2.9	2.74	4.03	2.99	1.95	1.81	American Studies
	57.65	54.72			45.8	49.6	53.1	54.40	51.89	48.80	51.79	50.74	Total: All Humanities
	7.16	9.26			9.7	7.3	7.2	7.76	7.40	6.0	5.56	7.18	Economics
	3.49	5.05			5.0	4.4	5.4	5.77	5.30	6.09	4.82	3.11	Political Science
	4.12	3.52			3.2	2.3	1.5	1.56	1.60	2.25	1.14	1.68	Sociology
	1.93	3.35			2.2	1.2	1.0	1.57	4.26	3.66	3.40	2.06	Anthropology
	16.70	21.18			4.9	4.1	3.4	4.23	6.37	7.26	5.14	4.61	Psychology
					26.8	22.4	20.9	22.25	27.27	29.08	22.96	21.96	Total: All Social Sciences
	4.93	4.41			4.7	4.9	5.4	5.29	5.28	4.69	4.83	4.54	Mathematics
	2.19	1.81			2.9	3.9	3.2	3.24	2.95	2.75	2.55	4.65	Physics
	8.41	5.70			3.8	3.9	3.5	4.50	4.13	6.61	7.44	5.48	Chemistry
	4.88	6.32			2.2	1.9	1.9	2.73	3.03	4.43	4.46	4.06	Biology
	1.42	1.50			.6	.7	.5	.33	.55	.18	.50	.78	Geology
	23.90	22.03			21.6	23.9	22.6	21.83	19.73	21.41	23.79	25.29	Total: All Sciences
	2.77	1.98			5.8	4.1	3.8	1.55	1.02	.69	1.14	1.40	Total: Other Categories#

Other categories include Military and Naval Science, Education and M. A. T., and such interdisciplinary or special studies as cannot readily be credited to one of the major divisions (e.g., the area programs, or Scholars of the House). Interdepartmental courses within a Division (e.g., Literature, or Politics and Economics) have been credited to the Division Totals.

Student Emphasis on the Humanities, the Social Sciences, and the Sciences, 1886-1976



Source: Table C-3.8

fine arts had risen to considerable importance; and the interdivisional studies had multiplied still further without however attracting great numbers of students. The long decline in mathematics had been arrested, at about 5% or an average of one course per student--while mathematics and the natural sciences, which as two departments in 1886 had commanded 26% of the curriculum, now boasted 24 departments or programs of study but only 21% of the students' time. In contrast, by 1970 the humanities (including the fine arts) were claiming nearly 47% of the classroom enrollments, with 26% going to the social sciences. If American Studies were counted with the humanities (as the emphasis on history and literature would warrant) the humanities could claim more than 50% of the students' attention in Yale College: an emphasis that to a state university or to many another college could seem strange or even quite extraordinary. In sober retrospect, the Yale definition of a liberal education has long emphasized the humanities.

The Yale statistics give us also a particular signal of considerable interest. It is to be found in the line of figures for history. That subject has been among the steadiest in popularity across the years. Suddenly in 1950 only 7% of student time was going to history (and history had apparently never drawn less than 10% of student elections before). Again in 1968-1970 the history enrollments were cut almost in half. What had happened? What had happened was not some disaster to the history faculty but two crises of national emotion. After World War II the former students came flocking back, anxious above all to prepare themselves for careers and meanwhile to find out what had gone wrong. So economics, psychology and political science (with its speciality called international relations) briefly soared. Again in the late '60s, when the fevers of discontent ran high in American youth, history was downgraded in favor of finding better and quicker answers to the problems of the world, i.e., in philosophy and especially in psychology but also in sociology, city planning and the study of the city. In short, our figures suggest that in crises Yale students have looked for quick and urgent answers while most past experience has been downgraded. So the history elections at Yale have come close to serving as the barometer of our emotional state as a people.

Perhaps one other observation is in order. It concerns the so-called College Seminars (1971 *et seq.*), which were originated by the students and Fellows of the residential colleges, and which were taught only in very small part by the regular faculty but instead by ever-changing cohorts of part-time and often non-academic visiting experts. Altogether these College Seminars now figured in the courses of study of four out of every five undergraduates (on the average)--but the noise they made was great indeed.

C-4. Majors

C-4 Majors

Introduction: Of Majors

Majors and honors programs of study have served many purposes and have been organized at varying levels of intensity.

Among the original purposes the most important was that of giving some coherence and meaning to a curriculum which had been exploded by the "elective system." This so-called elective system, notwithstanding its name, had not been a system of study but a liberating franchise: to the faculty to offer new or competitive or more advanced subjects, and to the students to elect them. Basically, these freedoms had presented a most useful device for undermining the authority of the classics and other traditional subjects in favor of the new languages and the new sciences; in some minds the elective system had aimed also to get away from the unfortunate superficiality of the old overcrowded required curriculum toward a greater concentration and a greater mastery in the subjects in which the teacher was skilled and the students were more interested. Yet in practice free electives had encouraged a degree of frivolity or even a totally irresponsible eclecticism among too many of the students--with excessive narrowness, perhaps, among a few. And any common system of study had gone out the window. Hence a widely felt desire to reorganize, and to give the new, more permissive and richer course offerings some coherence, progression and meaning, i.e., to make them into a curriculum again. So at the beginning of the century there came to be "majors," with "minors" to balance, distribution requirements, and even honors concentrations for the abler students. (See C-1 series, and for a full account of these curricular discomforts and experiments consult Pierson, "Yale College: An Educational History".)

Harvard, which under Eliot had championed the elective idea and given permissiveness its maximum extension, under Lowell moved to restrain license by setting up what Lowell called a system of distribution and concentration. As it turned out, the emphasis was to be mainly on the concentration. Thus Harvard required only four courses a year of its students, began their major specialization in Sophomore year, and graduated a very considerable percentage

of them with honors--while the distribution requirements forced the students to recognize the existence of the divisions in which they were not specializing, but hardly more.

By contrast, Yale had yielded to the elective chaos only reluctantly, and was among the early proponents of some systematic arrangement of the more modern studies. But Yale was more interested in distribution than in specialization. Thus Yale continued to require five courses at a time, confined its major programs to the last two years, and allowed these majors to take up only a modest share of upperclass study (C-1.20). During the 1920s a Yale College student could major in a subject by simply taking four year-courses in it as an upperclassman, and it was not until the 1930s that some coordination of the courses in the major, with a comprehensive examination and perhaps a senior essay, were added. Meanwhile honors, in the modern sense of a special intensive program of studies, did not come in at Yale until about 1915. And into the 1930s and after Yale students took honors concentrations in considerably lower numbers than their Cambridge contemporaries.

The tables of elections of majors and of honors nevertheless will tell us a good deal about the character of the Yale curriculum and the shifts of popularity between the scholarly divisions and the major subjects. During the '20s, for example, in the days of the brilliant lecturing professors, English ruled heaven and earth in Yale College, and for a student generation English attracted more than half of each class into its major--a performance not even approached by any discipline before or since (see graph C-4.6). Then in 1931 English tried to rescue the classics by requiring some Latin of its majors (which the B.A. no longer did)--and instead of English pulling classics up the classics pulled English down. As also did the Depression, whose impact can be seen in the multiplication of the economics and sociology majors after 1932 (C-4.1). Meanwhile history, always respected and popular, had been increasing its appeal. It boasted a number of outstanding lecturers and magnetic teachers, and in the middle 1930s moved forward to take advantage of the new comprehensive examinations and senior essays, so that what might have been a three-horse race between English, economics and history turned into a procession led by history, with English second and economics a fair third, and the rest of the field far back, as the departments and their student riders disappeared from view behind the grandstand of World War II.

With the end of the War, the horses reappeared but in a startling shift of order (C-4.2). For three furlongs, economics led the pack, while English was still running second, but the history major dropped badly off the pace,

and international relations and government, psychology and sociology (i.e., all the rest of the social sciences except anthropology) surged forward. What had happened? As has been noted in connection with the course elections (C-3), the students had come back from Europe and the Pacific wanting to know why the world had got into such a mess and how it could quickly be put in order. Also many of the veterans were married and most of them felt under pressure to start earning a living. Evidently, however, the answers provided by the social sciences then proved somewhat unsatisfying, while the quality of the history faculty began once again to tell; so by 1953 some 136 Seniors were majoring in history to 120 in English, 80 in economics and 80 in political science (C-4.3). For four years more the English majors slightly outnumbered the historians; then for ten years (1958-1968) history was the ruling major, with English and American Studies next in importance, rivaled only by economics.

In the later 1960s, the generation of student unrest, the majors once again followed the sudden shift in course elections: psychology and political science joined economics as studies of crucial importance for the "now" generation, followed by philosophy, by sociology, and (briefly for a few of those most affected) by the study of the city. In the crisis of 1970 history once again lost much of its appeal and almost half of its regular constituency. Yet with the return toward calmer times it revived to take its place with English as one of the two leading major subjects in Yale College.

Reviewing the majors by divisional blocks one can see that the old Yale emphasis on the humanities has continued. Where once the Sheffield Scientific School had its students majoring in engineering or the Select Course (B-7 tables) while some 60% of the Academic students majored in the humanities, in the past half century the College has absorbed the Scientific and Engineering Schools, taken in much of their subject matter and greatly developed the social sciences: all without much reduction in the humanities. Only rarely have the major elections in the languages, fine arts, English, history, philosophy and religious studies fallen below 40%. Lately also some 17% have elected interdepartmental or interdivisional or area program studies (with large linguistic and historical components): which figures underline the variety of opportunity in Yale's curriculum, and the student preference for breadth, while confirming Yale's reputation for particular emphasis on and success in the humanities.

Any thoughtful stranger who cares to compare Yale's curricular habits with the patterns of study in our large state and city universities will surely be astonished by Yale's emphasis on humanistic learning--if instead he is not

COLLECTION OF MAJORS BY SENIORS IN YALE COLLEGE, 1902-1942

	1902	1906	1913	1921	1922	1923	1924	1925	1926	1927	1928	1929	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	Total	% of Total	
Classics																											
Greek	5	10	11	4	0	1	0	0	3	4	2	0	1	5	6	0	3	2	0	1	1	1	1	1	32	3	
Latin	21	19	16	1	2	3	0	6	4	4	7	9	2	7	4	1	3	3	0	1	2	2	2	1	60	7	
Classical Civilization																										14	1
Modern Languages & Literatures																											
French	26	30	17	1	3	4	0	6	5	8	5	9	3	12	10	1	4	7	1	5	5	5	9	9	126	13	
German	13	11	3	1	12	3	7	11	8	6	35	6	11	27	31	15	14	12	5	7	8	11	14	5	230	24	
Italian	16	17	7	1	0	1	0	2	0	4	4	8	10	13	16	4	7	6	3	6	2	2	3	3	107	11	
Spanish	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	1	
Scandinavian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	
Slavic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	94	9	
English	31	32	19	5	12	4	7	28	20	19	48	27	29	59	22	25	24	18	10	15	17	22	15	22	455	45	
English Literature	83	84	81	39	75	79	70	114	219	262	327	263	265	260	265	170	143	84	70	96	115	116	113	73	3298	33	
English History	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	
English Art	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	106	11	
Fine Arts																											
Drama	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	
History of Art	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	
Music	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	2	
Other	84	96	40	70	44	48	50	35	60	71	71	55	91	90	100	113	111	103	123	105	97	127	136	132	99	1914	19
Humanities																											
History, Arts & Letters	2	4	15	5	3	1	2	1	0	3	3	2	0	3	2	3	1	3	1	3	1	3	1	9	6	62	6
Philosophy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	
Religion or Theol.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
Theology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
Mathematics and Natural Sciences																											
Mathematics	17	12	8	2	1	0	1	1	4	4	9	7	6	5	9	2	3	5	7	6	3	9	14	13	20	134	14
Science	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	6	
Psych., Soc. Sci. & Biol.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	3	
Biology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	6	
Zoology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	5	
Botany	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	
Pre-Medical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	238	24	
Chemistry	20	13	6	4	2	3	3	1	18	18	13	15	17	27	17	2	5	6	4	4	1	7	5	3	2	169	17
Physics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	
Geol., Bot., & Chem.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	
Geology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	4	
Physics	3	2	5	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	3	
Math., Physics & Chem.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1	
Social Sciences																											
Anthropology	40	37	31	36	19	25	25	39	38	25	29	28	35	79	40	44	49	49	65	61	30	70	27	34	825	83	
Economics	0	4	22	2	27	45	15	13	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	103	10	
Government	0	61	56	50	77	58	24	27	45	39	35	71	50	49	65	59	102	122	106	90	112	61	64	40	1282	140	
History and Politics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	244	25	
International Relations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	4	
Law	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97	10	
Psychology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	318	32	
Soc. & Pol. Science	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114	12	
Sociology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2734	276	
Military Science																											
Military Science	0	65	78	66	146	144	131	187	80	73	73	31	73	67	54	52	118	155	181	183	154	175	151	170	147	2734	276
Naval Science	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	15	
GRAND TOTAL	281	300	272	244	303	336	277	407	419	481	530	518	531	529	568	471	478	468	516	460	413	529	485	515	407	9905	100

Source: Annual counts by the Office of the Yale College Registrar.

ELECTION OF MAJORS BY SENIORS IN YALE COLLEGE, 1946-1952

SUBJECTS		1946N	1947	1947M	1949	1950			Totals	% of
		1946M	1947N	1948	1949M	1950F	1951	1952		Total
Classics	Greek	0	0	0	1	0	0	0	1	
	Latin	0	2	2	2	0	0	1	7	.1
	Classics	0	2	0	2	3	1	1	9	.2
	Classical Civilization	0	1	0	0	1	1	0	3	.1
	SUB-TOTAL	0	5	2	5	4	2	2	20	.3
Modern Foreign Languages and Literatures	French	6	7	14	9*	6	7	5	54	.9
	German	2	8	3	3	4	5	2	27	.5
	Italian	0	0	1	2	1	0	0	4	.1
	Spanish	1	3	4	4	3	3	0	18	.3
	Chinese	4	3	1	2	1	1	3	15	.3
	Japanese		4	2	6	4	1	0	17	.3
	Malayan-S. E. Asia		1	0	0	0	0	0	1	
	Russian		4	1	1	3	1	2	12	.2
SUB-TOTAL	13	30	26	27	22	18	12	149	2.6	
English	English	53	126	147	125	98	74	71	694	12.0
Fine Arts	Architecture	1	9	16	22	26	16	12	102	1.8
	Art	3	5	9	5	7	4	3	36	.6
	Drama	2	6	10	7	4	4	3	36	.6
	History of Art	0	0	1	5	2	2	1	11	.2
	Music	2	2	6	6	13	8	10	47	.8
	SUB-TOTAL	8	22	42	45	52	34	29	232	4.0
Other Humanities	History	45	99	78	81	72	62	63	500	8.6
	Philosophy	1	10	6	17	15	13	7	69	1.2
	Religion	0	2	1	2	0	0	1	6	.1
SUB-TOTAL	46	111	85	100	87	75	71	575	9.9	
Mathematics and Natural Sciences	Mathematics	7	20	21	12	18	7	12	97	1.7
	Biology	1	0	2	0	0	1	0	4	.1
	Zoology	14	13	32	18	14	3	6	100	1.7
	Comb. Biol. & Pre-Med.	2	1	12	17	11	2	10	55	.9
	Botany-Plant Science	3	4	4	3	5	1	4	24	.4
	Plant Sci. & Forestry	1	2	2	1	6	3	1	16	.3
	Chemistry	3	12	19	14	24	9	10	91	1.6
	Physiol. Chemistry	0	1	0	2	1	1	0	5	.1
	Geology	1	7	4	8	7	10	3	40	.7
	Physics	2	15	10	27	26	16	14	110	1.9
	Biophysics						2	2	4	.1
SUB-TOTAL	34	75	106	102	112	55	62	546	9.4	
Social Sciences	Anthropology	1	0	3	3	1	5	3	16	.3
	Economics	50	150	170	162	93*	37	30	692	11.9
	Applied Economics	6	16	43	46	42	18	27	198	3.4
	Government	22	53	54	84	32	4	9	238	4.1
	International Relations	47	99	84	93	52	19	19	423	7.3
	Psychology	14	32	68	83	38	12	22	269	4.6
	Sociology	25	66*	66	81	38	12	6	294	5.1
	SUB-TOTAL	165	416	498	532	296	107	115	2130	36.7
Inter-Departmental Majors (Intensive)	American Studies			7	7	11	6	7	38	.7
	History, Arts & Letters	0	6	2	4	8	6	2	28	.5
	Latin American Affairs	3	12	5	2	8	2	0	32	.6
	Oriental Studies	4	7						11	.2
	Philosophy & Gov't.	2	8	13					23	.4
	Mathematics and Philos.		2	0	0	1	0	1	4	.1
	Physics and Philosophy		1	1	4	4	2	1	13	.2
SUB-TOTAL	9	36	28	17	32	10	8	141	2.4	
Divisional Studies	Literature and the Arts				0	13	5	14	32	.6
	Lit., Philos., and Arts				1	12	11	10	34	.6
	American Studies				0	4	4	19	27	.5
	Relig. & Ethical Thought				0	2	1	3	6	.1
	The Social Sciences				16	180	106	130	412	7.1
	Soc. Sci. & Literature				4	58	48	61	171	2.9
	Soc. Sci. & Philosophy				0	25	9	4	38	.7
	Soc. Sci. & Psychology				6	44	48	42	140	2.4
	Society, Psych., & Lit.				4	54	75	46	179	3.1
	Special				5	95	52	62	214	3.7
	SUB-TOTAL				36	457	359	391	1253	21.6
Sch. House	Scholars of the House			2	6	17	9	15	49	.8
GRAND TOTAL	330*	821	936	995	1187	749	780	5798	100.0	

Source. Annual counts by the Office of the Yale College Registrar.

* Figures include two men who majored in Naval Science, 1946N, and Seniors who by special arrangement majored as follows: one in History and Sociology, 1947N; one in French and Comparative Literature, 1949M; one in Analytical Economics, 1950.

ELECTION OF MAJORS BY SENIORS IN YALE COLLEGE, 1953-1965

SUBJECTS		1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965†	Totals	% of Total	
Classics	Greek	1	1	2	0	0	1	0	2	1	1	0	0	1	10	.1	
	Latin	1	0	2	0	1	2	0	0	2	0	1	4	1	14	.1	
	Classics	1	0	5	7	4	3	0	0	1	5	1	4	3	34	.3	
	Classical Civilization	0	1	0	0	0	0	0	0	0	0	0	0	0	1	.1	
	Ancient History	0	1	0	0	0	0	0	0	2	1	3	3	1	10	.1	
SUB-TOTAL		3	2	9	7	5	6	0	4	5	9	5	9	5	69	.6	
Modern Foreign Languages and Literatures	French	4	4	11	10	13	6	16	11	13	10	16	10	13	139	1.3	
	German	8	6	9	5	4	6	3	5	6	2	3	7	7	71	.7	
	Italian	0	0	0	2	0	1	0	0	0	0	0	0	1	4	.4	
	Spanish	6	4	2	2	1	1	2	1	7	3	3	1	2	35	.3	
	Chinese	1	0	0	0	0	0	1	0	0	0	0	0	0	2	.2	
	Japanese	0	1	0	0	1	0	0	0	0	1	0	0	1	4	.4	
	Russian	0	0	0	1	1	0	4	0	1	2	3	2	2	16	.2	
SUB-TOTAL		19	15	22	20	20	17	25	17	28	17	25	21	25	271	2.5	
English	English	120	133	129	139	120	118	115	111	120	102	105	134	154	1600	15.4	
Fine Arts	Architecture	21	15	9	23	21	15	24	15	13	17	23	21	14	231	2.2	
	Art	3	0	0	0	0	0	0	7	5	4	5	2	7	33	.3	
	Design	0	0	2	0	4	3	3	0	0	0	0	0	0	12	.1	
	Drama	3	4	3	2	4	4	7	8	5	7	3	3	2	55	.5	
	History of Art	3	2	1	4	8	8	9	21	14	11	5	12	15	113	1.1	
	Music	5	5	6	1	2	5	5	1	5	6	8	8	4	61	.6	
	SUB-TOTAL		35	26	21	30	39	35	48	32	42	45	44	46	42	505	4.8
Other Humanities	History	136	129	126	100	145	114	163	156	151	163	183	197	174	1939	18.7	
	Philosophy	8	12	16	18	16	23	19	28	33	36	32	34	40	315	3.1	
	Religious Studies	3	2	2	1	3	6	2	2	4	4	3	11	11	54	.5	
SUB-TOTAL		147	143	144	119	164	143	184	186	189	203	220	242	225	2308	22.3	
Mathematics and Natural Sciences	Mathematics	21	13	17	11	11	13	7	22	11	18	25	17	17†	203	2.0	
	Mathematics & Astronomy	0	0	0	0	0	0	0	0	1	0	0	1	1	3	.3	
	Mathematics & Physics	0	0	0	1	0	0	2	1	2	4	4	3	3	20	.2	
	Biology	0	0	0	0	0	1	1	0	0	0	16	14	23	55	.5	
	Microbiology	0	1	4	0	1	0	0	0	0	0	0	0	0	6	.1	
	Zoology	11	6	23	21	13	15	8	17	20	17	0	0	0	151	1.5	
	Biology and Pre-Medical	5	8	15	5	3	5	2	0	0	0	0	0	0	43	.4	
	Botany	4	1	2	2	0	1	3	1	3	2	0	0	0	19	.2	
	Plant Science & Forestry	1	2	4	1	1	0	0	0	0	0	0	0	0	9	.1	
	Chemistry	6	8	7	11	10	9	14	11	9	7	21	14	10	137	1.3	
	Biochemistry	1	2	2	2	2	5	2	3	4	6	4	6	4	43	.4	
	Physiological Chemistry	2	0	0	0	0	0	0	0	0	0	0	0	0	2	.2	
	Geology	12	8	17	10	12	8	7	5	5	2	3	6	2	97	.9	
	Physics	16	14	20	19	19	17	14	33	29	25	22	23	22	269	2.6	
	Physics and Astronomy	0	0	0	0	0	0	1	0	1	1	1	1	2	7	.1	
	Biophysics*	1	0	2	2	6	5	4	5	7	7	3	6	4	52	.5	
	Solid State Science**	0	0	0	0	0	0	0	0	0	1	0	1	0	2	.2	
	SUB-TOTAL		80	63	113	85	74	78	65	98	92	90	99	92	88	1118	10.8
	Engineering and Applied Science#	Chemical Engineering														6	.1
		Civil Engineering														5	.5
Electrical Engineering															27	.3	
Mechanical Engineering															8	.1	
Metallurgy & Mat. Sci.															4	.4	
Industrial Administration															24	.2	
SUB-TOTAL														74	.7		
Social Sciences	Anthropology	4	7	4	7	2	4	3	7	8	7	4	6	13	76	.7	
	Economics	80	61	73	47	55	75	68	75	71	76	98	96	89	964	9.3	
	Applied Economics	13	7	4											24	.2	
	Analytical Economics	1	1												2	.2	
	Geography							1	2	1	2	2	3	1	12	.1	
	Political Science	80	69	66	53	56	48	38	28	34	48	54	52	60	686	6.6	
	Psychology	44	40	48	36	31	28	33	35	40	37	24	36	49	484	4.7	
	Sociology	22	15	12	18	9	10	7	8	6	9	7	10	5	136	1.3	
SUB-TOTAL		244	203	207	159	153	165	150	155	160	179	189	203	217	2384	22.9	
Inter-Departmental Majors	American Studies	53	82	106	91	110	121	112	95	74	59	78	63	60	1104	10.6	
	Div. I Hist., Arts & Letters	22	14	17	25	14	9	10	14	11	8	14	13	10	181	1.7	
	Div. II Pol. & Econ. Inst.	41	13	24	22	17	11	11	9	8	8	5	11	11	191	1.8	
	Div. III Human Cult. & Behav.	37	23	27	16	22	22	21	8	9	8	10	9	8	220	2.1	
	Div. IV Special	4	3	3	1	2	1	2	4	0	4	2	6	6	38	.4	
	Chinese Studies	0	0	0	0	0	1	1	3	0	1	3	0	2	11	.1	
	Japanese Studies	0	0	0	0	2	0	0	0	0	3	1	0	0	6	.1	
	Southeast Asian Studies									1	0	1	1	1	4	.4	
	Russian Studies	2	2	1	3	5	2	4	3	4	7	5	10	10	59	.6	
	Latin American Studies											2	5	14	21	.2	
	Mathematics & Economics					0	1	2	4	8	2	4	5	3	29	.3	
	Mathematics & Philosophy	2	0	5	0	2	0	4	2	2	0	3	1	1	22	.2	
	Physics and Philosophy	0	1	2	2	3	4	1	5	4	3	0	0	3	28	.3	
SUB-TOTAL		161	138	185	150	177	172	168	147	121	103	128	124	129	1914	18.4	
Sch. of House	Scholars of the House	13	9	9	10	15	11	10	13	12	17	14	9	9	151	1.5	
GRAND TOTAL		822	732	839	729	767	746	765	783	768	765	830	880	968	10394	99.9	

Source. Annual counts by the Office of Yale College Registrar.

* After 1962: Molecular Biology and Biophysics

** After 1962: Solid State Science and Metallurgy

Engineering and Applied Science majors were administered by the Engineering School until 1964, when Yale College took over these programs

† Includes four combined B.A.-M.A. degree candidates

ELECTION OF MAJORS BY SENIORS IN YALE COLLEGE, 1966-1971

DEPARTMENT	COURSE	1966	1967	1968	1969	1970	1971	TOTAL	% of TOTAL
Classics	Ancient History	3	1	1				5	.1
	Classics	1		1	2	3	9	16	.3
	Classical Civ.						4	4	.1
	Greek	1	2					3	.1
	Latin	2	2	2				6	.1
	SUB-TOTAL	7	5	4	2	3	13	34	.5
Modern Foreign Languages and Literatures	Chinese Lang. & Lit.			2				2	.1
	French	11	15	11	21	13	22	93	1.5
	German	7	4	2	6	4	4	27	.4
	Italian		1		1		1	3	.1
	Russian	2	1	1	3	2	3	12	.2
	Spanish		5	1	2		5	13	.2
	SUB-TOTAL	20	26	17	33	19	35	150	2.4
Fine Arts	Architecture	16	13	5	9	8	12	63	1.0
	Art	9	8	9	14	14	22	76	1.2
	Drama	3		2	7	4	13	29	.5
	History of Art	15	23	25	20	21	39	143	2.3
	Music	7	14	15	11	19	11	77	1.2
	SUB-TOTAL	50	58	56	61	66	97	388	6.2
English	English	137	119	120	131	142	181	830	13.2
Other Humanities	History	187	197	181	129	108	127	930	14.8
	Philosophy	36	34	35	41	28	54	228	3.6
	Religion	1	5	5	8	6	19	45	.7
	SUB-TOTAL	224	236	221	179	143	200	1203	19.2
Mathematics and Natural Sciences	Biochemistry	5	8	2	2			17	.3
	Biology	24	26	28	29	31	45	183	2.9
	Chemistry	10	15	18	21	21	18	103	1.6
	Comb. Science					10	6	16	.3
	Eng'g & Appl. Sci.	48	37	36	21	19	27	188	3.0
	Geol. & Geophysics	2	1	1	6	1	5	16	.3
	Mathematics	14	12	30	17	19	23	115	1.8
	Mol. B. & B.					19	23	42	.7
	Molec. Biophysics		6	13	5			24	.4
Physics	16	15	14	20	24	16	105	1.7	
	SUB-TOTAL	119	120	142	121	144	163	809	12.9

Source. Annual counts by the Office of the Yale College Registrar.

DEPARTMENT	COURSE	1966	1967	1968	1969	1970	1971	TOTAL	% of TOTAL
Social Sciences	Adm. Science			21	24	12	33	90	1.4
	Anthropology	9	12	11	7	19	22	80	1.3
	Economics	105	79	80	92	61	73	490	7.8
	Geography	1						1	.1
	Industrial Adm.	38	30					68	1.1
	Linguistics				1	2	1	4	.1
	Political Science	53	63	50	64	66	89	385	6.2
	Psychology	60	66	83	85	79	106	479	7.6
	Sociology	4	9	11	19	32	47	122	1.9
	Study of the City						17	17	.3
SUB-TOTAL		270	259	256	292	271	388	1736	27.7
Inter- Divisional and Inter- Departmental Studies	Adm. Sci., Math & Stat.				1			1	.1
	Afro-American Studies						4	4	.1
	American Studies	73	75	92	98	48	103	489	7.8
	Archeology			1	2	6	1	10	.2
	Astronomy & Math	1						1	.1
	Astronomy & Physics	1			2	2		5	.1
	Chinese Studies	4	4		4	2	5	19	.3
	Classics & English				1		2	3	.1
	Classics & French				1			1	.1
	Classics & Spanish				1			1	.1
	Div. I (H. A. L.)	12	13	13	9	6	14	67	1.1
	Div. II (P. S. & Econ.)	6	11	14	11	11	11	64	1.0
	Div. III (H. C. & B.)	11	4	9	9	11	14	58	.9
	Div. IV (Special)	6	10	11	8	29	41	105	1.7
	Econ. & Math	2	1	2	5	8	3	21	.3
	English & French			2	4	1	2	9	.1
	English & German			1	1			2	.1
	French & German					1		1	.1
	Japanese Studies	1	1		2		3	7	.1
	Latin Amer. Studies	12	7	6	12	7	11	55	.9
	Math & Eng'g & A. S.					2		2	.1
	Math & Philosophy	4	2	1	3	1	1	12	.2
	Math & Physics	1	4	2	3	1	3	14	.2
	Molec. B. & B.	6						6	.1
	Philosophy & Psychology						1	1	.1
	Physics & Philosophy	2	1	1		1	5	10	.2
	Russian Studies	10	15	4	5	12	11	57	.9
	Scholar of the House	17	13	17	14	13	12	86	1.2
	SE Asian Studies	2	2	1		1	3	9	.1
	SUB-TOTAL		171	163	177	196	163	250	1120
Combined Degrees * (also listed in individual departments)	Chemistry		1	1	2			4	.1
	Chinese Studies	1						1	.1
	Div. II (P. S. & Econ.)			2				2	.1
	Economics			5	4	1		10	.2
	History				1	1		2	.1
	Mathematics	1	2	3	1	2	1	10	.2
Religious Studies				1			1	.1	
SUB-TOTAL		2	3	11	9	4	1	30	.5
TOTAL		998	986	993	1015	951	1327	6270	100.0%

* Combined degrees means the awarding of bachelor's and master's degrees simultaneously.

ELECTION OF MAJORS BY SENIORS IN YALE COLLEGE, 1972-1976

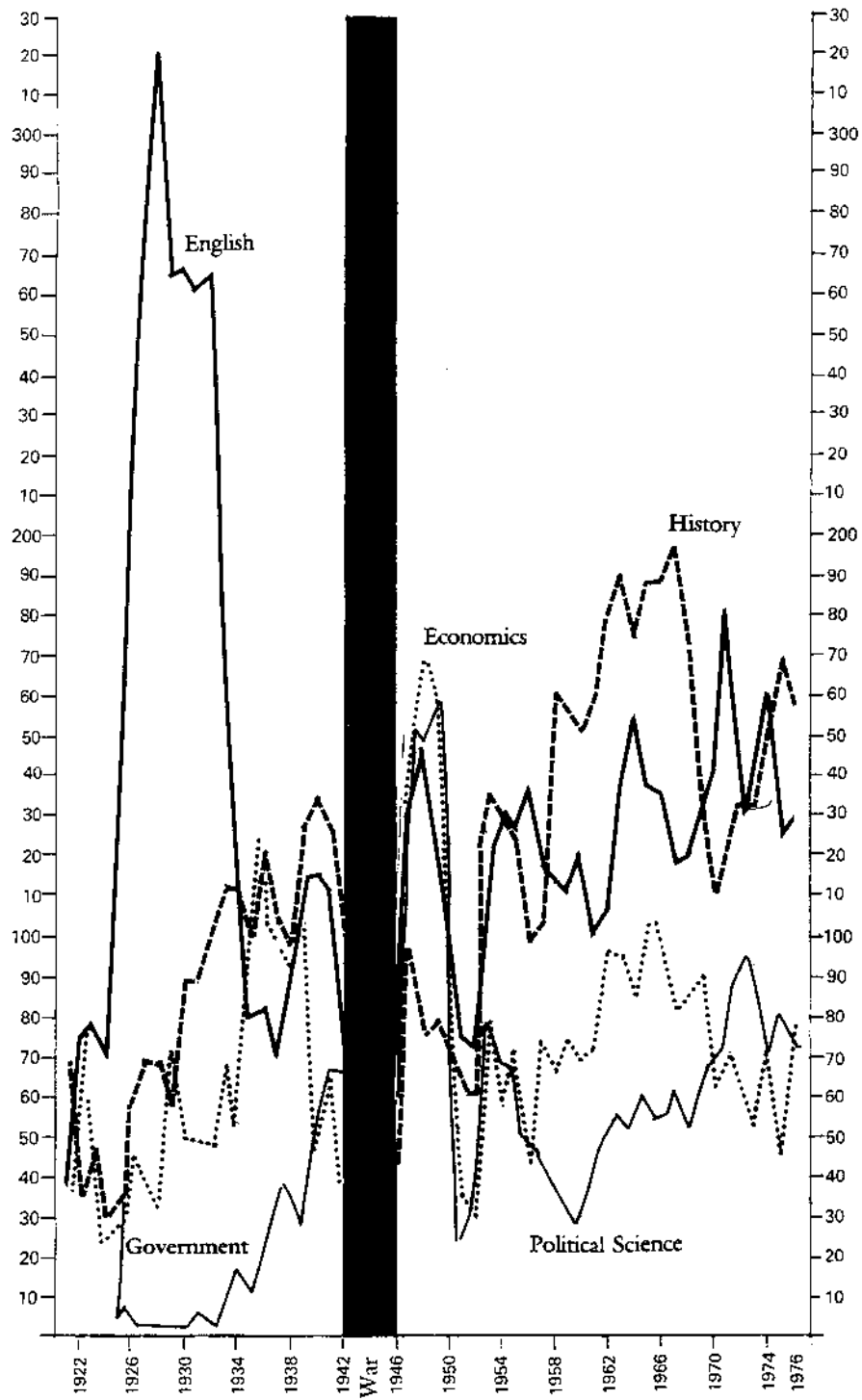
DEPARTMENT	COURSE	1972	1973	1974	1975	1976	TOTAL	% of TOTAL
Classics	Classics	6	7	4	6	5	28	.46
	Classical Civ.	5	1		3	1	10	.16
	Greek				2	3	5	.08
	Latin				2	2	4	.07
	SUB-TOTAL	11	8	4	13	11	47	.77
Modern Foreign Languages and Literatures	Chinese			2	1	1	4	.07
	French	24	10	14	12	13	73	1.19
	German	7	4	5	2	5	23	.38
	Italian				3	1	4	.07
	Japanese			3	1	3	7	.11
	Russian	5	4	5	5	4	23	.38
	Spanish	4	6	2	5	10	27	.44
SUB-TOTAL	40	24	31	29	37	161	2.63	
Fine Arts	Architecture	16	21	30	23	35	125	2.04
	Art	11	23	15	26	24	99	1.62
	Drama	10	9	15	10	12	56	.91
	History of Art	25	19	27	23	25	119	1.94
	Music	8	26	19	35	32	120	1.96
SUB-TOTAL	70	98	106	117	128	519	8.47	
English	English	131	135	164	126	133	689	11.24
Other Humanities	History	132	131	153	170	159	745	12.16
	Philosophy	58	50	56	41	63	268	4.37
	Religious Studies	9	15	7	13	16	60	.98
SUB-TOTAL	199	196	216	224	238	1073	17.51	
Mathematics and Natural Sciences	Biology	37	54	83	136	101	411	6.71
	Chemistry	16	25	16	15	22	94	1.53
	Combined Sciences	13	15	8	9	4	49	.80
	Computer Science			2	4	9	15	.24
	Eng'g & Appl. Sci.	27	27	14	27	26	121	1.97
	Geol. & Geophysics	4	6	10	13	12	45	.73
	Mathematics	15	25	12	18	24	94	1.53
	Mol. B. & B.	20	39	40	51	49	199	3.24
	Physics	12	12	9	9	13	55	.90
SUB-TOTAL	144	203	194	282	260	1083	17.62	

Source. Annual counts by the Office of the Registrar, Yale College.

DEPARTMENT	COURSE	1972	1973	1974	1975	1976	TOTAL	% of TOTAL
Social Sciences	Adm. Science	42	24	21	22	21	130	2.12
	Anthropology	33	34	25	12	13	117	1.91
	Economics	64	54	73	44	79	314	5.12
	Linguistics	4	7	4	1	9	25	.41
	Political Science	95	80	68	79	68	390	6.36
	Psychology	94	95	108	87	89	473	7.72
	Sociology	17	9	13	14	16	69	1.13
	Study of the City	16	14	10	15		55	.90
SUB-TOTAL		365	317	322	274	295	1573	25.66
Inter-Divisional and Inter-Departmental Studies	Adm. Sci., Math. & Stat.	2		1	1	3	7	.11
	Afro-Amer. Studies	7	1	9	6	6	29	.47
	American Studies	56	41	52	48	51	248	4.05
	Archeology	2	6	4	7	9	28	.46
	Astronomy & Physics	1	1		2	4	8	.13
	Chinese Studies	2	3	8	8	9	30	.49
	Combined Maj. in Lit.		4	4	6	8	22	.36
	Computer Sci. & Math. Div. I (B.S.)		5	3	7	4	19	.31
	Div. I (H.A.L.)	14	10	11	13	13	61	1.00
	Div. II (P.S. & E.)	6			9	8	23	.38
	Div. III (C. & B.)	8					8	.13
	Div. IV (Special)	34	24	18	16	19	111	1.81
	Econ. & Math.	4	4	4	7	1	20	.33
	English & French	3					3	.05
	English & Greek	1					1	.02
	French & Italian	1					1	.02
	Japanese Studies	2		4	1	2	9	.15
	Latin Amer. Studies	6	5	4	10	8	33	.54
	Literature			28	43	14	85	1.39
	Math. & Philosophy	5	4	1	3	3	16	.26
	Math. & Physics	4	2		3		9	.15
	Philosophy & Psych.	18	42	25	8		93	1.52
	Physics & Philosophy	3		3	1	1	8	.13
	Russian and East Eur. Studies	4	11	11	8	17	51	.83
	Scholar of the House	12	11	10	12	12	57	.96
	S. E. Asian Studies		2				2	.03
SUB-TOTAL		195	176	200	221	192	984	16.05
TOTAL		1155	1157	1237	1286	1294	6129	100.00
Combined Degrees* (also listed in individual departments)	Adm. Science					1	1	.02
	Biology		1	1			2	.03
	Chemistry		2			1	3	.05
	Chinese Studies			1		1	2	.03
	Div. I (H.A.L.)					1	1	.02
	Economics	2	1	1	3		7	.11
	Geol. & Geophysics			1			1	.02
	History					4	4	.07
	Mathematics			1		1	2	.03
	Mol. B. & B.					4	4	.07
	Philosophy	1	1		1	3	6	.10
Political Science					2	2	.03	
SUB-TOTAL		3	5	5	4	18	35	.57

*Combined degrees were the award of the bachelor's and master's degrees simultaneously.

Most Popular Majors in Yale College, 1921-1976



staggered by the realization of what the vast majority of students in American higher education do not study.

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C-5. Honors

C-5 Honors

Introduction: The Role of Honors

The Honors awards here recorded were not the General Honors of the College but special study programs of various kinds, taken and passed with distinction. General Honors, since time immemorial, had been awarded for the higher and the highest grade averages achieved in all the work for the Bachelor's degree. At the top were the so-called Philosophical Orations (led by the Valedictorian and Salutatorian); next the High Orations, then the Orations, followed by Dissertations, then two or more ranks each of Disputes and Colloquies--which last carried the honor business well down into the modestly passable performances of each class. In the days of a common and totally required curriculum General Honors ranked and rewarded performance in an open and fair competition.

With the coming of the electives, and the reduction of studies required in common under the same instructors, the four-year averages began to seem somewhat arbitrary, as some students elected easier or harder studies, or took courses with stricter or more lenient professors. So General Honors came to mean less to the competitors, and the Valedictorian--once a marked and almost always a very able man--lost his prestige. Yet the titles and the three top Oration ranks were maintained until 1961, when they gave place to the three Latin classifications--Cum Laude, Magna cum Laude, and Summa cum Laude--long familiar to schools and colleges across the country.

Meanwhile Yale College developed special or more limited Honors programs to justify and reward special groupings or kinds of study, covering a part only of the total undergraduate course. Once again all the competitors within the group might have the same chance, and if they showed distinction they were awarded Honors appropriate to their performance. This practice began experimentally in 1886 (as our table C-5.1 shows) "to promote the Rational Choice of Elective Courses," in one-year or two two-year combinations. After some further transitional experiments the faculty, now itself developing a departmental structure, organized Departmental Honors to reward high quality of study in

Junior and Senior years under one or another of the Departments of Study (C-5.2). Several degrees of honor once again proved useful in separating the good student from the outstanding. But perhaps the really significant aspect of these departmental programs was the special responsibility of the departments, and the greater degree of rational concentration of study which they made possible. So in practice these Honors Programs became pilot programs for the general departmental majors, and led the way to senior essays and "comprehensive" examinations. And when, just before World War II, the regular majors took over these devices and began duplicating the honors awards, the formal honors programs lost their raison d'être and were absorbed.

With this understanding, these tables can be studied for the light they shed on the multiplication of the disciplines and the relative imagination and appeal of the competing departments. On the divisional basis, one is struck, particularly since 1943, by the far higher percentage of majors in mathematics and the sciences who earned honors, and also honors with distinction (compare with the C-4 tables on majors), than was the case for the social sciences or for the humanities. This would seem to argue either superior abilities or greater dedication on the part of the scientific students. Probably also a greater concentration and a more exclusive attention to the individual discipline, i.e., a greater specialization and, reciprocally, a lesser attention to liberal breadth. One senses that many of Yale's scientific students were almost professionals already: they meant to make science or medicine (or some application of economics?) their careers. Whereas most of Yale's majors in English or history remained amateurs, with no careers or quite different careers in view.

One might note, finally, the proliferation of interdepartmental and interdivisional majors, i.e., the development of interdisciplinary and often quite idiosyncratic honors opportunities made possible by individual student enthusiasm and individual faculty support.

DEPARTMENTAL HONORS, 1917-1942
Awarded for High Quality Concentration under a Department of Study

Subjects	Total Honors																		Honors with Exceptional Distinction																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	2988	2989	2990	2991	2992	2993	2994	2995	2996	2997	2998	2999	3000	3001	3002	3003	3004	3005	3006	3007	3008	3009	3010	3011	3012	3013	3014	3015	3016	3017	3018	3019	3020	3021	3022	3023	3024	3025	3026	3027	3028	3029	3030	3031	3032	3033	3034	3035	3036	3037	3038	3039	3040	3041	3042	3043	3044	3045	3046	3047	3048	3049	3050	3051	3052	3053	3054	3055	3056	3057	3058	3059	3060	3061	3062	3063	3064	3065	3066	3067	3068	3069	3070	3071	3072	3073	3074	3075	3076	3077	3078	3079	3080	3081	3082	3083	3084	3085	3086	3087	3088	3089	3090	3091	3092	3093	3094	3095	3096	3097	3098	3099	3100	3101	3102	3103	3104	3105	3106	3107	3108	3109	3110	3111	3112	3113	3114	3115	3116	3117	3118	3119	3120	3121	3122	3123	3124	3125	3126	3127	3128	3129	3130	3131	3132	3133	3134	3135	3136	3137	3138	3139	3140	3141	3142	3143	3144	3145	3146	3147	3148	3149	3150	3151	3152	3153	3154	3155	3156	3157	3158	3159	3160	3161	3162	3163	3164	3165	3166	3167	3168	3169	3170	3171	3172	3173	3174	3175	3176	3177	3178	3179	3180	3181	3182	3183	3184	3185	3186	3187	3188	3189	3190	3191	3192	3193	3194	3195	3196	3197	3198	3199	3200	3201	3202	3203	3204	3205	3206	3207	3208	3209	3210	3211	3212	3213	3214	3215	3216	3217	3218	3219	3220	3221	3222	3223	3224	3225	3226	3227	3228	3229	3230	3231	3232	3233	3234	3235	3236	3237	3238	3239	3240	3241	3242	3243	3244	3245	3246	3247	3248	3249	3250	3251	3252	3253	3254	3255	3256	3257	3258	3259	3260	3261	3262	3263	3264	3265	3266	3267	3268	3269	3270	3271	3272	3273

DEPARTMENTAL HONORS, 1943-1952

SUBJECTS	1943	1944	1945	1945W	1946		1947M	1949	1950	1951	1952	Total Honors	Honors with Exceptional Distinction
					1946N	1947N							
Greek	0	0	1	0	0	0	0	0	0	0	0	1	0
Latin	0	0	0	0	0	1	2	1	0	0	1	5	2
Classics	2	1	0	0	0	2	0	0	1	1	0	7	5
Classical Civilization	0	0	0	0	0	0	0	0	0	1	0	1	0
French	1	0	2	1	2	1	3	1	2	3	0	16	4
Spanish	2	1	1	0	1	1	3	0	1	0	0	10	7
Italian	0	0	0	0	0	0	1	1	0	0	0	2	0
German	0	1	0	0	0	3	2	2	2	1	0	11	3
English	8	5	3	3	5	7	11	5	4	2	1	54	17
Architecture	0	0	0	0	0	0	0	0	1	0	0	1	0
Art	0	0	0	0	1	0	0	1	0	1	0	3	0
Drama	0	0	0	0	1	0	1	0	0	0	0	2	0
History of Art	0	1	0	0	0	0	0	2	0	0	0	3	2
Music	0	0	0	0	2	0	0	1	0	2	3	8	2
History	10	6	7	1	4	8	7	4	10	5	7	69	15
Philosophy	3	0	0	0	1	0	0	0	1	3	1	9	1
Religion	0	0	1	0	0	0	0	0	0	0	0	1	0
Mathematics	4	5	3	3	1	4	5	2	1	0	0	28	20
Biology	1	1	1	0	0	0	0	0	0	0	0	3	0
Zoology	1	0	0	0	3	1	3	0	0	1	2	11	5
Biology and Pre-Med.	0	0	0	0	0	0	2	0	4	0	0	6	1
Botany	1	0	0	0	1	1	0	1	0	0	0	4	2
Chemistry	8	2	6	1	3	1	1	1	4	1	0	28	10
Geology	0	1	0	0	1	1	0	0	2	1	2	8	2
Physics	1	9	11	1	0	7	6	2	5	5	4	51	20
Biophysics	0	0	0	0	0	0	0	0	0	1	0	1	1
Chemical Engineering	3	2	4	0	2	1	8	4	3	2	3	32	6
Civil Engineering	4	1	1	0	0	6	11	3	6	1	3	36	2
Electrical Engineering	1	1	2	2	0	4	11	7	3	6	7	44	5
Mechanical Engineering	1	3	2	1	2	8	11	2	10	8	4	52	4
Metallurgy	0	2	0	0	0	0	1	1	0	0	1	5	0
Industrial Administration	2	3	0	1	1	7	7	12	10	5	3	51	0
Applied Economics	4	1	0	0	0	1	1	1	0	0	5	13	2
Anthropology	0	0	0	0	0	0	1	1	0	2	0	4	1
Economics	1	1	6	0	4	5	11	4	8	3	1	44	8
Government	2	2	1	1	2	3	2	2	1	0	0	16	3
International Relations	2	3	4	3	3	8	3	4	3	0	0	35	7
Political Science	0	0	0	0	0	0	0	0	0	3	2	5	1
Psychology	4	2	1	1	4	2	4	3	3	2	2	28	10
Sociology	3	2	0	1	1	5	2	0	2	3	1	20	5
American Studies	0	0	0	0	0	0	0	1	3	4	3	11	1
History, Arts & Letters	8	0	1	0	1	2	0	1	2	0	0	15	1
Latin American Affairs	0	0	2	0	0	0	0	0	2	0	0	4	0
Oriental Studies	0	0	0	0	2	1	0	0	0	0	0	3	1
Chinese Studies	0	0	0	0	1	1	1	0	0	0	1	4	2
Japanese Studies	0	0	0	0	0	1	1	1	0	0	0	3	2
Russian Studies	0	0	0	0	0	2	1	0	2	0	0	5	2
Philosophy & Gov't.	0	2	0	0	0	1	3	0	0	0	0	6	3
Mathematics and Philos.	0	0	0	0	0	1	0	0	0	0	0	1	1
Physics and Philosophy	0	0	0	0	0	1	0	2	1	0	1	5	1
Scholars of the House	0	0	0	0	0	0	7	4	12	3	11	37	20
TOTALS												822	207

Source: Data from Yale College Registrar's Records.

DEPARTMENTAL HONORS, 1953-1965

SUBJECTS	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total Honors	Honors with Exceptional Distinction
Greek	0	0	1	0	0	1	0	0	1	0	0	0	0	3	2
Latin	1	0	0	0	1	1	0	0	0	0	0	2	0	5	1
Classics	0	0	1	2	3	1	0	0	0	2	0	1	0	10	5
Ancient History	0	0	0	0	0	0	1	0	0	1	1	0	0	3	1
French	0	1	1	3	1	1	5	2	3	3	0	1	2	23	7
Spanish	2	2	1	0	0	1	0	0	2	0	1	0	0	9	2
Italian	0	0	0	1	0	0	0	0	0	0	0	0	1	2	1
German	2	0	2	3	0	1	1	3	2	0	0	3	1	18	5
Russian*	0	0	0	1	0	0	0	0	0	1	2	1	3	8	1
English	5**	5	3	4	4	6	5	12	9	6	15	8	9	92	11
Architecture	1	2	1	1	0	0	1	0	2	3	1	3	1	16	1
Art	1	0	0	0	0	0	0	0	1	1	1	0	1	5	0
Design	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
Drama	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0
History of Art	0	0	0	0	3	2	3	1	0	2	0	0	0	11	0
Music	0	1	1	0	1	1	3	0	1	0	1	3	1	13	3
History	9	9	12	11	9	12	10	12	9	10	9	12	8	130	11
Philosophy	1	1	2	3	2	3	1	3	6	3	7	4	6	42	5
Religious Studies	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Mathematics	0	0	2	3	4	5	2	7	0	5	8	2	4	41	21
Math. & Astronomy	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Math. & Physics	0	0	0	1	0	0	0	0	1	1	1	1	1	6	1
Biology	0	0	0	0	0	0	0	0	0	0	2	4	4	10	0
Zoology	2	3	3	0	0	0	3	2	1	4	0	0	0	18	3
Math. & Zoology	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1
Botany (Plant Science)	0	0	1	1	0	0	0	0	0	0	0	0	0	2	1
Chemistry	0	3	4	2	4	4	5	2	3	4	10	5	2	48	18
Biochemistry	0	0	1	0	0	0	0	2	0	4	0	1	1	9	4
Geology	1	5	3	2	4	2	2	0	0	0	1	1	1	22	2
Physics	4	5	7	7	1	3	2	7	6	9	8	3	8	68	17
Biophysics	0	0	0	0	0	1	0	2	2	1	0	0	0	6	0
Solid State Science	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
Chemical Engineering	4	3	0	5	5	6	2	3	5	3	1	3	0	40	9
Civil Engineering	0	2	1	3	4	2	2	3	2	2	2	1	1	25	3
Electrical Engineering	5	3	3	4	3	3	5	8	6	8	9	8	10	71	13
Mechanical Engineering	3	5	5	4	4	3	6	5	5	6	3	4	4	57	7
Metallurgy	0	0	1	1	0	2	0	0	0	1	0	0	0	5	3
Industrial Administration	8	7	13	5	6	4	7	5	3	6	3	5	8	78	12
Applied Economics	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Anthropology	0	3	3	3	0	2	0	0	1	3	0	0	1	16	1
Economics	3	2	3	4	3	5	8	9	5	6	12	7	6	74	16
Analytical Economics	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Geography	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0
Linguistics	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Political Science	2	2	6	5	2	2	1	2	1	6	5	8	9	51	8
Psychology	2	4	5	5	4	3	2	3	2	4	3	11	5	53	13
Social & Pol. Philo.	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
Sociology	0	2	1	1	3	2	0	2	1	0	1	0	1	14	0
American Studies	3†	3	5	5	2	4	8	4	5	2	6	9	6	62	8
Div. I Hist. Arts & Letters	2	2	1	6	3	4	5	5	5	3	9	4	4	55	16
Div. II Pol. & Econ. Inst. #	1	1	0	0	2	8	5	6	3	1	1	4	6	36	8
Div. III Human Cult. & Behav.	2	1	2	2	2	4	4	6	4	5	1	4	5	42	6
Chinese Studies	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
Japanese Studies	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
Southeast Asian Studies	0	0	0	0	0	0	0	0	0	1	1	2	1	7	2
Russian Studies	1	0	0	0	0	0	1	0	0	1	2	1	0	2	2
Latin American Studies	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Islamic Studies	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Philosophy & Lit.	0	0	0	0	0	0	1	1	0	1	0	0	0	3	1
Philosophy & Pol. Sci.	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
Philosophy & History	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0
History & English	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
Mathematics & Econ.	0	0	0	0	0	0	0	0	0	1	0	0	1	2	1
Mathematics & Philos.	0	0	1	0	0	0	0	1	0	0	1	0	0	3	1
Physics & Philosophy	0	0	0	0	0	1	0	1	0	2	0	0	0	4	1
Scholars of the House	9	3	8	6	9	7	7	8	6	10	6	4	5	88	39
TOTALS														1432	301

Source. Data taken from Commencement Programs

*Includes Russian Language, Russian Language and Literature, and Slavic Languages and Literatures

**Includes one majoring in English and European Literature

†Includes one majoring in American Studies and Economics

#Includes one majoring in History, Politics and Economics in 1953. After 1959 title of Division II was changed to Politics and Economics

DEPARTMENTAL HONORS, 1966-1971

SUBJECTS		1966	1967	1968	1969	1970	1971	Total Honors	Honors with Exceptional Distinction
Classics	Classics	2	1	4	1	1	3	12	6
	Classical Civilization						2	2	
	Greek						1	1	
	SUB-TOTAL	2	1	4	1	1	6	15	
Modern Foreign Languages & Literatures	E. & S.A. Lang. & Lit.			1				1	1
	French		1	1	3	4	7	16	6
	German	1					1	2	
	Spanish	1	1	1			1	4	3
	SUB-TOTAL	2	2	3	3	4	9	23	10
English	English	16	10	20	19	28	64	157	50
Fine Arts	Architecture	3	4					7	1
	Art	1	1					2	
	Drama				1		3	4	1
	History of Art	4	5	8	5	9	16	47	12
	Music	3	1	6	2	5	2	19	4
	SUB-TOTAL	11	11	14	8	14	21	79	18
Other Humanities	History	5	6	13	19	32	36	111	35
	Philosophy	4	2	8	14	13	24	65	14
	Religious Studies		1			2	4	7	2
	SUB-TOTAL	9	9	21	33	47	64	183	51
Mathematics and Natural Sciences	Archeology				1	5		6	1
	Biochemistry		2					2	
	Biology	3	7	4	4	11	11	40	12
	Chemistry	4	3	7	7	3	6	30	9
	Comb. Sciences					3	4	7	1
	Eng'g & App. Sci.		1	9	6	6	7	29	8
	Geology & Geophysics				1		3	4	1
	Mathematics	2	5	11	4	3	8	33	18
	Molecular Biophysics		2	4				6	3
	Physics	4	3	5	4	4	5	25	9
SUB-TOTAL	13	23	40	27	35	44	182	62	
TOTAL (this page)		53	56	102	91	129	208	639	197

Source. Report of the Committee on Honors and Special Projects of Yale College (annual)

SUBJECTS		1966	1967	1968	1969	1970	1971	Total Honors	Honors with Exceptional Distinction
Social Sciences	Administrative Sci.			2	2	1	2	7	4
	Anthropology	1	2	1	1	4	5	14	7
	Economics	5	5	11	17	19	15	72	23
	Industrial Admin.	1	4					5	3
	Linguistics		1				1	2	
	Political Science	6	4	9	6	12	11	48	8
	Psychology	10	4	10	16	24	28	92	29
Sociology		3	1	2	7	9	22	9	
SUB-TOTAL		23	23	34	44	67	71	262	83
Inter-Divisional and Inter-Departmental Studies	Adm. Sci. & Arch.					1		1	
	Adm. Sci. & Pol. Sci.					1		1	
	American Studies	10	8	9	16	12	33	88	16
	Anthrop. & Psych.				1			1	1
	Chinese Studies	1			1	1	1	4	
	Classics & Pol. Sci.	3						3	3
	Comparative Lit.			1				1	1
	Div. I (H. A. L.)	8	6	5	5	3	7	34	13
	Div. II (P. S. & E.)	5	6	11	6	1	5	34	13
	Div. III (C. & B.)	5	2	5	3	1	8	24	10
	Div. IV					8	11	19	3
	Eng'g & A.S. & Adm. Sci.			1				1	
	English & Classics				1			1	1
	English & French			1	1	1	1	4	3
	English & German				1			1	1
	English & History					1		1	1
	French & Amer. Lit.	1						1	
	French & German					1		1	
	History & Music			1				1	
	History & Pol. Sci.				1			1	1
	Intellectual History				1			1	1
	Japanese Studies						1	1	
	Latin Amer. Studies	3	1	1	3		5	13	2
	Math. & Economics	1				2	2	5	1
	Math. & Philosophy	3	1			1	1	6	2
	Math. & Physics				1	1	1	3	2
	Physics & Philosophy						1	1	1
	Psych., Anthrop. & Soc.			1				1	1
	Russian Studies		2		1	5	3	11	4
	Spanish & Portuguese			1				1	1
Scholar of the House	14	10	10	9	8	8	59	25	
S. E. Asian Studies					1		1		
SUB-TOTAL		54	36	47	51	49	88	325	107
TOTAL (this page)		77	59	81	95	116	159	587	190
GRAND TOTAL		130	115	183	186	245	367	1226	387

DEPARTMENTAL HONORS, 1972-1976

SUBJECTS		1972	1973	1974	1975	1976	Total Honors	Honors with Exceptional Distinction
Classics	Classics	1	2	2	5	4	14	1
	Classical Civilization	4				1	5	
	SUB-TOTAL	5	2	2	5	5	19	1
Modern Foreign Languages & Literatures	French	9	4	5	6	4	28	1
	German	2	2	2	1	3	10	1
	Russian		2		1		3	
	Slavic L. & L.	1				1	2	1
	Spanish	6	6	1	2	4	19	5
SUB-TOTAL	18	14	8	10	12	62	8	
English	English	36	40	52	42	33	203	10
	SUB-TOTAL	36	40	52	42	33	203	10
Fine Arts	Architecture	1			3	7	11	
	Art		2	1	7	4	14	
	Drama	3	3		2		8	
	History of Art	6	5	11	9	7	38	
	Music	1	4	2	12	9	28	1
SUB-TOTAL	11	14	14	33	27	99	1	
Other Humanities	History	37	43	41	47	39	207	20
	Philosophy	19	16	17	17	24	93	6
	Religious Studies	2	3	1	4	5	15	
SUB-TOTAL	58	62	59	68	68	315	26	
Mathematics and Natural Science	Archeology		3	2	2	3	10	
	Biology	11	8	16	24	19	78	2
	Chemistry	5	3	3	1	6	18	2
	Comb. Sciences	5	5	2	1	2	15	
	Eng'g & App. Sci.	9	5	4	5	6	29	4
	Geol. & Geophysics	3		2	2	4	11	1
	Mathematics	2	7	3	6	14	32	
	Mol. Bioph. & Biochem.		5				5	
	Physics	4	2	1	4	2	13	
SUB-TOTAL	39	38	33	45	56	211	9	
Social Sciences	Admin. Science	8	1	3	2	4	18	3
	Anthropology	4	9	2	1	6	22	3
	Economics	16	10	18	12	23	79	4
	Linguistics	3		1	2	5	11	2
	Political Science	12	11	10	15	18	66	2
	Psychology	34	32	34	25	28	153	16
	Sociology	2	3	2	6	6	19	3
SUB-TOTAL	79	66	70	63	90	368	33	
TOTAL (this page)		246	236	238	266	291	1277	88

Source. Report of the Committee on Honors and Special Projects of Yale College (annual).

SUBJECTS		1972	1973	1974	1975	1976	Total Honors	Honors with Exceptional Distinction*
Inter-Divisional and	Afro-Amer. Studies		1	1	2		4	
	American Studies	16	4	15	13	14	62	8
Inter-Departmental Studies	Anthro. & Linguistics				1		1	
	Arch. & Class. Civilization					1	1	
	Arch. & Art					1	1	
	Astron. & Physics	1					1	
	Biol. & Psychol.					1	1	
	British Stud. & Engl.				1		1	
	Chem. & Amer. Stud.					1	1	
	Chem. & Physics					1	1	
	Chinese Studies			1			1	
	Classics & English					1	1	
	Classics & Phil.					1	1	
	Comb. Literature		2		3	1	6	
	Comp. Sci. & E. & A.S.					1	1	
	Comp. Sci. & Math.		1		1	2	4	
	Div. I (H.A.L.)	9	4	4	7	1	25	6
	Div. II	6					53	3
	Div. III	4						
	Div. IV	12	14	9	4	4		
	Econ. & History					1	1	
	Econ. & Japanese Stud.					1	1	
	Econ. & Math.	3	1		1	1	6	
	E. & A.S. & Math.					1	1	
	English & French	2					2	1
	English & Greek	1					1	
	English & History			1			1	
	English & Philosophy				1		1	
	French & Italian	1					1	
	French & Music					1	1	
	H.A.L. & English			1			1	
	H.A.L. & Music			1			1	
	H.A.L. & Philos.			1		1	2	1
	Hist. & Latin & Amer. Stud.			1			1	
	History & Physics					1	1	
	History & Pol. Sci.	1					1	1
	History & Spanish			1			1	
	Japanese Studies			2		1	3	
	Latin Amer. Studies	3	2		2	1	8	
	Literature			3	11	2	16	
	Lit. & Music				1		1	
	Lit. & Russian				1		1	
	Math. & Philosophy	1			1		2	1
	Math. & Physics	4	2		1		7	2
	Phil. & Pol. Sci.				1		1	
	Phil. & Psychol.	12	3	1	1		17	4
	Pol. & Econ. Syst.				4	1	5	
	Pol. Sci. & Russ. & E. Eur. Studies					1	1	
	Physics & Philos.	1					1	
	Russ. & E. Eur. Studies	4	5	6	1	7	23	3
	Scholar of the House	9	6	5		2	22	8
	Study of the City	7	4	3	5		19	
SUB-TOTAL		97	48	56	63	52	317	44
GRAND TOTAL		343	285	294	329	343	1594	132

*In 1972 115 honors with exceptional distinction were awarded. In the winter of 1972-73 the faculty voted to stiffen the standards for distinction by requiring that all courses in the major be counted and that at least two-thirds of the courses and the special project be of honors grade. These requirements, and perhaps a growing resistance to the inflation of grades, reduced the number of awards of honors with exceptional distinction to 4 in 1973, 6 in 1974, 4 in 1975, 3 in 1976.

C-6. Grades

C-6 Grades

Introduction: Notes on Yale Marking Systems and Passing Standards

According to tradition the first grades issued at Yale (and possibly the first in the country) were given out in the year 1785, when President Ezra Stiles, after examining 58 Seniors, recorded in his diary that there were "Twenty Optimi, sixteen second Optimi, twelve Inferiores (Boni), ten Peiores."

In 1817 Stiles' crude classification into four groups, after an uncertain interval under Dwight, was replaced by a system of honors "appointments" running from Orations at the top to Dissertations, Disputes and Colloquies; and these groups were supplemented by a system of grades running from 4 to 0. In this celebrated numerical system, the grade of 2 was the over-all passing mark, and above or below that level any differences of success on the spring and summer examinations of the Juniors and Seniors could be expressed in decimals (which made possible some twenty levels or classifications above passing). Before long the College was using double decimals or even triple -- thus, 1.5, 2.5, 3.5, or 1.75, 2.25, 2.75, and 3.25, or such final averages as 2.375, 2.804 or 3.167. In short order also the examinations and the grading were extended to underclassmen, and by 1837 performances in individual courses were graded and given appropriate weighting. So the scale of 4, for all its deceptive simplicity, developed under the hand of the Yale faculty into a discriminating tool of a high degree of accuracy, coverage, and sophistication. And for a good one hundred years, 1817-1917, it disciplined Yale's students, challenged the ambitious, goaded the delinquent, and assured the moderate workers that they were safely on the road toward their degrees. For class after class it measured each member's academic talents and dedication. And all of it was recorded imperishably and meticulously in a great ledger called "Book of Averages."*

*Tradition also tells us that the Yale scale of 4 was known and emulated beyond New Haven. Apparently it became the progenitor of the grading system at the U.S. Naval Academy. Also of practices at other colleges. And a system of 4 is still used in some public schools. In 1945 it was even alleged that Yale's scoring system had been carried over into the New York State prize rings by

Rules respecting Assignments

- 1— Every paper of ² quality, citation, &c. in school II, and superior & debating clubs III.
- 2— Every instructor, at the end of each term, shall make out the average standing of each student who shall name his or her, &c., and the branch of study which he shall have taught, during that term. This is the particular average.
- 3— Every Instructor, having charge of a Division, shall, at the end of each term, collect the particular averages of each student in that Division for that term, from which he shall make out a general average.
- 4— The general average shall be made out by the following rule—
Multiply the particular averages in Translation, Composition, and Disputes by $\frac{1}{2}$, in Declaration by $\frac{1}{4}$, and in all other studies by $\frac{1}{2}$; divide the sum of the products by the sum of the multipliers; the quotient shall be the general average.
- 5— The Senior Tutor of each class shall record in this book the general average of each student of that class, for any term, at the beginning of the following term.
- 6— This book shall be kept with the Senior Tutor of the College, whose duty it shall be to see that these rules are carried into effect.

Wm. Coll.)
(Aug. 1837)

Some minor modifications there had been. Though many professors continued to think and grade as before, in the 1870s the decimal point had gradually dropped out of official usage, leaving a 200-400 scale, with the same interior range. And in the 1890s the classes had grown too large (and the courses too numerous?) to be recorded through all four years even in giant ledgers. So books of averages changed to boxes of individual cards. Yet still the old Yale marking system continued its immemorial watch.

Suddenly, in World War I, the unprecedented take-over of the campus by the military brought in a 100 system and irreverently imposed it on Yale. Then, after the Armistice, almost overnight the officers and their Students Army Training Corps went away, but an R.O.T.C. and the 100 system remained to remind Yale of its military involvement.

After 1926, when the classicist Clarence W. Mendell '04 replaced the physicist Frederick Sheetz Jones '83 as Dean, the College reverted to its older habits, but with a slight modification: the decimal point was revived, for use after the full grade, so averages like 380.6 became possible (C-6.5). At the same time, however, the Common Freshman Year stayed with its 100 scale, and the Scientific School stuck by its novel letter grades. Having to apply three different scales, Yale's professors apparently found their convictions irretrievably disturbed, for the next years saw an odd parade of experiments by the College, as one system after another was tried, obviously to incomplete satisfaction.

In 1932 the 100 scale was brought back. Then in 1939 came a system of letters: A+, A, B, C, D, F, and X. In May of 1943, shortly after the U.S. involvement in World War II, the military returned to the campus and reinstalled the 100 scale, which (with minor modifications below the passing grade of 60) lasted in this third visit not 7-8 years but 24. Then in 1967 the College tried Honors, High Pass, Pass and Failure -- and from 1972 A-S-C-D again, with or without F for failure. And, with such non-numerical grades, it looked as if competitive averaging had followed the old Book of Averages into oblivion.

Such has been the story in rough outline. On closer examination, the Yale rating and passing customs turn out to be still more complex, and inextricably intertwined with tradition, with the curriculum, with Yale's changing academic codes, with wars but also with other unrelated happenings or disasters in the secular world outside.

Commissioner "Eddy" Eagan, Yale's former heavyweight boxer and Olympic champion, of the Class of 1921S (John Lardner, "Boola Boola," Newsweek October 1, 1945).

Colonial Grading

Was there no grading system before 1784? Of course there was. The diploma was the grade. After years of instruction, by the tutors first and then by the Rector or President, the diploma either was or was not awarded depending upon the industry and success of the student in getting through the required course of study. One has the impression that most of the Seniors were encouraged or allowed to graduate. Yet graduation represented achievement. One had passed, not failed, and the event was cause for noisy celebration. No doubt the end of classes and disciplinary constraints and all the long drudgery to books just invited uproarious disorders and celebrations. Yet so did the great reward, the diploma, for which the students had paid in labor and now paid handsomely in cash (see F-1.2) -- before letting loose their spirits in much drinking and the firing of "great gunns."

Marks en route? There were also marks, often many marks handed out from time to time to the young scapegrace candidates. But these were conduct marks or demerits. Each student was given an allowance of a certain number each term, and began over again with a fresh allowance when the term was over. Exceeding such allowances might result in being put on the course of discipline, with fines, admonitions, letters to parents, suspension or finally expulsion. However, if one reached the ceremony of Commencement, the (conduct) marks had been forgotten. One had passed through Yale College, had earned Yale's B.A. degree, and ever after would be listed among her sons.

Grades? In this same first fifty or sixty years, according to tradition, at least some of the students were also graded, that is, rank-listed socially, according to the eminence of their fathers. And if the son of a governor or judge by his conduct demeaned his position he could presumably be de-graded (moved down) from the top of his class. So in the beginnings we can identify either two or three systems: for scholarship, for conduct, and (more doubtfully in some cases) for social standing. With any social ranking going out in the troubled years before the Revolution, and with the conduct system gradually losing its force -- thanks possibly to better schooling or the rise of athletics and extracurricular activities in the nineteenth century -- the academic grading became more and more important, indeed indispensable, in Yale's system for teaching ignorant boys to grow into intelligent citizens.

Academically, as we have noted, colonial Yale had operated on a traditional and rather primitive pass-fail system. President Stiles' grouping from Optimi to Peiores then represented an effort to distinguish among the passed men a little more exactly. What happened under Timothy Dwight we do not exactly know. But by the time of graduation for the Class of 1817, with Jeremiah Day newly installed in office, Yale was grading its candidates under a numerical system that ran from a theoretical 0 to 1 to 2 to 3 to 4, with decimal stops in between, 4 representing perfection. Such grades were not yet being given for regular classroom performance; rather they were the summary average of what the student was judged to have done in his oral examinations in May and July of his Senior year. For the Class of 1818 and afterwards, the Junior examinations in May and September were also counted toward the final average or graduating stand, as apparently were the Sophomore examinations for 1819 and the Freshman for 1820. These mathematical assessments represented improvement but only a partial revolution, for the calculations may have been new but not the examinations, which were the descendants of colonial public practices.

From its earliest days the College had tried to emulate the rituals of the English universities, among them the holding of a public Commencement. On such occasions Yale presented the graduating seniors for demonstration, by public exercise, on a printed list of theses or questiones. On these stated topics the candidates were presumed to be ready to orate, or to dispute or to syllogize. And any stranger happening by might assess the performance (conceivably even put them to question?). One suspects that not many strangers took advantage of the opportunity to express the State concern and the public interest in sound learning, but the dignitaries of Church and State did learn to attend and follow the oral exercises to their solemn conclusion. As President Clap recorded in his Annals:

The publick Commencement is ordinarily on the second Wednesday in September annually: at which there is a large Assembly, consisting of the President and Fellows, a great Number of Ministers, and other learned and superior Gentlemen. The President begins the Solemnity with Prayer, one of the Candidates for the first Degree makes a salutatory Oration to the Governor and Council, the Officers of College, and the whole Assembly: the others give a Specimen of their Learning, by disputing Syllogistically on the Questions, printed in their Theses; which are then distributed. The like is done in the Afternoon by the Candidates for the Degree of Master of Arts. Then the President, with the Consent of the Fellows, gives them their Degrees, three at a Time, in this form:

Pro Auctoritate mihi commissa, admitto vos ad Primum Gradum in artibus; pro More Academiarum in Anglia. Vobisque trado hunc Librum, una cum Potestate publice Praelegendi, quotiescunque ad isthoc Munus evocati fueritis: cujus, haec instrumenta,* membrana scripta, Testimonio sint.

The like form is used for the Masters, only instead of Primum,

it is Secundum; and instead of praelegendi, it is profitendi; and sometimes, instead of Primum, the President says, Gradum Baccalaureatus; and instead of Secundum, he says, Gradum Magistrale.

Then one of the Masters makes a Valedictory Oration: and the President concludes the whole Solemnity with a Prayer.

*The President delivers to each of them a Diploma.

Under Clap, himself, Tutor Extra Stiles inaugurated a supplementary or preliminary custom: the public presentation of the Seniors to the President after their last (and more serious?) final examination by the Tutors. Each July the Seniors would be put on their mettle to prove what they had learned, and were then by the Senior Tutor presented to the President for his approval and acceptance. After which they would return home until the public Commencement. So Presentation Day, as it was called, became the decisive mement. And with time there came to be a comparable day for the Juniors, known as the Junior Exhibition.

Whether the students had to undergo any other intermediate public tests it is not easy to say. We know that Clap tried to have them put to examination each quarter, apparently without success. And we know, of course, that from entrance the students were given almost daily exercise in memorizing and repeating, in reading and translating, in counting and calculating, and in propounding or attacking or defending set theses of a scientific or religious or moral or social sort. By regular practice they had learned to speak on their feet. And in the process, inevitably, both tutors and classmates must have acquired a fairly accurate estimate of each student's scholarly disposition and talents. Yet no measurements of scholarship seem to have been recorded. And in 1817 and presumably for some twenty years afterwards the grades that were given at Yale were, not a composite of daily recitation estimates or a mixture of recitations and examinations, but simply a composite judgment of performances on the stated examination days. And these estimates of examination performances would then be entered in Yale's Book of Averages by the Senior Tutor of the class.

1817-1917

Such relatively simple grading, however, was already on the road to elaboration and refinement. With the aid of the 4-scale the two leading scholars, the Valedictorian and Salutatorian, were now clearly identified (see Note on Valedictorians, below). And Stiles' notion of classification by groups was being put into working operation, by subdividing the better scholars of the class into four groups of Honors Appointments--Orations, Dissertations, Disputes and Collo-

Exercises and Honors at Commencement, 1848

O R D E R
OF
E X E R C I S E S
AT THE
C O M M E N C E M E N T,
BY THE
ONE HUNDRED AND FORTY-EIGHTH ANNIVERSARY
OF
Y A L E C O L L E G E,
AUGUST 17, 1848.

NEW HAVEN:
PRINTED BY D. L. HAYLES,
Printer to Yale College.
1848.

HONORS.

O R A T I O N S.

FREDERIC RANDOLPH ABEL, Philosophical Orator, *Boston, Mass.*
WILLIAM AITCHISON, Eulogatory Orator, *Newark.*
HENRY BLOOMER, Philosophical Orator, *Buckport, Me.*
DUNCAN FRAYZER, Eulogatory Orator, *Worcester, Mass.*

David Samuel Colburn, <i>Coventry.</i>	Timothy Hopkins Porter, <i>Waterbury.</i>
Henry Martyn Colton, <i>Leedsport, N. Y.</i>	Nathaniel Higgins, <i>Jeune City.</i>
Charles Condit, <i>Orange, N. J.</i>	John Thomas Shambaugh, <i>Overington, Pa.</i>
Fredrick Cove Fuller, <i>East Haddam.</i>	Edmund Denison Stanton, <i>Stonington.</i>
Henry Hitchcock, <i>Nashville, Tenn.</i>	Edwin Tyler, <i>New Haven.</i>
John Parison Hubbard, <i>Boston, Mass.</i>	Giles Buckingham Wilcox, <i>Newark.</i>
William Kinne, <i>Canterbury.</i>	

D I S S E R T A T I O N S.

John Ferris Brinton, <i>Lancaster Co., Pa.</i>	Eliza Brewster Hillard, <i>Newark.</i>
Charles Theodore Cotton, <i>Nashua, N.H.</i>	Isaac Spangue Newton, <i>Marlboro, N. Y.</i>
Romer Knibbop Dunbar, <i>Pickard, N. Y.</i>	Theodore Washburn, <i>New Haven.</i>
Daniel Francis Gulliver, <i>Boston, Mass.</i>	

D I S P U T E S.

Charles Sampel Hall, <i>Highwaten, N. Y.</i>	Amber Dixon Osborne, <i>Fairfield.</i>
Edward Barr Harrison, <i>Leedsburg, Va.</i>	Samuel Clarke Perkins, <i>Philadelphia, Pa.</i>
Benajah LaFayette, <i>Clinton.</i>	Isaac Turner Robinson, <i>Buffalo, N. Y.</i>
Charles Lowrey, <i>Southington.</i>	Joseph Rowell, <i>Claremont, N. H.</i>
Jacob Kevin McKelby, <i>Douglasville, Pa.</i>	

John Randolph Harper, <i>Aplachicola, Fla.</i>	Sidney Webster, <i>Giddings, N. H.</i>
Henry Martyn Parsons, <i>East Haddam.</i>	George White, <i>Quincy, Mass.</i>

C O L L O Q U I E S.

Austin Arnold, <i>Haddam.</i>	Thomas Cecero Pinchard, <i>Tuskegee, Ala.</i>
Samuel Enay Baldwin, <i>Winchendon, Mass.</i>	Samuel Hart Seiden, <i>Lynn.</i>
Clinton Capen Brown, <i>Barnwell C. H., S. C.</i>	Samuel Selden Spencer, <i>Lynn.</i>
Samuel Emerson, <i>Andover, Mass.</i>	John Richard Wainman, <i>Andover, N. Y.</i>
Marshall Mason Fitch, <i>New Albany, Ia.</i>	Cyrus George Webster, <i>Habit, Ala.</i>
Daniel Holmes, <i>Allen's Hill, N. Y.</i>	Ben D. Young, <i>Huntsville, Ala.</i>

C O L L O Q U I E S.

Henry Taylor Blake, <i>New Haven.</i>	Richard Smith Mason, <i>Newark, N. Y.</i>
Charles Mason Colton, <i>Georgetown, Del.</i>	Benjamin Roger Rutledge, <i>Sumpter, S. C.</i>
Shelton Hollister, <i>Canterbury.</i>	

Henry Candlet Hodges, <i>Newark, N. J.</i>	Thomas Ruggles Gold Peck, <i>Brooklyn, N. Y.</i>
Calix Lamson, <i>Hampden, Mass.</i>	

ORDER OF DEGREES.

FOREIGN.

1. Music.
2. Prayer by the President.
3. Salutatory Oration in Latin, by WILLIAM AITCHISON, Norwich.
4. Dissertation, "America, the Home of the World," by HENRY MARTIN PARSONS, East Haddam.
5. Dissertation, "The only desirable Immortality," by SAMUEL SLEDGE SPENCER, Lyme.
6. Dissertation, "The Progress of Republican Principles," by JOHN FERRIS BRINTON, Lancaster Co., Pa.
7. Music.
8. Dissertation, "The Treaty of Peace of 1763," by SAMUEL ESTEY BALDWIN, Wintendon, Mass.
9. Dissertation, "The Influence of Public Opinion," by BENJAMIN LEITCHWELL, Clinton.
10. Dissertation, "Wilberforce," by SAMUEL CLARENCE PEARSE, Philadelphia, Pa.
11. Oration, "The Causes of Revolution," by CHARLES CONDUIT, Orange, New Jersey.
12. Music.
13. Dissertation, "Reason," by CLINTON CLAYTON BROWN, Barnwell, C. H. S. C.
14. Dissertation, "Firmness of Purpose," by CHARLES LOWERY, Southington.
15. Oration, "The Scope of Demosthenes' Oration on the Crown," by LEONARD DENISON SPANOS, Norwington.
16. Dissertation, "Robert Leconte," by JACOB KERLIN MCKENRY, Douglassville, Pa.
17. Music.
18. Oration, "The Responsibility of the Scholar for the Welfare of the Present Age," by NATHANIEL SHIPMAN, Jewell City.
19. Dissertation, "Can the mind contemplate itself?" by SAMUEL HART SLEDGE, Lyme.
20. Oration, "The Celtic Race," by DAVID SANDER CALMOUTH, Coventry.
21. Dissertation, "The Christian's Political Duty," by JOSEPH ROWELL, Clermont, N. H.

22. Music.
23. Dissertation, "The Study of the Beautiful necessary to a Complete Education," by THEODORE WINTHROP, New Haven.
24. Dissertation, "The Crusaders at the Church of the Holy Sepulchre," by SAMUEL ECKERSON, Andover, Mass.
25. Poem, "Pocahontas," by HOMER NORTHROP DENNING, Fairbairn, N. Y.
26. Music.

APPENDIX.

1. Music.
2. Dissertation, "The Final Triumph of Republicanism," by JOHN RANBOLPH HANDEL, Apalachicola, Fla.
3. Dissertation, "Posthumous Influence," by CHARLES SAMUEL HALL, Binghamton, N. Y.
4. Dissertation, "Virginia," by GEORGE WHITE, Quincy, Mass.
5. Music.
6. Dissertation, "Inward Harmony with Outward Nature," by DANIEL FRANCIS GULLIVER, Boston, Mass.
7. Dissertation, "Rhetoric as a Statesman," by SIDNEY WEBSTER, Gilmanton, N. H.
8. Dissertation, "France, her Duty and Decline," by EDWARD BEER HARRISON, Leesburg, Va.
9. Music.
10. Oration, "The Old Age of the Scholar," by HENRY HITCHCOCK, Nashville, Tenn.
11. Dissertation, "The Proper Influence of Conservative Principles," by CYPRIAN GEORGE WEBSTER, Mobile, Ala.
12. Poem, "Udine, the Birth of a Soul," by HENRY MARTIN COLTON, Ladysport, N. Y.
13. Music.
14. Dissertation, "Tact," by JOHN RICHARD WATROTS, Fulton, N. Y.
15. Oration, "The Founders of the Federal Constitution," by TIMOTHY HORNER'S PORTER, Waterbury.
16. The Philosophical Oration, "Destiny and Duty," by HENRY BLOOMER, Backsford, Me.
17. Music.
18. Oration, "The Scholar in the World," with the Valedictory Address, by DWIGHT PORTER, Worcester, Mass.
19. DEGREE CONFERRED.
20. PRAYER by the President.
21. Music.

quies. Still in the colonial tradition, the top Orations men and some chosen representatives of the other groups would demonstrate their capacities and titles by taking speaking roles at Commencement. So at these nineteenth century graduations the ceremonies would open with a Latin oration by the second scholar or Salutatorian of the class and would close with an oration and a valedictory by the first scholar or Valedictorian. In between there would be orations by some other top scholars, dissertations by some slightly less qualified, and disputes or colloquies by one or two middling students: all these taking place on the morning or the afternoon of Commencement. Afterwards the lower half of the class (averaging 2 or above) along with the speakers and the others holding honors appointments, would be graduated.

Under Jeremiah Day, Theodore Dwight Woolsey, and Noah Porter (1817-86) this system fourished and grew more elaborate. Where under Day in 1819 there were 11 speakers, by 1848 one could count no fewer than 30 out the 57 honors appointments, plus 2 poets, all listed and performing on the Commencement program. And where the classification had started with four groups and the also-rans, by 1848 the program specified nine: first the Philosophical Orations, then High Orations, then Orations; next the Dissertations; next the first and second and third Disputes; and finally the first and second Colloquies. So anyone who had any pretensions to scholarship at all was likely to find himself listed in the College catalogues, and from 1857 a Junior list was published as well.

This may have satisfied many students, but to the faculty more incentives to study seemed desirable. At least one can detect the attempt to raise standards by supplementary rewards and punishments. Where once an average of 2 on the Junior and Senior examinations was adequate, students began to fail subjects and be conditioned and have to make up the work and pass a special examination before they could be restored to good standing--and their failure grade would still be counted in averaging their final stand. Then the grade of 2 on every subject came to seem inadequate or too precarious, so students with a 2.25 (or 225) grade were, after 1896, put on warning. At the other end of the scale the College managed, by means of generous benefactions, to create a series of cash prizes and prize competitions, thereby encouraging fine performance in many subjects as well as helping the more industrious but impecunious students to work their way through.

Such rewards or punishments gave incentives to the best and the worst but left the great middle group of students almost untouched--and on the whole Yale was content to have it so. But in 1850 the faculty, led by Theodore Dwight Wool-

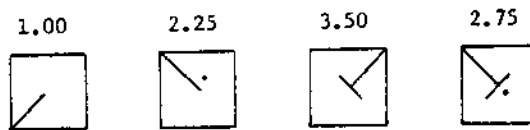
sey, a protagonist of sound scholarship and prize competitions, decided to stiffen the work for all by holding written examinations for Sophomores and written examinations for Seniors, with the examinations in each case to cover all the work of the preceding two years: these in addition to the term oral examinations. Predictably, this was not exactly a popular move among the undergraduates. In 1762 Clap had instituted quarterly examinations for all classes, with threats of expulsion for failure, and had been greeted with a riot and open rebellion. Then in 1785 Stiles had stiffened the tests, and failed four Seniors, and the next year given special examinations, which provoked such rioting that three rustications and one expulsion were required. In 1830 there had taken place the great Conic Sections Rebellion, with many dismissals. But now Woolsey and his faculty managed to enforce the Biennials, until in 1865 they were replaced by written annuals in every subject, with written entrance examinations added soon after.

This calls attention to another change, caused both by the growth of the College and by the general advancement and diversification of learning. Where once there had been a single tutor in all subjects for each class, now there were several tutors teaching parts of the curriculum in separate divisions to accommodate the student numbers. And where once the course of study had been fixed and uniform, all through the nineteenth century the curriculum had been growing, with the addition of new sciences and modern languages. These additions had been accommodated at first by some special lectures by the scholars of the faculty, and by a language optional or two. Then a few alternative courses became necessary, which grew into regular optionals, then guarded upperclass electives, finally many free or almost free electives. So no longer were all the undergraduates going through the identical and long established system of instruction in each other's company. Instead they were branching out, at first a little, then more and more. And not all the new elements of instruction could be of equal duration or importance. Hence rather early it became necessary to keep a record and reach a grade for each of the courses and alternative parts of the curriculum, and give them each an appropriate mathematical weighting. At least as early as 1837 these course grades were averaged into the yearly and final standings (cf. C-6.2). And at some point (after the Civil War?) the grades on daily recitation were recorded and weighted into the course grades.

Grade Books in Code

To handle the bookkeeping there grew up in Yale College a complex and delicate art. The professors devised a sign language which took advantage of the

tiny open squares of the cross-ruled grade books, and enabled them to record grades from 0 to 4, quickly and by almost imperceptible movements of the hand. Moreover they could keep the grades for a whole term or a whole year running across the face of just two pages. It is said that tutors would help the professors and would pass on the secret of the hieroglyphics that were used. And at least two different systems, or variations on the basic system, seem to have been practiced. One is illustrated by the reproduction from Professor Sumner's grade book. Another was jotted down for me years ago by Clarence W. Mendell after his retirement from the deanship of Yale College. The Mendell system resembled Sumner's cuneiform but with slightly different marks, which rotated in the opposite direction. It looked like this:



What did such numbers really represent? From Jeremiah Day to Clarence Mendell, 2 (or 200) was passing--not half correct but passing, whatever the standard of the professor--and 2 was also supposed to be the minimum acceptable average. That is, a student could fail some part of the course of study provided his other work was sufficiently above failure to warrant the grade of 2 for the whole performance. How that permissive requirement was stiffened has already been described. From 2.25 to 2.95 then served to contain the great majority of the middling students. With a grade of 3 or better one reached the level of real scholarship. Orations were awarded for a general average of 3 to 3.14, High Orations for a stand of 3.15 to 3.29, and Philosophical Orations for 3.30 or above.

When, in the years 1918-1939, the 100 system and the 400 system alternated, some equivalency between the hundred percent grades and the renovated 400 scale became necessary, so the passing grade of 200 became the equivalent of 60 out of 100. This meant that 250 represented a grade of 70, 275 the grade of 75, 300 the grade of 80, 350 the grade of 90, etc.

Some Conflicts of Emotion and Reason

In 1938, in the fervor of raising the intellectual standards of the College, and having become persuaded that too fine distinctions in grading distracted from the true purposes of education, Dean George H. Nettleton '96 succeeded in

GRADING SYSTEM IN YALE COLLEGE
A Chronological Chart

Year	Marking Scale	Levels Passing	Quality	Course Requirements	Designation of Honors																									
1783	Stiles ranked Seniors in three divisions for study of Hebrew			All studied same curriculum																										
1785	Stiles ranked Seniors: 20 Optimi 16 Second Optimi 12 Inferiores (Boni) 10 Pejores																													
1795-1817	?			↓	"appointments" at graduation evolved into: Philosophical Orations (headed by Valedictorian and Salutatorian) High Orations Orations 1st and 2d Dissertations 1st and 2d Disputes 1st and 2d Colloquies																									
1817	0-4 with decimals	2.00	3.00 or better (?)																											
1819				<p>Commencement-Order of Exercises, Sept. 8, 1819:</p> <table border="0"> <tr> <td>Forenoon</td> <td>Afternoon</td> </tr> <tr> <td>1. Sacred Music</td> <td>1. Sacred Music</td> </tr> <tr> <td>2. Prayer (Pres.)</td> <td>2. Oration</td> </tr> <tr> <td>3. Salutatory Oration</td> <td>3. Oration</td> </tr> <tr> <td>4. Dissertation</td> <td>4. Valedictory Oration</td> </tr> <tr> <td>5. Forensic Dispute</td> <td>"Importance of Fixed Principles, as Qualification for Public Life"</td> </tr> <tr> <td>Two Participants</td> <td>5. Degrees Conferred</td> </tr> <tr> <td>6. Dissertation</td> <td>6. Prayer (Pres.)</td> </tr> <tr> <td>7. Colloquy</td> <td>7. Sacred Music</td> </tr> <tr> <td>8. Oration</td> <td></td> </tr> <tr> <td>9. Colloquy</td> <td></td> </tr> <tr> <td>10. Poem</td> <td></td> </tr> <tr> <td>11. Sacred Music</td> <td></td> </tr> </table>	Forenoon	Afternoon	1. Sacred Music	1. Sacred Music	2. Prayer (Pres.)	2. Oration	3. Salutatory Oration	3. Oration	4. Dissertation	4. Valedictory Oration	5. Forensic Dispute	"Importance of Fixed Principles, as Qualification for Public Life"	Two Participants	5. Degrees Conferred	6. Dissertation	6. Prayer (Pres.)	7. Colloquy	7. Sacred Music	8. Oration		9. Colloquy		10. Poem		11. Sacred Music	
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11. Sacred Music																														
1825-26				First modern language options																										
1832	Brief experiment with 0-9 scale																													
1833	0-4	2.00		Junior and Senior option of additional classics, modern language or mathematics and astronomy	Junior Class appointments first listed in Catalogue																									
1850																														
1857																														

GRADING SYSTEM IN YALE COLLEGE (cont.)

A Chronological Chart

Year	Marking Scale	Levels		Course Requirements	Designation of Honors
		Passing	Quality		
1868					End of Forenoon-Afternoon program. Orations, Dissertations, Disputes, Colloquies continue.
1870				Senior year optionals	
1875-77				Senior and Junior optionals	
1884-86				Senior and Junior electives	
1886					Traditional appointments with addition of "special honors" in department areas e.g. Classics, English, History, etc.
1891					Deforest Prize Speaking included in order of exercises. Special honors cont.
1894				Sophomore optional	
1896		General warning at 225			
1901				60 year hours required	
1903				Freshman limited option, Sophomore wide option, upperclass electives	
1905					Senior honors in special studies. Also honors in studies of Junior and Freshman years.
1913			Start of Quality Credits 60 pts. required on 4-3-2-1 scale: 330 (330+) (A) 4 pts. 300-329 (B) 3 pts. 260-299 (C) 2 pts. 225-259 (D) 1 pt. 200-224 (E) none		
1918	0-100	60			Last class to use dissertations, disputes and colloquies
1920			70 or better in 3/5 of work		Senior honors in Major in 3 ranks
1921			Q. C. 75 or better		Juniors, Sophomores and Freshmen also ranked

GRADING SYSTEM IN YALE COLLEGE (cont.)

A Chronological Chart

Year	Marking Scale	Levels		Course Requirements	Designation of Honors
		Passing	Quality		
1925			75 (36 pts. out of 60 reqd.)		
1927	0-400	200	275 for quality credits	120 semester hours	
1928					Dean's list
1931				Sophomore free electives	Honors with Exceptional Distinction and Honors
1933	0-100	60	75 (in 6 year courses)	Freshman free electives	
1934				40 term courses - Std. Major 36 term courses - Int. Major + Dept. exam	
1937				First comprehensive Dept. exam required	
1939	A+ABCD F-Sept. exam X-No Re-exam	D	B in major		Dean's list entered on record card
1940			C (in 12 courses)	Senior Essay required	
1942					Dean's list entries stopped
1943	0-100	60	C in major and in 20 term courses	Plus Essay or Dept. exam	
1944			70 in 60% of courses		
1945					No appts. in Commencement program. Dept. Honors on Dean's Office Cards.
1947					Philosophical Orations only.
1948				Dept. exam required	Philosophical Orations/High Orations
1950				Dept. exam not entered on record. 40 term courses - Std. Major; 36 term courses-Int. Major	Dean's Honor List (top 25%) and Ranking Scholar (top 10%). Philosophical Orations 90+, High Orations 85-89, Orations 80-84.
1955			70 Degree Credits		
1956				Dept. exam graded Pass, HP or Superior	

GRADING SYSTEM IN YALE COLLEGE (cont.)
A Chronological Chart

Year	Marking Scale	Levels		Course Requirements	Designation of Honors
		Passing	Quality		
1961				Std. 40 term courses + Dept. exam; Intens. 36 term courses (2 in Essay, Project, or Graduate courses)	Cum Laude, Magna Cum Laude and Summa Cum Laude substituted for Oration appointments
1962	100-60-55-W-WF and ENCF	60			
1965	100-60-55-50-40 (lower by petition to Exec. Com.)	60			
1967	H-HP-P-F	P	Degree Credits End		
1968					% H Grades for General Honors: Cum Laude 30%, Magna Cum Laude 50%, Summa Cum Laude 70% % H Grades in Major: Honors with Distinction 75%, High Honors 67%, Honors 50%
1969				38 term courses - Std. 36 term courses - Int.	Dean's Honor List ends by faculty vote
1970				36 term courses - Std. - Dept. Exam or Essay	
1972	ABCD	D			Commencement Programs discontinue listing of General and Dept. Honors
1974					% A Grades for General Honors: Cum Laude 40%, Magna Cum Laude 60%, Summa Cum Laude 75%
1975					% A Grades for General Honors: Cum Laude 45%, Magna Cum Laude 65%, Summa Cum Laude 80% Distinction in Major: 2/3 H or A and A in Dept. Exam or Project or Essay. Or 3/4 H or A, and B in Dept. Exam, Essay or Project.
1976	ABCD-Cr.-F	D and Cr.			

Sources. Yale Archives: Commencement Programs (1809-), Book of Averages (10 vols., 1813-1905). Also, Yale College Programs of Study (1901-), Yale University Catalogues; Mary L. Smallwood, An Historical Study of Examinations and Grading Systems in Early American Universities; Brooks M. Kelley, Yale: A History; Lyman H. Bagg, Four Years at Yale; William L. Kingsley, Yale College: A Sketch of Its History Materials assembled and organized by R. C. Carroll.

jettisoning both old systems in favor of a letter system, A+, B, C, D and F (or X), with D as the passing grade, F a redeemable failure, and X irredeemable. Then some of Yale's idealists discovered that letter grades introduced artificial dividing lines at points in the curve of performance where a great many students congregated (e.g., between B and A or B and C). Also letter grades could be added up, but they could not be averaged, and so they made endless trouble for Phi Beta Kappa, for the award of prizes, and for other comparisons. In 1943, to general relief, but again under military necessity, the 100 scale was restored. With slight modifications at the lower end of the scale it lasted until 1967, when a still broader, less discriminating scale of Honors, High Pass, Pass and Failure was instituted, in part because of strong pressures from that idealistic and emotional and anti-Vietnam generation of students. Still under pressure, in 1972 the Faculty came back to A-B-C-D but with the F now omitted from all public records. The students had become sensitive as never before to the risk of damaging their chances for later employment. They also wanted to be able to change courses, and to drop them without penalty almost up to the examinations. By 1976 the F grade was restored but courses could be taken for credit rather than for a grade. And it seems to have taken a little time before the students realized that courses counted for hour credits but without grades were also likely to handicap them in their applications to the law schools and medical schools of the country. By 1980 the Faculty would still be using letter grades but a certain restlessness on their part suggested that a return to the more flexible 100 scale might not be too far off.* Meanwhile, in parallel with the gradual swing toward permissiveness in grading, the old honors appointments had been wasting away. Dissertations, Disputes and Colloquies were no longer listed after World War I. The terms Valedictorian and Salutatorian, having lost their visual representation, had dropped out of use even before World War I, though the term Valedictorian remained a convenient oral shorthand for the highest stand man in the class. In 1961 the time-honored Orations themselves gave way to the Cum Laude system. And in 1971 Yale ceased to list even these more commonplace titles at Commencement.

Quality Credits

At intervals in the evolution of the Yale scales, as Table C-6.3 shows, grades had been qualified or stiffened by requirements in quantity, quality or distribu-

*In 1981, despite apparent undergraduate preference for the A-B-C-D system, the College Faculty did vote for a more flexible scale, but still in letters: A, A-, B+, B, B-, C+, C, C-, D+, D, D- and F. One might guess that this discriminating but unhandy compromise would before long have to be modified or replaced.

UNDERGRADUATE GRADING SYSTEMS
1902 to 1967

Yale College		Sheff and Engineering		Freshman Year	
Dates	Grading System	Dates	Grading System	Dates	Grading System
1902 to 1918	0 - 400 in units of 5. 200, passing. Term grades.	1903 to 1917	0.0 to 4.0 in tenths. 2.0, passing 1.6 - 1.9, entitled to re-exam. Term grades.		
1918 to 1927	0 - 100. 0 - 60 in units of 5. 60 - 100 in units of 1. 55, entitled to re-exam. 50, repeat course. Term grades.	1917 to 1933	Grades: A+, A, B, C+, C, D, F, X. F, entitled to re-exam. X, repeat course. Term grades until 1932. A+exceptional - 95-100 A excellent - 90-94 B very good - 80-89 C+good - 75-79 C fair - 70-74 D passable - 60-69 F failure, to be made up by examination - 50-59 X total failure-below 50	July 1920	Common Freshman Year began.
1927 to 1932	0 - 400 in units of 5. 200 passing. Term grades.			1920 to 1939	0 - 100. 0 - 90 in units of 5. 90 - 100 in units of 1. 55, entitled to re-exam. 50, repeat course. Term grades until 1932.
1932 to 1942	Year courses. 4-hr. exam in June with final grade for the year.	1932 to 1942	Year courses. 4-hr. exam in June with final grade for the year.	1932 to 1942	Year courses. 4-hr. exam in June with final grade for the year.

UNDERGRADUATE GRADING SYSTEMS
1902 to 1967

Yale College		Sheff and Engineering		Freshman Year	
Dates	Grading System	Dates	Grading System	Dates	Grading System
1932 to 1939	0 - 100. 0 - 60 in units of 5. 60 - 100 in units of 1. 55, entitled to a re-exam. 50, repeat course. Year courses until 1942.	1933 to 1943	Grades: A+, A, B, C, D, F, X. (C+ omitted) F, entitled to a re-exam. X, repeat course. Year courses until 1942.		
1939 to 1943	Grades: A+, A, B, C, D, F, X. F, entitled to a re-exam. X, repeat course. Year courses until 1942.			1939 to 1943	Grades: A+, A, B, C, D, F, X. F, entitled to a re-exam. X, repeat course. Year courses until 1942.
1942 to 1948	Term grades -- final at end of each term.	1942 to 1948	Term grades -- final at end of each term.	1942 to 1948	Term grades -- final at end of each term.
1943 to 1948	0 - 100, 0 - 90 in units of 5. 90 - 100 in units of 1. 55, entitled to a re-exam. 50, repeat course.	1943 to 1948	0 - 100, 0 - 90 in units of 5. 90 - 100 in units of 1. 55, entitled to a re-exam. 50, repeat course.	1943 to 1948	0 - 100, 0 - 90 in units of 5. 90 - 100 in units of 1. 55, entitled to a re-exam. 50, repeat course.
		July 1945	Sheff ceased to be an undergraduate school.		
1948 to 1949	Year courses. 4-hr. exam in June with final grade for the year.	1948 to 1949	Year courses. 4-hr. exam in June with final grade for the year.	1948 to 1949	Year courses. 4-hr. exam in June with final grade for the year.

UNDERGRADUATE GRADING SYSTEMS
1902 to 1957

Yale College		Sheff and Engineering		Freshman Year	
Dates	Grading System	Dates	Grading System	Dates	Grading System
1948 to 1952	0 - 100. 0 - 80 in units of 5. 80 - 100 in units of 1. 55, entitled to a re-exam. 50, repeat course.	1948 to 1952	0 - 100. 0 - 80 in units of 5. 80 - 100 in units of 1. 55, entitled to a re-exam. 50, repeat course.	1948 to 1952	0 - 100. 0 - 80 in units of 5. 80 - 100 in units of 1. 55, entitled to a re-exam. 50, repeat course.
1949 to Date [1967]	Term grades -- final at end of each term.	1949 to 1965	Term grades -- final at end of each term.	1949 to 1962	Term grades -- final at end of each term.
1952 to 1965	0 - 100. 0 - 60 in units of 5. 60 - 100 in units of 1. 55, entitled to a re-exam until July 1956. 50, repeat course.	1952 to 1965	0 - 100. 0 - 60 in units of 5. 60 - 100 in units of 1. 55, entitled to a re-exam until July 1961. 50, repeat course.	1952 to 1962	0 - 100. 0 - 60 in units of 5. 60 - 100 in units of 1. 55, entitled to a re-exam until July 1961. 50, repeat course.
1956 to Date [1967]	Re-exam not permitted for a grade of 55.	1961 to 1965	Re-exam not permitted for a grade of 55.	1961 to 1962	Re-exam not permitted for a grade of 55.
1965 to Date [1967]	40 - 100. 40 - 60 in units of 5. 60 - 100 in units of 1. 60, passing grade. 50 or below, repeat course.	July 1965	Engineering no longer on a separate grading system.	July 1962	Freshman Year no longer a separate undergraduate unit.

Source. Reproduced from March 1967 Report by Grant Robley, Registrar and Associate Dean of Yale College.

tion of time. With the coming of electives, the number of courses had to be counted. With the courses of different lengths or weekly demands, the hours had to be counted. So, after 1901, sixty term-hours had to be successfully passed, and in the succeeding years some progression in difficulty, in the shape of majors and minors, was also made mandatory.

In 1913-14 a quality credit system was superimposed, with sixty quality credits demanded for the degree. Each term, four such credits could be won for work at the level of 330 or above, three for each hour at the grade of 300 to 329, two for 260 to 299, and one for 225 to 259. After the establishment of the Common Freshman year in 1920 this system was modified so as to award one quality credit for each hour at 75 or better, and to require such credits in approximately thirty percent of an undergraduate's work. In 1939-40, with letter grades, the threshold was lowered to C (70), but sixty percent of a man's work had to be at that level or better, including three courses in his departmental major. Also, before he could graduate, he had to pass his departmental exam. Then a Senior essay was also required. Almost immediately the exigencies of wartime forced a retreat. But afterwards the exam was recovered (and eventually those departments that could best use it, such as History, reestablished the departmental essay).

In the 1950s the complaint began to be heard that the faculty were grading too easily. And the Dean's List, which had been set up in 1928-29 as an honor list for the award of free cuts to all students averaging 80 or better, now began to enroll almost one half of the entire college. Could the nature of undergraduates have changed? Rumor had it (and that rumor was later confirmed) that high marks were now a national fashion. Was it also true that the faculty were changing and that discipline was not the strong point of that generation, young or old? Whatever the explanation, in 1967 Quality Credits were abandoned, and in 1969 the Dean's Honor list followed. Yet it is interesting that the student uprisings at Yale in the late 1960s and early 1970s were conducted by or for or in the classes with the highest aptitudes or entering predictions on record (cf. B-3.7).

The suggestion seems to be that grades can be deceptive. Yet Yale's experience also seems to show that grading systems can be remarkably effective if not overdone. And expectations can be raised, but not against the mood of the nation, or beyond some point of discomfort for the faculty as well as for the students.

Note on Valedictorians

Our formal list of the highest stand students in Yale College derives originally from Lyman H. Bagg's interest in the subject, and he began in 1857. But there is considerable earlier history.

At the colonial Commencements, we are told, the yearly valedictorian had been one of the graduates who returned after three years to take his M.A. degree, and delivered a valedictory in Latin. Meanwhile, the senior classes had themselves begun to have ceremonies with speakers and a farewell speech at the time of their last examinations or Presentation Day. And under Stiles their choice of a valedictorian had to be approved by the President. In 1798, according to Cyrus Northrop's investigations, the M.A. valedictorian speaking in Latin was replaced by the Senior valedictorian speaking in English, and Latin was abandoned at Commencements except for the Latin oration by the second stand man or Salutatorian, and the Latin speech by the President. From 1798 to 1816, with no evidence of precise grades or a grading system, it is not clear how the choice of the valedictorian, originally voted by the undergraduates, was now being made, by Timothy Dwight or the faculty. But in 1817 it appears that the system of 4 was instituted, and the valedictorian was chosen on the basis of the last year of work, as demonstrated in the two Senior examinations. In that year W. B. Stillson seems to have averaged 3.15 (or equivalent of 83 on the 100 system), while there were no fewer than twenty students scoring below 2! The next year, in 1818, the valedictorian scored 3.0 as his last grade but for his valedictory stand on the four examinations of his Junior and Senior years he apparently averaged 2.83. Two years later came the exceptional Class of 1820, with its valedictorian, the future President Theodore Dwight Woolsey, scoring 3.6 on his final and 3.26 (or 85.2) over all seven of his recorded examinations. That year there were only six Seniors below 2; the failures had been dropping out en route.

By 1822 mathematical exactness was developing and grades were scored to two decimal points. In 1828 the valedictorian Horace Binney on his last examination scored 3.6, but the average of all his examination grades in course was 3.484 (the modern equivalent would be 89.7). In 1830 H. R. Winthrop scored a perfect 4 on the May examination of his Senior year and averaged 3.66 (or 93.3) on the seven examinations since entering; and the next year E. Winthrop finished with a final average of 3.69 (93.8). With the Senior Biennial added for the Class of 1851, and the Sophomore Biennial also counted after 1852, these Winthrop records would not be challenged for almost forty years.

HIGHEST STAND STUDENTS IN YALE COLLEGE

Class	B. A. Valedictorians with Highest Averages	STAND	
		Average Mark on Scale of 4 with 2 Passing	[Equivalent on Scale of 100 with 60 Passing]
1817#	William Bostwick Stillson	3.15	[83.0]
1820	Theodore Dwight Woolsey	3.26	[85.2]
1828	Horace Binney	3.484	[89.7]
1830	Henry Rogers Winthrop	3.66	[93.2]
1831	Edward Winthrop	3.69	[93.8]
1837	Joab Brace	3.59	[91.8]
1840	Joseph Few Smith	3.49	[89.8]
1852	Joel Foote Bingham	3.59	[91.8]
1857	Levi Holbrook	3.57	[91.4]
1858	Addison Van Name	3.56	[91.2]
1861	Tracy Peck Jr.	3.58	[91.6]
1867	Peter Rawson Taft	3.62	[92.4]
1868	Henry Parks Wright	3.71	[94.2]
1873	Frank Bigelow Tarbell	3.61	[92.2]
1876	Arthur Twining Hadley	361	[92.2]
1879	Lloyd Wheaton Bowers	362	[92.4]
1886	Charles Wheeler Pierson	363	[92.6]
<hr/>			
1887*	Thomas Hamlin Curtis	363	[92.6]
1891	Nathan Glicksman	362	[92.4]
1892	James Wernham Dunsford Ingersoll	370	[94.0]
1893	William Reynolds Begg	373	[94.6]
1895	George Dwight Kellog	370	[94.0]
1896	John Marshall Gaines	364	[92.8]
1897	Charles Upson Clark	362	[92.4]

In this first year the ranking was based on the average of the two Senior year examinations; the next year the Junior examinations were also counted; and by Woolsey's class the Sophomore and Freshman examinations were being recorded and counted as well. The recording of 4-year averages did not start until 1851.

* After 1886 the valedictorian and salutatorian were listed first among the Philosophical Orations but without their titles and so, apparently, without their speaking functions. The full list of appointments from Orations to Colloquies continued, with the addition under Timothy Dwight of special honors in particular subjects, and under Hadley with special year honors, and with "valedictorian" no longer used or used only orally and informally. From 1905 it was no longer possible to tell from the catalogue who had been the highest stand man or (theoretical) valedictorian in the class, and the ranking and public listing only began again (still without the title of valedictorian) when, in 1922, the Warren Memorial High Scholarship Prize began to be awarded to the highest four-year average among the candidates for the B. A. degree.

HIGHEST STAND STUDENTS IN YALE COLLEGE (cont.)

Class	B. A. Valedictorians with Highest Averages	STAND	
		Average Mark on Scale of 4 with 2 Passing or 400 with 200 Passing	[Equivalent on Scale of 100 with 60 Passing]
1902	Sidney Norton Deane	367	[93.4]
1908	Henry Hollister Jackson	368	[93.6]
1910	Robert Alphonso Taft	357	[91.4]
1913	Alexander Humphrey Beard	370	[94.0]
1914	Kenneth Deane Burrough	366	[93.2]
1915	William Benjamin Arnold	362	[92.4]
1916	Morris Hadley	362	[92.4]
1921	Raphael Bryant Malsin		93+
1924	Herbert Francis Sturdy (Ph. E.)		94.6
1927	John Herman Groesbeck Pierson†	380.6	[96.1]
1929	Hans Alexander Klagsbruun	372.0	[94.4]
1930	Saunders MacLane (Ph. B.)	389.0	[97.8]
1931	William Edwards Russell Jr.	379.0	[95.8]
1932	Rufus Spalding Day Jr.	377.0	[95.4]
1935	Stuart Pratt Atkins		94.0
1936	Robert A. Rosenbaum		94.0 (93.5)
1937	Paul Pasquariello		98.0
1938	Charles Napoleon Feidelson Jr.		94.0 (93.5)
1939	Paul Franklin Boller 2d.		94.0 (93.5)
1953	Theron Usher Jr. (B. E.)		94.85
1954	Thomas Ostrom Enders		94.0 (93.8)
1956	Edward Isaac Selig		94.0 (93.6)
1962	Timothy H. Boyer		94.0 (93.8)
1963	Gilbert Miller Struve		94.5
1965	Lewis Samuel Josephs		94.5
1966	James R. Coppeto		94.0
1968-76	? ? ?		? ? ?*

† From Pierson to Coppeto all the highest stand men here listed, except for MacLane and Usher, were B. A. winners of the Warren Memorial High Scholarship Prize. From 1926 the Chittenden Prize was awarded to the leading scholar in the Scientific School who was a candidate for the B. S. or B. E. degree, but the winning averages for that prize seem generally to have been lower than the winning averages for the Warren Prize. In 1974 the Arthur Twining Hadley Prize was instituted for the leading scholar in the Social Sciences and the Warren High Scholarship Prize was thenceforth restricted to the B. A. candidates in the Humanities, the Chittenden to candidates in the Division of the Natural Sciences and Mathematics.

* In 1968 Samuel Phillips Savage, who was a "scholar of the house" and went through in 3 years, had 93.94, and H in his Senior year project. Thereafter the use of Honors made it impossible to

HIGHEST STAND STUDENTS IN YALE COLLEGE (cont.)

grade the leading scholars precisely, but there were four individuals with all H (or, after 1972, all A) except for 1 term course: Albert G. Lauber Jr. '71, Cynthia Ann Kaufman '72, Miles Norman Ruthberg '73, Leslie Campbell Dunn '74. In 1976 Carol Frances Lee graduated with all A without exception, and "perfect records" of a like kind were achieved by Daniel L. Selden, Philip S. Leisling and Stuart A. C. Drake in 1977, and Gene J. Oshman and John E. Scher in 1980.

Meanwhile the winners of the Russell Henry Chittenden Prize for the top-ranking B.S. students (or candidates in the Natural Sciences and Mathematics) included Warren A. Tyrrell Jr. '35S with one year at 93 and 1 B, 10 A+, and the rest A; Alan Rittenberg '60 at 94; Arnold L. Folinger '68 at 93.7 for 3 years and the rest all H; and Herbert E. A. Duncan '71 and Andrew P. Buchalter '74 with all H or A except for one High Pass. In 1975 Stephen S. Jacoby graduated with all H or A; and in 1979 Harry Paul Erba added 24 As to his acceleration credits.

The all-time leading scholar for the B.E. was Theron Usher Jr. '53E in Electrical Engineering, with an average of 94.85.

Winners of the Arthur Twining Hadley Prize for the leading scholar in the Social Sciences included two transfer students, Felix Wing Hang Leung '74 and John Michael Milstein '76 (the latter with straight A for two years), and six others who earned straight A (or H) except for 1 B (or High Pass): Kenneth I. Maton '75, Jonathan Edward Alpert '77, Linda Ann Waldmann '77, Robbe Burnstine '78, Douglas Ray Peterson '79, and Daniel R. Biser '80.

Sources. "Book of Averages" (10 vol.) in Yale Archives; L. Bagg, *Four Years at Yale*; Cyrus Northrup and Appendix in W. L. Kingsley, *Yale College: A Sketch . . .*; Grade Cards for classes 1906-1924 in Yale College office vault; and Yale College Dean's lists of winners of Warren Memorial High Scholarship prize, Russell Henry Chittenden prize and Arthur Twining Hadley prize. Much of original investigation, with research also in Commencement programs, by Richard C. Carroll.

Looking now at our lists of B.A. valedictorians (C-6.6), one finds Henry Parks Wright, future Dean of Yale College, breaking all previous records with 3.71 in 1868. It would be twenty-five years or 1893 before William R. Begg would surpass that stand. In 1927, another thirty-four years later, John Pierson, who majored in English, would break the all-time record decisively with 380.6 or a little better than 96.1. In 1930 Saunders MacLane, who majored in math, would achieve an almost incredible 389 (i.e., 97.8) for his four years in college. When recommending him for Honors in Mathematics, the department reported MacLane perfect on the 400 or 100 scale or any scale the faculty might fix. Then seven years after that Paul Pasquariello, majoring in Italian,* lifted the record one notch higher to the all-time high of 98, the mark that still stands. Altogether from 1817 to 1968 only five individuals have graduated with an average higher than 95, the brightest men in most twentieth century classes reaching their ceilings just above or below 94.

Whether able scholars in the classes since 1968 have equalled or surpassed such records as here recorded, there is no way of knowing, for the reason that grades of Honors or A cover a considerable spectrum of ability and performance, and cannot be averaged.

By Inheritance?

Did scholarship tend to run in families? The probability is that it did, though the documentary evidence is too incomplete to be conclusive. In the published list of Yale Phi Beta Kappa men from 1780 to 1916 one finds quite a few repeated names, but tracing connections would be a staggering undertaking. It is hard to believe that among sixty-one Smiths there were not some fathers, sons, and perhaps grandsons in Phi Beta Kappa. With 23 Browns, 23 Williams, 22 Johnsons, 22 Clarks, 20 Strongs, 19 Adams, 17 Baldwins, 14 Dwrights, 12 Goodriches, and 10 Thachers elected to Phi Beta Kappa by 1916 (and sometimes with identical first names), again it is hard to believe that there were not a good many related members. We do know that by 1916 there had been 7 Tafts in the society (by 1959 there would be 12), starting with Alphonso 1833 and including Enos N. '51 (no relation), Charles P. '64, Peter R. '67, William H. '78, Horace D. '83, and Robert A. 1910. Out of the six closely related Tafts, Peter R. and Robert A. were also valedic-

*A tally of the B.A. majors presented by the leading scholars since the year 1937, when majors became a more important part of the course of study, seems to show that History and English each produced a half dozen Warren High Scholarship winners, followed by Economics, Mathematics and Classics with four each and the rest scattered.

torians or highest stand men in their classes, and it would be hard to match the public record of the whole lot afterwards. Again one finds that Noah Porter, valedictorian in 1803, had a son who would be President of Yale, Noah Porter, Phi Beta Kappa (but not valedictorian) in 1831. Professor Denison Olmsted, Phi Beta Kappa 1813, had a son by the same name in Phi Beta Kappa in 1844, and apparently another son in a succeeding class. The two Benjamin Sillimans, of course, were Phi Beta Kappa. So were the Professors James Dwight Dana and Edward S. Dana, and a lawyer grandson J. Dwight Dana. Tracy Peck Jr., valedictorian in 1861 and later member of the faculty, was followed by another Tracy Peck, Phi Beta Kappa 1895. We have had some trouble ascertaining the complete list of the highest stand men since 1878 (when Kingsley's list stops), but it can be certified that the valedictorians Arthur Twining Hadley 1867 and Morris Hadley 1916 were father and son, and that John Pierson, who broke the all-time high stand record in 1927, followed a father and an older brother, each a valedictorian in his day.

C-7. The Academic Calendar

THE ACADEMIC CALENDAR, 1822-1876

Academic Year	Length of Academic Exercises	Commencement	Start of Exercises	Terms	Vacations
1822-23	40 weeks	2nd Wed. in Sept.	6 weeks later	3 terms	6 weeks starting 2nd Wed. in Sept. 2 weeks starting 2nd Wed. in Jan. 4 weeks starting 1st Wed. in May
1831-32	40 weeks	3rd Wed. in August	6 weeks later	3 terms	6 weeks starting 3rd Wed. in August 2 weeks starting 1st Wed. in Jan. 4 weeks starting last Wed. in April
1844-45	40 weeks	3rd Thurs. in August	6 weeks later	1st term 14 weeks 2nd term 14 weeks 3rd term 12 weeks	6 weeks starting 3rd Wed. in August 2 weeks starting 1st Wed. in Jan. 4 weeks starting last Wed. in April
1859-60	40 weeks	last Thurs. in July	14 Sept.	1st term 14 Sept. -20 Dec. 2nd term 4 Jan. -10 April 3rd term 2 May-26 July	21 Dec. - 3 Jan. 4 April - 1 May 27 July - 2nd Wed. in Sept.
1875-76	37 weeks	Thurs. after last Wed. in June	11 weeks later: 16 September	1st term 16 Sept. -23 Dec. 2nd term 6 Jan. -6 April 3rd term 20 April-29 June	24 Dec. - 5 Jan. 7 April - 19 April 30 June - for 11 weeks
1881-82	37 weeks	last Wed. in June	11 weeks & 1 day later: 15 Sept.	2 terms: 1st term 15 Sept. -22 Dec. 2nd term 12 Jan. -28 June	Winter vacation, 23 Dec. -11 Jan. Easter recess, 8 days Summer, 11 weeks after Commencement 28 June-12 Sept.
1885-86	37 weeks	24 June	12 weeks from day after Commencement: 24 Sept.	1st term 24 Sept. -23 Dec. 2nd term 7 Jan. -30 June	Winter, 24 Dec. -6 Jan. Easter, 21-28 April Summer, 12 weeks after Commencement 30 June-22 Sept.
1889-1900	35 weeks	28 June	28 Sept.	1st term 28 Sept. -20 Dec. 2nd term 9 Jan. -27 June	Winter, 21 Dec. -8 Jan. Easter, 11-19 April Summer, Commencement 27 June-27 Sept.

Academic Year	Length of Academic Exercises*	Commencement	Start of Exercises	Terms	Vacations
1909-10	34 1/2 weeks	30 June	30 Sept.	1st term 30 Sept. -22 Dec. 2nd term 6 Jan. -20 June	Winter, 23 Dec. -5 Jan. Easter, 8 days Summer, Commencement 22 June-29 Sept.
1914-15	33 1/2 weeks	17 June	1 Oct.	1st term 1 Oct. -10 Feb. 2nd term 11 Feb. -16 June	Winter, 19 Dec. -4 Jan. Easter, 31 March-7 April Summer, Commencement 23 June-30 Sept.
1920-21	33 weeks	23 June	30 Sept.	1st term 30 Sept. -9 Feb. 2nd term 10 Feb. -15 June	Thanksgiving, Nov. 24 Winter, 17 Dec. -4 Jan. Easter, 23-31 March Summer, Commencement 22 June-29 Sept.
1936-37	32 1/2 weeks	17 June	28 Sept.	1st term 28 Sept. -23 Jan. 2nd term 25 Jan. -16 June	Thanksgiving, 26 Nov. Winter, 19 Dec. -4 Jan. Easter, 20 March-5 April Summer, Commencement 23 June-27 Sept.
1955-56	32 weeks	13 June	15 Sept.	1st term 15 Sept. -18 Jan. 2nd term 19 Jan. -30 May	Thanksgiving, 24 Nov. Winter, 17 Dec. -5 Jan. Easter, 21 March-5 April Summer, Commencement 11 June-mid Sept.
1975-76	31 1/2 weeks	19 May	2 June 4 Sept.	3 terms: Summer term (voluntary), 2 June-16 August Fall term 4 Sept. -22 Dec. Winter term, 12 Jan. -7 May	Thanksgiving, 26-30 Nov. Winter, 23 Dec. -11 Jan. Easter, 5-22 March Summer, Commencement 17 May-31 May or early September

*Vacations not counted

Source. Yale College and University Catalogues

D

FACULTY

D-1. Growth of the Faculty of Yale College

D-1 Growth of the Faculty of Yale College

Introduction: The Size and Shape of the College Faculty

In the beginning there was no faculty.

For its first six years the Collegiate School was conducted entirely by Rector Abraham Pierson, with the uncertain aid of a succession of youthful tutors. A tutor, of course, was a temporary amateur teacher, typically a recent graduate of Harvard or of the School itself, who briefly (generally only for a year or two) supervised the conduct of the students as best he could and put them through the academic exercises that he had himself just been through--after which the tutor would go on into the ministry or some other vocation. When, on Pierson's death in 1707, Samuel Andrew became non-resident Rector pro tempore, a second tutor was added to see the younger classmen through their appointed exercises in the schoolhouse in Saybrook, while the Seniors went to Rector Andrew in his parish at Milford.

On the move to New Haven in 1718 two more tutors were added; but this staff shrank back to a single tutor under the masterful new Rector, Timothy Cutler. Then Cutler was dismissed and once again the little School, now called Yale College, was conducted by two tutors, and these tutors were, as before, recent graduates who had no intention of going on with academic careers (although one did happen to be the brilliant Jonathan Edwards).

With the coming of Elisha Williams in 1726 Yale College established the colonial habit of one teaching Rector and two tutors--which enlarged to a norm of one Rector or President (Clap had the title changed) and three tutors--until finally in 1754-55 Naphtali Daggett was appointed Professor of Divinity, the first professor or professional teacher (or permanent officer in addition to the president) in Yale's long history. Did Clap and Daggett between them constitute a "faculty" in 1754-66? Or did President pro tempore Daggett and Professor Nathan Strong in 1767-77? Or did President Ezra Stiles with these two hard-driven professors constitute a faculty for the three troubled Revolutionary years 1777-1780? The argument could be made. But let us simply remark

GROWTH OF THE FACULTY: YALE COLLEGE, 1701-1865

YEAR	(Rector) PRESIDENT	PROFESSORS	ASST. PROFS.	TUTORS	INSTRUCTORS	TOTAL	OTHERS*
1701-02						1	
1702-03	Abraham Pierson (Rector)			1		2	
1703-04				1		2	
1704-05				1		2	
1705-06				1 ^a		2	
1706-07				2		2	
1707-08				2		3	
1708-09	Samuel Andrew Pro tempore			2		3	
1709-10				2		3	
1710-11				2		3	
1711-12				2		3	
1712-13				2		3	
1713-14				2		3	
1714-15				2		3	
1715-16				2		3	
1716-17				4		5	
1717-18				4		5	
1718-19				3		4	
1719-20	24 March Timothy Cullen (Rector)			1		2	
1720-21				1		2	
1721-22				1		2	
1722-23				2		2	
1723-24				2		2	
1724-25				2		2	
1725-26				2		2	
1726-27				1		2	
1727-28				1		2	
1728-29				2		3	
1729-30				2		3	
1730-31				2		3	
1731-32				2		3	
1732-33				2		3	
1733-34				2		3	
1734-35				2		3	
1735-36				2		3	
1736-37				2		3	
1737-38				2		3	

YEAR	(Rector) PRESIDENT	PROFESSORS	ASST. PROFS.	TUTORS	INSTRUCTORS	TOTAL	OTHERS*
1738-39				2		3	3
1738-40	31 Oct. Thomas Clap (Rector)			3		4	4
1740-41				2		3	3
1741-42				2		3	3
1742-43				2		3	3
1743-44				3		4	4
1744-45	{1 June '45: Title changed to President}			3		4	4
1745-46				3		4	4
1746-47				3		4	4
1747-48				3		4	4
1748-49				2		3	3
1749-50				3		4	4
1750-51				3		4	4
1751-52				3		4	4
1752-53				3		4	4
1753-54				3		4	4
1754-55				3		4	4
1755-56				3		5	5
1756-57				3		5	5
1757-58				4		6	6
1758-59				3		5	5
1759-60				3		5	5
1760-61				3		5	5
1761-62				4		6	6
1762-63				3		5	5
1763-64				3		5	5
1764-65				3		5	5
1765-66				2		5	5
1766-67	10 Sept. Naphtali Daggett pro tempore			2		5	5
1767-68				3		5	5
1768-69				3		5	5
1769-70				3		5	5
1770-71				3		5	5
1771-72				3		5	5
1772-73				3		5	5
1773-74				4		6	6
1774-75				4		6	6
1775-76				4		6	6
1776-77	25 March			4		6	6

N. Daggett

N. Strong

1777-78	Ezra Stiles	ND	NS	E. Shiles	NS	3	6
1778-79		ND	NS	ES	NS	3	6
1779-80		ND	NS	ES	NS	3	6
1780-81		ND	NS	ES	NS	3	6
1781-82				ES	NS	4	5
1782-83	S. Wales			ES	NS	4	6
1783-84	SW			ES	NS	5	7
1784-85	SW			ES	NS	4	6
1785-86	SW			ES	NS	4	6
1786-87	SW			ES	NS	4	6
1787-88	SW			ES	NS	4	6
1788-89	SW			ES	NS	4	6
1789-90	SW			ES	NS	3	5
1790-91	SW			ES	NS	3	5
1791-92	SW			ES	NS	3	5
1792-93	SW			ES	NS	3	5
1793-94				ES	NS	3	4
1794-95	12 May †		J. Melge	ES †	NS	3	5
1795-96	Timothy Dwight	T. Dwight	JM		NS	3	5
1796-97		TD	JM		NS	3	5
1797-98		TD	JM		NS	3	5
1798-99		TD	JM		NS	4	7
1799-00		TD	JM		NS	4	7
1800-01		TD	JM		NS	5	8
1801-02		TD	JM		NS	5	8
1802-03		TD	J. Day		NS	6	9
1803-04		TD	JD		NS	6	10
1804-05		TD	JD		NS	5	10
1805-06		TD	JD		NS	5	9
1806-07		TD	JD		NS	6	10
1807-08		TD	JD	J. Kingsley	BS	6	11
1808-09		TD	JD	JK	BS	6	11
1809-10		TD	JD	JK	BS	6	11
1810-11		TD	JD	JK	BS	6	11
1811-12		TD	JD	JK	BS	6	10
1812-13		TD	JD	JK	BS	7	11
1813-14		TD	JD	JK	BS	6	10
1814-15		TD	JD	JK	BS	6	10
1815-16		TD	JD	JK	BS	6	10
1816-17		TD †	JD	JK	BS	6	10
1817-18	11 Jan. †	EF	JD	JK	BS	6	10
1818-19	Jeremiah Day	EF	JD	JK	BS	6	10
1819-20		EF	JD	JK	BS	5	11
1820-21		EF	JD	JK	BS	5	11
1821-22		EF*	JK	JK	BS	6	12

E. Goodrich
EG

D. Stillman
BS

J. Kingsley
JK

C. Goodrich
CG

A. Fisher
AF †

YEAR	PRESIDENT	PROFESSORS	ASST. PROFS.	TUTORS	INSTRUCTORS	TOTAL OTHERS*
1822-23	Jeremiah Day	JK	BS	CG	7	12
1823-24	(contd)	JK	RS	CG	8	13
1824-25	M. Dutton	JK	RS	CG	8	13
1825-26	MD †	JK	RS	CG	8	13
1826-27	D. Olinsted	JK	RS	CG	7	12
1827-28	DO	JK	RS	CG	6	11
1828-29	DO	JK	RS	CG	7	12
1829-30	DO	JK	RS	CG	9	14
1830-31	DO	JK	RS	CG	8	13
1831-32	DO	JK	RS	CG	7	12
1832-33	DO	JK	RS	CG	8	13
1833-34	DO	JK	RS	CG	8	13
1834-35	DO	JK	RS	CG	8	13
1835-36	DO	JK	RS	CG	8	13
1836-37	DO	JK	RS	CG	8	13
1837-38	DO	JK	RS	CG	7	12
1838-39	DO	JK	RS	CG	7	12
1839-40	DO	JK	RS	W. Larned	7	12
1840-41	DO	JK	RS	W.L.	7	12
1841-42	DO	JK	RS	W.L.	7	12
1842-43	DO	JK	RS	W.L.	6	11
1843-44	DO	JK	RS	W.L.	6	11
1844-45	DO	JK	RS	W.L.	6	11
1845-46	DO	JK	RS	W.L.	6	11
1846-47	Theodore D. Woolsey	JK	RS	W.L.	6	11
1847-48	21 Oct.	JK	RS	W.L.	6	11
1848-49		JK	RS	W.L.	6	11
1849-50		JK	RS	W.L.	6	11
1850-51	J. Dana	JK	RS	W.L.	6	11
1851-52	JD	JK	RS	W.L.	6	11
1852-53	JD	JK	RS	W.L.	6	11
1853-54	JD	JK	RS	W.L.	6	11
1854-55	JD	JK	RS	W.L.	6	11
1855-56	JD	JK	RS	W.L.	6	11
1856-57	JD	JK	RS	W.L.	6	11
1857-58	JD	JK	RS	W.L.	6	11
1858-59	JD	JK	RS	W.L.	6	11
1859-60	JD	JK	RS	W.L.	6	11
1860-61	JD	JK	RS	W.L.	6	11
1861-62	JD	JK	RS	W.L.	6	11
1862-63	JD	JK	RS	W.L.	6	11

1863-64	T. D. Woolsey	JD	TT	WW	JH	C. Northrop	NP	1	6	4	18
1864-65	(cont'd)	JD	TT	WW	JH	CN	NP	1	5	4	19
1865-66		JD	TT	WW	JH	CN	NP	1	7	4	22
						A. Wheeler					
1871		1894	1895	1896	1879	1872	1884	1886	1892		

Includes librarians, assistant librarians, and other officers of instruction who were from other faculties in the University, if they were teaching in Yale College.

† Died in office

+ One man died in office during the school year

¶ One tutor served only part of the school year

/ Alexander Fleher served as Adjunct Professor of Mathematics and Natural History, 1817-19.

* Eleazar Fitch transferred to the Divinity School at its founding in 1822 as Professor of Homiletics. He remained Pastor of the College Church and is, from 1822 until his appointment as Emeritus Professor in 1852, listed among the "Others".

g/ Samuel Whittlesey was a substitute tutor.

h/ Benjamin Stillman, Jr. and John Pitkin Norton were appointed to professorships in Practical Chemistry and Agricultural Chemistry in 1846, but no charges were to be made against College revenues and they supported themselves by student fees. They are therefore not listed with the other teaching professorships in Yale College, but are included with the "Others" for the years they served on the faculty: Stillman, 1846-49, 1853-55; Norton, 1846-52.

Sources. Historical Register of Yale University, 1701-1937; G. W. Pierson, Yale College, 1871-1921; R. Rainton, Yale and the Ministry, 1857.

that until the coming of President Timothy Dwight the total teaching force, counting president, professional professors, and temporary amateur tutors, never exceeded six, and for most of the time stood at an unstable five.

In 1795 Timothy Dwight began in the same meager way, but added two or three tutors and a temporary instructor to achieve at the turn of the century the magnificent total of nine, at least half of whose strength lay in himself.

Then finally came the dramatic change: the successive professional appointments of Jeremiah Day in mathematics, Benjamin Silliman in the sciences, and James Luce Kingsley in Hebrew, Greek, Latin and ecclesiastical history (and as librarian). Leaving aside Elizur Goodrich, who served as (part-time) Professor of Law, 1801-10, these three formed an extremely able and durable team that would last the rest of Dwight's administration and continue through all of Jeremiah Day's as well (see D-1.1). In 1805, then, with the addition of Kingsley to Day, Silliman, (Goodrich) and President Dwight, we can recognize that Yale had finally achieved its first professional faculty with breadth of subject coverage, strength of personal character, and continuity in office: a cluster of academic statesmen, all of whom had first served their apprenticeship as tutors, and who would conduct Yale with outstanding success through the first half of its second century.

With the death of Dwight and the transfer of Jeremiah Day to the presidency in 1817, there were added to the professional faculty three more former tutors: Eleazar T. Fitch in Daggett's old Chair, the original Livingston Professorship of Divinity, Chauncey A. Goodrich as Professor of Rhetoric and Oratory, and Alexander M. Fisher as Professor of Mathematics and Natural Philosophy. This recruitment proved fortunate in Goodrich, but less so in Fitch whose temperament and qualities as a preacher soon occasioned his transfer to the more congenial new Divinity School, while the gifted Fisher on a voyage to Europe was tragically shipwrecked and drowned. In turn Fisher's successor, Reverend Matthew R. Dutton, soon died. So it was not until the appointment of Denison Olmsted in 1825 that Day secured a durable and enlarged faculty of four professors in addition to himself, and a total teaching faculty which expanded gradually from eleven to sixteen to handle the increasing student numbers.

In 1831, on the launching of the great endowment drive for \$100,000 (the Centum Millia Fund), it became possible to divide the Classics and appoint Theodore Dwight Woolsey to a new professorship of Greek. And in 1836 Anthony D. Stanley was promoted to a professorship in mathematics, allowing Olmsted to concentrate most effectively on astronomy. In 1839 Professor Goodrich

transferred to the Divinity School (though he kept a strong pastoral influence in the College), and William A. Larned replaced him in rhetoric. In 1841 E. E. Salisbury became Yale's first professor of Arabic and Sanskrit. When Day retired and Woolsey was elected President, Noah Porter was appointed Professor of Moral Philosophy and Metaphysics. In 1850 James Dwight Dana was appointed Professor of Geology, as his father-in-law Benjamin Silliman was approaching retirement. And in 1851 Thomas A. Thacher and James Hadley, who had been "assistants" to Kingsley and Woolsey, the professors of Latin and Greek, assumed their elders' professorships, as did William Dwight Whitney, just before Salisbury retired, in Sanskrit. In this way was recruited and linked together a second masterful generation of permanent officers, now numbering seven.

The years 1859-65 saw the retirement of Olmsted and Larned, the last of the hold-overs from Jeremiah Day, and their quasi-replacement by Daniel Cady Eaton in botany and Cyrus Northrup in rhetoric and English literature--then the bold addition of Edward Benton Coe in modern languages and Arthur M. Wheeler in the rising discipline of history. And so the slow growth of Yale's faculty resumed.

As is discernible at the close of the D-1.1 table, this second generation of Yale's scholar-teachers was to prove hardly less durable than the first, and would dominate the faculty well into the 1880s. First and last the College had benefited both by careful selection and by some extraordinary continuities. Thus, between the appointment of Benjamin Silliman and the retirement of James Dwight Dana stretched ninety-two years during which these two carried the responsibility for the most American of the sciences, the science of geology--to say nothing of chemistry, oceanography, and that great vehicle of the new scientific learning, "The American Journal of Science." In like fashion, first Kingsley and Woolsey, then Thacher and Hadley, like paired champions drew forward the ancient chariot of the classics and taught Greek from 1805 to 1872 and Latin from 1805 to 1886.

New Ranks

After the Civil War the Yale College faculty continued to enlarge its professoriat and its disciplinary range, until the body of professors had about doubled by the end of Porter's administration. Meanwhile the new rank of assistant professor (originally a junior assistant to a senior professor in some particular discipline, i.e., "assistant to the professor") had begun to get established. So by 1886 there were seven assistant professors to assist

GROWTH OF THE FACULTY: YALE COLLEGE, 1865-1921

YEAR	PRESIDENT	PROFS.	ASSOC. PROFS.	ASST. PROFS.	TUTORS	INSTRS.	TOTAL	OTHERS# (Below Line)
1865-66	Theodore Dwight Woolsey (contd from 1846)	10		1	7		18	2#
1866-67	↓	9		1	9		19	2#
1867-68		11			7		18	3#
1868-69		11			6		17	3#
1869-70		11			6		17	3#
1870-71	(11 October)	10			7		17	3#
1871-72	<u>Noah Porter</u>	11		2	7		20	3#
1872-73	↓	13		2	5		20	2#
1873-74		12		2	7		21	2#
1874-75		12		2	9		23	2#
1875-76		12		3	10		25	2#
1876-77		13		2	10		25	2#
1877-78		15		2	12		29	2#
1878-79		15		2	11		28	2#
1879-80		16		3	7		26	3#
1880-81		19		2	9		30	4#
1881-82		20		3	7		30	4#
1882-83		20		5	5	1	31	3#
1883-84		20		6	5		31	4#
1884-85	↓	18		6	7	1	32	4#
1885-86	(1 July)	18		7	7	1	33	5#
1886-87	<u>Timothy Dwight</u>	18		7	7	2	34	1#+11
1887-88	↓	17		6	6	4	33	1#+10
1888-89		17		5	6	5	33	1#+10
1889-90		18		6	6	6	36	1#+ 8
1890-91		20		7	5	6	38	13
1891-92		24		6	7	5	42	16
1892-93		24		8	5	8	45	14
1893-94		27		9	5	7	48	16
1894-95		28		6	5	8	47	22
1895-96	↓	29		6	8	12	55	24

YEAR	PRESIDENT	PROFS.	ASSOC. PROFS.	ASST. PROFS.	TUTORS	INSTRS.	TOTAL	OTHERS* (Below Line)
1896-97	<u>Timothy Dwight</u> (contd)	29		8	8	11	56	38
1897-98	↓	30		9	6	11	56	47
1898-99	(28 June)	35		7	9	10	61	47
1899-00	<u>Arthur Twining Hadley</u>	34		6	7	17	64	42
1900-01	↓	37		6	6	17	66	50
1901-02	↓	37		8	8	12	65	64
1902-03	↓	37		13	9	9	68	68
1903-04	↓	36		14	6	14	70	78
1904-05	↓	36		15	5	18	74	70
1905-06	↓	36		19	3	20	78	66
1906-07	↓	33		22	1	36	92*	62
1907-08	↓	37		22		33	92*	76
1908-09	↓	36		27		30	93*	71
1909-10	↓	33		30		23	86*	74
1910-11	↓	34		35		24	93*	79
1911-12	↓	31		35		30	96	77
1912-13	↓	31		39		25	95	75
1913-14	↓	34		37		29	100	73
1914-15	↓	36		32		36	104	63
1915-16	↓	36		28		37	101	69
1916-17	↓	36		36		31	103	27
1917-18	↓	33		34		28	95	12
1918-19	↓	33		30		10	73	7
1919-20	↓	31		34		27	92	20
1920-21 **	(22 June)	33	2	40		39	114	?
1921-22	<u>James Rowland Angell</u>	34	2	40		42	118	?

Sources. Historical Register of Yale University, 1701-1937; Annual catalogues.

* In the years 1865-1890 the annual catalogues listed certain individuals as "Officers of Instruction", but did not give their names as members of any departmental or school faculty. These were chiefly "Instructors" of beginning foreign languages, or rhetoric and elocution, or physical education, or music, who were available to Yale students generally, but were primarily associated with the Academic Department. Starting in 1886 the Yale College Catalogue listed as a separate category--or "Below the Line"--certain additional officers, i. e., librarians, lecturers, or professors, or other officers of instruction from other faculties in the University, if they were teaching in Yale College.

* Excluding Professor Wheeler who continued to lecture although emeritus.

** The count for 1920-21 has been obtained by combining the Yale College and the Freshman Year Faculties. After 1920-21 the Yale College Faculty was no longer listed separately.

GROWTH OF THE FACULTY: YALE COLLEGE, 1925-1963

YEAR	PRESIDENT	PROFS.	ASSOC. PROFS.	ASST. PROFS.	INSTRS.	TOTAL	OTHERS* (Below Line)
1925-26	<u>James Rowland Angell</u> (contd. from 1921)	32	10	15	23	80	1
1926-27	↓	31	12	18	29	90	
1927-28	↓	32	14	21	33	100	
1928-29	↓	35	12	29	27	103	
1929-30	↓	35	12	26	27	100	
1930-31	↓	36	11	19	31	97	
1931-32	↓	36	11	23	37	107	
1932-33	↓	35	9	22	24	90	
1933-34	↓	32	7	23	29	91	
1934-35	↓	32	9	24	32	97	
1935-36	↓	32	10	25	25	92	
1936-37	(30 June)	30	9	26	21	86	2
1937-38	<u>Charles Seymour</u>	31	10	25	20	86	
1938-39	↓	32	12	26	24	94	
1939-40	↓	34	13	29	26	102	
1940-41	↓	36	16	27	26	105	9
1941-42	↓	35	16	29	22	102	
1942-43	↓	36	17	24	24	101	10
1943-44	↓	32	19	27	21	99	13
1944-45	↓	33	20	28	17	98	13
1945-46	↓	41	39	42	34	156	34
1946-47	↓	48	42	37	53	180	69
1947-48	↓	56	44	44	60	204	45
1948-49	↓	57	40	51	78	226	66
1949-50	(30 June)	59	47	52	76	234	54
1950-51	<u>Alfred Whitney Griswold</u>	65	44	61	60	230	58
1951-52	↓	68	51	63	72	254	51
1952-53	↓	70	49	69	84	272	43

YEAR	PRESIDENT	PROFS.	ASSOC. PROFS.	ASST. PROFS.	INSTRS.	TOTAL	OTHERS* (Below Line)	
1953-54	<u>Alfred Whitney Griswold</u> (contd. from 1951)	70	50	67	103	290	43	
1954-55	↓	72	48	79	106	305	39	
1955-56		81	60	98	138	377	82	
1956-57		80	63	108	133	384	79	
1957-58		87	68	119	129	403	55	
1958-59		88	79	114	118	399	81	
1959-60		93	80	124	118	415	110	
1960-61		95	85	120	110	410	151	
1961-62		97	86	133	115	431	180	
1962-63		(19 April †)	112	101	159	72	444	252
1963-64		<u>Kingman Brewster, Jr.</u>						

* The "Others" category (last column) included: Assistants in Instruction, Acting Instructors, Lecturers, Visiting Faculty, Carnegie Teaching Fellows. The considerable increase in the number of "Others" betrays the increasing employment of graduate students; and the large jump in 1962-63 seems to be due to the fact that a large number of "Instructors" were reclassified as "Acting Instructors"---also the faculty census for that year was evidently taken at a later point in the academic winter.

† Died in office

Source. This table has been made up from annual faculty lists put together for the use of the Yale College Dean, and supplied from the files of the Dean of Yale College, through the courtesy of Katherine Hauschild, Executive Secretary to the Yale College Faculty until 1972. These annual lists must have been begun for Dean Mendell because they start in 1925-26 when Dean Jones was in his last year and on leave.

The figures are those of the faculty in September of each year; they include members of the faculty on leave, but exclude members of the Administration. ROTC Instructors are included in the categories to which they were assigned in the Hauschild-Dean's Office List. Thus, in 1925-26 Major A. V. Arnold was listed among the "Others". In 1929-30 Professor Schlesinger of the Observatory and two ROTC officers were "invited to meetings of the General Faculty", but were not listed in alphabetical order with the Professors and are not counted here (two of them would later be listed in the Historical Register, 1701-1937). Starting in 1950-51 two ROTC men were listed either as Associate Professors or as Assistant Professors. This contingent rose to 5 in 1953-54, dropped to 3 in 1954-55, rose to 7 in 1955-56, and dropped again to 5, 3, 1, 3, 3, 1, 1 in the subsequent years.

the eighteen professors and help constitute a professional corps of twenty-five--as against an ever changing company of amateur tutors who had never passed twelve in number and were now shrunk back to seven once again. In 1885-86, in a total faculty of thirty-three, more than half were professors on indefinite tenure (see table D-1.2).

Under Timothy Dwight II these professors again doubled in numbers, while the assistant professors stayed in the 6-9 range, as did also the tutors. Yet meanwhile a new class of junior professionals, below the assistant professors, had been getting established: the instructors. Like the traditional tutors they were recent graduates; but unlike most of their predecessors they were intentional scholar-teachers, many of them recent Ph.D.s beginning to climb the academic ladder. The result by 1899 was a total teaching faculty of fifty-two regulars and nine tutors (as against two regulars and five tutors a century earlier). Whereupon, under Arthur Twining Hadley, the body of professors grew not at all, but the assistant professors (some of whom had achieved the equivalent of indefinite tenure) swelled in numbers to thirty-four, and the instructors to twenty-seven--which created a faculty of ninety-two, balanced between age and youth, with the last of the amateur tutors having disappeared in 1906-07.

No doubt it would be exaggerating the contrast to call the eighteenth century the age of amateur instruction, the nineteenth the era of semi-professional teaching, and the twentieth the day of the professional scholar-teacher. Yet the emergence of a balanced faculty and of a career ladder is unmistakable. So, too, is the elimination of the amateurs and the rather rapid addition at the end of the nineteenth century of instructional resources or teaching capacities from the surrounding schools of the rising University (see the column of "others" and "below the line" in table D-1.2).

Shifting Balances

In 1920 two administrative changes occurred. On the one hand the duplicating faculties of the College and the Scientific School were to a large degree combined. On the other, the listing of members of other faculties, as a separate contingent, disappeared.

There was also a third change: the introduction of still another professional teaching rank, that of associate professor. This rank came rather late to Yale College and was used both as a stepping stone upward to the

professorship and as a final rank for those assistant professors who were devoted and indispensable teachers but were not likely to qualify for the top-most awards in scholarship. In consequence the number of professors tended to be greater than the numbers of associate professors or assistant professors separately, and through the 1920s and 1930s continued to constitute close to a third of the total college faculty. This total, thanks to the Depression, had not grown at all between 1920 and 1942 (D-1.2 and D-1.3).

After World War II came a delayed but substantial enlargement of all ranks, but especially of instructors, to meet the needs of a vastly increased student body; by 1957 the faculty had achieved a four-fold increase over the faculty of the Depression years. In that process the instructors had multiplied five times, the intermediate ranks four times, and the professors not quite three times: a definite shift toward the junior levels.

The year 1955-56, however, was to mark the high point for the instructors who--largely because of the inflation of ranks at other universities--gradually lost status and dwindled in numbers, so that by 1969 there would be fewer instructors in the Yale College faculty than there had been at any time since World War II, and hardly more than had been characteristic of the years 1906-1922.

The promotion of younger Ph.D.s (who in earlier times would have been appointed instructor) to the rank of assistant professor, in 1963 and after, swelled the corps of assistant professors to a peak by 1970, after which they too began to diminish because of the rising University deficits and the inability of the University to economize in the tenured ranks. The associate professors showed a similar expansion in 1962-63 and then a levelling off at just over a hundred until 1970. The full professors numbered more than a hundred in 1962-63, and increased substantially in the next five years, then jumped dramatically in 1968 when the professors who had hitherto been appointed in the Graduate School were assimilated into the faculty of Yale College as well. So by 1968-1973 the professors once again constituted well over a third of the total resident faculty.

Meanwhile, under the pressure of student numbers, the use of instructors from other schools and departments had surged in 1945-46, and swelled to really substantial numbers at the end of Griswold's administration and the beginning of Kingman Brewster's. One notes also the increasing use of graduate students as "acting instructors," and of lecturers who were esteemed as teachers but who were not for one reason or another positioned on the academic ladder.

TOTAL MEMBERSHIP OF THE YALE COLLEGE FACULTY, 1963-1976
at the time of the first fall meeting

RANK	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
Professors	120	142	148	166	182	290	303	306	309	309	301	297	308
Assoc. Professors	103	101	104	103	103	103	104	120	112	114	126	120	124
Asst. Professors	156	181	182	199	209	240	246	249	228	221	212	204	234
Instructors	60	61	48	43	44	39	33	31	26	31	34	32	24
Acting Instructors	56	43	49	39	33	32	41	44	34	73	62	75	36
Lecturers	56	52	49	55	70	83	80	61*	49	78	83	70	94
Senior Lecturers								4	4	4	6	6	6
Senior Lectors								7	9	8	9	10	8
Lectors								10	8	17	20	13	14
Visiting Faculty	11	8	26	15	27	30	62	54**	59**	88**	92**	111**	150**
TOTALS	562	588	606	620	668	817	869	886	838	943	945	938	996

WOMEN MEMBERS OF THE YALE COLLEGE FACULTY

at the time of the first fall meeting

Professors	1	2	2	2	2	2	3	2	2	2	2	5	6
Assoc. Professors	2	1	4	4	8	9	10	16	19	28	39	43	47
Asst. Professors	1	1	4	5	4	3	5	3	1	2	2	4	7
Instructors	3	6	5	3	4	9	10	7	9	25	20	5	8
Acting Instructors	4	2	5	3	4	14	15	8	8	25	22	23	27
Lecturers	13	14	9	14	14	24	15	8	3	3	3	2	3
Senior Lecturers								3	4	4	4	4	3
Senior Lectors								3	4	4	12	13	9
Lectors								3	6	6	22**	28**	44**
Visiting Faculty	1	1	4	4	1	1	9	9**	16**	27**	23**	28**	44**
TOTALS	24	25	26	32	32	48	52	59	69	130	133	140	169

Sources. Yale College Dean's Office Faculty Lists and the Committee on Teaching in the Residential Colleges: Report of the Appointments to the Joint Boards of Permanent Officers for academic years 1974-75; and 1975-76.

* Prior to 1970, the Lecturers category included persons bearing now the titles of Senior Lectors and Lectors.
** Within the Visiting Faculty category for 1970, 28 Visiting Lecturers, 7 of whom were women, participated in the College Seminar Program. For 1971, 38 Visiting Lecturers, 9 of whom were women, participated in the College Seminar Program. In 1972, 37 Visiting Lecturers, 13 of whom were women, participated in the College Seminar Program. In 1973, 47 individuals, mainly Visiting Lecturers, participated in the College Seminar Program, 18 of them women. In 1974, 68 Visiting Lecturers, 18 of whom were women, participated in the College Seminar Program. In 1975, 74 Visiting Lecturers, 21 of whom were women, participated in the College Seminar Program.

GROWTH OF THE FACULTY TEACHING IN YALE COLLEGE, 1901-1970

YEAR	PROFESSORS	ASSOCIATE PROFESSORS	ASSISTANT PROFESSORS	TUTORS	INSTRUCTORS	TOTAL	OTHERS
1901-02	52		12	6	27	97	11
1905-06	51		23	3	30	107	8
1910-11	51		44		29	124	7
1915-16	48		35		45	128	17
1920-21	56	2	45		27	130	7
1925-26	71	17	50		82	220	16
1930-31	71	32	58		83	244	23
1935-36	79	35	59		72	245	26
1940-41	91	41	72		64	268	24
1945-46	70	41	42		24	178	29
1950-51	103	66	80		57	306	19
1955-56	101	72	107		79	359	43
1960-61	123	105	141		80	449	58
1965-66	159	101	185		52	497	118
1970-71	207	117	197		13	534	157

Sources. Course of Study Bulletins and University Catalogues.

After 1920-21 the Yale College faculty was no longer listed separately in the University Catalogue. The figures here given enumerate all the individuals, from whatever faculty, listed in the Spring Course of Study Bulletin as giving undergraduate courses in Yale College in the stated years. The sudden jump in faculty size after 1921 reflects the development of a faculty for the Common Freshman Year, the abolition of the old "Select Course" in the Sheffield Scientific School, and the transfer of many of the Sheff faculty in the humanities and social sciences into university-wide Departments, giving courses in Yale College. Again, the doubling of the professors between 1960 and 1970 reflects the consolidation of the Graduate and Undergraduate faculties in the Arts and Sciences. The "Others" category meanwhile has grown to include Visiting Faculty, Lecturers and Senior Lecturers, Lectors and Senior Lectors, Acting Instructors, Assistants in Instruction, Research Associates, Practical Music Instructors and Military Science faculty. Excluded entirely from this table are faculty giving courses in the graduate or professional schools to which undergraduates could be admitted by special permission.

ARTS AND SCIENCES FACULTY: NUMBERS AND RANK DISTRIBUTION, 1962-1976

YEAR	PROFESSORS		ASSOC. PROFESSORS		Sr. Lectr.	ASST. PROF.	INSTR.	GRAND TOTAL	Total for Regular Faculty	Total for Tenured Faculty	Tenured Faculty as % of Reg. Fac.
	Reg.	% of Reg. Fac. Adj.	Reg.	Tenured Adj.							
1962-63	184	.32	134			176	79	573			
1963-64	204	.35	135			172	71	582			
1964-65	226	.36	143			200	61	630			
1965-66	238	.38	131	83		207	53	629	321		.51
1966-67	248	.38	132	79	2	214	51	647	645	327	.51
1967-68	261	.38	129	67	2	239	51	682	680	328	.48
1968-69	280	.40	124	72	3	253	40	701	697	352	.51
1969-70	292	.41	124	71	3	263	39	723	718	363	.51
1970-71	296	.41	136	63	4	255	34	728	721	359	.50
1971-72	297	.44	126	50	4	231	25	686	679	347	.51
1972-73	297	.45	125	46	4	209	28	667	659	343	.52
1973-74	291	.44	128	46	5	212	37	679	668	337	.50
1974-75	296	.45	119	40	6	206	32	668	656	336	.51
1975-76	301	.45	126	40	6	220	21	680	668	341	.51

Source. Graduate School Dean's Office (DWT/LB, 11/15/72; rev. 2/11/72; updated 5/77).

Note. Figures show the number of faculty members whose primary departmental appointment was in a Department, which in the year 1972-73 was counted in the Arts and Sciences. This included the Department of History of Science and Medicine. It did not include Visiting Professors, Lecturers, Lectors, Acting Instructors, Assistants in Instruction, and other graduate student and part time teachers.

Finally, one spots the rather dramatic rise of the corps of visitors who were brought in to teach on a temporary part-time basis, particularly for the residential college seminars. Our table D-1.4 also traces the slow but persistent efforts to add women members to the Yale College faculty (with Mary C. Wright having the honor of being promoted from associate professor to the first women's professorship, in Chinese history, in 1964).

Students may find the subsequent tables D-1.5, D-1.6, D-1.7 of supplementary interest: by listing the College faculty in different ways one can achieve a closer understanding of its character. Table D-1.5, for example, gives the faculty actually teaching courses in any given year. Table D-1.6 indicates the proportion of tenured to non-tenured faculty, which rose to more than 50% after 1965. And table D-1.7 emphasizes the close equivalence between the Yale College faculty of the 1970s and the whole Yale Faculty in the Arts and Sciences--always excepting the large fringe of graduate students, lecturers, and visiting faculty who were coming to constitute almost a third of the very substantial corps of men and women now instructing in Yale College. The old non-professional or semi-professional tutors had not returned--instead a small army of partially qualified juniors or quasi-strangers, whose value at the time was unmistakable but whose significance for the academic profession was yet to be determined.

This small non-faculty and part-time army is left out of the calculation showing faculty-student ratios (D-1.8). So the deterioration of those ratios since 1968-69, under the pressures of inflation and University deficits, is altogether plain. Should the irregulars be included in the faculty count, the ratios for 1968-69 and for 1975-76 would be almost identical, 1:7.6 and 1:7.7. Yet still to the discerning eye the drift away from a full-time professional teaching faculty, and so also away from departmental promotion ladders and discipline controls, would be quite unmistakable, and perhaps disturbing.

COMPARATIVE NUMERICAL VIEW OF THE ARTS
1962-63 to

RANK	1962-63		1963-64		1964-65		1965-66		1966-67		1967-68		1968-69	
	AS	YC	AS	YC	AS	YC	AS	YC	AS	YC	AS	YC	AS	YC
Professor	184	111	204	120	226	142	238	148	248	166	261	182	280	290
Adjunct														
Assoc. Professor	134	101	135	103	143	101	131	104	132	103	129	103	124	103
(with tenure)							(83)		(79)		(67)		(72)	
Adjunct														
Asst. Professor	176	160	172	156	200	181	207	182	214	199	239	209	253	240
Instructor	79	77	71	60	61	61	53	48	51	43	51	44	40	39
Acting Instructor		45		56		43		49		39		33		32
Senior Lecturer									2		2		3	
Lecturer		71		56		52		49		55		70		83
Senior Lector														
Lector														
Visiting Faculty		4		11		8		26		15		27		30
TOTAL	573	569	582	562	630	588	629	606	647	620	682	668	701	817

Sources. Yale College Dean's Office Fall Faculty Lists, Report of the Appointments to the Joint Boards of Permanent Officers for the academic years 1974-75 and 1975-76. Graduate School Dean's Office Faculty Table of 11/15/72 rev. 12/11/72, updated 5/77.

AND SCIENCES AND THE YALE COLLEGE FACULTIES
1975-76

1969-70		1970-71		1971-72		1972-73		1973-74		1974-75		1975-76		RANK
AS	YC	AS	YC	AS	YC	AS	YC	AS	YC	AS	YC	AS	YC	
292	303	296	306	297	309	297	309	291	301	296	297	301	308	Professor
1		2		2		4		4		6		6		Adjunct
124	104	136	120	126	112	125	114	128	126	119	120	126	124	Assoc. Professor
(71)		(63)		(50)		(46)		(46)		(40)		(40)		(with tenure)
1		1		1				2		3				Adjunct
263	246	255	249	231	228	209	221	212	212	206	204	220	234	Asst. Professor
39	33	34	31	25	26	28	31	37	34	32	32	21	24	Instructor
	41		44		34		73		62		75		36	Acting Instructor
	3		4		4		4		5		6		6	Senior Lecturer
	80		61		49		78		83		70		94	Lecturer
			7		9		8		9		10		6	Senior Lector
			10		8		17		20		13		14	Lector
	62		54		59		88		92		111		150	Visiting Faculty
723	869	728	886	686	838	667	943	679	945	668	938	680	996	TOTAL

FACULTY-STUDENT RATIO IN THE ARTS AND SCIENCES, 1962-1976

YEAR	TOTAL FACULTY*	NUMBER OF STUDENTS @		FACULTY-STUDENT RATIO
		Total	Undergraduate	
1962-63	573	5521	3978	1 : 9.64
1963-64	582	5786	4054	1 : 9.94
1964-65	630	5995	4093	1 : 9.52
1965-66	629	6128	4110	1 : 9.74
1966-67	647	6240	4080	1 : 9.64
1967-68	682	6162	4010	1 : 9.04
1968-69	701	6183	4001	1 : 8.82
1969-70	723	6817	4586	1 : 9.43
1970-71	728	6669	4728	1 : 9.16
1971-72	686	6609	4739	1 : 9.63
1972-73	667	6890	4896	1 : 10.33
1973-74	679	6728	4758	1 : 9.91
1974-75	668	7349	5427	1 : 11.00
1975-76	680	7672	5745	1 : 11.28

Source. Graduate School Dean's Office (DWT/L.B, 11/15/72; rev. 12/11/72; updated 5/77).

* Total regular faculty, including Adjunct Professors and Associate Professors, and also Senior Lecturers, but excluding such annual appointments as Visiting Professors, Lecturers, Lectors, Acting Instructors, Assistants in Instruction, and other graduate student and part time teachers.

@ Excludes special students. The discrepancy between these student figures and the figures in the tables of Enrollment (A-1.8) is apparently accounted for by the fact that the Graduate School registration figures were taken at an early moment in the year and did not include non-registered candidates for degrees. The undergraduate totals include summer-term totals of 419 in 1974-75 and 607 for 1975-76.

D-2. Prior Education of the Faculty

D-2 Prior Education of the Faculty

Introduction: The Breeding of a College Faculty

In earlier simpler days the faculty of Yale College was a close family of distinct, rather powerful, and sometimes colorful characters who had learned their vocation of teaching by first suffering and then practicing that art right on the spot, in New Haven and at Yale. Indeed both Harvard and Yale had had to learn to grow their own faculties if they wished to survive: there had been no other supplies of talent, and of course no training schools for teachers.

After the Civil War, and particularly with Yale's development into a university, certain things changed. In a hundred years the teachers at Yale College experienced an enormous expansion in numbers, an unprecedented diversification of origins, and a marked deepening of professional preparation--as witness the tables on "Yale College Faculty Breeding".

The first table (D-2.1) helps to define the stages in this classic transformation. Here one can watch the regular academic force growing by intervals from a group of eighteen, all graduates of Yale College and only two with any additional earned degree, into an academic army of almost five hundred, of whom sixty percent had had no prior connection with Yale College or with any other part of the University. In this table one can discover how, first of all, advanced Yale degrees began to be added to Yale B.A.s (or other undergraduate degrees): a practice fully developed by the turn of the century. By 1950 there would be more holders of advanced degrees from Yale than holders of undergraduate degrees, and by 1965 this disproportion would reach 11:7.

By contrast, teachers with no Yale degrees had existed only on the margins of Yale College in the Civil War, and they entered the regular faculty in any numbers only in the twentieth century. The great invasion then came after World War II, with the spectacular result that by 1965 there would be 224 regular instructors with no Yale degrees as against only 87 Yale Bachelors (69 B.A.s and 18 others). The student of higher education will also find it

interesting to pursue some of the related lines of change, as signalled by the figures for multiple degrees or for foreign degrees or for mixtures of prior training.

The next three tables (D-2.2, D-2.3 and D-2.4) undertake to analyze the faculties by ranks as well as by degrees, in 1940 and 1957 and 1965; and the changes in the brief span of twenty-five years between the eve of World War II and the decade of student unrest are nothing less than dramatic. As we know, certain trends had already started. Already among the young instructors of 1940, who had been trained at Yale, as many held graduate degrees only as had attended Yale College for the B.A. In 1940 all the other ranks still owed more to Yale College than to the Yale Graduate or Professional Schools. But by 1957 only at the professorial (i.e., oldest) level did more than half of the faculty holding Yale degrees hold undergraduate degrees from Yale. One notes also that by 1957, in the faculty as a whole, more individuals held no Yale degrees than held degrees of any sort earned here. The absence of any prior Yale connections among the majority of the lecturers and visiting professors and acting instructors is likewise worth noting.

By 1965 (D-2.4) these fundamental changes had come to dominate at all levels and in all categories, save only for the dying rank of instructor where the faculty with Yale degrees still slightly outnumbered the faculty without.

In an effort to find out where the new-style faculty began and later continued to come from, two tabulations by institution were made, with the results shown in D-2.5 and D-2.6 on the U.S. education of the Yale College faculty, by ranks and institutions. The first of these tables, analyzing the prior education of the faculty in 1940-41, reflects the decline of the old system, the beginning of a new. Here one sees that the home-trained staff still controlled: one half or more of all the degrees held by that faculty (140 out of 261) had been awarded by Yale, and 80 out of the total teaching body of 114 had been at least partially educated at Yale. By contrast, and at a great remove, 11 faculty members had earned 21 degrees from Harvard (of which only 3 were A.B.s from Harvard College). Also prophetically, there were another eleven individuals with experience at Princeton or Columbia. Thirteen "Other Major Universities" had been responsible for 49 degrees awarded to 30 individuals. And the faculty of 1940-41 had absorbed also a scattering of scholars from smaller colleges and lesser universities in New England and across the country.

Twenty-five years later, in 1965-66, the Yale College faculty had been drawn at all levels more from Harvard than from any other institution except

YALE COLLEGE FACULTY BREEDING BY DEGREES, 1865-66 to 1965-66

YEAR	Faculty Considered ¹		Faculty With Yale Degrees										Faculty Without Yale Degrees				
	TOTAL	REGULAR (ACAD.) "OTHERS" (Below the line)	TOTAL	B.A.	Ph.D., Mus.B., B.S., B.F.A., B.E.	Advanced Degree Only	Two Yale Degrees	Three Yale Degrees	Yale & US Degrees	Yale & Foreign Degrees	Yale, US & Foreign Deg.	Yale Degree(s) Only	TOTAL	US Degree(s) Only	Foreign Deg. Only	US & Foreign Degrees Only	No Deg. Listed
1865-66	20	18	19	19	-	-	16	2	-	-	-	19	1	-	-	-	-
			1	1	-	-	-	-	-	-	-	1	1	-	-	-	-
1875-76	27	25	25	24	-	1	15	1	-	-	-	25	2	-	-	-	-
			1	1	-	-	-	-	-	-	-	1	1	-	-	-	-
1886-87	46	34	36	27	2	2	20	4	5	-	-	31	10	-	-	-	-
			12	26	1	-	16	4	2	-	-	25	7	-	-	-	-
1899-00	106	64	80	29	6	2	4	-	3	-	-	6	3	-	-	-	-
			42	61	7	12	43	7	13	5	2	59	27	14	3	4	6
1914-15	167	104	111	51	4	8	28	4	10	4	1	36	13	9	1	3	-
			63	29	19	5#	4	15	3	3	1	23	14	5	2	1	6
			66	72	15	28	64	20	29	7	2	73	56	37	5	8	6
			104	66	46	-	20	41	13	20	6	39	38	28	4	5	1
			97	45	26	11###	8	23	7	9	1	34	18	9	1	3	5
1930-31		@	56	36	3	17	37	6	23	2	1	30	41	26	7	8	-

1937-38	86	55	34	3	18	36	8	21	1	-	33	31	21	6	4	-
	288	148	66	9	75	72	17	73	10	-	65	140	105	22	11	1
1950-51	230	118	55	64#	57	64	17	58	8	-	52	112	83	17	10	1
		30	11	1	18	8	-	15	2	-	13	28	22	5	1	-
	458	215	86	11	118	119	29	113	19	6	77	243	185	36	20	2
1957-58	403	194	79	10	105	114	29	98	19	5	72	209	164	29	15	1
		21	7	1	13	5	-	15	-	1	5	34	21	7	5	1
	612	234	80	19	135	138	34	131	20	9	74	378	263	64	45	6
1965-66	496	195	69	18	108	125	30	109	14	8	64	301	224	35	42	-
		39	11	1	27	13	4	22	6	1	10	77	39	29	3	6

Sources. List of faculty names taken from the catalogues for 1865-66 to 1914-15, and from the Hauschild (Y. C. Dean's Office) Lists for 1930-31 to 1965-66; Historical Register of Yale University, 1701-1937; 1937-1951; 1951-1968.

* For the years 1865-66 to 1914-15 "Faculty Considered" includes both the Yale College Faculty and "Others"-i. e., individuals listed in the catalogues as officers of instruction, available to Yale students generally but primarily associated with the Academical Department. Starting in 1886-87, "Others" came to include certain additional officers, classified as "Below the Line"-i. e., professors, lecturers, visiting faculty, librarians and other officers of instruction from other faculties in the University, if they were teaching in Yale College.

Since the Yale College Faculty was no longer listed separately after 1920-21, the "Faculty Considered" for the years 1930-31 to 1965-66 consists of the General Teaching Faculty of Yale College (as listed for the Y. C. Dean's Office by K. Hauschild). These Hauschild Lists, which started in 1925-26, did not include a count for "Others" (except in 1936-37 and 1940-41) until 1942-43.

Officers of the administration are counted only when they also hold faculty appointments in Yale College. Thus, Noah Porter, President from 1871 to 1886, is counted with the Professors until 1892. Charles Seymour, Edgar Furniss and Charles Taylor, who as Provosts also held faculty appointments in Yale College, are counted with the Professors for the appropriate years.

Franklin Dexter, Registrar of Yale College from 1869 to 1892, is not included in the count for 1875-76, but is counted with the Professors in 1886-87.

One member of the faculty held both the B. A. and the Mus. B.

@ No count available for "Other" faculty.

YALE COLLEGE FACULTY BREEDING: BY RANKS AND DEGREES, 1940-1941

RANK	NO.	Faculty With Yale Degrees										Faculty Without Yale Degrees			
		TOTAL	B.A.	Ph. B., Mus. B., B.S., B.F.A.	Advanced Deg. Only	Two or More Yale Degrees	Three or More Yale Degrees	Yale & U.S. Degrees	Yale & Foreign Degrees	Yale, U.S. & Foreign Degrees	Yale Degrees(s) Only	TOTAL	U.S. Degree(s) Only	Foreign Deg. Only	U.S. & Foreign Degrees
Professor	36	23	13	1	9	15	4	13	-	-	10	13	7	3	3
Associate Professor	16	10	6	-	4	7	2	5	-	-	5	6	4	2	-
Assistant Professor	27	20	13	3	4	15	1	4	-	2	14	7	6	1	-
Instructor	26	19	9	1	9	10	2	9	-	-	10	7	7	-	-
REGULAR FACULTY	105	72	41	5	26	47	9	31	-	2	39	33	24	6	3
Assistants in Instruction	7	7	3	-	4	3	-	4	1	-	2	-	-	-	-
Research Assistant	1	-	-	-	-	-	-	-	-	-	-	1	1	-	-
Research Associate	1	1	-	1	-	1	-	1	-	-	-	-	-	-	-
"OTHER" FACULTY	9	8	3	1	4	4	-	5	1	-	2	1	1	-	-
GRAND TOTAL	114	80	44	6	30	51	9	36	1	2	41	34	25	6	3

Source. List of faculty names from Hauschild (Y. C. Dean's Office) List; Historical Register of Yale University, 1937-1951

YALE COLLEGE FACULTY BREEDING: BY RANKS AND DEGREES, 1957-1958

RANK	NO.	Faculty With Yale Degrees											Faculty Without Yale Degrees			
		TOTAL	B.A.	Ph. B., Mus. B., B.S., B.F.A.	Advanced Deg. Only	Two Yale Degrees	Three Yale Degrees	Yale & U.S. Degrees	Yale & Foreign Degrees	Yale, U.S. & Foreign Deg.	Yale Degrees Only	U.S. Degree(s) Only	Foreign Deg. Only	U.S. & Foreign Degrees	No. Deg. Listed	
Professor	87	40	23	1	16	25	6	14	2	1	23	29	11	7	-	
Associate Professor	68	38	17	4	17	24	5	15	6	-	17	29	1	-	-	
Assistant Professor	119	58	16	5	37	33	9	36	5	1	16	55	3	3	-	
Instructor	129	58	23	-	35	32	9	33	6	3	16	51	14	5	1	
REGULAR FACULTY	403	194	79	10	105	114	29	98	19	5	72	164	29	15	1	
Lecturer & Visiting Professor	20	5	3	1	1	1	-	4	-	-	1	8	5	2	-	
Acting Instructor	35	16	4	-	12	4	-	11	-	1	4	13	2	3	1	
"OTHER" FACULTY	55	21	7	1	13	5	-	15	-	1	5	21	7	5	1	
GRAND TOTAL	458	215	86	11	118	119	29	113	19	6	77	185	36	20	2	

Sources. List of faculty names from Hauschild (V.C. Dean's Office) List; Historical Register of Yale University, 1951-1968

YALE COLLEGE FACULTY BREEDING: BY RANKS AND DEGREES, 1955-1966

RANK	NO.	Faculty With Yale Degrees										Faculty Without Yale Degrees				
		TOTAL	B.A.	Ph.B., Mus. B., B.S., B.F.A., B.E.	Advanced Deg. Only	Two Yale Degrees	Three Yale Degrees	Yale & U.S. Degrees	Yale & Foreign Degrees	Yale, U.S. & Foreign Deg.	Yale Degrees(s) Only	TOTAL	U.S. Degree(s) Only	Foreign Deg. Only	U.S. & Foreign Degrees	No Deg. Listed
Professor	159	59	26	3	30	32	10	30	2	1	26	73	16	11	-	
Associate Professor	102	46	16	9	21	36	8	19	1	2	24	44	5	7	-	
Assistant Professor	185	63	22	5	36	39	9	41	7	4	11	91	10	21	-	
Instructor	50	27	5	1	21	18	3	19	4	1	3	16	4	3	-	
REGULAR FACULTY	496	195	69	18	108	125	30	109	14	8	64	224	35	42	-	
Lecturer	50	15	6	1	8	8	4	6	4	-	5	13	14	2	6	
Visiting Lecturer & Professor	20	3	-	-	3	1	-	2	-	1	-	5	12	-	-	
Acting Instructor	46	21	5	-	16	4	-	14	2	-	5	21	3	1	-	
"OTHER" FACULTY	116	39	11	1	27	13	4	22	6	1	10	39	29	3	6	
GRAND TOTAL	612	234	80	19	135	138	34	131	20	9	74	378	64	45	6	

Sources. List of faculty names from Hauschild (Y.C. Dean's Office) List; Historical Register of Yale University, 1951-1968

Yale. At the same time there was a strong group of major feeder institutions: universities which had had a hand in awarding almost 400 degrees to members of the instructional staff. Distinctly below this group, yet each now making substantial contributions, were fifteen other major universities; and one counts no fewer than 245 individuals who had come from still other colleges, universities and professional schools to teach at Yale.

Analyzing the major feeders, as of 1965-66, one finds that, while Harvard had been a strong contributor at all ranks and age levels, California (Berkeley) had done best at the top level and the junior level of assistant professor, Chicago best at the top level, and Princeton best at the middle and younger levels--which figures may hint at changes through time in the production of ability at these several universities.

In a further effort to identify the various combinations of prior training in the Yale faculty, the sub-table D-2.7 was constructed. This shows that, counting all ranks, the largest group was that of scholars who had come from "Other Colleges and Universities," though only 30 had received their whole training in these smaller institutional producers. Of the total 245, about one third also had a Yale graduate or undergraduate connection, another third had connections also with Yale's major feeders, and about a fifth had had some experience of the fifteen "Other Major Universities," from M.I.T. to the University of Oregon.

Taken together this set of tables demonstrates beyond argument that the modern Yale College faculty has had an infinitely greater range of institutional experience and depth of professional preparation. The days of paternal instruction, from professors familiar from youth with the Yale scene, are gone forever. What the new order will mean for the "Government of the Faculty," and for the old sense of community, continuity and loyalty to the institution, it is too soon to say. And as to whether Yale's professors today are any abler than the old home-bred stalwarts of 1860-1900, that is still a different question.

YALE COLLEGE FACULTY BREEDING:
By Ranks and Institutions

NO. IN FACULTY	INSTITUTION	TOTAL				PROFESSORS				ASSOCIATE PROFESSORS			
		Tot.	UG	G*	PhD	Tot.	UG	G*	PhD	Tot.	UG	G*	PhD
114	Total No. of Fac. Members					36	No. in Rank			16	No. in Rank		
	79: Faculty with Yale Degs.					22	with Yale Degs.			10	with Yale Degs.		
	27: Fac. with U.S. (No Yale) Degs.					9	with U.S. Degs.			4	with U.S. Degs.		
<u>MAJOR FEEDERS:</u>													
80	Yale	140	50	90	73	42	14	28	21	19	6	13	10
11	Harvard	21	3	18	9	11	3	8	4	2	-	2	1
6	Princeton	11	5	6	3	5	2	3	2	4	1	3	1
5	Columbia	8	2	6	2	5	2	3	1	-	-	-	-
85 ^{a/}	TOTAL	180	60	120	87	63	21	42	28	25	7	18	12
<u>OTHER MAJOR UNIVERSITIES:</u>													
4	California	7	2	5	4	4	1	3	2	-	-	-	-
4	Cornell	6	3	3	-	-	-	-	-	-	-	-	-
4	Stanford	4	2	2	1	-	-	-	-	1	1	-	-
3	Missouri	4	3	1	-	2	1	1	-	-	-	-	-
3	Northwestern	4	3	1	-	1	1	-	-	-	-	-	-
2	Chicago	5	2	3	2	-	-	-	-	5	2	3	2
2	Wisconsin	4	1	3	1	-	-	-	-	-	-	-	-
2	Duke	3	1	2	-	-	-	-	-	2	1	1	-
2	Michigan	3	2	1	-	1	1	-	-	-	-	-	-
1	Minnesota	3	1	2	1	3	1	2	1	-	-	-	-
2	Amherst	2	2	-	-	-	-	-	-	1	1	-	-
2	Dartmouth	2	2	-	-	-	-	-	-	-	-	-	-
2	Williams	2	2	-	-	1	1	-	-	1	1	-	-
30 ^{b/}	TOTAL	49	26	23	9	12	6	6	3	10	6	4	2
24 ^{c/}	OTHER COLLEGES, UNIVERSITIES, AND PROFESSIONAL SCHOOLS	32	21	11	3	10	6	4	-	3	2	1	-
114 ^{d/}	GRAND TOTALS	261	107	154	99	85	33	52	31	38	15	23	14

Sources. Historical Register of Yale University, 1937-1951, and the Hauschild list (Yale College Dean's Office).

* Total of all graduate degrees including Ph. D. 's.

^{a/} seven faculty members held degrees from two "Major Feeders," and sixteen from "Other Major Universities."

^{b/} three faculty members held degrees from two "Other Major Universities."

THE U.S. EDUCATION OF YALE COLLEGE FACULTY
1940-1941

ASSISTANT PROFESSORS				INSTRUCTORS				OTHERS				INSTITUTION
27: No. in Rank				26: No. in Rank				9: No. in Rank				
20: with Yale Degr.				19: with Yale Degr.				8: with Yale Degr.				
6: with U.S. Degr.				7: with U.S. Degr.				1: with U.S. Degr.				
Degrees				Degrees				Degrees				
Tot.	UG	G*	PhD	Tot.	UG	G*	PhD	Tot.	UG	G*	PhD	
36	16		19	31	10	21	18	12	4	8	5	<u>MAJOR FEEDERS:</u>
7	-	7	4	-	-	-	-	1	-	1	-	Yale
-	-	-	-	2	2	-	-	-	-	-	-	Harvard
1	-	1	1	2	-	2	-	-	-	-	-	Princeton
												Columbia
44	16	28	24	35	12	23	18	13	4	9	5	TOTAL
												<u>OTHER MAJOR UNIVERSITIES:</u>
-	-	-	-	3	1	2	2	-	-	-	-	California
5	3	2	-	1	-	1	-	-	-	-	-	Cornell
1	1	-	-	2	-	2	1	-	-	-	-	Stanford
-	-	-	-	1	1	-	-	1	1	-	-	Missouri
3	2	1	-	-	-	-	-	-	-	-	-	Northwestern
-	-	-	-	-	-	-	-	-	-	-	-	Chicago
2	-	2	1	2	1	1	-	-	-	-	-	Wisconsin
1	-	1	-	-	-	-	-	-	-	-	-	Duke
-	-	-	-	2	1	1	-	-	-	-	-	Michigan
-	-	-	-	-	-	-	-	-	-	-	-	Minnesota
-	-	-	-	1	1	-	-	-	-	-	-	Amherst
1	1	-	-	1	1	-	-	-	-	-	-	Dartmouth
-	-	-	-	-	-	-	-	-	-	-	-	Williams
13	7	6	1	13	6	7	3	1	1	-	-	TOTAL
4	3	1	-	9	7	2	2	6	3	3	1	<u>OTHER COLLEGES, UNIVERSITIES, AND PROFESSIONAL SCHOOLS</u>
61	26	35	25	57	25	32	23	20	8	12	6	GRAND TOTALS

c/ Includes all members of the faculty with degrees from "Other Colleges, Universities and Professional Schools," with or without degrees from the "Major Feeders" and "Other Major Universities."

d/ Of the total faculty, six had been educated entirely, and four partially, abroad.

YALE COLLEGE FACULTY BREEDING:
By Ranks and Institutions

NO. IN FACULTY	INSTITUTION	PROFESSORS				ASSOCIATE PROFESSORS							
		Tot.	UG	G*	PhD	Tot.	UG	G*	PhD				
612:	Total No. of Faculty Members					159: No. in Rank							
234:	Faculty with Yale Degrees					59: with Yale Degs.							
308:	Faculty with U. S. (No Yale) Degrees					84: with U. S. Degs.							
102:	No. in Rank					46: with Yale Degs.							
51:	with U. S. Degs.					51: with U. S. Degs.							
No of Indivs.	INSTITUTION	Degrees				Degrees				Degrees			
		Tot.	UG	G*	PhD	Tot.	UG	G*	PhD	Tot.	UG	G*	PhD
MAJOR FEEDERS:													
90	Harvard	157	38	119	65	63	13	50	28	32	6	26	15
46	U. of California	65	18	47	30	20	9	11	6	4	2	2	1
40	Columbia	61	14	47	22	23	6	17	9	15	4	11	4
34	U. of Chicago	60	17	43	21	25	8	17	10	10	4	6	4
37	Princeton	54	11	43	28	7	2	5	4	17	4	13	7
220	^{a/} ^{c/} TOTAL	397	98	299	166	138	38	100	57	78	20	58	31
OTHER MAJOR UNIVERSITIES:													
20	Mass. Inst. of Tech.	24	8	16	13	8	5	3	2	2	-	2	2
16	U. of Michigan	24	4	20	11	3	-	3	2	5	1	4	1
19	Cornell	23	12	11	8	5	3	2	1	4	3	1	1
13	Stanford	19	6	13	8	2	2	-	-	5	2	3	2
12	Northwestern	19	5	14	6	2	1	1	-	1	-	1	-
11	U. of Illinois	18	2	16	8	7	2	5	2	6	-	6	3
11	U. of Wisconsin	17	3	14	8	6	1	5	4	2	1	1	-
11	U. of Washington	14	6	8	5	5	4	1	-	2	1	1	-
9	U. of Kansas	13	8	5	-	5	2	3	-	4	3	1	-
7	State U. of Iowa	11	3	8	4	3	-	3	2	6	2	4	2
6	U. of Colorado	11	6	5	1	3	2	1	1	2	1	1	-
9	Brown	11	5	6	4	1	-	1	-	5	2	3	2
8	Ohio State U.	10	1	9	5	1	-	1	1	2	-	2	-
8	U. of Rochester	10	3	7	4	3	1	2	1	1	1	-	-
7	U. of Oregon	10	6	4	1	1	-	1	-	-	-	-	-
146	^{b/} ^{c/} TOTAL	234	78	156	86	55	23	32	16	47	17	30	13
245	^{d/} OTHER COLLEGES, UNIVERSITIES, AND PROFESSIONAL SCHOOLS	322	219	103	29	79	46	33	8	42	29	13	6
GRAND TOTALS		953	395	558	281	272	107	165	81	167	66	101	50

^a Total of all graduate degrees including Ph. D. s

^{a/} 27 faculty members had degrees from two "Major Feeders"

^{b/} 21 faculty members had degrees from two "Other Major Universities"

^{c/} 34 faculty members had degrees from both a "Major Feeder" and some "Other Major University"

THE U.S. EDUCATION OF YALE COLLEGE FACULTY
1965-1966

ASSISTANT PROFESSORS				INSTRUCTORS				OTHERS ^{g/}				INSTITUTION
185: No. in Rank 63: with Yale Degs. 112: with U.S. Degs.				50: No. in Rank 27: with Yale Degs. 19: with U.S. Degs.				116: No. in Rank 39: with Yale Degs. 42: with U.S. Degs.				
Degrees				Degrees				Degrees				
Tot.	UG	G*	PhD	Tot.	UG	G*	PhD	Tot.	UG	G*	PhD	
												MAJOR FEEDERS:
47	13	34	18	7	2	5	2	8	4	4	2	Harvard
32	5	27	20	5	2	3	2	4	-	4	1	U. of California
18	3	15	8	3	-	3	1	2	1	1	-	Columbia
14	2	12	5	6	1	5	2	5	2	3	-	U. of Chicago
22	3	19	13	4	1	3	2	4	1	3	2	Princeton
133	26	107	64	25	6	19	9	23	8	15	5	TOTAL
												OTHER MAJOR UNIVERSITIES:
14	3	11	9	-	-	-	-	-	-	-	-	Mass. Inst. of Tech.
12	3	9	6	1	-	1	1	3	-	3	1	U. of Michigan
7	3	4	2	3	1	2	2	4	2	2	2	Cornell
12	2	10	6	-	-	-	-	-	-	-	-	Stanford
15	4	11	5	-	-	-	-	1	-	1	1	Northwestern
4	-	4	2	1	-	1	1	-	-	-	-	U. of Illinois
6	-	6	3	2	-	2	1	1	1	-	-	U. of Wisconsin
5	1	4	3	2	-	2	2	-	-	-	-	U. of Washington
2	1	1	-	-	-	-	-	2	2	-	-	U. of Kansas
1	-	1	-	-	-	-	-	1	1	-	-	State U. of Iowa
5	2	3	-	1	1	-	-	-	-	-	-	U. of Colorado
3	1	2	2	1	1	-	-	1	1	-	-	Brown
6	1	5	3	-	-	-	-	1	-	1	1	Ohio State U.
3	1	2	1	1	-	1	1	2	-	2	1	U. of Rochester
3	3	-	-	3	1	2	1	3	2	1	-	U. of Oregon
98	25	73	42	15	4	11	9	19	9	10	6	TOTAL
110	74	36	13	31	24	7	1	60	46	14	1	OTHER COLLEGES, UNIVERSITIES, AND PROFESSIONAL SCHOOLS
341	125	216	119	71	34	37	19	102	63	39	12	GRAND TOTALS

^{d/} Includes all members of the faculty with degrees from "Other Colleges, Universities and Professional Schools", with or without degrees from Yale, a Major Feeder, an Other Major University, or a foreign institution. For breakdown of this category (OCUPS) see sub-table following.

^{g/} Includes Lecturer, Visiting Faculty, and Acting Instructors

Sources: Historical Register of Yale University, 1951-1968, and the Hauschild (Y.C. Dean's Office) List, 1965-66.

SUBTABLE ON THE U.S. EDUCATION

RANK (and NO.) in YALE FACULTY	OCUPS ^{1/}	OCUPS Only	OCUPS + YALE	OCUPS + YALE & OMU ^{2/}	OCUPS + YALE & F.I. ^{3/}
Professor (159)	54	5	14	3	-
Associate Professor (102)	33	6	8	-	2
Assistant Professor (185)	84	5	20	1	1
Instructor (50)	27	-	15	-	1
Acting Instructor (46)	27	10	11	-	-
Lecturer (50)	16	3	4	-	-
Visiting Faculty (20)	4	1	1	-	-
TOTAL: 612 *	245	30	73	4	4

^{1/} "Other Colleges, Universities and Professional Schools" as the third category in the U.S. education of Yale College faculty includes: American Institute of Foreign Trade, Amherst College, Antioch College, Baker U., U. of Birmingham, Boston College, Boston U., Bowdoin College, Brandeis U., Polytechnic Institute of Brooklyn, U. of Buffalo, California Institute of Technology, Calvin College, Carleton College, Carnegie Institute of Technology, Case Institute of Technology, Claremont Graduate School and University Center, Claremont Men's College, Clark U., Clemson U., Colgate U., Concordia Theological Seminary, U. of Connecticut, Dakota Wesleyan U., Dartmouth College, Davidson College, DePaul U., U. of Delaware, U. of Detroit, U. of Dubuque, Duke U., Earlham College, Emory U., Fairfield U., Fairleigh Dickinson U., U. of Florida, Fordham U., Fresno State College, Garrett Theological Seminary, Georgetown U., George Washington U., Georgia Institute of Technology, U. of Georgia, Guilford College, Hamilton College, Haverford College, U. of Hawaii, College of the Holy Cross, Illinois Wesleyan U., Indiana Central College, U. of Indiana, Jewish Theological Seminary, Johns Hopkins U., Kalamazoo College, Knox College, LaSalle U., Lafayette College, Lehigh U., Lincoln Memorial U., Louisiana Polytechnic Institute, Louisiana State U., Loyola U., U. of Maine, Manhattan College, Manhattanville College, Mary Baldwin College, U. of Maryland, Maryville College, U. of Massachusetts, U. of Miami, Michigan State U., Middlebury College, Midland Lutheran College, Millsaps College, U. of Minnesota, U. of Missouri, Mount Holyoke College, U. of Nebraska, Nebraska Wesleyan U., U. of New Hampshire, U. of New Mexico, City U. of New York, State U. of New York, New York U., North Carolina College, U. of North Carolina, North Texas State U., Northwestern College (Wisconsin), Notre Dame U., Oberlin College, U. of Oklahoma, Park College, U. of Pennsylvania, Pomona State College, Pratt Institute, Princeton Theological Seminary, Principia College, Purdue U., Radcliffe College, U. of the Redlands, Reed College, Rensselaer Polytechnic Institute, Rice U., Rutgers--The State U., St. John's Seminary (Mass.), St. Louis U., St. Olaf College, U. of Seattle, Simmons College, Smith College, U. of South Carolina, U. of South Dakota,

OF YALE COLLEGE FACULTY, 1965-1966

OCUPS - MF <u>4/</u>	OCUPS + MF & OMU	OCUPS + MF & F.I.	OCUPS + OMU	OCUPS - OMU & F.I.	OCUPS+ F.I.
22	2	1	6	-	1
10	1	2	3	1	-
29	1	1	19	3	4
4	1	1	4	-	1
4	-	-	1	-	1
2	-	-	5	-	2
1	-	-	1	-	-
72	5	5	39	4	9

U. of Southern California, Southern Methodist U., Stetson U., Swarthmore College, U. of Syracuse, U. of Tennessee, U. of Texas, Tulane U., Union College and University, Union Theological Seminary (Virginia and New York City), U. of Utah, Valparaiso U., Vanderbilt U., Vassar College, Virginia Polytechnic Institute, U. of Virginia, Washington and Lee U., Washington and Jefferson College, Wayne State U., Wellesley College, Wesleyan U., Western Reserve U., Wheaton College (Illinois), Williams College, Worcester Polytechnic Institute, U. of Wyoming.

2/ "Other Major Universities"

3/ "Foreign Institution"

4/ "Major Feeder"

* 64 faculty members had degrees from Foreign Institutions only;
5 faculty members had no degrees listed.

Sources. Historical Register of Yale University, 1951-1968; faculty names from Hauschild (Y. C. Dean's Office) List, 1965-66.

D-3. Ranks and Tenures of the
Changing Faculty

D-3 Ranks and Tenures of the Changing Faculty

Introduction: Retrospect on the Promotion Ladder

The cold print of our series of tables on the promotion ladder in Yale College conceals the agonies of the participants, yet hints at a gradual evolution with some instructive developments.

In the beginnings, as has been demonstrated, there was no faculty, and Yale's teachers were in no sense professional. There was a Rector, and there were one or two amateur and temporary Tutors. Then there was a President with three or four Tutors. Then the first Professors or Permanent Officers appeared and finally, after one hundred years, a "Faculty" took shape. In our early decades as an independent nation these professors began as tutors, and after perhaps three years in that lowly and still transient rank (and perhaps also after some study abroad) were appointed to hold their professorships from an early age and for life.

After the Civil War (as is now illustrated by table D-3.1) an intermediate rank, also professional in character, was developed, that of Assistant Professor. So in the College faculty of 1875 one finds four professors who had begun as tutors and jumped straight to the professorship at an average age of 30.5, and two professors who had passed through the intermediate rank of assistant professor to reach their professorships at the mean age of 33.5.

By 1886 there were still five professors who had jumped clear from their first appointment to permanent office, but the majority of the faculty were now apparently expected to go through a three-stage promotion: from tutor or instructor to assistant professor to professor. It followed that they would reach their final appointments only when they were a little or even considerably older than the faculty of a generation earlier.

In 1920 still another intermediate rank, that of Associate Professor, was inserted, with the result that by 1930 at least eight of the professors had not been able to reach their chairs until about 43 years of age: a clear loss of

PROMOTION LADDER AT YALE, 1875-1950

	Rank and Number in Each Rank Calculated	Ave. Age at First Appt. to Instr., Asst. Tutor, or Lecturer	Average Interval	Ave. Age at Appt. to Asst. Prof.	Average Interval	Ave. Age at Appt. to Assoc. Prof.	Average Interval	Ave. Age at Appt. to Prof.	Ave. Interval Between 1st Appt. and Professorship		
1875 to 1876	Professor (4) Asst. Prof. (2) Tutor 3	25.5 23.0 28.3	4.0	27.0	4.0	30.7	5.0 6.5	30.5 33.5	5.0 10.5		
1886 to 1887	Professor (5) Asst. Prof. (3) Tutor & Instr. 6	25.2 26.0 26.3	3.7 4.8	29.7 31.2	3.7 4.8	31.2	5.6 4.7	30.8 34.3	5.6 8.3		
1899 to 1900	Professor (5) Asst. Prof. (16) Tutor & Instr. 5	27.4 28.2 25.8	3.5 4.6	31.7 30.4	3.5 4.6	30.4	6.2 6.5	33.6 38.2	6.2 10.0		
1914 to 1915	Professor 18 Asst. Prof. 30 Instructor 35	26.2 28.7 27.4	4.6 5.3	30.7 34.0	4.6 5.3	34.0	5.3	36.1	9.9		
1930 to 1931	Professor (15) Assoc. Prof. (8) Asst. Prof. 10 Instructor 22	25.5 28.0 28.1 26.4	5.5 4.0 4.8 4.1	30.9 32.0 32.9 30.5	5.5 4.0 4.8 4.1	30.9	7.1 9.0	39.1 41.9	7.0 3.8 3.8	37.9 42.9	12.4 14.9
1937 to 1938	Professor (10) Assoc. Prof. (14) Asst. Prof. 10 Instructor 22	25.5 27.6 26.3 25.9	5.8 4.1 5.0 5.0	31.3 31.8 31.3 30.9	5.8 4.1 5.0 5.0	30.9	8.3 7.4	40.1 38.7	7.6 3.3	38.9 43.4	13.4 15.8
1950 to 1951	Professor (4) Assoc. Prof. (39) Asst. Prof. 27 Instructor 33	27.5 26.5 27.9 28.4	2.5 4.0 4.6 3.2	30.0 31.2 33.1 33.5	2.5 4.0 4.6 3.2	30.0	6.2 5.7	37.4 38.8	5.5 4.9	35.5 42.3	8.0 15.8

This table is calculated so as to include only those who began at Yale as tutor, instructor, assistant, lecturer, or research assistant if the individual later became an instructor. For 1875-76, 1886-87, 1899-1900, and 1914-15, the sample is taken from the regular Faculty of Yale College, as listed in the annual catalogues. For 1930-31, the sample is taken from the regular University Faculty in the Arts and Sciences from the following departments: English, History, Classics, and Social Sciences -- for 1937-38, from the same Faculty from the departments of English, History, Classics, Sociology, Government, Economics, and Anthropology -- for 1950-51, from the same Faculty from the departments of English, History, Sociology, Political Science, Economics, Anthropology, French, German, Geology, Philosophy, and Zoology.

Sources. Yale College Catalogues, and Historical Register of Yale University, 1701-1937, 1937-1951.

reward or prolongation of intermediate service of a dozen years. By 1950 this reduction in speed, in favor of a slower, systematic, step-by-step promotion ladder, had been imposed on almost everyone, so that it would require for the majority some sixteen years from first to final appointment, in a teaching force that even on first appointment was considerably better trained than the old amateur faculty of antebellum days.

If we turn now to the table for 1957-58 (D-3.2) we get an analysis so organized as to include also those members of the faculty who had been brought in from the outside at an intermediate or top rank. Thus in 1957-58 we find that there were eighteen individuals who had been appointed for the first time in the Yale College Faculty at the rank of full professor, and their average age had been 43 years, 10 months. Three others had come in for the first time as Visiting Professor or Lecturer, and there were also seven who had come in at the associate professor level, at an average entering age of 36 years, 9 months. So all of these groups had averaged from 43 to 46 years of age on attaining their Yale professorships.

Among the eighty-eight professors of 1957-58 there were twelve who had been appointed for the first time at the rank of assistant professor and taken the regular steps to professorships at an average age of 40 years, 6 months. Almost forty-five percent of the professorial staff, however, or 39 in number, had begun as instructors and climbed the four rungs of the ladder to their professorships, arriving at an average age of just over 42.

Data for the associate professors in 1957-58 indicate that the vast majority of them had also been taking the regular path from the beginning, but most of them were considerably slower in reaching the associate professor rank than their predecessors among the professors. It is worth remarking, finally, that the first appointments of assistant professors and of instructors were also at more advanced ages than had been the practice in times gone by.

If we let eight years pass and look next at table D-3.3 for the faculty of 1965-66, we see some of these trends carried still further, but several reversed. The number of full professors appointed originally from the outside at either the associate or full professor rank had gone up. So had the number starting at the assistant professorship (with some eccentric variations). But for all these scholar-teachers together the average age on achieving final appointment had gone down by just a little.

Turning to the younger ranks, one finds that the shrinking group of

instructors still was being appointed, by and large, in their 29th year, but both the assistant professors and the associate professors seem on the average to have reached their first and intermediate appointments a year or two earlier than had been the case with the 1957-58 faculty--and for a quarter of the associate professors this had represented a three-year gain or acceleration. The explanation? The expansion of American universities in the 1960s and the intensive competition for talent between them were lowering the age and/or raising the ranks of first appointments--and reducing the stretch from instructor to professor from 16 to about 14 years--whereas in the late 1950s there had still been many in the faculty who had been slowed up by the long Depression and World War II. So once again one learns that the early 1960s were an age of promise (or an arrest in degradation?) for the academic profession.

Another point of interest in table D-3.3 may be the indication that some of Yale's junior appointees had been leaving but also returning: a practice confined to a mere handful yet not without its promise or consolation. May it prove possible to recapture some of our deficit-imposed losses of the 1970s in the same way!

Years of Service

Our final table (D-3.4) attempts to estimate the length of service of the faculty at each rank at the given moments of census. One watches the gradual aging of the professors until in the depths of the Great Depression Yale's active Permanent Officers had come to average some 23.7 years of service. By contrast, the longest average service for the assistant professors had been reached just before World War I, a period when this rank was being used as a permanent stopping point for a number of useful but not outstanding scholars.

After World War II, the mean length of teaching service (no doubt because of the increasing number of new appointments) dropped considerably below ten years. Yet this was for the entire faculty. Whatever the implications for change or continuity, the two upper ranks still maintained their record of quite durable utility.

To relate these figures to the student body, one might observe that in 1865 a faculty of 18 offered (even administered) 124 years of Yale teaching experience to each and every one of the 490 undergraduates. Whereas a hundred years later 4110 students in Yale College could pick and choose from the

offerings of a faculty of almost five hundred teacher-scholars, with an accumulated, collective acclimatization at Yale of some 4,500 years.

APPOINTMENT RECORD AND PROMOTION EXPERIENCE OF YALE COLLEGE FACULTY, 1957-1958

RANK	NO. IN RANK IN 1957-58	NO. OF APPOINTMENTS AT YALE	NO. OF INDIVIDUALS INVOLVED	AVERAGE AGE AT FIRST APPOINTMENT AS INSTRUCTOR OR ACTING INSTRUCTOR	AVERAGE AGE AT APPOINTMENT AS LECTURER OR VISITING LECTURER	AVERAGE AGE AT APPOINTMENT AS VISITING ASSISTANT PROFESSOR	AVERAGE AGE AT APPOINTMENT AS ASSISTANT PROFESSOR	AVERAGE AGE AT APPOINTMENT AS LECTURER OR VISITING LECTURER	AVERAGE AGE AT APPOINTMENT AS VISITING ASSOCIATE PROFESSOR	AVERAGE AGE AT APPOINTMENT AS ASSOCIATE PROFESSOR	AVERAGE AGE AT APPOINTMENT AS LECTURER OR VISITING LECTURER	AVERAGE AGE AT APPOINTMENT AS VISITING PROFESSOR	AVERAGE AGE AT APPOINTMENT AS PROFESSOR	AVERAGE AGE OF FACULTY IN JULY 1957
		1	18											51/3
		2	1											56/2
		2	2											54/6
		2	7											49/2
		3	1				27/5							56/5
		3	12				30/11							51/10
		4	2		29/11.5		31/5.5							44/5.5
		3	2		29/1.5		31/1.5							52/1.5
		2	1		20/8		E							52/8
		3	2		27/1.5		30/1.5							54
		3	1		25/5		E							45/5
		4	39		27/2		31/3							52/6
				AVERAGE AGE FOR ALL AT RANK	(45 av.) 27/1	(58 av.) 31/1	(62 av.) 36/7	(88 av.) 42/4						51/9
				PROFESSORS *	88									

APPOINTMENT RECORD AND PROMOTION EXPERIENCE OF YALE COLLEGE FACULTY, 1957-1958 (cont.)

RANK	NO. IN RANK IN 1957-58	NO. OF APPOINTMENTS AT YALE	NO. OF INDIVIDUALS INVOLVED	AVERAGE AGE AT FIRST APPOINTMENT AS INSTRUCTOR OR ACTING INSTRUCTOR	AVERAGE AGE AT APPOINTMENT AS LECTURER OR VISITING LECTURER	AVERAGE AGE AT APPOINTMENT AS VISITING ASSISTANT PROFESSOR	AVERAGE AGE AT APPOINTMENT AS ASSISTANT PROFESSOR	AVERAGE AGE AT APPOINTMENT AS LECTURER OR VISITING LECTURER	AVERAGE AGE AT APPOINTMENT AS VISITING ASSOCIATE PROFESSOR	AVERAGE AGE AT APPOINTMENT AS ASSOCIATE PROFESSOR	AVERAGE AGE AT APPOINTMENT AS LECTURER OR VISITING LECTURER	AVERAGE AGE AT APPOINTMENT AS VISITING PROFESSOR	AVERAGE AGE AT APPOINTMENT AS PROFESSOR	AVERAGE AGE OF FACULTY IN JULY 1957
	1	2	2	45/11	40/11	40/11	40/11	40/11	40/11	40/11	40/11	40/11	40/11	45/11
	2	4	4	47/10	42/10	40/1	40/1	40/1	42/10	42/10	42/10	42/10	42/10	47/10
	2	7	7	37/11	35/6	30/6	30/6	30/6	35/6	35/6	35/6	35/6	35/6	37/11
ASSOCIATE PROFESSORS, †	68	3	1	36/2	35/2	31/2	32/2	31/2	35/2	35/2	35/2	35/2	35/2	36/2
	3	1	1	43/10	41/10	32/10	35/10	32/10	41/10	41/10	41/10	41/10	41/10	43/10
	3	1	1	55	55	E	E	52	55	55	55	55	55	55
	3	52	52	39/6	39/6	33/4	33/4	33/4	39/6	39/6	39/6	39/6	39/6	45/10
ASSISTANT PROFESSORS †	118	1	29	30/11	30/11	30/11	30/11	30/11	30/11	30/11	30/11	30/11	30/11	32/9
PROFESSORS †	2	89	89	29/7	32/11	32/11	32/11	32/11	32/11	32/11	32/11	32/11	32/11	35/9
INSTRUCTORS OR ACTING INSTR. #	131	1	131	29/4	29/4	29/4	29/4	29/4	29/4	29/4	29/4	29/4	29/4	30/7
AVERAGE AGE OF TOTAL FACULTY AT APPOINTMENT TO EACH RANK				318 Instructor Appointments average at 29/5	237 Assistant Professor Appointments average at 32/3	129 Associate Professor Appointments average at 38/1	88 Professor Appointments average at 42/4							
TOTAL NO. IN FACULTY	405			Average Age of Total Faculty in July 1957 39/6										

APPOINTMENT RECORD AND PROMOTION EXPERIENCE OF YALE COLLEGE FACULTY, 1957-1958 (cont.)

Sources. Faculty list from Yale College Dean's Office; faculty dates of birth from records of the various departments; appointments from Historical Register of Yale University, vols. II, III.

Note. Ages of appointment were calculated by subtracting the year and month of birth from July of the year of appointment; and they are stated as years and months, i. e., 42/3 means 42 years and 3 months. "E" represents absence from Yale, presumably with appointment(s) at some other institution(s).

* Of the 88 Professors, 22 acted as Assistants, Laboratory Assistants, Assistants in Instruction, Readers, Research Assistants or Assistants in Research before achieving regular appointment on the Faculty. The dates of these "non-ladder" appointments, below the rank of Instructor or Acting Instructor, have been ignored in our statistical calculations.

+ Of the 68 Associate Professors, 22 held research or part-time appointments before gaining full status on the Faculty. Within ten years of appointment as Associate Professors, 34 of them would be Professors.

† Of the 118 Assistant Professors, 37 held research or part-time appointments before gaining full status on the Faculty. Within ten years of appointment as Assistant Professors, 25 would be Professors while 16 would reach the rank of Associate Professor.

Of the 131 Instructors, 31 held earlier appointments as Laboratory Assistants, Research Assistants or Assistants in Instruction. Later not quite half would be reappointed to higher rank, i. e., 29 would for a time be Assistant Professors, 11 others would achieve the same promotion and then be promoted once again to Associate Professors, while 16 would finally reach the rank of Professors and continue on indefinite tenure.

APPOINTMENT RECORD AND PROMOTION EXPERIENCE OF YALE COLLEGE FACULTY, 1965-1966

RANK	NO. IN RANK IN 1965-66	NO. OF APPOINTMENTS AT YALE	NO. OF INDIVIDUALS INVOLVED	AVERAGE AGE AT FIRST APPOINTMENT											AVERAGE AGE OF FACULTY IN 1965-1966			
				AS INSTRUCTOR OR ACTING INSTRUCTOR	AVERAGE AGE AT APPOINTMENT AS LECTURER OR VISITING LECTURER	AVERAGE AGE AT APPOINTMENT AS VISITING ASSISTANT PROFESSOR	AVERAGE AGE AT APPOINTMENT AS ASSISTANT PROFESSOR	AVERAGE AGE AT APPOINTMENT AS LECTURER OR VISITING LECTURER	AVERAGE AGE AT APPOINTMENT AS VISITING ASSOCIATE PROFESSOR	AVERAGE AGE AT APPOINTMENT AS ASSOCIATE PROFESSOR	AVERAGE AGE AT APPOINTMENT AS LECTURER OR VISITING LECTURER	AVERAGE AGE AT APPOINTMENT AS VISITING PROFESSOR	AVERAGE AGE AT APPOINTMENT AS PROFESSOR	AVERAGE AGE AT APPOINTMENT AS PROFESSOR				
1	36																42/2	
2	3																45/8	
2	2																41/1	
2	14																41/9	
2	1																39/3	
3	1																59/5	
2	1																38/5	
3	26																40/4	
4	1																41/10	
4	1																38/2	
4	3																40/3	
2	2																39/5	
3	1																42/5	
3	1																34/8	
3	1																41/0	
4	1																45/4	
4	62																42/8	
				27/10	31/4	36/7	42/0											
AVERAGE FOR 159 PROFESSORS				31/4	36/7	42/0												

APPOINTMENT RECORD AND PROMOTION EXPERIENCE OF YALE COLLEGE FACULTY, 1965-1966 (cont.)

RANK	NO. IN RANK IN 1965-66	NO. OF APPOINTMENTS AT YALE	NO. OF INDIVIDUALS INVOLVED	AVERAGE AGE AT FIRST APPOINTMENT AS INSTRUCTOR OR ACTING INSTRUCTOR	AVERAGE AGE AT APPOINTMENT AS LECTURER OR VISITING LECTURER	AVERAGE AGE AT APPOINTMENT AS VISITING ASSISTANT PROFESSOR	AVERAGE AGE AT APPOINTMENT AS ASSISTANT PROFESSOR	AVERAGE AGE AT APPOINTMENT AS LECTURER OR VISITING LECTURER	AVERAGE AGE AT APPOINTMENT AS VISITING ASSOCIATE PROFESSOR	AVERAGE AGE AT APPOINTMENT AS ASSOCIATE PROFESSOR	AVERAGE AGE AT APPOINTMENT AS LECTURER OR VISITING LECTURER	AVERAGE AGE AT APPOINTMENT AS VISITING PROFESSOR	AVERAGE AGE AT APPOINTMENT AS PROFESSOR	AVERAGE AGE OF FACULTY IN 1965-1966
1	6													
2	3													
2	25													
3	1													
3	2													
3	1													
3	64													
4	1													
				28/6	31/5	31/5	36/7							
AVERAGE FOR 102 ASSOCIATE PROFESSORS														
1	71													
2	90													
2	21													
3	1													
				28/5	30/10	30/10	30/9							
AVERAGE FOR 183 ASSISTANT PROFESSORS														
1	71													
2	90													
2	21													
3	1													
				28/9	30/9	30/9	30/9							
AVERAGE FOR 50 INSTRUCTORS OR ACTING INSTRUCTORS														
1	50													
				28/0	29/10	29/10	29/10							

APPOINTMENT RECORD AND PROMOTION EXPERIENCE OF YALE COLLEGE FACULTY, 1965-1966 (Cont.)

	NO. OF INDIVIDUALS	INSTRUCTOR OR ACTING INSTRUCTOR	ASSISTANT PROFESSOR	ASSOCIATE PROFESSOR	PROFESSOR
AVERAGE AGE OF TOTAL FACULTY AT APPOINTMENT TO EACH RANK	159 212 372 275		30/9	36/7	42/0
TOTAL NO. IN FACULTY	494	28/3			
			Average Age of Total Faculty in 1965-1966 38/3		

Sources. Faculty list from Yale College Dean's Office; faculty dates of birth from records of the various departments; appointments from Historical Register of Yale University, Vols. I, II, III.

Note. Age of appointment were calculated by subtracting the year and month of birth from July of the year of appointment; and they are stated as years and months, i. e., 42/3 means 42 years and 3 months. "b" represents absence from Yale, presumably with appointment(s) at other institution(s).

* Professors. Of the 159 Professors, a number had held preliminary or part-time appointments before joining the regular faculty. Thus 7 had served as assistants, 6 as assistants in instruction, 7 as research assistants, 1 as assistant in research, 5 as readers, 9 as lecturers, 1 as research instructor, 2 as research associates, 2 as laboratory assistants, 1 as director of research, 1 as assistant director of research, 1 as resident counselor and 7 as Fellows.

+ Associate Professors. Of the 102 Associate Professors, 1 had begun as teaching assistant, 3 as assistants in research, 3 as research associates, 3 as readers, 4 as research assistants, 5 as assistants, 6 as laboratory assistants, 10 as assistants in instruction, and 1 as American Chemical Fellow.

† Assistant Professors. Of the 183 Assistant Professors, 19 had begun as assistants in instruction, 12 as research staff economists, 9 as research associates, 6 as research assistants, 5 as laboratory assistants, 2 as assistants in research, 1 as research fellow and 2 as lecturers before their appointment as instructor.

Instructor or Acting Instructor. One additional instructor could not be included in the calculations because no information was available on him. 45 others (also not counted in these calculations) were acting instructors in 1965-66; many of these did not go on as instructors, though some would later join the regular Faculty as Assistant Professors, Associate Professors, or Professors. Out of the 50 here tabulated, 9 began as (full-time) Acting Instructors because they did not have the Ph. D. degree; while 18 had been appointed (part-time) assistants in instruction, prior to acting instructor or instructor; also 2 as lecturers, 4 as teaching associates, 1 as a Carnegie-Teaching Fellow, 4 as laboratory or technical assistants, and one as a research fellow. As with the higher appointments, the dates of all these "non-ladder" appointments have been ignored in our statistical calculations. Altogether, 25 of the 50 instructors here tabulated would later be appointed to higher rank.

D 3.3
G 9.1

AVERAGE LENGTH OF FACULTY SERVICE: YALE COLLEGE, 1865 to 1965

YEAR	PROFESSORS No. Average* Service	ASSOCIATE PROFESSORS No. Average Service	ASSISTANT PROFESSORS No. Average Service	INSTRUCTORS No. Average Service	TUTORS No. Average Service	TOTAL FOR REGULAR FACULTY No. Average Service	OTHERS No. Average Service	GRAND TOTALS No. Average Service
1865-66	10 ^{a/} 11.2		1 6		7 .9	18 6.9	2 10	20 7.2
1875-76	12 ^{a/} 16.9		3 5.3		10 1.6	25 9.4	2 20	27 10.2
1886-87	18 17.6		7 9.7	2 1.5	7 2.0	34 11.8	12 13.1	46 12.2
1899-00	34 16.4		6 5.7	17 3.7	7 3.1	64 10.6	42 ^{b/} 6.9	106 9.1
1914-15	36 18.5		32 10.3	36 2.5		104 10.5	63 9.0	167 9.9
1930-31	36 20.4	11 17.7	19 8.5	31 2.0		97 11.9	**	
1937-38	31 23.7	10 16.3	25 8.8	20 2.2		86 13.5	**	
1950-51	65 17.5	44 13.7	61 4.5 ^{d/}	60 2.0		230 9.3	58 1.2	288 7.7
1957-58	87 19.0 ^{d/}	68 14.8 ^{d/}	119 5.5 ^{d/}	129 1.9 ^{d/}		403 8.8	55 3.0	458 8.1
1965-66	159 16.7	102 12.3	185 3.0 ^{d/}	50 1.5		496 9.1	116 ^{c/} 3.1	612 8.0

Sources. Annual Catalogues; annual typed lists of the Yale College Faculties, supplied from the Y. C. Dean's Office files, courtesy of Miss Katherine Hauschild; Historical Register of Yale University, I, II, III.

a/ President Theodore Dwight Woolsey had ceased to teach and is not counted. Noah Porter, however, continued to teach during and after his Presidency and is therefore counted among the Professors until 1892. After Porter, Yale's Presidents did not teach and so are not reckoned into the length of service tabulation.

b/ Two Instructors listed in the annual catalogues are not listed in the Historical Register.

c/ Assistants in Instruction were not counted in the "Others" category for 1965-66.

d/ Figures differ slightly from those obtainable in Tables D-3.2 and D-3.3 because Faculty counts differed very slightly and because for D-3.4 service was counted from first appointment as Assistant or Lecturer.

* "Average Service" denotes the number of years the faculty members had served at the moment the count was taken. By the time of resignation, of course, the average length of service would be higher.

** No count available for "Other" faculty.

D-4. University Faculties:
The Professional Schools

D-4 University Faculties: The Professional Schools

Introduction: Building the Professional Faculties

The evolution of the professional schools at Yale makes a strange and faintly disturbing story. Their early (often pioneer) foundings, their prolonged and sometimes sickly childhoods, their belated achievement of self-confident maturity: these, as has often been remarked, were caused and later conditioned by the strengths and the character and the special interests of Yale College.

Yet Yale College alone could not have given our University statistics their odd shape. That came largely, I believe, from the outside. In their early efforts our professional schools found themselves thwarted by the unwillingness of the nation. Their long-arrested developments reflect primarily the scientific and artistic backwardness of our new-world people and their prevailing anti-intellectualism: uncomfortable with excellence and suspicious of expertise, jacks of all trades but rarely masters of any. For a crucial generation, after the Civil War, the conservatism of Yale College did hold its professional schools back. Finally, however, they began to flourish; and in their belated flowerings they illustrate the headlong advances in learning and the dazzling fireworks in architecture, music, and many arts which have characterized our emergence as a world power and made plausible what has sometimes been called this American century.

Early foundings? Yale could claim no priorities in medicine. The first medical schools in North America were Philadelphia (1765), Kings (1767), Harvard (1782) and Dartmouth (1797). Yet when an agreement with the State Medical Society had been negotiated (1810-13) the Yale Medical Institution represented a most promising venture.

In Divinity Yale was strong, though the Divinity School (1822) followed Andover (1808) and five others in order of establishment. Yale's adoption of a local law school (1824) made it the third college-connected law school, in replacement of Tapping Reeve's pioneer Litchfield School. Next, Yale's Trumbull

UNIVERSITY FACULTIES: THE MEDICAL SCHOOL IN THE TWENTIETH CENTURY

1900-1901	1905-1906	1910-1911	1914-1916	1920-1921	1925-1926	1930-1931	1935-1936	
BPO: 1 D 10 P 4 L 1 CL 10 I 1 Dem 16 A/CA	1 D 10 P 1 AP 4 L 2 CL 8 I 7 CI 3 Dem 16 A/CA	1 D 8 P 4 CP 2 AP 2 P 3 AP 5 L 1 CL 10 I 7 CI 1 Dem 25 A/CA	1 D 10 P 4 CP 4 AP 2 L 1 CL 11 I 5 CI 31 A/CA	1 D 9 P 7 AP 7 L 9 I 12 A 35 CA	Others 1 P 8 CP 1 I 8 CI 35 CA	1 D 1 AD 20 P 1 DrDUH 1 RAO(P) 8 AOP 1 RAO(AP) 17 AP 31 I 1 RA(I) 29 A 1 Artist	1 D 26 P 14 AOP 2 RAO(AOP) 17 AP 10 RA(AP) 43 I 16 RA(I) 1 CI 80 A 1 Dem 1 Lib	Others 14 CP 20 ACP 55 CI 2 I(CI) 24 CA 24 RF 15 RA

BPO = Board of Permanent Officers
 D = Dean
 AcD = Acting Dean
 DMA = Dean of Medical Affairs
 DrDUH = Director of Department of University Health
 AOD = Associate Dean
 AD = Assistant Dean
 DepD = Deputy Dean
 P = Professor
 (P) = Professorial Rank
 PJ = Adjunct Professor
 CP = Clinical Professor
 VCP = Visiting Clinical Professor
 AOP = Associate Professor
 (AOP) = Associate Professorial Rank
 AACP = Associate Clinical Professor
 AP = Assistant Professor
 (AP) = Assistant Professorial Rank
 ACP = Assistant Clinical Professor
 VAP = Visiting Assistant Professor
 L = Lecturer
 CL = Clinical Lecturer
 I = Instructor
 (I) = Instructor Rank
 CI = Clinical Instructor

UNIVERSITY FACULTIES: THE MEDICAL SCHOOL IN THE TWENTIETH CENTURY (cont.)

1940-1941	1946-1947	1950-1951	1970-1971	1975-1976
1 AcD	1 D	1 D	1 D	1 D
1 AD	1 AD	1 DMA	7 AOD*	1 DepD*
20 P	21 P	2 AD	94 P	5 AOD*
3 RA(P)	4 L(P)	23 P	17 P	5 AD*
1 L(P)	2 RAO(P)	2 P	6 VP	5 Other*
15 AOP	18 AOP	6 L(P)	1 PJ	150 P
6 RAO(AOP)	4 L(AOP)	5 RA(P)	134 AOP	30 AOP on tenure
23 AP	7 RAO(AOP)	16 AOP	1 VAOP	16 P
14 RA(A.P)	38 AP	8 RA(AOP)	203 AP	1 PJ
34 I	1 L(A.P)	1 VRA(AOP)	4 VAP	130 AOP
17 RA(I)	6 RA(AP)	1 Lab(AOP)	79 I	209 AP
85 A	1 Lib(A.P)	1 L(AOP)	1 Cur(I)	1 VAP
	34 RF	42 AP	4 Other(I)	51 I
		13 RA(AP)		1 VF
		1 L(AP)		
		49 I		
		34 RA(I)		
		27 A		

* Counted twice

Sources, Medical School Catalogues.

1955-1956	1960-1961	1965-1966	1970-1971	1975-1976
1 D	1 D	1 D	1 D	1 D
2 AD	2 AOD	3 AOD	7 AOD*	1 DepD*
33 P	32 P	68 P	94 P	5 AOD*
35 AOP	3 P	3 P	17 P	5 AD*
56 AP	50 AOP	89 AOP	6 VP	5 Other*
51 I	74 AP	185 ACP	1 PJ	150 P
9 A	75 I	133 AP	134 AOP	30 AOP on tenure
		46 L	1 VAOP	16 P
		172 CI	21 RA	32 RS
		42 RA	156 RAO	115 RAO
		29 RAO	108 CAO	2 RAF
		10 Other	4 Other	10 CAO
				40 PDAO
				6 Other

D-4.2
(Cont.)

UNIVERSITY FACULTIES: THE DIVINITY SCHOOL, IN THE TWENTIETH CENTURY

<u>1900-01</u>	<u>1905-08</u>	<u>1910-11</u>	<u>1915-16</u>	<u>1920-21</u>	<u>1925-26</u>	<u>1930-31</u>	<u>1935-36</u>
7 P 4 I 3 V	6 P 7 I 3 V	6 P 1 AP 5 I 1 L 6 V	7 P 3 AP 3 I 3 L 7 V	10 P 2 AP 4 I 4 L 6 V	9 P 2 AOP 2 AP 2 I 4 L 9 V	9 P 4 AOP 5 AP 4 L 15 V	8 P 6 AOP 1 AP 7 L 10 V
<u>1940-41</u>	<u>1946-47</u>	<u>1950-51</u>	<u>1955-51</u>	<u>1960-61</u>	<u>1965-66</u>	<u>1970-71</u>	<u>1975-76</u>
14 P 1 AOP 1 AP 9 L 13 V	14 P 3 AOP 2 AP 8 L 3 V	13 P 2 AOP 7 AP 1 I 10 L 5 V	12 P 8 AOP 5 AP 2 I 12 L 2 V	13 P 8 AOP 8 AP 8 I 2 V 14 AsI	17 P 9 AOP 3 AP 15 L 4 V 15 AsI	18 P 11 AOP 8 AP 17 L 2 V 2 TA 22 TF	17 P 18 AOP 7 AP 1 AI 21 I 11 V

P = Professor
AOP = Associate Professor
AP = Assistant Professor
I = Instructor
AI = Acting Instructor
L = Lecturer
V = Visiting & special lecturers
AsI = Assistant in Instruction
TA = Teaching Associate
TF = Teaching Fellow

Note. Each individual counted only once. Emeritus Professors, and instructors or professors from other schools of the University, not included. In 1910-11 there were 23 such instructors, by 1955-56 only 3, in 1965-66 14, and 14 again in 1970-71, while in 1975-76 there were also 19 in the Department of Religious Studies and the Institute of Sacred Music.

Sources. Divinity School Catalogues. For 1975-76, the Annual Catalogue included the Berkeley Divinity School Faculty.

UNIVERSITY FACULTIES: THE LAW SCHOOL IN THE TWENTIETH CENTURY

<u>1900-01</u> 7 P 2 AP 1 I 1 L 17 S	<u>1905-06</u> 8 P 3 AP 18 S	<u>1910-11</u> 10 P 5 AP 14 S	<u>1915-16</u> 11 P 4 AP 7 S	<u>1920-21</u> 12 P 2 AP 1 I 2 S	<u>1925-26</u> 9 P 2 AP 3 L 4 VP 1 S	<u>1930-31</u> 10 P 2 AOP 2 AP 4 I 2 L 4 VP 1 S 1 TF	<u>1935-36</u> 15 P 5 AOP 3 AP 1 I 4 L 4 VL
<u>1940-41</u> 16 P 3 AOP 4 AP 1 I 5 L 1 VP 4 VI.	<u>1946-47</u> 15 P 2 AOP 6 AP 1 I 8 VP 18 VL	<u>1950-51</u> 15 P 9 AOP 2 AP 5 AsI 8 VI.	<u>1955-56</u> 19 P 3 AOP 1 AP 5 AsI 5 VP 10 VL	<u>1960-61</u> 28 P 6 AOP 5 AP 3 L 11 AsI 1 VP 14 VL	<u>1965-66</u> 30 P 4 AOP 2 AP 1 L 13 AsI 1 VP 1 VAP 20 VL 9 T	<u>1970-71</u> 33 P 8 AOP 3 AP 3 L 11 AsI 3 VP 1 VAP 8 VI. 1 T	<u>1975-76</u> 35 P 4 AOP 1 AP 5 L 11 AsI 4 VP 14 VI. 6 T

P = Professor
 AOP = Associate Professor
 AP = Assistant Professor
 I = Instructor
 L = Lecturer
 AsI = Assistant in Instruction
 VP = Visiting Professor
 VAP = Visiting Assistant Professor
 VI. = Visiting Lecturer
 S = Special Lecturers & Instructors
 T = Tutor
 TF = Teaching Fellow

Note. Emeritus Professors, and instructors or professors from other schools of the University, not included. Each individual counted only once.

Sources. Law School Annual Catalogues

Art Gallery (1832) was apparently the first art gallery to be built by an American College. For science and engineering, Yale's Sheffield Scientific School, like Harvard's Lawrence Scientific School, started in 1847, with only the U.S. Military Academy and Rensselaer Polytechnic already well established. As for professional scholarship, in awarding the first Ph.D. degrees in the country (1861), Yale was nine years ahead of the field.

In 1869 the new Art School became the first to be connected with an American college or university. In music, Yale College had been among the first to appoint a teacher of music (1855--after Oberlin in 1838 and Toronto in 1845), but then was much slower in giving music curricular credit; and the priority rank of Yale's 1894 "Department" (School) of Music is unclear. In 1900, next, the Forestry School emerged as the second university forestry school in this country but the first at the graduate level; soon it was the oldest as well. And in 1923 the Yale Nursing School could claim to be the first, or one of the first two, university nursing schools. Altogether, Yale's record of pioneering in the ancient learned professions and in the application of systematic learning to the newer vocations and artistic callings is impressive.

Yet Yale's earliest professional department, the Medical School, after a splendid and enthusiastic beginning with five distinguished professors, first hesitated, and then seemed to stand still. By the Civil War, while the life sciences were racing ahead in Europe, there were still only five teachers (giving a one-year cycle of lectures). Was its progress arrested by public indifference, or by the backwardness of American medicine, or by the provincial inadequacy of patient supply and hospital resources in New Haven, or by the professors' insistence on higher standards than Connecticut would tolerate? Apparently, all these handicaps mattered.* One can easily measure the lack of public support in the figures for enrollment and for M.D. degrees (A-1.4, A-2.6). Yet can one not also sense the impecuniousness of Yale College, itself unable to afford a dozen professors until 1873 (cf. D-1.2)? So perhaps we should not overemphasize the prolonged marking of time that can be detected in the staffing of the medical faculty right down to 1900 (D-4.1).

Yale's second professional school, the Divinity School (D-4.3), clearly enlisted substantial talents, yet remained a four-man team until the 1850s. In the Law School (D-4.5) the thread of vitality was thin indeed. No degrees were desired or at least offered until the 1840s, and it would be 1874 before as

*See Whitfield J. Bell, Jr., The Medical Institution of Yale College, 1810-1885, in Yale Journal of Biology and Medicine, December 1960.

many as twenty students received the LL.B. in a single year. Meanwhile the entire (part-time) faculty had consisted of one professor and one instructor, or of two professors, or of just one professor, or of three or four instructors, year after year through its precarious first half century (D-4.5).

Yale's science and engineering, on the other hand, showed a strong and rapid growth, especially after 1861-63 when the Joseph Sheffield endowments were received and the Sheffield Scientific School became the Land Grant College for Connecticut (D-4.7). Meanwhile, through the same last quarter of the nineteenth century the Art School owed its frail existence almost entirely to Dean John F. Weir and the Professor of Drawing, John H. Niemeyer. For certain times it did have a third professor, either Daniel Cady Eaton or the Rev. James M. Hoppin, but by 1908 only Dean Weir was left, with a handful of young and rather impermanent instructors (D-4.9). In music the story would be much the same until after World War I (D-4.12). Forestry early took advantage of some of Yale's scientific talents, and also seems to have achieved a somewhat steadier and sturdier progress in the enlistment of its permanent officers (D-4.14). By contrast, the Nursing School, despite the attachment of a considerable number of instructors and assistant professors through its first thirty years, failed to develop a tenured staff and a Board of Permanent Officers and the real assurance of success (D-4.16).

A different and rather interesting way to read such life-line statistics is to notice the great dependence of these struggling schools on their founding faculties. For the Medical School, after the loss of Munson and Smith, Eli Ives and Benjamin Silliman and Jonathan Knight carried the major burden and responsibility (with only irregular assistance) for almost thirty years (1826-53). At that point the three junior professors suddenly had to shoulder the responsibility; but a major rebuilding was in order and soon a new 30-year team emerged, consisting of Benjamin Silliman Jr., Charles A. Lindsley and Leonard J. Sanford, with the later and ambiguous assistance of the champion of the State Medical Society, Moses C. White, who lasted to 1900. In Divinity the first quartet of Taylor, Finch, Goodrich and Gibbs carried on to the eve of the Civil War--when suddenly a reorganization and rejuvenation became necessary. In Law the transition from the founders, a crisis period in almost all the schools, took place in the mid-1840s, and the crisis was repeated just after the Civil War. How hazardous was the existence of such a school is clearly indicated in D-4.5.

The year-by-year tracing of these early faculties can be made to yield other dividends of information: for example, on the use of assistants or

UNIVERSITY FACULTIES: SHEFFIELD SCIENTIFIC SCHOOL, 1846-1899

18	John Pitkin Norton	P	
48	Benjamin Silliman Jr. *	P	
49	John A. Porter	P	
54	William A. Norton	P	
55	James D. Dana +	P	
56	Denison Olmsted #	P	
57	Samuel W. Johnson	P	
58	George J. Brush †	P	
59	Louis Bail	P	
60	Rev. Chester S. Lyman	P	
61	William D. Whitney	P	
62	Daniel Colt Gilman	P	
63	Wm. H. Brewer	P	
64	Daniel Cady Eaton	P	
65	Addison E. Verrill	P	
66	Alfred P. Rockwell	P	
67	Ohnel C. Marsh	P	
68	Sidney I. Smith	P	
69	William G. Mixer	P	
70	Brig. Gen. Benjamin S. Roberts	P	
71	Wm. P. Frowbridge	P	
72	Thomas R. Lounsbury	P	
73	Oscar D. Allen	P	
74	Charles S. Hastings	P	
75	A. Jay DuBois	P	
76	Russell H. Chittendon †	P	
77	Samuel L. Penfield	P	
78	Henry W. Farnam	P	
79	Louis V. Firsson	P	
80	Charles B. Richards	P	
81	Horace L. Wells	P	
82	Charles E. Beecher	P	
83	Other (Temporary) Assistants	P	
84		P	
85		P	
86		P	
87		P	
88		P	
89		P	
90		P	
91		P	
92		P	
93		P	
94		P	
95		P	
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97		P	
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103		P	
104		P	
105		P	
106		P	
107		P	
108		P	
109		P	
110		P	
111		P	
112		P	
113		P	
114		P	
115		P	
116		P	
117		P	
118		P	
119		P	
120		P	
121		P	
122		P	
123		P	
124		P	
125		P	
126		P	
127		P	
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129		P	
130		P	
131		P	
132		P	
133		P	
134		P	
135		P	
136		P	
137		P	
138		P	
139		P	
140		P	
141		P	
142		P	
143		P	
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158		P	
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164		P	
165		P	
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169		P	
170		P	
171		P	
172		P	
173		P	
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175		P	
176		P	
177		P	
178		P	
179		P	
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181		P	
182		P	
183		P	
184		P	
185		P	
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187		P	
188		P	
189		P	
190		P	
191		P	
192		P	
193		P	
194		P	
195		P	
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215		P	
216		P	
217		P	
218		P	
219		P	
220		P	
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222		P	
223		P	
224		P	
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226		P	
227		P	
228		P	
229		P	
230		P	
231		P	
232		P	
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235		P	
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269		P	
270		P	
271		P	
272		P	
273		P	
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275		P	
276		P	
277		P	
278		P	
279		P	
280		P	
281		P	
282		P	
283		P	
284		P	
285		P	
286		P	
287		P	
288		P	
289		P	
290		P	
291		P	
292		P	
293		P	
294		P	
295		P	
296		P	
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298		P	
299		P	
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301		P	
302		P	
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304		P	
305		P	
306		P	
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311		P	
312		P	
313		P	
314		P	
315		P	
316		P	
317		P	
318		P	
319		P	
320		P	
321		P	
322		P	
323		P	
324		P	
325		P	
326		P	
327		P	
328		P	
329		P	
330		P	
331		P	
332		P	
333		P	
334		P	
335		P	
336		P	
337		P	
338		P	
339		P	
340		P	
341		P	
342		P	
343		P	
344		P	
345		P	
346		P	
347		P	
348		P	
349		P	
350		P	
351		P	
352		P	
353		P	
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355		P	
356		P	
357		P	
358		P	
359		P	
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362		P	
363		P	
364		P	
365		P	
366		P	
367		P	
368		P	
369		P	
370		P	
371		P	
372		P	
373		P	
374		P	
375		P	
376		P	
377		P	
378		P	
379		P	
380		P	
381		P	
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409		P	
410		P	
411		P	
412		P	
413		P	
414		P	
415		P	
416		P	
417		P	
418		P	
419		P	
420		P	
421		P	
422		P	
423		P	
424		P	
425		P	
426		P	
427		P	
428			

UNIVERSITY FACULTIES: SHEFFIELD SCIENTIFIC SCHOOL, 1846-1899 (Cont.)

18	66	P	Samuel Johnson
66	66	P	George J. Brush †
66	66	P	William D. Whitney
66	66	P	Wm. H. Brewer
66	66	P	Daniel Cady Eaton
66	66	P	Addison E. Verrill
66	66	P	Othniel C. Marsh
66	66	P	Sidney I. Smith
66	66	P	William G. Mixter
66	66	P	Thomas R. Lounsbury
66	66	P	Charles S. Hastings
66	66	P	A. Jay DuBois
66	66	P	Russell H. Chittenden †
66	66	A	Samuel L. Penfield
66	66	P	Henry W. Farnam
66	66	I	Louis V. Pirsson
66	66	P	Charles B. Richards
66	66	A	Horace L. Wells
66	66	S	Charles E. Beecher
66	66	S	Other (Temporary) Assistants

P = Professor
 A = Assistant Professor
 I = Instructor
 S = Assistant (later in faculty)

* Silliman Jr. continued 1870-85 as Professor of General and Applied Chemistry in Yale Medical School.
 † Dana was Silliman Professor of Natural History (later of Geology and Mineralogy) in Yale College but listed also as Instructor of Geology and Mineralogy in SSS from 1854 to 1870. Thereafter served as a Trustee of SSS.
 # Olmstead was Munson Professor of Natural History and Astronomy in Yale College.
 † Brush was Director of SSS 1872-1898, and was succeeded in the office by Russell H. Chittenden 1898-1922.
 Sources. Annual Catalogues; R. H. Chittenden, History of the Scientific School; and Historical Register of Yale University, 1701-1937.

UNIVERSITY FACULTIES: SHEFFIELD SCIENTIFIC AND ENGINEERING SCHOOLS, 1900-1962

Sheffield Scientific School:

	<u>1900-1901</u>	<u>1905-1906</u>	<u>1910-1911</u>	<u>1915-1916</u>	<u>1920-1921</u>
Gov'g. Bd.: 1 Dr	1 Dr	1 Dr	1 Dr	1 Dr	1 Dr
	16 P	17 P	21 P	23 P	24 P
Additional: 1 P	2 I	2 I	1 P	23 AP	2 P
	9 AP	13 AP	26 AP	55 I	1 AOP
	22 I	33 I	37 I	11 L	37 AP
	2 L	3 I	22 A	51 A	51 I + 12 Others
	16 A	18 A			2 L
					41 A
					1 RA

1925-1926

1930-1931

1935-1936

1940-1941

1944-1945

After 1923 no lists of the Sheffield Scientific School faculty were printed and, so far as can be ascertained, no written lists were kept. Instead, the old membership of the faculty was assigned to specific departments, such as Mathematics, or Physics, or Electrical Engineering, etc. Yet it is difficult to make up a faculty list from the departmental lists for the reason that there had been professors of Geology, Mathematics, Chemistry, Physics, etc. in Yale College and these continued on as members of the general faculty and of the scientific departments. The Dean's annual report on the Sheffield Scientific School (SSS Administrative Records, Group 31, Series III, Box 50) lists the major changes in the staff of the Scientific School each year, so starting with the last printed list one might be able to identify the continuing and additional personnel by careful year-by-year comparison. A second possibility would be to note the departmental faculties of the sciences and the engineering subjects in the Graduate School Catalogues, always with the understanding that some of these departmental faculties may have derived from other schools. Still a third possibility would be to analyze the faculty directories year by year in the hope that the school affiliations will be sufficiently complete and clear to make possible the identification of the Sheffield Scientific School faculty.

By contrast, the Engineering School published its faculty list from 1933 to 1962 in its annual catalogue.

UNIVERSITY FACULTIES: SHEFFIELD SCIENTIFIC AND ENGINEERING SCHOOLS, 1900-1962, (cont.)

Engineering School:

<u>1933-1934</u>	<u>1935-1936</u>	<u>1940-1941</u>	<u>1945-1947</u>	<u>1950-1951</u>
1 D	1 D	1 D	1 D	1 D
7 P	8 P	8 P	14 P	1 AD
12 AOP	11 AOP	13 AOP	17 AOP	12 P
15 AP	16 AP	12 AP	14 AP	21 AOP
10 I	11 I	7 I	21 I	14 AP
9 P	12 P	7 AI	4 AI	13 I
10 AOP	11 AOP	17 P		
6 AP	5 AP	9 AOP		
12 I	11 I	13 AP		
		22 I		

<u>1955-1956</u>	<u>1961-1962</u>	Gov'g Bd	=	Governing Board
1 D	1 D	DR	=	Director
1 AOD	1 AOD	D	=	Dean
12 P	20 P	AOD	=	Associate Dean
22 AOP	3 VP	AD	=	Assistant Dean
15 AP	19 AOP	P	=	Professor
5 I	14 AP	VP	=	Visiting Professor
	21 I	AOP	=	Associate Professor
	7 L	AP	=	Assistant Professor
		I	=	Instructor
		AI	=	Assistant in Instruction
		L	=	Lecturer
		A	=	Assistant or Laboratory Assistant
		RA	=	Research Assistant

UNIVERSITY FACULTIES: THE ART SCHOOL, 1869-1921

1869-70	P P P P	John F. Weir (Dean)	1869-70	P P P P
1870-71	P P P P	Daniel Cady Eaton	1871-72	P P P P
1871-72	P P P P	Louis Bail	1872-73	P P P P
1872-73	P P P P	John H. Niemeyer	1873-74	P P P P
1873-74	P P P P	Frederick R. Honey	1874-75	P P P P
1874-75	P P P P	John P. C. Foster	1875-76	P P P P
1875-76	P P P P	Rev. James M. Hoppin	1876-77	P P P P
1876-77	P P P P	Harrison W. Lindsley	1877-78	P P P P
1877-78	P P P P	Miles A. Pond	1878-79	P P P P
1878-79	P P P P	George H. Langzettel	1879-80	P P P P
1879-80	P P P P	George A. Thompson	1880-81	P P P P
1880-81	P P P P	Frank Crawford Boardman	1881-82	P P P P
1881-82	P P P P	Edwin C. Taylor	1882-83	P P P P
1882-83	P P P P	Richard Henry Dana	1883-84	P P P P
1883-84	P P P P	Lee O. Lawrie	1884-85	P P P P
1884-85	P P P P	Raynham Townshend	1885-86	P P P P
1885-86	P P P P	Augustus Vincent Tack	1886-87	P P P P
1886-87	P P P P	William Sergeant Kendall (Dean 1913-22)	1887-88	P P P P
1887-88	P P P P	Franklin J. Walls	1888-89	P P P P
1888-89	P P P P	Arthur Kingsley Porter	1889-90	P P P P
1889-90	P P P P	Everett V. Meeks (Dean 1922-47)	1890-91	P P P P
1890-91	P P P P	Theodore Dieckman	1891-92	P P P P
1891-92	P P P P	Robert G. Eberhard	1892-93	P P P P
1892-93	P P P P	William L. Boltomley	1893-94	P P P P
1893-94	P P P P	Henry Davenport	1894-95	P P P P
1894-95	P P P P	Shepherd Stevens	1895-96	P P P P
1895-96	P P P P		1896-97	P P P P
1896-97	P P P P		1897-98	P P P P
1897-98	P P P P		1898-99	P P P P
1898-99	P P P P		1899-00	P P P P
1899-00	P P P P		1900-01	P P P P
1900-01	P P P P		1901-02	P P P P
1901-02	P P P P		1902-03	P P P P
1902-03	P P P P		1903-04	P P P P
1903-04	P P P P		1904-05	P P P P
1904-05	P P P P		1905-06	P P P P
1905-06	P P P P		1906-07	P P P P
1906-07	P P P P		1907-08	P P P P
1907-08	P P P P		1908-09	P P P P
1908-09	P P P P		1909-10	P P P P
1909-10	P P P P		1910-11	P P P P
1910-11	P P P P		1911-12	P P P P
1911-12	P P P P		1912-13	P P P P
1912-13	P P P P		1913-14	P P P P
1913-14	P P P P		1914-15	P P P P
1914-15	P P P P		1915-16	P P P P
1915-16	P P P P		1916-17	P P P P
1916-17	P P P P		1917-18	P P P P
1917-18	P P P P		1918-19	P P P P
1918-19	P P P P		1919-20	P P P P
1919-20	P P P P		1920-21	P P P P

Sources. Art School Catalogues and Historical Register, Vols. I, II, III.

P = Professor
A = Assistant Professor
I = Instructor
L = Lecturer
S = Assistant (later in faculty)

UNIVERSITY FACULTIES: FACULTIES IN FINE ARTS, 1923-1976

	1923-24	1925-26	1930-31	1935-36	1940-41	1946-47	1950-51	1955-56
Painting and Sculpture	1 D 1 P 1 AcP 3 AP 3 I 1 AsI 2 L	Also Architecture 1 D 2 P 1 AcP 1 AOP 3 AP 6 I 1 L 2 A	1 D 5 P 3 AOP 8 AP 8 I 1 A	1 D 9 P 5 AOP 10 AP 11 I	1 D 5 P 10 AOP 11 AP 5 I 2 L	1 D 10 P 12 AOP 9 AP 5 I 1 L	1 D 9 P 12 AOP 10 AP 8 I 5 AsI 3 L 1 VL 4 C 5 VC	1 D 1 Dr 12 P 10 AOP 10 AP 4 I 2 AsI 3 L 6 VL 10 C 6 VC

	1960-61	1965-66
Architecture	1 D 4 P 2 VP 2 AOP 3 AP 9 I 3 AsI 2 L 3 VL 9 VC	Architecture 3 P 3 AOP 6 AP 1 AsI 2 L 1 VI 15 VC
Art	1 P 1 AOP 5 AP 4 I 1 C 7 VC	Graphic Design 1 AOP 1 AP 4 VC 10 AsI
City Planning	1 AOP 1 AP 1 I 1 L 2 VL 3 VC	Art 3 P 1 VP 4 AOP 3 AP 2 I 1 VI 6 VC
City Planning		2 P 1 AOP 1 AP 1 I 5 VI 2 VC
Graphic Design		4 P 2 AP 13 AsI 1 C 3 VC

D = Dean
Dr = Director
P = Professor
AcP = Acting Professor
VP = Visiting Professor
PJ = Adjunct Professor

AOP = Associate Professor
AOPJ = Adjunct Associate Professor
VAOP = Visiting Associate Professor
AP = Assistant Professor
VAP = Visiting Assistant Professor
I = Instructor
AsI = Assistant in Instruction

L = Lecturer
VL = Visiting Lecturer
C = Critic
VC = Visiting Critic
TA = Teaching Assistant
A = Assistant

UNIVERSITY FACULTIES: FACULTIES IN FINE ARTS, 1923-1976 (cont.)

<u>1970-71 Art School</u>				<u>1975-76 Art School</u>			
<u>Painting and Printmaking</u>	<u>Sculpture</u>	<u>Graphic Design</u>	<u>Filmmaking</u>	<u>Design and Planning</u>	<u>City Planning</u>	<u>Painting and Printmaking</u>	<u>Graphic Design and Photography</u>
2 P	1 PJ	3 P	3 C	1 D	1 P	1 D	3 P
3 PJ	1 AOP	1 VP	1 I	1 P	1 VP	2 P	2 PJ
1 AOPJ	1 AOPJ	1 AOP	16 AsI	3 VP	3 AOPJ	3 AOP	1 AOPJ
2 AP		1 AOPJ		3 PJ	1 AP	1 AP	2 AP
1 I		1 AP		1 AOP	1 VAP	1 L	1 I
1 C		3 I		5 AOPJ	3 VI.	1 VL	1 L
		1 I.		14 VC		3 AP	1 VL
		2 VL		16 TA		15 VL	1 C
		1 C				19 VC	
		1 VC					

Sources. Annual Catalogues of the Art School (School of Fine Arts, School of Art and Architecture) and of the Department and School of Architecture. The School of Architecture separated from the School of Art in 1972.

Note. The Deans were also teaching Professors. Individuals counted only once. Omitted: the faculty in the History of Art after 1956, because they were included in the faculty of the Arts and Sciences and not in the professional school faculty. Omitted also: the Director and Staff of the Art Gallery and the Librarians in the Art Library.

UNIVERSITY FACULTIES: THE DEPARTMENT AND SCHOOL OF DRAMA, 1923-1976

Department of Drama		1923-24	1925-26	1930-31	1935-36	1940-41	1946-47	1950-51
D	= Dean	1 P	1 P	1 P	1 P	1 P	2 P	1 Dr
DS	= Dean of Students	1 I	3 I	4 AP	3 AOP	5 AOP	6 AOP	1 AODr
DFS	= Dean of Faculty and Students			3 I	4 AP	3 AP	2 AP	1 P
AOD	= Associate Dean			1 A	3 I	2 I	1 I	5 AOP
AD	= Assistant to Dean					1 L		3 AP
Dr	= Director							1 I
AODr	= Associate Director							1 L
MDr	= Managing Director							
RDr	= Resident Designer							
P	= Professor							
VP	= Visiting Professor							
PJ	= Adjunct Professor							
AOP	= Associate Professor							
AOPJ	= Adjunct Associate Professor							
AP	= Assistant Professor							
I	= Instructor							
L	= Lecturer							
VL	= Visiting Lecturer							
VC	= Visiting Critic							
RA	= Research Associate							
A	= Assistant							
Mgr	= Manager							
Fdnf	= Foundation Fellow							
AdvSt	= Advanced Student							

School of Drama		1956-57	1960-61	1965-66	1970-71	1975-76
1 D		1 D	1 D	1 D	1 D	1 D
1 AOD		5 P	6 P	2 AD	1 DFS	1 DFS
3 P		3 AOP	4 AOP	1 DS	1 AD	1 AD
2 AP		2 AP	2 AP	2 P	1 MDr	1 MDr
1 I		2 I	2 I	5 VP	2 P	2 P
1 RA		1 I	1 L	5 PJ	4 Dr	1 RDr
		1 VC	2 VC	1 RA	1 RDr	2 Mgr
		1 RA	1 RA		1 RDr	1 AODr
						1 RDr
						2 Mgr
						1 AOP
						2 AOPJ
						5 AP
						1 I
						1 I
						9 I
						10 VC
						10 VC

Sources. Annual Catalogues of Art School, 1923-1951, and Drama School, 1956-1976.

UNIVERSITY FACULTIES: SCHOOL OF MUSIC, 1946-1976

1946-47	1950-51	1955-56	1960-61	1965-66	1969-70*	1975-76	+ Department of Music
1 D	1 D	1 D	1 D	1 D	1 D	1 D	1 D
4 P	6 P	5 P	2 P	6 P	9 P	1 AOD	5 P
5 AOP	2 AOP	7 AOP	1 VP	13 AOP	12 AOP	1 Dr	3 AOP
7 AP	10 AP	10 AP	11 AOP	15 AP	1 AOPJ	1 ADr	8 AP
1 I	3 I	5 I	10 AP	5 I	2 VAOP	14 P	2 I
1 VL	2 VL	1 L	10 I	1 AI	14 AP	3 VP	1 AsI
		1 VL		4 L	7 I	2 PJ	1 L
		1 AsI		1 VF	3 AI	2 C	
					4 L	4 AOP	
						10 AOPJ	
						7 AP	
						1 APJ	
						7 I	
						5 I	

- D = Dean
- AOD = Associate Dean
- Dr = Director
- ADr = Acting Director
- P = Professor
- VP = Visiting Professor
- PJ = Adjunct Professor
- AOP = Associate Professor
- AOPJ = Adjunct Associate Professor
- VAOP = Visiting Associate Professor
- AP = Assistant Professor
- APJ = Adjunct Assistant Professor
- I = Instructor
- AI = Acting Instructor
- AsI = Assistant in Instruction
- L = Lecturer
- VL = Visiting Lecturer
- C = Conductor
- VF = Visiting Fellow

Source: Music School Annual Catalogues.

* In 1970-71, after the year of student unrest, the Music School published no catalogue.

Note: The Deans and Directors were also teaching Professors. Each individual counted only once. Emeritus Professors excluded. Also not tabulated: Librarians, Research Associates, Administrative Assistants, Curators.

UNIVERSITY FACULTIES: THE SCHOOL OF FORESTRY, 1890-1931

	1900-01	1901-02	1902-03	1903-04	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17	1917-18
Board of Permanent Officers:																		
H. S. Graves	P	Dr	Dr	Dr	Dr	Dr	Dr	Dr	Dr	Dr	Dr	Dr#	Dr#	Dr#				
W. H. Brewer	P	P	P	E														
Gifford Pinchot	SpL	SpL	SpL	P*	P*	P*	P*	P*	P*	P*	P*	P*	P*	P*	P*	P*	P*	P*
Others in Forestry Faculty:																		
J. W. Touney	AP	AP	AP	P	P	P	P	P	P	AD	AD	Dr	Dr	Dr	Dr	Dr	Dr	Dr
A. Akerman			I	I														
R. L. Marston			I	I	AP	AP												
H. H. Chapman							I	AP	AP	AP	AP	P	P	P	P	P	P	P
R. C. Bryant							I	I	I	AP	AP	P	P	P	P	P	P	P
R. C. Hawley							I	I	I	AP	AP	AP	AP	AP	AP	AP	AP	AP
S. J. Record											I	AP	AP	AP	AP	AP	AP	AP
B. Ross													I					
G. P. Clinton																I		
H. N. Whitford																	AP	AP
Lecturers and Special Lecturers:																		
		5	3	4	13	13	6	6	4	3	2	4	3	5	5	5	9	9
Assistants:																		
		2	2	3	5	3	2	1	1	2	1	1	1	1	2	1		
Instructors from Other Faculties:																		
A. E. Verrill	P																	
S. L. Penfield	P	P																
L. V. Pirsson	P	P	P															
A. W. Evans	I	AP	AP	AP	AP	AP	P	P	P									
E. B. Gager	I																	
S. E. Barney		AP	AP	AP			AP	AP										
J. C. Tracy			AP	AP			AP	AP	AP	AP								
A. H. Graves							I	I	I	I	I	I	I	I	I	I	I	I
H. E. Gregory							P	P	P	P	P	P	P	P	P	P	P	P
C. S. Farnham							I	I	I	I	I	I	I	I	I	I	I	I
A. L. Dean							I	I	I	I	I	I	I	I	I	I	I	I
I. Bowman							I	I	I	I	I	I	I	I	I	I	I	I
W. R. Coe							AP	AP	AP	AP	AP	AP	AP	AP	AP	AP	AP	AP
H. B. North							I	I	I	I	I	I	I	I	I	I	I	I
J. Barrell							AP	AP	AP	AP	AP	AP	AP	AP	AP	AP	AP	AP
A. M. Bateman																	I	
J. P. Buwalda																		AP

On leave as United States Forester.

* Non-resident.

UNIVERSITY FACULTIES: THE SCHOOL OF FORESTRY, 1900-1931 (cont.)

	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30	1930-31	
Board of Permanent Officers:													
H. S. Graves				D	D	D	D	D	D	D	D	D	to 1939
J. W. Toumey	Dr	Dr	Dr	P	P	P	P	P	P	P	P	P	to 1932
Gifford Pinchot	P*	P*	P*	P*	P*	P*	P*	P*	P*	P*	P*	P*	to 1926
H. H. Chapman	P	P	P	P	P	P	P	P	P	P	P	P	to 1943
R. C. Bryant	P	P	P	P	P	P	P	P	P	P	P	P	to 1939
R. C. Hawley	P	P	P	P	P	P	P	P	P	P	P	P	to 1933
S. J. Record	P	P	P	P	P	P	P	P	P	P	P	P	to 1945
J. S. Boyce													to 1958
Others in Forestry Faculty:													
H. N. Whitford	AP	AP	AP	AP	AP		AP	AP	AP	AP	AP	AP	to 1966
G. A. Garratt							AP	VP					
J. A. Ferguson								RA(P)	RA(P)	RA(P)			
G. P. Clinton										1	1	1	to 1940
R. B. Friend										RA(AOP)	RA(AOP)	RA(AOP)	to 1933
M. F. Morgan													
W. Maughan										1			
N. D. Canterbury												FD	to 1937
Lecturers and Special Lecturers:													
	4	3	5	4	4	4	3	2	2	2	2	2	1
Instructors from Other Faculties:													
W. R. Coe	P	P	P	P	P	P	P	P	P				
J. P. Buwalda	AP	AP											
R. S. Kirby	AP	AP											
C. S. Farnham	AP	AP	AP	AOP	AOP	AOP	AOP	AOP	AOP	AOP	AOP	AOP	
C. O. Dunbar			AP										
R. H. Suttie			AP										
G. E. Nichols			AP			AOP	AOP	P	P	P	P	P	
P. G. Laurson				AP									
T. K. Hendrick				1	1	1			1				
G. W. Colton													1
F. R. Hughes													

Sources. Forestry School Annual Catalogues and Historical Register of Yale University, I, II, III.
Note: RA(P) indicates Research Associate (Professorial Rank); FD identifies Director of a Forest.

UNIVERSITY FACULTIES: THE SCHOOL OF FORESTRY, 1935-1976

<u>1935-36</u>	<u>1940-41</u>	<u>1946-47</u>	<u>1950-51</u>	<u>1955-56</u>	<u>1960-61</u>	<u>1965-66</u>	<u>1970-71</u>	<u>1975-76</u>
1 D	1 D	1 D	1 D	1 D	1 D	1 D	1 D	1 AcD
6 P	4 P	4 P	3 P	6 P	1 AD	1 AOD	9 P	10 P
1 AOP	2 AOP	1 AOP	2 AOP	1 AOP	4 P	1 AD	2 AOP	1 PJ
1 AP	1 AP	3 AP	2 AP	7 AP	6 AOP	7 P	8 AP	5 AOP
1 I	2 L	2 L	1 I	3 I	5 AP	2 AOP	9 L	5 AP
1 I.	4 OF	2 OF	4 L	3 L	2 I	3 AP	1 VL	7 I.
1 FDr			1 OF	1 VL	3 L	3 L		2 VL
6 OF						2 VL		

Source. Forestry School Annual Catalogues.

Note. Gifford Pinchot continued as non-resident Professor until 1936. The Deans were teaching Professors. No individual counted more than once. Research staff and Administrative Assistants not tabulated.

- D = Dean
- AOD = Associate Dean
- AD = Assistant Dean
- AcD = Acting Dean
- P = Professor
- PJ = Adjunct Professor
- AOP = Associate Professor
- I = Instructor
- L = Lecturer
- VL = Visiting Lecturer
- OF = Faculty from Other Schools
- FDr = Forest Director

UNIVERSITY FACULTIES: THE SCHOOL OF NURSING, 1923-1952

Faculty Name	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52		
A. W. Goodrich (D 23-34)																																				
E. J. Taylor (D 34-44)																																				
A. H. Grant																																				
B. Harmer																																				
H. J. Hubbell																																				
A. Patton																																				
I. E. Reeve																																				
G. E. Hodgman																																				
M. A. Treacy																																				
H. S. Stewart																																				
M. Parson																																				
E. S. Bixler (D 44-59)																																				
E. Melby																																				
M. D. McCorkle																																				
P. W. Humphrey																																				
E. G. Fox																																				
J. Barrett																																				
H. H. Bowles																																				
E. Budd																																				
M. E. Curtis																																				
M. B. Leonard																																				
E. M. King																																				
C. A. Herrick																																				
L. M. Grant																																				
I. M. Hehusen																																				
A. E. Fyle																																				
M. G. Dena																																				
B. R. Carrington																																				
J. MacLean																																				
E. P. Rice																																				
D. Weber																																				
R. Salinger																																				
E. L. Howes																																				
E. L. Beebe																																				
A. K. McGibbon																																				
J. E. Taylor																																				
M. Bartholf																																				
H. C. Toelle																																				
L. N. Claiborn																																				
C. S. Culotta																																				
H. E. Hallfors																																				
M. P. Jayne																																				
M. Hurlburt																																				

UNIVERSITY FACULTIES: THE SCHOOL OF NURSING, 1923-1952 (cont.)

	1923-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32	32-33	33-34	34-35	35-36	36-37	37-38	38-39	39-40	40-41	41-42	42-43	43-44	44-45	45-46	46-47	47-48	48-49	49-50	50-51	51-52	
H. G. Parker																														
R. Gilbert																														
F. G. Blake																														
P. V. Kummer																														
K. O. Hyder																														
B. Finkelstein																														
L. A. Sholtis																														
J. A. Booth																														
E. A. Hall																														
M. S. Jackson																														
E. A. Gordon																														
M. E. Russell																														
D. Wilson																														
R. Rubin																														
T. R. Aufhauser																														
E. L. Hart																														
M. E. Kinney																														
M. J. Magee																														
G. M. Golder																														
M. T. MacKenzie																														
E. A. Shields																														
A. Simeong																														
Other Instructors	6	14	13	10	14	18	20	15	13	12	13	11	22	22	26	30	41	38	34	25	25	25	25	22	20	18	17	23	18	
Clinical Instructors																														
Assistant Instructors	44	15	12	8	7	7	11	16	18	19	18	14	22	21	22	26	19	20			8	12	12	25	18	20				
Additional Instructors (from other schools)	24	24	32	31	37	43	42	46	52	51	53	51	40	42	46	46	44	39	42	42	39	42	42	50	54	58				

OC = Associate Clinical Professor
 AC = Assistant Clinical Professor
 CI = Clinical Instructor
 S = Assistant in Instruction
 a = Assistant
 CP = Clinical Professor
 D = Dean
 P = Professor
 OI = Associate Professor
 A = Assistant Professor
 I = Instructor
 CP = Clinical Professor

Sources. The names of those who achieved a rank above that of Instructor prior to 1952 were taken from the Nursing School Catalogues, and were then checked against the Historical Registers. The numbers of Clinical Instructors, Assistants and Assistant Instructors, were given by the Nursing School Catalogues but are not recognized by the Historical Registers. In contrast, the figures for "Other Instructors" have been corrected from the Catalogue figures by checking the Historical Registers, Vols. I, II, and III.

UNIVERSITY FACULTIES: THE SCHOOL OF NURSING, 1957-1976

	<u>1957-58*</u>	<u>1960-61</u>	<u>1965-66</u>	<u>1970-71</u>	<u>1975-76</u>
D = Dean	1 D	1 D	1 D	1 D	1 D
AD = Assistant Dean	1 AD	4 AOP	1 P	2 P	1 P
P = Professor	5 P	1 AACP	3 AOP	5 AOP	3 AOP
AOP = Associate Professor	4 AOP	2 AP	4 AP	8 AP	1 AACP
AACP = Associate Clinical Professor	1 AACP	4 ACP	10 I	15 I	21 AP
AP = Assistant Professor	4 AP	2 I	1 I	2 L	18 I
ACP = Assistant Clinical Professor	5 ACP	5 CI	11 RA	7 RA	17 L
I = Instructor	23 I	3 L	56 OF	5 RG	1 RA
CI = Clinical Instructor	9 CI	4 RA		69 OF	63 OF
RA = Research Associate or Assistant	1 RA	45 OF			5 OP
RG = Research Grant Appointment	12 ASI				
Asi = Assistant in Instruction	3 L				
L = Lecturer	49 OF				
OF = Other Faculty					
OP = Outside Preceptors					

Source. Annual Catalogues of School of Nursing. Each individual counted only once.

* No School Catalogue published, 1955-1957.

UNIVERSITY FACULTIES: THE GRADUATE SCHOOL, 1887-1976

<u>1887-1888</u>	<u>1890-1891</u>	<u>1895-1896</u>	<u>1900-1901</u>	<u>1905-1906</u>	<u>1910-1911</u>	<u>1915-1916</u>
40 P 1 AP	42 P 1 AP	1 D 51 P	1 D 27 P	1 D 63 P	2 D 75 P	1 D 84 P
<u>Other Instructors</u> 4 P 1 AP 4 I 3 L	<u>Other Instructors</u> 3 P 4 AP 6 I 5 L 4 A 3 T	<u>Other Instructors</u> 6 P 10 AP 19 I 4 L 1 A 3 T 2 GDr	<u>Other Instructors</u> 7 P 10 AP 21 I 3 L 3 T 2 GDr 1 LabDr	<u>Other Instructors</u> 8 P 29 AP 38 I 8 L 2 T 3 A	<u>Other Instructors</u> 57 AP 36 I 4 L 1 RLib	<u>Other Instructors</u> 40 AP 22 I 1 C 3 Lib
<u>1920-1921</u>	<u>1925-1926</u>	<u>1930-1931</u>	<u>1935-1936</u>	<u>1940-1941</u>	<u>1946-1947</u>	<u>1951-1952</u>
1 D BPO:18 P	1 D BPO:24 P	1 D BPO:42 P	1 D BPO:58 P	1 D BPO:78 P	1 D BPO:58 P	1 D BPO:65 P
<u>Other Instructors</u> 67 P 6 PR 4 AOP 64 AP 1 C	<u>Other Instructors</u> 75 P 8 PR 32 AOP 51 AP 27 I 9 L 7 Others	<u>General Faculty</u> 105 P 24 PR 57 AOP 94 AP 35 I 5 L 8 RA	<u>General Faculty</u> 105 P 62 AOP 81 AP 49 I 2 L 18 RA 7 TA 1 C	<u>General Faculty</u> 93 P 62 AOP 94 AP 33 I 1 L 13 RA 1 TA	<u>General Faculty</u> 95 P 64 AOP 69 AP 31 I	
<u>1955-1956</u>	<u>1960-1961</u>	<u>1965-1966</u>	<u>1970-1971</u>	<u>1975-1976</u>		
1 D 1 AOD BPO:80 P	1 D BPO:76 P	1 D 3 AD + Committees + over 500 teaching	1 D 1 AOD 3 AD + Committees	1 D 2 AOD 3 AD + Committees		

UNIVERSITY FACULTIES: THE GRADUATE SCHOOL, 1887-1976 (Cont.)

BPO	= Board of Permanent Officers	A	= Assistant
D	= Dean	RA	= Research Assistant
AOD	= Associate Dean	TA	= Teaching Assistant
P	= Professor	C	= Curator
PR	= Professorial Rank	Lib	= Librarian
AOP	= Associate Professor	RLib	= Reference Librarian
AP	= Assistant Professor	LabDr	= Laboratory Director
I	= Instructor	GDr	= Gym Director
T	= Tutor		

Source. Graduate School Annual Catalogues.

Note. From the beginnings (1846-1861-1892) graduate instruction in the Department of Philosophy and the Arts was provided by Professors in the College or Scientific School; at first these were only a handful, but by 1891 some 43 in number. In 1886 this Department was renamed the Graduate School, and in 1892 was given its own Dean; but the old custom continued, and almost all of the instructors held their primary appointments in some other school. Gradually, however, a few individuals in new or esoteric subjects were added directly (and only) to the Graduate School, thus creating a hybrid faculty, itself without constitutional status or powers. Thus the 1915-1916 faculty contained 12 Professors (out of 84) with no other appointment--among them Albert Stanburrough Cook, the German-trained philologist; Charles M. Andrews from Johns Hopkins in Colonial History; Henry W. Farnam in Political Economy; and others in Archaeology, Paleontology, Japanese Civilization, Radio Chemistry, Sanskrit or Semitic Languages.

After the great reorganization of 1919-1920, a Board of Permanent Officers was set up under the Dean, to recommend appointments and oversee the standards of admission and graduation; yet its members for the most part still taught also in one of the undergraduate or professional schools, along with a "general faculty" which never met as such and derived individual status entirely from some other school.

Throughout this table we are dealing therefore with numbers of individuals already registered elsewhere. Finally in 1962 the duplicating and overlapping BPOs of the College and the Graduate School were conflated for appointment purposes into a joint board, while the Dean and a growing number of Assistant or Associate Deans strove with the aid of some faculty committees to oversee the certificating functions and handle the mounting complexities of administration.

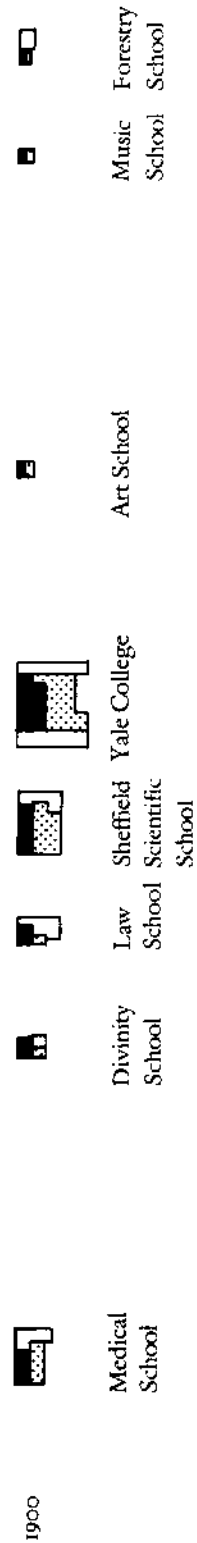
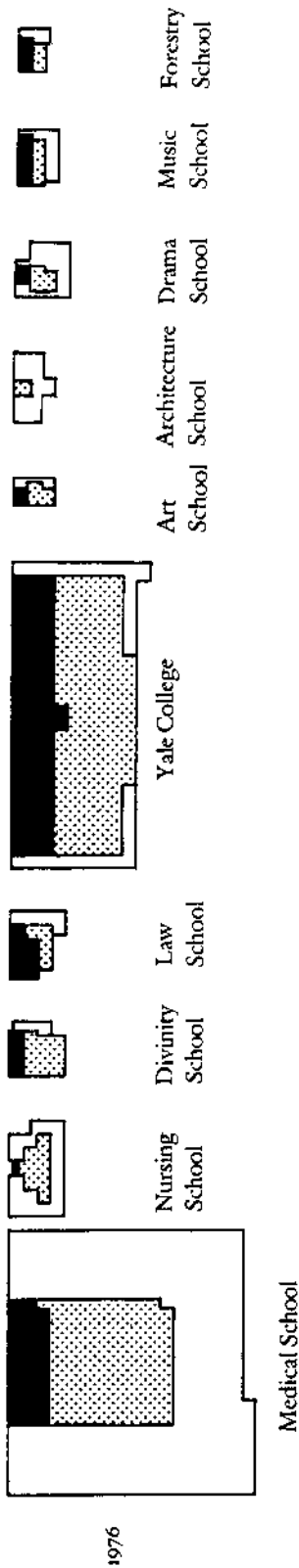
lecturers or temporary instructors, who in the Medical School and the Law School began to multiply in the '80s and doubled again in the '90s.

By the twentieth century, with their vital signs much stronger, almost all of the older school faculties had become too large and diverse for individual listing; so our tabular form has been changed to show, at five-year intervals, the multiplication of ranks and the distribution of numbers between them. In the Law and Divinity Schools one observes a fairly steady growth; in Forestry some signs of a maturity plateau; but in Nursing the continued failure to develop a permanent professional staff. One needs to know something about the struggles of nursing to achieve professional status, and about the successors to Dean Annie W. Goodrich, the pioneering founder, and about the crisis that overtook the School in A. W. Griswold's presidency (1955) to appreciate the significance of the Nursing School statistics. Yet clearly all was not as Dean Goodrich, or her successor faculty, or as Yale itself might have desired.

At least one other major development clamors for remark. A careful analyst will notice in one school after another the gradual addition of part-time lecturers, or of visiting, or clinical, or adjunct, or critic members to the faculties. Such additions may be hailed as indicating the openness of Yale's professional schools to the "real world" outside. Alternatively, they represent the substitution of part-time and amateur or partially trained teachers for professional academics. In certain schools, like Architecture and Drama, this tendency seems to have been carried to an extreme. How account for the near extermination of their professors? Were experiment and innovation in these disciplines going on so rapidly and in so many new directions that only fresh and renewed drafts on outside talents could keep Yale's classrooms abreast? Were performing artists indispensable, and obtainable in no other way? Would the brightest intending architects and musicians come only to the schools with the great names? Or was it also that these disciplines still lacked an intellectual system strong enough to resist the waves of fashion? Or did such transitory attachments testify rather to the chaotic uncertainties being experienced by the professions themselves in our twentieth century world?

Most striking of all, and to some observers quite disturbing, has been the outsized growth of the Medical School. This was unmistakable in its regular faculty but also in its associated faculties: its clinical associates and lecturers and visiting fellows and others. Examining our school tables (D-4.1 and D-4.2) or the annual catalogues, one is startled to learn that increasingly since 1920 the Medical School has become connected with and sur-

University Faculties in 1900 and in 1976



rounded by an almost overwhelming number of "non-ladder" faculty, some full-time but temporary, others resident in New Haven but evidently part-time in their engagement, still others almost complete outsiders.

In the 55 years since World War I the body of students enrolled as candidates for the M.D. grew from some 118 to 605, a five-fold increase yet a modest total when measured against a total University enrollment that was approaching 10,000. At the faculty level, however, the gross figures tell a quite different story. By 1975-76 the regular medical faculty had come to constitute one-third of the tenured and non-tenured faculty in the whole University (587 by the catalogue out of about 1720). And the total Medical School faculty more than equaled that of the whole rest of the University combined (1694 out of about 3200).

How had this come about? Obviously a combination of powerful forces had been at work. As Dean Robert W. Berliner wrote to me:

...Medicine has grown very much more complex over the last forty years or so and it is difficult to be expert beyond a relatively narrow area of specialization. Yet we would like our students (at all levels) as well as our patients to have available to them expertise in all of the fields of medicine. At the same time, by their research in these many fields, our faculty contribute to the remarkable progress of medicine. This, along with the funds that support their research, accounts for most of the growth of the ladder faculty.

The growth of the part-time clinical faculty derives from quite different factors--among them the fact that we have affiliations with a dozen hospitals in southern Connecticut and help them in the recruitment and teaching of house staff. In any case, with only a very few exceptions the part-time faculty are paid nothing by the school, but do, to a minor extent, contribute to the teaching of students, and to a much greater extent to the teaching of house staff.

It can fairly be added that the affiliation of clinical faculty and other non-ladder specialists had been bringing a whole series of special advantages to the Yale-New Haven Medical Center and to the School. The inclusion of many of New Haven's practicing physicians, and of hospital authorities and medical personnel from around the state, brought in patients and interesting medical problems from the whole region, and so enriched the opportunities for learning and for experiment at Yale--while at the same time improving Yale's public relations. Unquestionably a good many doctors on the clinical side had sought attachment for reasons of hospital opportunities and prestige, while researchers interested in health funds or government grants found Washington insisting on a University connection, for staff as well as for the principal investigator. In compensation, the clinical professors, as noted, were doing some teaching,

and the investigators, in or out of the ladder faculty, were drawing many of their salaries and most of their new laboratory equipment from the outside. So the resources of the School and the Yale-New Haven Medical Center were enhanced well beyond what the University could have afforded to purchase or employ. And in budgetary terms, where before World War II the Medical School had been a severe drain on the University's expendable funds, in recent years the net flow had been the other way.

Yet the vulnerability of the University to political or financial disaster worried some Yale academics. And with private universities so dependent for their existence on the internal efforts (and sacrifices) of their own faculties, there was concern also about the institutional insecurity implicit in such partial or divided allegiances.

Another feature of the Medical School faculty (which our enumerations revealed but which does not get identified in these tables) was the astonishing number of faculty in Psychiatry. In 1975-76 there were 106 psychiatrists (and psychologists in psychiatry) catalogued as members of the regular Medical School faculty of 587 (or 18%); a Medical School count of August 1975 showed 82 psychiatrists out of a ladder faculty of 553 (or 15%). In addition there were, by this revised count, some nine full-time researchers in psychiatry, and 194 part-time clinical faculty and lecturers, to say nothing of 75 post-doctoral fellows. So the department of psychiatry in that year was just a little larger than the department of Internal Medicine: hence not only the largest department in the Medical School but otherwise by far the largest department in the entire University. Just by themselves the regular faculty of the department of Psychiatry outnumbered the combined full-time faculties of the Schools of Art, Architecture, Drama, Music and Forestry. And altogether, with clinical research and visiting affiliates added in, Yale's staff in psychiatry almost equalled the entire full-time and part-time faculties of the Schools of Law, Divinity, Art, Architecture, Music, and Forestry.

A part of the explanation was the School's conviction that, as Dean Berliner put it,

...Psychiatry is an important element in the education of all physicians in whatever field they may later find themselves. In addition the Department is involved in the graduate (residency) training of a large number of those who will be psychiatrists. This graduate training is conducted through the responsibility of the Department for psychiatric services at the Yale-New Haven Hospital, the Connecticut Mental Health Center, the Yale Psychiatric Institute and the West Haven Veteran's Administration Hospital.

Such city-state-and-federal responsibilities represent an outreach not achieved by most other departments in the University. In addition, it may be remembered that in the days of the Medical School's first achievement of great stature, Milton Winternitz was the Dean, James Rowland Angell (a psychologist) was President, and one of their collaborative enterprises was the Institute of Human Relations which, failing to secure alliances with the Schools of Law and Divinity, developed great strength in psychology and psychiatry. Another historical contribution had perhaps been the fact that Dr. Arnold Gesell set up his children's clinic close by, which over time has been transformed and enlarged into Yale's Child Study Center, itself oriented to psychiatry.

How far other influences, of background or personnel, may have entered into the particular ways the Yale Medical School and Center have grown will not be canvassed here. What emerges statistically is the massive size of the Medical School faculty and within that an emphasis on psychiatry that astonished this historian. One wonders whether these developments have been widely appreciated or fully understood.

Some faint suggestion of the strengths and of the imbalances achieved by the University faculties by 1976 can be read in the final graph, D-4.19.

D-5. Some Strands of Continuity

D-5 Some Strands of Continuity

Introduction: Carriers of the Word

What has given Yale its extraordinary persistence and stability? With colleges, survival is not automatic. Most of the 500-odd institutions founded before the Civil War were early dead and gone; many established since 1865 are no longer with us; not a few of those we have at this moment are in jeopardy. So who or what account for Yale's durability, its continuity, its persistence?

The students? Hardly. Stability and responsibility are not the outstanding characteristics of adolescents. For college undergraduates perennially the risk of adventure, the excitement of change, the challenge to authority and defiance of rules have ever been more appealing sport. And the young can be peculiarly susceptible to national emergencies or waves of public unrest--as witness the Great Awakening in the 1740s, or the draft in World War II, or the dangerous disturbances in some of our strongest universities around 1970.

As for continuity, how hope for any when every year a college generation has graduated, and been renewed? True, each class goes through a four-year experience of studying and living together, and each member of this intimate and zestful company has in those "shortest gladdest years of life" known three older classes and three younger in addition to his own; so the span of acquaintance and shared memories may stretch by overlap to seven years. And this lamination of the classes or chain of interlocking lives is continuous; Yale College has never been totally interrupted. Even so, in 275 years the institution has been visited by some 275 different classes (actually 284 because of acceleration in World War II). And every four years each generation or group of student visitors (from Freshmen to Seniors) has been cleared out and succeeded by another four-level cohort of sometimes rebellious strangers--for some 70 complete changes of personnel since 1702.

With ideas and instruments, happily, things can be different. The ideals of a college, its religious and intellectual beliefs, its traditions of discipline and instruction, its ceremonies, its rituals, and its ancient course

of study, its very buildings and college grounds: these help generate and perpetuate the body of assumptions and habits that constitute the heart of the thing we call a college. Yet in our new-world wilderness, in so changeable a society as the American, and through such headlong transformations as we have known in modern times, the survival of ideas and traditions has also been far from automatic. Laymen tend to overlook the extreme difficulty of creating and preserving the fragile and unarmored collegiate forms. It would help-- indeed it has been indispensable--to have men of responsibility and courage on watch to observe, to learn and perpetuate the values of the higher learning, both social and intellectual.

In such guardians, Yale has been singularly fortunate. Students might come and go again, but the Presidents, the Trustees and the Faculty: they kept at their curious and mysterious business and handed on its experience and secrets--as it would seem with a most deliberate care.

Yale's Presidents

Let us consider first Yale's officers of administration. Our table of "Rectors and Presidents" (D-5.1) shows that from 1701 to 1978 Yale has known only 18 leaders, with a 19th just beginning. Their average tenure can be calculated at over 15 years. If any onlookers are curious to inquire they will not find such steadiness and sturdiness of administration in many places. Some state institutions not half as old have had more presidents.

A second feature of this Presidential table is worth noting: the overlap between the incumbents. In the beginning it was Reverend Samuel Andrew who provided the indispensable continuity, first as Trustee, then as President pro-tem and again as Trustee. His experience and care stretched through Yale's first four presidencies: Pierson had died; Timothy Cutler had come and been dismissed; and Elisha Williams had served as Tutor under Andrew and so had had some memories to bring back to New Haven in 1726. After Williams, Thomas Clap came in with no previous Yale experience. He did know Harvard, was indeed the last of our Harvard-educated presidents, and after him only James Rowland Angell in the twentieth century would embark on a presidential enterprise so meagerly provided with prior Yale experience. But Clap worked hard and obstinately at his job and held office for 26 years. His successors Daggett and Stiles both got their B.A.s and their first training as teachers under Clap. And so it would continue: Timothy Dwight had studied and taught under Daggett; Jeremiah Day under Stiles and Dwight; Woolsey under Day; Porter and the younger Dwight

RECTORS AND PRESIDENTS

1800			
1790			
1780			
1770			
1760			
1750			
1740			
1730			
1720			
1710			
1700			

1900			
1890			
1880			
1870			
1860			
1850			
1840			
1830			
1820			
1810			
1800			

1978			
1970			
1960			
1950			
1940			
1930			
1920			
1910			
1900			

A. Pierson
S. Andrew
T. Cutler
E. Williams
T. Clap
N. Daggett
E. Stiles
T. Dwight
J. Day

T. Dwight
J. Day
T. D. Woolsey
Noah Porter
T. Dwight II
A. T. Hadley

A. T. Hadley
J. R. Angel
Ch. Seymour
A. W. Griswold
K. Brewster Jr.
H. H. Gray
A. B. Giamatti

R = Rector
Pres = President
Prov = Provost
RPT = Rector pro tempore
PPT = President pro tempore
c = Fellow of Corporation
p = Professor
o = Associate Professor
a = Assistant Professor
i = Instructor
t = Tutor
l = Lecturer

* Woolsey was Lecturer on International Law, 1873-77.
Hadley was Dean of the Graduate School, 1892-95.
Griswold was Instructor 1930-36; Research Assistant 1935-38.
Brewster was Provost designate 1960-61; Provost 1961-63; Professor from 1961.
Gray was Provost 1974-77; Acting President 1977-78.

Sources: Historical Register of Yale University, Vols. I, II, III

under Day and Woolsey; Hadley under Porter and Dwight; Seymour and Griswold also each under two predecessors. It is perhaps no accident that President Charles Seymour was Yale's most conservative twentieth century president. For he was related to Day and descended from Clap, had a father in the faculty, and had grown up at Yale. The greatest stretch of continuity, however, we owe to the three friends, Day-Woolsey-Porter, who succeeded each other in the management of Yale and knew it across a full century, from 1791 when Day entered the College under Stiles to 1892 when Porter finally retired from his professorship. Porter studied or presided or taught at Yale for 50 years; Woolsey, with corporation service added, for 58. While through no fewer than 76 of these years Jeremiah Day as student, Tutor, Professor, President and Corporation Fellow, made sure of the continuity. His was the longest experience and service to Yale we have on record.

The Corporation

The Fellows of the Corporation? They have been too numerous to list, so merely some of their more notable tenures have been chosen for illustration (D-5.2). Personal knowledge has enabled us to single out some of the more influential members of the Corporation in the twentieth century, but for the earlier periods only a few of the longer tenures and spans of continuity have been portrayed. For example, one notes that in addition to Samuel Andrew, who carried through 38 years, there was Samuel Russel, who shared the trust for the first 30 of those years. Succeeding Russel came Jared Eliot for 33 years, then Beckwith for 14 and Timothy Pitkin for 27: a stretch of 103 years by just four trustees (the original Samuel Russel and three successors in his chair). If one pursues the Russel-Pitkin line through into the twentieth century one finds that it took only 11 trustees to carry this chair to the year 1928. Similarly the chair first occupied by Joseph Noyes in 1701 knew four others in the eighteenth century; another four carried it through the nineteenth; and when John Hay Whitney succeeded in 1955 for his 18-year term he would become only the 14th holder over a span of 272 years. It goes without saying that--except when a Fellow died in office and it took a little time to find his successor--there were always 10 successor trustees, overlapping each other and passing on the lore and responsibilities of the office. Like the students, they were a continuous and interlocking company--but their tenures lasted for much more than four years.

Taking the whole body of Fellows, one finds that in the eighteenth century some 61 original trustees and successors served on the average for better than

FELLOWS OF THE CORPORATION
Some Tenures in the Succession of Trust

Category	No. Who Served	Average Years of Service	1800	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900	
18th Century Original and Successor Trustees	61	16.2	01S. Andrew 01J. Noyes 01Samuel Russel 01N. Russel 24S. Whitman 35J. Noyes 48B. Whitman 80E. Huntington 90H. Ripley	38A. Shoddard 1920F. Adams 30Jared Elliot 31Eh. Williams 46T. Ruggles 61E. Eells 74N. Taylor	60	72J. Trumbull 83C. Beckwith 69E. Alphalet Williams 70	87	80E. Huntington 90H. Ripley	1890	1880	1870	1860	1850	1840
18th Century Appointees	9	9.2	D. Ely T. Fickb Pl. Williams E. Huntington H. Ripley	161B Daniel Smith 00H. Upson 01J. Marsh 08J. Strong 17	46J. Day 23Noah Porter 20C. Chapin 26A. McEwen 24P. Dow 21David Smith	62	85J. W. Cooper 80C. R. Palmer 87T. T. Mungler 88	75J. W. Backus 72A. Tait 74J. H. Twichell 95Parker	1900	1890	1880	1870	1860	
19th Century Successor Trustees	83	14.5	J. W. Cooper C. R. Palmer T. T. Mungler N. Smyth C. M. Depew J. H. Twichell E. P. Parker	18- 20S. H. Fisher 10 Otto T. Bamard 05P. Merrill 2123H. S. Coffin 08W. H. Tait 13H. Cheney 19F. T. Murphy	35J. Loomis 36Dean G. Acheson 45M. P. Noyes 36Robert A. Tait 38G. VanSantvoord 40M. Hadley 46C. D. Dokey 34H. Knox Sherrill 38W. S. Lewis	53	61E. F. Blair 59 - 64P. Moore, Jr. 60W. P. Bundy 82C. P. Haekins 62J. R. Dilworth 59J. I. Miller 64F. B. Adams	73	1900	1890	1880	1870	1860	
20th Century Alumni Trs.	45	8.7	J. W. Cooper C. R. Palmer T. T. Mungler N. Smyth C. M. Depew J. H. Twichell E. P. Parker	18- 20S. H. Fisher 10 Otto T. Bamard 05P. Merrill 2123H. S. Coffin 08W. H. Tait 13H. Cheney 19F. T. Murphy	35J. Loomis 36Dean G. Acheson 45M. P. Noyes 36Robert A. Tait 38G. VanSantvoord 40M. Hadley 46C. D. Dokey 34H. Knox Sherrill 38W. S. Lewis	53	61E. F. Blair 59 - 64P. Moore, Jr. 60W. P. Bundy 82C. P. Haekins 62J. R. Dilworth 59J. I. Miller 64F. B. Adams	73	1900	1890	1880	1870	1860	
20th Century Originals & Successors	173	15.8	J. W. Cooper C. R. Palmer T. T. Mungler N. Smyth C. M. Depew J. H. Twichell E. P. Parker	18- 20S. H. Fisher 10 Otto T. Bamard 05P. Merrill 2123H. S. Coffin 08W. H. Tait 13H. Cheney 19F. T. Murphy	35J. Loomis 36Dean G. Acheson 45M. P. Noyes 36Robert A. Tait 38G. VanSantvoord 40M. Hadley 46C. D. Dokey 34H. Knox Sherrill 38W. S. Lewis	53	61E. F. Blair 59 - 64P. Moore, Jr. 60W. P. Bundy 82C. P. Haekins 62J. R. Dilworth 59J. I. Miller 64F. B. Adams	73	1900	1890	1880	1870	1860	
Net Totals	63	9.9	J. W. Cooper C. R. Palmer T. T. Mungler N. Smyth C. M. Depew J. H. Twichell E. P. Parker	18- 20S. H. Fisher 10 Otto T. Bamard 05P. Merrill 2123H. S. Coffin 08W. H. Tait 13H. Cheney 19F. T. Murphy	35J. Loomis 36Dean G. Acheson 45M. P. Noyes 36Robert A. Tait 38G. VanSantvoord 40M. Hadley 46C. D. Dokey 34H. Knox Sherrill 38W. S. Lewis	53	61E. F. Blair 59 - 64P. Moore, Jr. 60W. P. Bundy 82C. P. Haekins 62J. R. Dilworth 59J. I. Miller 64F. B. Adams	73	1900	1890	1880	1870	1860	

*Jared Elliot BA1706 was the first graduate to become a Trustee.
*P. Merrill was the first layman among the Successor Trustees.
Note. Several elected Alumni Trustees were later coopted by the Successors, e.g., Edwin Foster Blair had served as an elected Alumni Fellow 1946-52, and 1953-61, before his twelve years as a Successor; also J. R. Dilworth had had three years as an Alumni Trustee before being chosen a Successor in 1962.
Sources. Historical Register of Yale University, Vols. I, II, III.

16 years each. The nineteenth century knew 9 carry-over Trustees, 63 more Successors and 18 Alumni Trustees. The twentieth century saw again 9 carry-over Trustees, 49 new Successor Trustees, and 5 and 45 Alumni Trustees, with several individuals coopted as Successors after serving as elected alumni. Altogether one counts 173 Original and Successor Trustees, still with an average service of 16 years; and 63 Alumni Trustees with an average service of 10. Such records carry their own message.

It will be noticed that our table takes no account of the Governors and Lieutenant Governors who ex officio entered the Corporation in 1792 and have continued ever since. Nor does it list the Senior Assistants or Senators who were also ex officio members of the Corporation over the 80-year span from 1792 to 1872. These omissions are deliberate. For in the 175 years from 1792 to 1976 there were altogether 63 different Governors. One served for 12 years, another for 10, and Yale's retired Dean, Wilbur Lucius Cross, for 8; but otherwise most tended to come and go every year or two, and for the whole period their average length of service was 2.8 years. The Lieutenant Governors were even more changeable, with 79 men averaging 2.2 years in office, and with most of them serving for only one or two.

The six Senior Assistants were at first a different matter: they represented the senior half of the upper chamber of the State and as senior statesmen they tended to stay on. So in the first 26 years only 24 individuals were involved, 9 of whom served for terms ranging from 9 years to 17.* Then in 1818 Connecticut adopted a new constitution, and the six Senior Senators succeeded to the functions of the Senior Assistants. Even though still elected by all the voters, these Senior Senators knew a considerable turn-over; in the next 11 years there were 30 Senior Senators, only 3 of whom lasted for as long as 5 years. Where the median length of service of the Senior Assistants had been 5 years, their median was 2. Then came a still less fortunate change. In 1828-29 the State was divided into 12 Senatorial Districts--and the Districts were soon further subdivided--and the Senators thus elected by much smaller local constituencies proved smaller men, and still more unstable. From the elections of 1830 to 1872 of 206 individuals only 18 held office for as many as 2 consecutive years, while the remainder lasted just a single academic

*One of these senior statesmen, Elizur Goodrich (1761-1849), had graduated in 1779, served as Berkeley scholar, tutor, assistant to the Treasurer, Professor of Law, then State Senator on the Yale Corporation, 1809-1818, then for twenty-eight more years as Secretary to the Yale Corporation: in his life span of eighty-eight years he would know seventy-one years of uninterrupted connection with Yale.

calendar. As Leonard Bacon put it in 1879, after they were gone, the consequence of the constitutional change had been "a progressive diminution of the dignity of the Senate Ordinarily to be a Senior Senator, and therefore . . . a Fellow of Yale College was little more than an honorary distinction--the honor not despised--the duty not considered." So few of the new breed had attended the Yale Corporation meetings that in 1838 it had been necessary to allow a majority of the Successor Trustees to constitute a legal quorum. President Woolsey found that over a span of 35 meetings the Senatorial attendance had averaged less than half, and those who did attend were apt to withdraw early. So Woolsey proposed, and Governor Jewell supported, and in 1872 rather surprisingly the Legislature accepted the substitution of six elected Alumni Trustees for the six Senators. With one or two exceptions their contribution to Yale's stability and longevity had consisted simply in absence of interference.

The Professors

The Faculty entry into this function of responsibility and continuity really dates only from the turn into the nineteenth century; before that there was no regular and established body of professors who could be called a Faculty. Thereafter, however, it was perhaps the Faculty more than any others who provided the momentum and the continuity. Comparison will show only a handful of Corporation Trustees with tenures of 35 years or more, whereas such tenures were commonplace in the College Faculty. The first 3 great architects--Day, Silliman, Kingsley--continued together from 1795 to 1851, or better than half a century. Substantially overlapping them were Woolsey, Porter, Dana and Thacher, who knew each other at Yale from about 1831 to 1885. Again one finds Beers and the younger Dana, or Cross and Phelps and Clive Day, or Williams and Gabriel: half-century teammates in the enterprise. To count in a different fashion: as Benjamin Silliman retired from his professorship in 1853, Arthur M. Wheeler entered as a Freshman; then when Wheeler finally ceased lecturing in 1911 Stanley Williams and Ralph Gabriel were already on hand, to carry on into the late 1950s. And it may be that youngsters who knew them will be teaching at Yale in the twenty-first century.

Once again no attempt has been made to list all the Faculty, but care has been taken to include a number of those who were particularly notable for length and strength of contribution in preserving Yale College and its traditions.

On my desk is a symbol: a medal presented to Theodore Dwight Woolsey on

NOTABLE FACULTY TENURES (SINCE 1800)

1975	
1970	
1968	
1958	
1940	
1930	
1920	
1910	
1900	
1890	
1880	
1870	
1860	
1850	
1840	
1830	
1820	
1810	
1800	

BA85 T98-01 Jeremiah Day P01-46 Pres 17-48 CF46-67
 BA86 T98-02 Beah, Siliman P02-51
 BA88 T01-05 L05-24 James L. Kingsley P05-51
 BA09 T11-15 L24-26 L24-43 Josiah W. Gibbs P26-61
 BA10 T12-14 Chauncey A. Goodrich P17-28 (Div 38-50)
 BA13 T15-17 Derision Omgled P23-59
 BA20 T23-25 Theo, D. Woodsey P31-51 Pres46-71 Le73-77 CF71-85
 BA31 T33-35 Noah Porter P47-92 186-71 Pres71-88
 BA33 A38-37 James D. Dana P50-84
 BA42 T45-48 AP48-51 Th. D. Thacher P51-86
 BA49 T51-55 AP58-61 Timothy Dwight II P61-86 Pres 86-99
 Wm. D. Whitney P54-94 156-94
 BA57 T61-64 Arthur M. Wheeler P65-06 Le06-11
 BA58 PhD63 T63-66 J. Willard Gibbs P71-03
 BA59 J70-71 Th. R. Lounsbury P71-06 SSSL73-96 SSSI77-11
 BA63 T66-69 Wm. G. Sumner T72-09
 BA68 T71-74 AP74-80 Henry A. Beers P80-16
 BA70 PhD76 T74-79 AP78-80 Edw. S. Dana P80-17
 BA76 T79-83 183-86 D92-95 A. T. Hadley P86-99 Pres99-21
 ED77 Geo. H. Adams P88-17
 BA85 PhD89 194-97 AP97-02 Wilbur L. Cross P02-30 SSSI06-15 SSSI10-16 D16-30
 BA87 PhD91 192-96 AP96-01 Wm. L. Phelps P01-33
 BA92 PhD99 189-02 AP02-01 Olive Day P07-38
 BA99 PhD02 193-05 106-08 AP08-14 Chauncey B. Tinker P14-45 KB30-45
 Ross C. Harrison P07-38
 Geo. L. Hendrickson P08-33 Le33-38
 BA04 PhD10 107-13 AP11-19 Clarence W. Mendell P19-52 D26-37
 BA08 PhD11 111-15 AP15-18 Ch. Seymour P19-37 Prov28-37 Pres37-50
 BA11 PhD15 115-20 AP20-26 AOP26-32 San. T. Williams P32-56
 BA13 PhD19 115-19 AP19-25 AOP25-28 Ralph H. Gabriel P28-58
 PhD13 116-18 AP19-22 AOP22-23 Edgar S. Furness P23-58 D30-50 Prov37-58
 BA20 PhD25 122-25 AP26-34 Wm. C. DeVane P38-63 D38-63
 PhD25 125-26 AP28-30 Fred. A. Poille P40-66
 128-31 AP31-40 AOP40-44 G. E. Hutchinson P44-71
 BA35 PhD28 128-30 Th. G. Bergin P48-73

- A = Assistant
 - AP = Assistant Professor
 - AOP = Associate Professor
 - CF = Fellow of Corporation
 - D = Dean
 - I = Instructor
 - KB = Keeper of Rare Books
 - L = Librarian
 - Le = Lecturer
 - P = Professor
 - Pres = President
 - Prov = Provost
 - SSL = Librarian of Sheffield Scientific School
 - SSS = Trustee of Sheffield Scientific School
 - T = Tutor
- Sources. Historical Register of Yale University, Vols. I, II, III.

the fiftieth year of his appointment as Professor of Greek. It reads

Præceptorī
suo
Præceptores
Yalenses
MDCCCXXXI
MDCCLXXXI

From Yale's teachers to their own teacher? After 50 years? Across almost two hundred years Yale's memorable professors would teach each other--and hand down the trust.

E

ALUMNI

E-1. Tables of Graduates and Non-Graduates

E-1 Tables of Graduates and Non-Graduates

Introduction: The Living and the Dead

At any given moment, how many of the men and women, who had ever graduated or studied at Yale, were still alive?

This seems a simple enough question but it proves extraordinarily difficult to answer. From the early years of the College we have names and data only for the graduates; later some of our essential statistics do not distinguish between graduates and non-graduates; and we do not know precisely how many in each category had died. For the graduate and professional schools the records are more consistent, yet there the problem of multiple degrees intrudes, so that one can discover how many degrees had ever been awarded yet not know exactly how many individuals had earned those degrees. Students of population counts will also be aware of the probability of some slight overlaps of figures between schools, to say nothing of the inherent uncertainties, in any large census, of verifying the current state: whether still living or recently dead. As a result, the figures here presented must be regarded as approximations, which may show with certainty only the rough proportions and the significant trends.

Thus, in the simple, spare beginnings (E-1.1) almost everyone ever concerned with the enterprise was still alive: by 1739, after four Rectors, only 53 out of 385 graduates had died. Yet by 1795, on Stiles' death, some 893 out of 2,141 were no longer available, to support their college or try to make it mend its ways: forty-two percent of Yale's constituency were now underground.

Pursuing such trends into the nineteenth century (E-1.2), one finds that by 1846 more than half of the men who had ever graduated from the College were gone; and by 1886 the proportion of dead to living stood at fifty-five percent to forty-five percent. This seemingly unavoidable decline, in the weight of the living as compared with Yale's cumulative constituency since the beginnings, overtook the Medical School by 1886, and the University as a whole by 1871.

YALE GRADUATES: LIVING AND DEAD
AT PRESIDENTIAL INTERVALS, 1702-1795

	1707	1719	1722	1739	1766	1777	1795
Bachelors of Art							
Living	18	76	105	332	815	952	1,248
Dead	0	1	4	53	326	519	893
Total	18	77	109	385	1,141	1,471	2,141
Honorary							
Living	5	6	6	12	68	85	171
Dead	0	0	0	3	15	37	89
Total	5	6	6	15	83	122	260

Source. Catalogue of the Officers and Graduates of Yale University in New Haven, Connecticut, 1701-1924 (1924).

Note. Figures for dead include those whose death dates are not known.

YALE GRADUATES: LIVING AND DEAD
AT PRESIDENTIAL INTERVALS, 1817-1899

	1817	1846	1871	1886	1899
University Graduates					
Living	1,781	3,218	4,729	6,952	11,366
Dead	<u>1,531</u>	<u>2,971</u>	<u>4,877</u>	<u>6,335</u>	<u>8,025</u>
Total	3,312	6,189	9,606	13,287	19,391
Bachelor of Art (1702)					
Living	1,751	2,766	3,768	4,573	6,128
Dead	<u>1,529</u>	<u>2,844</u>	<u>4,449</u>	<u>5,577</u>	<u>6,760</u>
Total	3,280	5,610	8,217	10,150	12,888
Dr. of Medicine (1814)					
Living	30	426	491	408	436
Dead	<u>2</u>	<u>127</u>	<u>377</u>	<u>587</u>	<u>762</u>
Total	32	553	868	995	1,198
Bachelor of Law (1843)					
Living		26	172	518	1,134
Dead		<u>0</u>	<u>38</u>	<u>81</u>	<u>190</u>
Total		26	210	599	1,324
Bachelor of Philosophy (1852)					
Living			235	882	2,209
Dead			<u>12</u>	<u>58</u>	<u>203</u>
Total			247	940	2,412
Civil Engineer (1860)					
Living			8	26	46
Dead			<u>1</u>	<u>2</u>	<u>3</u>
Total			9	28	49
Dr. of Philosophy (1861)					
Living			20	77	303
Dead			<u>0</u>	<u>5</u>	<u>17</u>
Total			20	82	320
Bachelor of Divinity (1867)					
Living			35	390	752
Dead			<u>0</u>	<u>24</u>	<u>68</u>
Total			35	414	820

YALE GRADUATES: LIVING AND DEAD
AT PRESIDENTIAL INTERVALS, 1817-1899 (cont.)

	1817	1846	1871	1886	1899
Mechanical Engineer (1873)					
Living				10	24
Dead				<u>0</u>	<u>2</u>
Total				10	26
Master of Art (1876)					
Living				27	176
Dead				<u>1</u>	<u>12</u>
Total				28	188
Master of Law (1877)					
Living				33	118
Dead				<u>0</u>	<u>6</u>
Total				33	124
Dr. of Civil Law (1878)					
Living				8	26
Dead				<u>0</u>	<u>2</u>
Total				8	28
Bachelor of Fine Arts (A&A) (1891)					
Living					7
Dead					<u>0</u>
Total					7
Bachelor of Music (1894)					
Living					5
Dead					<u>0</u>
Total					5
Master of Science (1899)					
Living					2
Dead					<u>0</u>
Total					2
Honorary Degrees					
Living	195	309	273	323	397
Dead	<u>221</u>	<u>457</u>	<u>753</u>	<u>896</u>	<u>1,067</u>
Total	416	766	1,026	1,219	1,464

Source. Catalogue of the Officers and Graduates of Yale University in New Haven, Connecticut, 1701-1924 (1924).

Note. Figures for dead include those whose death dates are not known.

At which point began a reversal! Obviously, the graduates of the newer degree programs in law, science, divinity, graduate work, fine arts and music were recent, young, and still for the most part alive, so by 1899 in the total University the proportion of the living revived to some fifty-eight percent as against forty-two percent dead. Yet such an explanation is not adequate, for it conceals the vital factor of rates of growth. What had really happened as well was that the Medical School had known a flourishing beginning but had then declined, while the College had grown, but so slowly that more were beginning to die than graduated annually. And what really then proceeded to happen was that in the 1880s the College began to surge ahead and grow so vigorously that every year more graduates were added than were subtracted by death (even from its ever-enlarging pool of previous graduates).

Pursuing such trends into the twentieth century (E-1.3) calls for the exercise of caution. We begin to command information on the total alumni body, i.e., on the non-graduates as well as on those who had earned their degrees, but by 1955 the Yale Alumni Directories were making, at the undergraduate level, no distinction between them. From 1920 we also know the numbers of the living, and the totals of degrees awarded, but not the numbers of all those who had ever been alive. For example, the University Totals figures show that by 1920 there had been awarded 36,886 degrees of all kinds--but there could not have been 36,886 graduates, for a number of them had earned more than one degree. Again, there were 28,165 living alumni, but some of these had never graduated. How many? In the College the number in 1920 was 1,873 out of 11,783 or about sixteen percent; in Sheff. 2,256 out of 8,345 or twenty-six to twenty-seven percent; in the Graduate School some 657 out of an unknown number of individuals who, whether alive or now dead, had separately but often sequentially earned 77 M.S. degrees, 1,162 M.A.s and 999 Ph.D.s (an indicated proportion of about one in three).

By 1948 the percentages of living non-graduates stood for the College at 3,596 out of 21,491 or just under seventeen percent, and for Sheff.'s aging Ph.B. constituency at 1,350 out of 5,640 or twenty-four percent. But for 1955, 1961, and 1967 we cannot positively say. What from other sources we do know is that the percentages of undergraduates not graduating were going down (cf. tables of academic mortality, B-6.1, B-6.2, and B-6.3).

As for the professional schools, the proportion between graduates and non-graduates has varied considerably. Obviously the intending doctors and lawyers were more durable (or more carefully selected?) than were the ministers, who in turn were more persistent than the artists; while the students of music and of

drama seem either to have been the least interested or to have found the greatest difficulties in finishing their full courses, with the result that the Schools of Music and Drama experienced the highest academic mortalities or percentages of student departure.

Returning to the most recent overall figures for the University (E-1.3 and E-1.4) one may deduce that since the founding 110,037 degrees in course (113,070 minus 3,033 honorary degrees) had been awarded to (an estimated) 95,000 individuals; also that in 1967 about 63,000 of these graduates were still alive.

After 266 years, Yale's alumni were still much more alive than dead (and in the late 1960s some of them were also kicking).

It gives one pause to realize that about two-thirds of all the students Yale has ever known may be alive at this moment.

YALE UNIVERSITY ALUMNI
GRADUATES AND OTHER ALUMNI KNOWN TO BE LIVING, 1920-1967

	1920	1936	1948	1955	1961	1967
University Totals						
Total degrees awarded 1702-date	36,846	54,218	71,105	86,367	98,878	113,070
Total Living Alumni	28,165	42,330	54,843	65,627	73,931	81,269
Living graduates and non-graduates, some with multiple degrees						
Undergraduate Schools						
Yale College: Bachelor of Art						
Total degrees awarded 1702-date	19,252	25,064	30,646	36,346	40,457	45,321
Living graduates	9,910	14,561	17,895			
Living non-graduates	1,873	2,825	3,596			
Living Alumni	11,763	17,386	21,491	27,621	30,206	34,055
Sheffield Scientific School: B.S. of Philosophy						
Total degrees awarded 1853-date	7,013	8,676	8,676	8,676	8,676	8,676
Living graduates	5,069	5,429	4,250			
Living non-graduates	2,256	1,806	1,350			
Living Alumni	8,345	7,235	5,640	4,501	3,481	2,453
SSS & Y.C.: Bachelor of Science						
Total degrees awarded 1922-date	2,771	4,826	6,422	7,219	7,803	7,803
Living graduates	2,577	3,343	4,092	4,816	4,622	4,337
Living non-graduates	862	1,049				
Living Alumni	3,439	4,392	4,816	4,816	4,622	4,337
School of Engineering: Bachelor of Engineering						
Total degrees awarded 1933-date*	46	1,407	2,258	2,258	2,836	3,100
Living graduates*	207	1,914	2,57			
Living non-graduates*	52	257				
Living Alumni*	259	2,171	4,037	4,037	5,069	6,200
Graduate School of Arts & Science						
Dr. of Philosophy						
Total degrees awarded 1861-date	999	2,312	3,552	4,787	5,908	7,356
Living graduates	903	2,043	2,982	4,004	4,930	6,085
Master of Arts						
Total degrees awarded 1876-date	1,162	1,747	2,736	3,818	5,036	6,368
Living graduates	1,059	1,466	2,259	3,125	4,132	5,355
Master of Science						
Total degrees awarded 1899-date	77	342	604	1,034	1,455	2,110
Living graduates	74	316	551	962	1,333	1,965
M. A. Teaching						
Total degrees awarded 1960-date					77	412
Living graduates					77	405

*The large discrepancy between the figures for total degrees and for living graduates and non-graduates results from the later reclassification of SSS Ph. B. graduates in the Engineering Departments as graduates of the Engineering School.

YALE UNIVERSITY ALUMNI
GRADUATES AND OTHER ALUMNI, KNOWN TO BE LIVING, 1920-1967 (cont.)

	1920	1936	1949	1955	1961	1967
Master of Philosophy						
Total degrees awarded 1967-date						110
Living graduates						110
Graduate School of Arts & Science						
Living non-graduates	657	2,016	2,364	2,934	3,161	3,487
Sheffield Scientific & Engineering Schools (Graduate Departments)						
SSS (Grad): Civil Engineer						
Total degrees awarded 1860-date	85	89	92	92	92	92
Living graduates	65	51	39	35	23	16
SSS (Grad): Mechanical Engineer						
Total degrees awarded 1873-date	81	121	122	122	122	122
Living graduates	70	100	91	87	71	54
SSS (Grad): Engineer of Mines						
Total degrees awarded 1909-date	31	34	34	34	34	34
Living graduates	27	29	24	21	16	11
SSS (Grad): Electrical Engineer						
Total degrees awarded 1914-date	7	17	18	18	18	18
Living graduates	7	15	14	13	13	9
SSS (Grad): Metallurgical Engineer						
Total degrees awarded 1916-date	2	2	2	2	2	2
Living graduates	2	1	1	1	0	0
SSS (Grad): Master of Science w/ designation						
Total degrees awarded 1923-date	146	146	146	161	161	161
Living graduates	142	142	121	136	131	119
School of Engineering (Grad): Chemical Engineer						
Total degrees awarded 1934-date	2	3	3	3	3	3
Living graduates	2	2	3	3	3	3
School of Engineering (Grad): Master of Engineering						
Total degrees awarded 1936-date	4	4	199	489	781	976
Living graduates	4	4	199	488	775	957
School of Engineering (Grad): Dr. of Engineering						
Total degrees awarded 1936-date	3	3	53	112	186	249
Living graduates	3	3	53	110	184	246
School of Medicine: Dr. of Medicine						
Total degrees awarded 1814-date	1,584	2,270	2,888	3,307	3,748	4,198
Living graduates	627	1,093	1,536	1,820	2,163	2,476

E-1, 3
(Cont.)

YALE UNIVERSITY ALUMNI
GRADUATES AND OTHER ALUMNI, KNOWN TO BE LIVING, 1820-1967 (cont.)

	1920	1936	1948	1955	1961	1967
School of Medicine: Dr. of Public Health						
Total degrees awarded 1920-date	2	20	45	49	55	58
Living graduates	2	16	40	43	44	42
School of Medicine: Master of Public Health*						
Total degrees awarded 1936-date		1	145	311	504	670
Living graduates		1	168*	346*	527*	695*
School of Medicine						
Living non-graduates: Medicine	365	349	279	248	339	301
Living non-graduates: Public Health			16	42	168	145
Law School: Bachelor of Law						
Total degrees awarded 1843-date	2,521	4,003	5,307	6,386	7,292	8,331
Living graduates	1,983	2,957	3,657	4,401	4,990	5,633
Law School: Master of Laws						
Total degrees awarded 1877-date	253	275	299	415	575	817
Living graduates	225	193	155	240	368	579
Law School: Dr. of Civil Law						
Total degrees awarded 1878-date	35	37	37	37	37	37
Living graduates	27	21	12	8	4	2
Law School: Bachelor of Civil Law						
Total degrees awarded 1905-date	9	9	9	9	9	9
Living graduates	8	8	7	7	6	6
Law School: Dr. of Law						
Total degrees awarded 1912-date	11	39	39	39	39	39
Living graduates	11	38	35	30	23	15
Law School: Dr. of Science of Law						
Total degrees awarded 1922-date		88	108	149	184	234
Living graduates		85	106	140	170	203
Law School						
Living non-graduates	566	730	661	642	833	740
Divinity School: Bachelor of Divinity						
Total degrees awarded 1867-date	1,339	2,059	2,732	3,314	3,829	4,276
Living graduates	1,111	1,501	1,827	2,227	2,593	2,849
Divinity School: Master of Sacred Theology						
Total degrees awarded 1936-date			28	103	179	337
Living graduates			28	102	177	334

E-1.3
(Cont.)

*The first Master of Public Health degree was awarded in 1936, in place of the Certificates in Public Health awarded from 1918 to 1935. Later Alumni Directories assimilated the Certificate holders to the Masters in Public Health.

YALE UNIVERSITY ALUMNI
GRADUATES AND OTHER ALUMNI, KNOWN TO BE LIVING, 1920-1967 (cont.)

	1920	1936	1948	1955	1961	1967
Divinity School: Master of Religious Education						
Total degrees awarded 1954-date				13	41	41
Living graduates				13	41	41
Divinity School: Master of Arts in Religion						
Total degrees awarded 1961-date					12	87
Living graduates					12	84
Divinity School						
Living non-graduates	410	506	625	689	841	845
School of Art & Architecture: Bachelor of Fine Arts*						
Total degrees awarded 1961-date	48	542	626	1,032	1,200	1,356
Living graduates (Painting & Sculpture)	34	230	400	590	748	874
Living graduates (Architecture)	11	299	382	369	351	314
School of Art & Architecture: Master of Fine Arts*						
Total degrees awarded 1927-date		77	291	595	824	1,267
Living graduates (Painting & Sculpture)		3	25	86	215	486
Living graduates (Architecture)		8	21	20	20	19
Living graduates (Drama)		66	243			
School of Art & Architecture: Bachelor of Architecture#						
Total degrees awarded 1942-date			103	316#	460#	567#
Living graduates			100	318#	464#	566#
School of Art & Architecture: Master of Architecture						
Total degrees awarded 1943-date			9	26	80	187
Living graduates			6	22	76	183
School of Art & Architecture: Master of City Planning						
Total degrees awarded 1951-date					78	172
Living graduates					78	170
School of Art & Architecture: Master of Urban Studies						
Total degrees awarded 1965-date						18
Living graduates						18
School of Art & Architecture						
Living non-graduates	429	1,093	1,563	913†	1,087†	1,113†

* The School of Art & Architecture (School of Fine Arts 1866-1955, School of Architecture & Design 1955-58, School of Art & Architecture 1958-72) long awarded its degrees in Fine Arts (with designation in Painting, Sculpture, Architecture or Drama). Degrees specifically in Architecture were awarded from 1942 although Architecture did not become a separate school until 1972. Degrees specifically in Drama were awarded from 1958 after the establishment of the School of Drama in 1955.

The slight discrepancies between the Bachelor of Architecture degrees awarded and living graduates are due to differences of count between the Annual Catalogues (cf. A-2 series) and the later Alumni Directories.

† Alumni in Drama no longer included.

(Cont.)

YALE UNIVERSITY ALUMNI
GRADUATES AND OTHER ALUMNI, KNOWN TO BE LIVING, 1920-1967 (cont.)

	1920	1936	1948	1955	1961	1967
School of Music: Bachelor of Music						
Total degrees awarded 1894-date	55	201	371	545	684	684
Living graduates	52	190	353	550	638	610
School of Music: Master of Music*						
Total degrees awarded 1932-date		13	81	214*	325*	508
Living graduates		13	79	213*	326*	500
School of Music						
Living non-graduates	415	660	754	795	775	764
School of Forestry: Master of Forestry						
Total degrees awarded 1902-date	403	743	1,012	1,222	1,396	1,607
Living graduates	386	688	887	1,040	1,133	1,260
School of Forestry: Dr. of Forestry						
Total degrees awarded 1948-date			1	8	17	26
Living graduates			1	8	17	26
School of Forestry						
Living non-graduates	88	106	111	110	193	177
School of Nursing: Bachelor of Nursing						
Total degrees awarded 1926-date		261	263	263	263	263
Living graduates		260	258	256	249	204
School of Nursing: Master of Nursing#						
Total degrees awarded 1937-date			662#	946#	1,042#	1,042#
Living graduates			659#	831#	1,029#	1,017#
School of Nursing: Master of Science of Nursing#						
Total degrees awarded 1951-date				(15)†	55	128
Living graduates					70#‡	143#‡
School of Nursing						
Living non-graduates		35	156	224	257	242

* Discrepancies in counts for total degrees and for living graduates are due to differences between the Annual Catalogues and the later Alumni Directories.

The figures here given have been supplied by the Registrar of the School of Nursing, by Alice Sartorelli, and by Annual Catalogues. The Alumni Directories listed more degrees in Nursing, sometimes by including certificate holders.

† 15 Master of Science in the Graduate School.

YALE UNIVERSITY ALUMNI
GRADUATES AND OTHER ALUMNI, KNOWN TO BE LIVING, 1920-1967 (cont.)

	1920	1936	1948	1955	1961	1967
<u>School of Drama: Ph. of Fine Arts</u>						
Total degrees awarded 1958-date					7	31#
Living graduates					7	32#
<u>School of Drama: Master of Fine Arts†</u>						
Total degrees awarded 1964-date		*	*	*	*	180*
Living graduates				481	673	894
<u>School of Drama</u>						
Living non-graduates				999	1,255	1,483
<u>Honorary Degrees</u>						
Total degrees awarded	1,917	2,248	2,469	2,648	2,806	3,033
Living degree holders	467	486	474	520	576	707
<u>Certificate Holders</u>						
Living certificate holders	298	579	541	500	489	480
<u>Special Students</u>						
Living special students	317	248	159	129	45	75

* MFA in Drama (rather than in Fine Arts) first awarded in 1984.

† Discrepancy between University catalogues and Alumni Directory.

Sources: Annual Catalogues (and our A-2 Tables) for the Degrees awarded, and the Alumni Directorises, of 1920, 1936, 1948, 1955, 1962 and 1969 for the counts of living alumni.

SUMMARY: THE YALE CONSTITUENCIES, 1707-1967
(excluding faculty and honorary graduates)

	1707	1719	1722	1739	1766	1777	1795	1817	1846	1871	1886	1899
Number of Students Enrolled#	14?	37?	61?	82?	100?	132?	118?	333	584	809	1134	2684
Total Number of Graduates	18	77	109	385	1141	1471	2141	3312	6189	9606	13287	19391
Graduates Living	18	76	105	332	815	952	1248	1781	3216	4729	6952	11366
Graduates Dead	0	1	4	53	326	519	893	1531	2971	4877	6335	8025
Living Grads, as % of all Grads	100%	99%	96%	86%	71%	65%	58%	54%	52%	49%	52%	59%

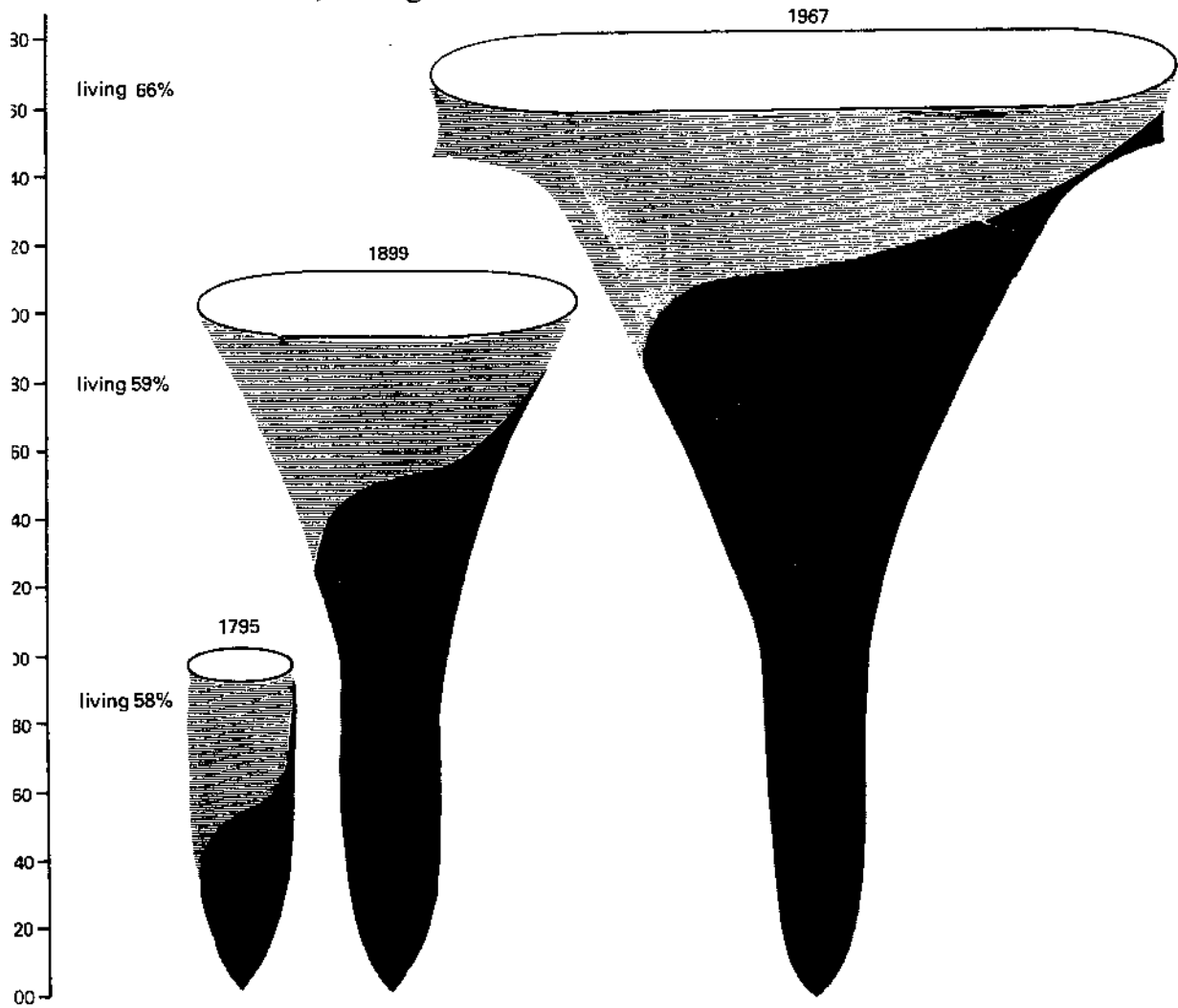
	1920	1936	1948	1955	1961	1967
Number of Students Enrolled	3,822	5,493	9,017	7,353	8,221	9,385
Total Number of Earned Degrees from 1701, in all schools	34,969	51,972	68,373	83,719	96,072	110,037
Total Number of Graduates (living and dead)	c. 31,473#	c. 45,736#	c. 62,700#	c. 73,672#	c. 83,583#	c. 94,962#
Total Alumni Living	28,165	42,330	54,843	65,107	73,355	80,662
Non-Graduates Living	7,674	11,917	13,225	15,453	17,263	17,597
Graduates Living	20,491*	30,413*	41,618*	49,654*	56,092*	62,965*
Living Grads, as % of all Grads	65%	67%	66%	67%	67%	66%
Living Grads, as % of their Earned Degrees	90%#	88%	92%	88%	87%	86%

Sources. Tables E-1.1, 2, 3 and the A-1 series.

* Number of Living Graduates obtained by subtracting number of Living Non-Graduates from Total Number of Living Alumni.

Total Number of Graduates (living and dead) obtained by estimating the same proportion (e. g., 90%, 88%, etc.) of Graduates to Degrees Awarded as was true for the Living Graduates. The Catalogue of Graduates (1924) lists just under 41,000 degrees and 37,140 living and dead degree-holders, giving a ratio of 100 to 90.1.

Graduates, Living and Dead



E-2. Geographic Distribution of
Graduates and Alumni

E-2 Geographic Distribution of Graduates and Alumni

Introduction: Alumni Destinations, Old and New

For whose benefit did the Collegiate School and the little Yale College of the colonial era operate? Quite obviously: for the needs and the service of Connecticut. Not only did some seventy-five or eighty percent of Yale's students come from Connecticut but some seventy percent of Yale's Graduates in its first forty-five years would end their lives still resident in the colony which had chartered and still nourished their alma mater. Indeed, Connecticut would not have been what it was without them--just as Yale would not have been possible without Connecticut.

Next to Connecticut, as destination and beneficiary in the early and middle years of the century, stood Massachusetts, which received more than fifteen percent of the outflow from the classes graduating under Presidents Clap and Daggett. Yet Dexter's figures show that neighboring New York had already begun to attract, and for Yale's graduates during and after the Revolution New York would eventually double or triple the Massachusetts "take." The same cohort, graduating from Yale in the last quarter of the century, would show an increasing interest in Pennsylvania and Ohio, while South Carolina drew them in substantial numbers. Meanwhile Connecticut had begun to hold less than half of Yale's graduates; and, for those educated under Timothy Dwight in the years 1805-1815, Connecticut's return would drop to 166 out of 601 or twenty-seven percent, which was below that of New York and only about half of the Connecticut input into Yale's classes at that time. So Connecticut had maintained no monopoly of the Yale output: quite evidently, ever since Stamp Act days Yale had been siphoning Connecticut boys into the wider American world.

Who would be the beneficiaries of the outflow of ambitious graduates between the War of 1812 and the Civil War? Our table (E-2.2) shows that by 1872 New York had risen to command thirty-eight percent of Yale's living alumni; Connecticut had dropped to twenty percent; Massachusetts was now at about nine percent; and Pennsylvania, Ohio, Illinois and New Jersey were becoming important destinations. Yale was moving west. By contrast, the Yale contingent in South

GEOGRAPHIC DISTRIBUTION OF YALE GRADUATES, CLASSES OF 1702-1815

Franklin B. Dexter's estimates of their latest residences or the last place where any considerable portion of their lives was spent.

	1701- 1745 Vol. I	1745- 1763 Vol. II*	1763- 1778 Vol. III	1778- 1792 Vol. IV	1792- 1805 Vol. V	1805- 1815 Vol. VI
Connecticut	336	300	270	256	210	166
Rhode Island	7	8				
Massachusetts	48	80	91	50	45	53
Vermont	1	5	16	25	12	6
New Hampshire	3	12	11		5	
Maine		7		6	5	4
New York	38	45	50	108	142	172
New Jersey	27	15				6
Pennsylvania	5	2		11	12	21
Delaware	1					
Maryland						4
Virginia	1					6
North Carolina					6	10
South Carolina	2			9	22	34
Georgia		2			13	8
Kentucky						3
Alabama						10
Mississippi						3
Louisiana						7
Ohio				12		29
Indiana						6
Illinois	1					10
Michigan						4
Nova Scotia	1					
British Provinces		8				
England	1					
Unidentified		21	30	66	68	30
Unknown	11	*	16			
Total Graduates in each Volume	483	505	484	543	540	601

Source. F. B. Dexter, *Biographical Sketches of the Graduates of Yale College with Annals of the College History*, 6 volumes, 1885-1912.

* In Volume II, Dexter found but did not tabulate "single graduates elsewhere." His regional figures were also minimal counts.

GEOGRAPHIC DISTRIBUTION OF LIVING GRADUATES IN 1872*
(Yale College Classes of 1796-1871)

Region	States	Number	% of Total
Connecticut	Connecticut	719	20.26
New England	Maine	25	
	New Hampshire	31	
	Vermont	30	
	Massachusetts	310	
	Rhode Island	27	
		423	11.92
Middle Atlantic	New York	939	
	New Jersey	110	
	Pennsylvania	207	
	Delaware	12	
	Maryland	56	
	Washington, D.C.	43	
		1367	38.52
Southern	Virginia	36	
	North Carolina	9	
	South Carolina	27	
	Georgia	41	
	Florida	9	
	West Virginia	6	
	Kentucky	26	
	Tennessee	29	
	Alabama	14	
	Mississippi	27	
	Arkansas	6	
Louisiana	33		
		263	7.41
Great Lakes	Ohio	161	
	Indiana	15	
	Illinois	146	
	Michigan	58	
	Wisconsin	51	
		431	12.14
West Central	Minnesota	38	
	Iowa	40	
	Missouri	67	
	Dakota (Territory)	1	
	Nebraska	9	
Kansas	16		
		171	4.82

GEOGRAPHIC DISTRIBUTION OF LIVING GRADUATES IN 1872*
(Yale College Classes of 1796-1871)

Region	States	Number	% of Total
Rocky Mountain	Montana (Territory)	2	
	Wyoming (Territory)	2	
	Colorado	-	
	Idaho (Territory)	2	
	Utah (Territory)	-	
	Nevada	2	
		8	0.22
Southwestern	Oklahoma (Territory)	-	
	Texas	10	
	New Mexico (Territory)	1	
	Arizona (Territory)	-	
		11	0.31
Pacific Coast	Washington (Territory)	1	
	Oregon	7	
	California	53	
		61	1.72
Foreign and Possessions	U. S. Navy	2	
	Hawaiian Islands	6	
	Canada	6	
	Bermuda	1	
	West Indies	4	
	Brazil	2	
	Chile	3	
	England	7	
	France	7	
	Germany (incl. Prussia)	6	
	Russia	1	
	Greece	2	
	Turkey	4	
	Syria	3	
	Africa	2	
	India	5	
China	4		
Micronesia	1		
		66	1.86
Unknown		29	0.82
TOTAL		3549	100.00%

Source. Addresses of the Living Graduates of Yale College, June, 1872 (either office or residential). Uncertain, but probable, addresses included.

* Note. Six graduates working in New York but living in New Jersey credited to both states. Also one to both New York and Massachusetts, one to both Connecticut and Ohio, and one to both Maryland and Washington, D. C.

Carolina had greatly declined, and the whole South, put together, had not drawn, or at least had not kept, as many residents as had the single New England state of Massachusetts. Instead, one notes the preference of a considerable number of Yale graduates for California.

By the twentieth century, where had Yale's alumni gone, and where did they keep going? Can we trace any great tidal flows in the life histories of the vastly swelling number of Yale graduates and non-graduates?

At first glance (E-2.3 et seq.), the figures seem disappointing. Here are the same two dominant states, New York and Connecticut; the same secondary cluster of Massachusetts, New Jersey, Pennsylvania, Ohio and Illinois; and the same intrusion into that group, by California and "foreign and possessions," as were earlier encountered in our tables on "Student Origins" (cf. B-1 series). The same--yet with some significant differences.

Reading the states against each other one finds that it is again New York rather than Connecticut which is ranked number one. In the twentieth century New York has led Connecticut consistently by anywhere from 400 to 1,200 resident alumni; and together the two states have quite dominated the distribution--yet on a declining scale. For where in 1901 they accounted for exactly one half of all Yale's alumni, by 1968 their combined share had dropped to about one-third. If we now compare these percentages to the figures for student origins (B-3.3, B-3.4) we find that in 1904-05 Connecticut provided 33.76% of Yale's students, and the whole Middle Atlantic region (including New York, but also New Jersey, Pennsylvania, Delaware, Maryland and the District of Columbia) 27.33%: a total of sixty-one percent. Rather suddenly in the late 1920s these proportions would be reversed, and from 1928 the Middle Atlantic region would steadily produce about one-third of Yale's students, just as it would draw back about one-third of its alumni (E-2.4). Whereas for Connecticut the production of Yale students--which had held steadily at about thirty-three percent from 1850 to 1924--began to follow the alumni curve down, and in the 1960s it would reach an all-time low of less than fifteen percent.

Still comparing origins with destinations, one notices (cf. B-1.5) that Massachusetts ranked slightly higher as a destination than as a point of origin (the Connecticut River families were no longer sending their young down river?). And quite a number of states, especially in their earlier years, absorbed more alumni than they sent students, as witness Ohio, Illinois, California, Texas. Yet in maturity, for these same states, the contributions and the receipts would tend to approximate.

In reading each state horizontally across the years (E-2.3), one begins to make other discoveries. For example, between 1936 and 1956 the number of Yale alumni in Pennsylvania increased by about fifty percent, just as did the total alumni population--but the increase in New York was only thirty percent and in Connecticut about the same. In the same interval the Yale constituency in Virginia tripled; in Texas it more than doubled, as it did also in North and South Carolina. In the following period from 1956 to 1968, however, the Yale population in Pennsylvania grew by less than 400 or by only eleven percent as against fourteen percent for all the states, and against particular gains of 723 (or sixty-six percent) for Florida and more than 1,700 alumni (up seventy-five percent) added to those living abroad.

What do such statistics prove? When this analysis was undertaken it was hoped that we would discover some dominant population flows, e.g., that Yale took men from the rest of the country and funnelled them into New York, or that Yale was acting as a kind of fuel pump to propel the population of New England toward the South and West. From our overall totals, we cannot now prove the existence of any such flows, except for the obvious net migration from Connecticut to the rest of the country. Yet other subterranean streams or underground railways may still have existed, for there could have been and probably were currents of population moving in opposite directions: e.g., Westerners to the East and Easterners to the West and South. Knowing the migratory habits of the American people it remains possible, in fact reasonable, to believe that both of these flows have been taking place. Unfortunately it would require a name-by-name investigation to verify or quantify such deductions, and the necessary manpower has not been available.*

Of course each crude state total (like each terminal distribution for a given class) itself represents accumulated movement, i.e., the net figure of alumni survivors in that state, as diminished by deaths and departures since the last census, but augmented by fresh arrivals. However proportioned, these changing state totals across the years affirm the continued dominance of New York and Connecticut, but on a markedly declining scale, with California,

*In his centennial study of the class of 1880, John S. Whitehead reports: "About a third of the class returned to their homes after Yale and could be found living there thirty years later. The majority moved about, some perpetually. The most striking move was from New England to the Middle Atlantic states, particularly the environs of New York City. Fifty-three percent of the class entered Yale from New England, but only twenty-seven percent were there in 1910." ("The Class of '80 left its mark", Yale Alumni Magazine and Journal, June 1980).

DISTRIBUTION OF LIVING YALE ALUMNI BY STATES: 1901-1968

	1901*	1910		1920		1929	1936	1948	1956	1962	1968
		Grad.	Non-Grad.	Grad.	Non-Grad.						
Alabama	21	31	10	56	13	109	136	169	239	243	284
Alaska										41	50
Arizona	10	29	2	52	15	82	84	162	279	357	439
Arkansas	9	17	8	26	7	57	76	114	157	168	158
California	234	369	133	618	225	1429	1789	2878	3874	5008	5913
Colorado	122	179	52	192	52	260	307	461	624	684	498
Connecticut	2486	3350	1414	4240	1928	7659	9206	11041	12476	13007	13385
Delaware	30	47	9	64	12	86	120	224	288	342	375
Dist. of Columbia	192	265	81	315	113	491	715	1141	1260	1461	1713
Florida	27	52	16	81	34	280	332	706	1086	1587	1809
Georgia	35	75	23	89	28	170	222	352	464	520	660
Hawaii										228	294
Idaho	16	27	10	40	18	56	49	40	57	70	78
Illinois	684	831	215	1032	320	1617	1731	1940	2209	2399	2468
Indiana	79	136	42	151	66	295	343	461	558	644	671
Iowa	106	146	45	120	53	185	209	266	276	290	315
Kansas	51	90	25	80	33	129	187	177	209	270	273
Kentucky	85	109	34	130	47	229	284	322	307	439	449
Louisiana	35	46	14	54	26	123	153	234	291	327	369
Maine	63	99	45	117	58	213	244	361	413	429	492
Maryland	83	109	11	159	46	304	415	776	1054	1381	1870
Massachusetts	811	965	293	1240	408	2012	2529	3302	3794	4106	4847
Michigan	131	170	60	251	98	543	629	897	1133	1241	1350
Minnesota	154	226	57	310	93	446	505	621	725	794	886
Mississippi	9	12	9	19	7	41	46	95	117	133	145
Missouri	216	307	95	344	131	564	622	733	785	863	910
Montana	28	47	10	58	18	63	67	81	87	99	102
Nebraska	52	63	23	86	29	119	118	140	153	160	141
Nevada	6	6	5	6	3	11	11	23	43	52	54

Source. Alumni Directories of Yale University.

DISTRIBUTION OF LIVING YALE ALUMNI BY STATES: 1901-1968 (cont.)

	1901*	1910		1920		1929	1936	1948	1956	1962	1968
		Grad.	Non-Grad.	Grad.	Non-Grad.						
New Hampshire	77	82	35	96	39	157	228	354	387	496	566
New Jersey	407	544	128	790	215	1414	1870	2582	3143	3438	3746
New Mexico	5	27	6	25	7	44	60	110	177	182	223
New York	3259	4140	989	5136	1328	8671	10135	11776	12826	13915	14517
North Carolina	14	40	24	61	27	175	285	438	628	675	818
North Dakota	12	17	9	16	3	27	32	31	41	30	33
Ohio	424	620	194	830	272	1491	1785	2170	2588	2746	2779
Oklahoma	7	38	3	60	16	130	164	227	283	296	297
Oregon	39	82	14	140	43	203	197	268	370	411	473
Pennsylvania	792	1035	300	1265	403	2021	2456	3048	3582	3871	3978
Rhode Island	90	134	55	173	57	296	369	497	568	551	594
South Carolina	17	24	8	44	11	86	107	164	216	235	253
South Dakota	24	32	12	32	14	32	40	35	43	48	46
Tennessee	44	68	28	78	36	210	260	331	479	542	588
Texas	54	106	31	186	58	368	435	673	1096	1247	1394
Utah	14	32	14	42	15	54	62	72	113	115	109
Vermont	62	80	24	84	24	135	176	284	313	393	454
Virginia	35	45	15	88	33	200	314	673	1095	1304	1484
Washington	66	143	43	191	68	299	330	524	656	747	897
West Virginia	18	45	11	64	20	140	164	201	213	213	205
Wisconsin	101	129	38	159	45	243	303	401	498	588	665
Wyoming	7	11	8	23	6	37	40	44	62	62	70
Foreign & Possess.	381	537	186	702	222	1457	1491	1758	2315	3199	4092
Residence Unknown	---	192	1926	284	832	362	344	465	740	1283†	2080†
Total	11436	16005#	6842	20490	7675	35825	42909	54843	65627	73931	81269

* Graduates only

Includes 48 men counted twice

† Care of University Secretary's addresses (180 in 1968)

REGIONAL DISTRIBUTION OF LIVING YALE ALUMNI: 1901-1968
(Percentages)

	1901#	1910		1920		1928	1936	1948	1956	1962	1968
		Grad.	Non-Grad.	Grad.	Non-Grad.						
CONNECTICUT	21.22	29.93	(20.67)	20.70	(25.13)	21.38	21.45	20.13	18.97	17.59	16.47
NEW ENGLAND excl. Conn.	9.41	8.50	(6.51)	8.35	(7.64)	7.85	8.26	8.75	8.34	8.08	8.56
MIDDLE ATLANTIC	40.64	38.36	(22.19)	37.72	(27.58)	36.23	36.60	35.64	33.70	33.02	32.24
SOUTH EASTERN	2.98	3.52	(2.92)	3.88	(3.77)	5.10	5.56	8.93	8.17	8.64	8.89
GREAT LAKES	12.11	11.78	(8.02)	11.83	(10.43)	11.69	11.17	10.70	10.62	10.30	9.64
WEST CENTRAL	5.31	5.50	(3.89)	4.81	(4.64)	4.28	4.02	3.65	3.41	3.32	3.20
ROCKY MOUNTAIN	1.65	1.89	(1.45)	1.76	(1.46)	1.34	1.25	1.32	1.50	1.46	1.12
SOUTH WESTERN	.57	1.25	(.61)	1.50	(1.25)	1.66	1.66	2.14	2.80	2.82	2.90
PACIFIC COAST	2.89	3.71	(2.78)	4.63	(4.38)	5.39	5.40	6.69	7.47	8.70*	9.38*
FOREIGN & POSSESSIONS	3.23	3.36	(2.72)	3.43	(2.89)	4.07	3.83	5.19	3.89	4.33	5.04
RESIDENCE UNKNOWN (or unspecified)	---	1.20	(28.14)	1.39	(10.84)	1.01	.80	.85	1.13	1.74	2.57
TOTAL LIVING ALUMNI	100.01	100.00	(100.00)	100.00	(100.01)	100.00	100.00	99.99	100.00	100.00	100.01
	11436#	16005†	(6842)	20490	(7675)	35825	42909	54843	65627	73931	81269

Source. Alumni Directories of Yale University.

Graduates only

† Includes 48 duplicates

* Includes Alaska and Hawaii

Massachusetts, Florida, the region of the national capital, or residence somewhere abroad as the recently most favored alternatives.

Some Regional Differences

If we group the states by regions (E-2.4) we can pursue the same themes. The stability of the rest of New England as a destination; the recent slight decline of the Middle Atlantic, Great Lakes and West Central regions; the rise of the Pacific Coast, the Southeast and Southwest: all these are visible in the sequence of alumni censuses. Especially marked is the break between 1936 and 1948. World War II seems to have either started or accelerated the more important trends.

Comparing alumni destinations with student regional origins (B-1.4), one is struck by the similarities--yet again also by some odd contrasts. Clearly, the regional declines have been slower for the students than for the alumni in the Middle Atlantic and the Midwest, but more rapid in Connecticut, and variable for the rest of New England. Surprisingly, the shares for the student population from the Southwest, or from abroad, have increased faster than for the alumni, whereas the alumni shares have considerably outstripped the students' percentages for the Pacific Coast.

How account for such differences? Instead of returning home many foreign students have opted to stay in the United States. But the outflow from the Southwest, the inflow to the Pacific Coast? Clearly climate could not be responsible. Instead one ventures to think that it was the quality of the colleges or universities on the coast that mattered both in retaining the native youth and in attracting the ambitious young from elsewhere--just as has been true in New Haven for well over two hundred years.

E-3. National Comparisons

E-3 National Comparisons

Introduction: Comparative Regional Distribution of College Alumni

Given our figures for the regional and state distribution of Yale College alumni, it seemed interesting and perhaps important to ask: how has their distribution compared with the distribution of the U.S. population as a whole, or with the distribution of the graduates and alumni of other institutions of higher learning? These questions generated three tables.

The first (table E-3.1) attempts to measure the geographical "density" of living Yale alumni, at various points of time in the twentieth century, compared to the population as a whole. These estimates are no better than rough approximations, because the years of alumni and of national population counts do not correspond. Yet they offer us some sober food for thought. Quite obviously, the geographical density of living Yale alumni is not dense at all.

Although the U.S. population growth has been slowing up--and the occurrence of Yale alumni in that population has been increasing--in no single state have the alumni of Yale constituted as much as 1% of the population. In only three areas (Connecticut, the District of Columbia and Vermont) were there living in 1968 as many as 100 Yale alumni per 100,000 living Americans (i.e., 1/10 of 1%). In only 9 other states did the density exceed 39 Yale alumni to every 100,000 persons. The average density for the whole United States in 1968 figured to 37.9 per 100,000. So a little calculation shows that on the average throughout the United States one would at that time have had to turn over 2,639 Americans to find a single Yale alumnus; and in at least 39 states one would have had to review more men, women and children than that to discover a single Eli. Which is to say that three-quarters of the states have not received the national average from Yale; most recently Missouri, with 19.8 Yale alumni per 100,000, turns out to have been the median receiving state.

Our second inquiry (table E-3.2) was an effort to discover how the regional distribution of Yale alumni has compared with that of other colleges and universities. Four periods were selected and counts were obtained for Columbia,

Cornell, Harvard and Princeton. The results, to this historian at least, proved surprising.

The most obvious overall demonstration is that the alumni distributions of these five colleges and universities have been remarkably similar. This is to say also that, if Yale or Princeton ever held the marked advantages in regional variety or national balance which academic lore has attributed to them, such advantages had by the twentieth century pretty well disappeared.

Back at the end of the nineteenth century Princeton obviously still did have an impressive proportion of its alumni located in the old South; but Cornell evidently sent its graduates across the country, in particular to the five Great Lakes states stretching west of New York. By contrast, Columbia was relatively provincial, with 70% of its product remaining in its home state (the highest in the whole series). Yale was (as it was reputed to be) strong in the Middle West, yet not quite as strong as Cornell. On the home keeping index, our state-by-state count showed that Princeton and Yale did rank the lowest, with only about one graduate out of five located in the state where he had been educated.

Thereafter there are some interesting but gradual changes to be observed. Princeton's priority in the old South first seemingly melted away and then recovered. The preference of Cornell alumni for the Great Lakes declined to the point where Harvard, Yale and Princeton all surpassed them (in percentages, if not always in raw numbers). The concentration of Harvard alumni in New England, which was marked as late as 1910 and which had no doubt been still greater in earlier years, was in decline before World War II and continued to shrink thereafter. By 1960 Princeton, Yale and Harvard had the smallest percentages of graduates located in their own states; and all five universities were stepping up their manpower contributions to the Pacific Coast and to the South.

In general one notices also the gradual increase of settlement (by the alumni of these selected eastern institutions) in the Southwest, along with a more modest but still noticeable increase of migration to foreign parts. Meanwhile the Rocky Mountain contingents have remained at a very low percentage level--though when one takes into account the increasing size of the total alumni bodies of Columbia, Cornell or Harvard it becomes plain that by 1960 each institution had contributed at least 1,000 living alumni to the six mountain states.

If we turn now to the last table in this series (E-3.3) we get an estimate

GEOGRAPHICAL DENSITY OF LIVING YALE ALUMNI
Number of Alumni per 100,000 in Population

	<u>1901</u>	<u>1910</u>	<u>1920</u>	<u>1929</u>	<u>1936</u>	<u>1956</u>	<u>1962</u>	<u>1968</u>
Alabama	1.1	1.5	2.4	4.1	4.8	7.8	7.3	8.0
Arizona	8.1	14.2	15.6	18.8	16.8	Alaska 37.2	16.9 24.4	18.4 26.9
Arkansas	.7	1.1	1.5	3.1	3.9	8.2	9.0	8.0
California	15.8	15.5	18.0	25.2	25.9	38.7	29.5	30.9
Colorado	22.6	22.4	20.4	25.1	27.3	47.1	36.3	25.2
Connecticut	273.7	300.5	307.1	476.6	538.7	622.0	492.7	457.3
Delaware	16.2	23.2	28.7	36.1	45.0	90.6	73.4	71.7
Dist. of Columbia	68.9	80.0	73.0	100.8	107.8	157.2	187.3	211.7
Florida	5.1	6.9	8.4	19.1	17.5	39.2	29.4	30.2
Georgia	1.6	2.9	3.1	5.8	7.1	13.4	12.7	14.6
Idaho	9.9	8.3	9.3	12.6	9.3	Hawaii 9.7	32.8 10.1	39.8 11.2
Illinois	14.2	14.7	15.9	21.2	21.9	25.3	23.4	22.7
Indiana	3.1	5.0	5.2	8.9	10.0	14.2	13.6	13.4
Iowa	4.7	6.6	5.0	7.5	8.2	10.5	10.5	11.4
Kansas	3.5	5.3	4.5	6.9	9.3	10.9	12.0	12.0
Kentucky	4.0	4.8	5.4	8.8	10.0	10.4	14.2	14.1
Louisiana	2.5	2.8	3.0	5.9	6.5	10.9	9.7	9.8
Maine	9.1	13.3	15.2	26.7	28.8	45.2	43.3	50.6
Maryland	7.0	8.4	11.0	18.6	22.8	44.9	42.6	50.8
Massachusetts	28.9	28.7	32.2	47.3	58.6	80.7	78.9	89.4
Michigan	5.4	6.0	6.8	11.2	12.0	17.7	15.7	15.7
Minnesota	8.8	10.9	13.0	17.4	18.1	24.3	22.7	24.7
Mississippi	.6	.7	1.1	2.0	2.1	5.4	5.8	6.2
Missouri	7.0	9.3	10.0	15.5	16.4	19.8	19.8	19.8
Montana	11.5	12.5	10.6	11.7	12.0	22.0	14.2	14.6

GEOGRAPHICAL DENSITY OF LIVING YALE ALUMNI (cont.)
Number of Alumni per 100,000 in Population

	<u>1901</u>	<u>1910</u>	<u>1920</u>	<u>1929</u>	<u>1936</u>	<u>1956</u>	<u>1962</u>	<u>1968</u>
Nebraska	4.9	5.3	5.1	8.6	9.0	11.5	11.0	9.8
Nevada	14.2	7.3	7.8	12.1	10.0	26.9	15.0	12.2
New Hampshire	18.7	19.0	21.7	33.8	46.4	72.5	78.7	82.5
New Jersey	21.6	21.4	25.3	35.0	45.0	65.2	53.9	53.9
New Mexico	2.6	8.3	6.9	10.4	11.3	26.0	18.6	22.2
New York	44.8	45.4	49.5	68.9	75.2	86.7	79.7	79.2
North Carolina	.7	1.8	2.4	5.5	8.0	15.4	14.3	16.3
North Dakota	3.8	2.9	2.5	4.0	5.0	6.6	4.7	5.2
Ohio	10.2	13.0	14.4	22.4	25.8	32.6	27.6	26.6
Oklahoma	.9	2.3	2.9	5.4	7.0	12.7	12.2	11.9
Oregon	9.4	12.2	17.9	21.3	18.1	24.3	22.6	23.7
Pennsylvania	12.6	13.5	14.5	21.0	24.8	34.2	34.1	34.2
Rhode Island	21.0	24.7	28.6	43.1	51.8	71.8	63.2	66.0
South Carolina	1.3	1.6	2.6	4.9	5.6	10.2	9.6	9.7
South Dakota	6.0	5.5	5.0	4.6	6.2	6.7	6.8	6.8
Tennessee	2.2	3.1	3.3	8.0	8.9	14.6	14.7	15.4
Texas	1.8	2.7	4.0	6.3	6.8	14.2	12.3	12.8
Utah	5.1	8.6	9.3	10.6	11.3	16.4	12.0	10.6
Vermont	18.0	22.5	23.8	37.5	49.0	83.0	100.0	108.9
Virginia	1.9	2.2	3.8	8.3	11.7	33.1	31.1	32.7
Washington	12.7	12.5	14.1	19.1	19.0	27.8	25.4	29.1
West Virginia	1.9	3.7	4.4	8.1	8.6	10.6	11.7	11.4
Wisconsin	4.9	5.5	6.0	8.3	9.7	14.5	14.6	13.5
Wyoming	7.6	7.5	1.2	16.4	16.4	21.3	18.7	22.2
TOTAL FOR U.S.	14.9	16.6	18.4	27.7	31.1	41.3	37.4	37.9

Source. U.S. Census figures for years 1900, 1910, 1920, 1930, 1940, 1950. The figures for the last two columns were based on the population figures for 1962 in the Statistical Abstract, 1967 and the projected figures for 1967 in the Statistical Abstract, 1968.

ALUMNI REGIONAL DISTRIBUTIONS: SELECTED EASTERN UNIVERSITIES

REGION		1894 C	1906 C	1932 C	1960 Cn H
		1896 P	1908 Cn P	1936 P Y	1961 P
		1898 Cn	1910 Y H	1937 H	1962 Y
		1901 Y		1938 Cn	1964 C
<u>NEW ENGLAND</u>	Columbia	6.38 *	C 6.05 *	C 6.15	C 9.96
Me., N.H., Vt.,	Cornell	5.77 *	Cn 5.67	Cn 5.98	Cn 7.71
Mass., R.I., Conn.	Princeton	2.06 *	P 3.21	P 6.03 **	P 10.06
	Yale	30.63 *	Y 29.79 *	Y 29.96	Y 26.12
	Harvard		H 49.41	H 38.32	H 30.31
<u>MIDDLE ATLANTIC</u>	C	77.97 *	C 77.46 *	C 63.07	C 60.02
N.Y., N.J., Pa.,	Cn	61.57 *	Cn 61.09	Cn 64.69	Cn 58.89
Del., Md., D.C.	P	66.08 *	P 67.94	P 63.20 **	P 50.52
	Y	40.64 *	Y 38.83 *	Y 36.91	Y 33.59
			H 23.19	H 29.47	H 28.14
<u>SOUTHERN</u>	C	2.50 *	C 3.10 *	C 6.55	C 7.38
Va., N.C., S.C.,	Cn	3.08 *	Cn 4.24	Cn 5.43	Cn 7.83
Ga., Fla., W.Va.,	P	8.81 *	P 6.48	P 6.12 **	P 9.85
Ky., Tenn., Ala.,	Y	2.98 *	Y 3.57 *	Y 5.59	Y 8.79
Miss., Ark., La.			H 3.09	H 4.66	H 7.66
<u>GREAT LAKES</u>	C	4.26 *	C 3.88 *	C 8.65	C 5.23
O., Ind., Ill.,	Cn	15.44 *	Cn 13.49	Cn 9.98	Cn 9.18
Mich., Wis.	P	9.01 *	P 9.78	P 10.00 **	P 10.24
	Y	12.11 *	Y 11.87 *	Y 11.25	Y 10.49
			H 9.22	H 10.41	H 10.68
<u>WEST CENTRAL</u>	C	2.93 *	C 2.23 *	C 3.32	C 1.60
Minn., Iowa, Mo.,	Cn	5.69 *	Cn 4.20	Cn 1.59	Cn 2.22
N.D., S.D., Neb.,	P	5.86 *	P 5.04	P 2.00 **	P 3.26
Kan.	Y	5.31 *	Y 5.58 *	Y 3.97	Y 3.38
			H 4.31	H 2.59	H 3.40
<u>ROCKY MOUNTAIN</u>	C	1.53 *	C 1.55 *	C 1.28	C 1.07
Mont., Wyo., Colo.,	Cn	2.13 *	Cn 2.01	Cn 1.02	Cn 1.13
Idaho, Utah, Nev.	P	1.25 *	P 1.53	P 1.00 **	P 1.30
	Y	1.65 *	Y 1.91 *	Y 1.26	Y 1.49
			H 1.47	H 1.04	H 1.39
<u>SOUTH WESTERN</u>	C	.48 *	C .67 *	C 3.39	C 2.04
Okl., Tex.,	Cn	.54 *	Cn 1.00	Cn 2.48	Cn 2.01
N.Mex., Ariz.	P	.90 *	P .96	P 3.66 **	P 2.83
	Y	.57 *	Y 1.27 *	Y 1.75	Y 2.87
			H .96	H 2.85	H 2.69
<u>PACIFIC COAST</u>	C	2.03 *	C 2.35 *	C 3.62	C 7.09
Alaska, Wash., Ore.,	Cn	2.61 *	Cn 3.41	Cn 4.16	Cn 6.01
Calif., Hawaii	P	1.95 *	P 2.12	P 3.99 **	P 7.09
	Y	2.89 *	Y 3.76 *	Y 5.45	Y 8.85
			H 4.11	H 5.75	H 8.89
<u>FOREIGN & U.S. POSS.</u>	C	1.93 *	C 2.69 *	C 3.97	C 5.60
	Cn	3.18 *	Cn 4.89	Cn 4.67	Cn 5.04
	P	4.08 *	P 2.91	P 4.00 **	P 4.85
	Y	3.23 *	Y 3.40 *	Y 3.86	Y 4.41
			H 4.22	H 4.91	H 6.84

Sources. Catalogues of the Universities published in the years indicated. Living alumni with unknown addresses were subtracted from the total alumni counts for each university and the regional percentages were calculated for those with known residence.

* Graduates only.

**From 1930 forward, Princeton undergraduates were counted among the living alumni. Prior directories did not include the undergraduates, or alumni without degrees.

COMPARATIVE DENSITY: YALE ALUMNI VS. ALL U.S. ALUMNI: 1936, 1956, 1962
 Yale men per 10,000 persons who have attended college^a, by states.

State	Yale Counts Census Counts		1956 1950	1962 1960	Yale Counts Census Counts		1956 1950	1962 1960
	1936 1940	1936 1940			1936 1940	1936 1940		
Alabama	14.3	14.3	17.7	12.4	Montana	16.0	15.5	14.1
Alaska				17.8	Nebraska	13.6	14.4	11.6
Arizona	24.0	24.0	41.6	26.4	Nevada	11.0	25.3	15.3
Arkansas	12.5	12.5	18.9	15.8	New Hampshire	78.5	92.1	90.2
California	26.9	26.9	30.5	24.3	New Jersey	81.7	83.7	59.3
Colorado	34.8	34.8	43.6	31.5	New Mexico	21.4	34.1	20.0
Connecticut	959.0	959.0	743.0	474.2	New York	125.1	102.7	81.5
Delaware	80.0	80.0	115.0	76.0	North Carolina	18.3	28.3	21.6
Dist. of Columbia	57.2	57.2	100.7	121.9	North Dakota	8.4	8.9	5.5
Florida	27.9	27.9	46.2	31.9	Ohio	46.5	43.7	34.9
Georgia	17.9	17.9	25.0	19.0	Oklahoma	11.9	15.5	12.5
Hawaii				44.7	Oregon	21.0	24.0	21.0
Idaho	12.6	12.6	10.7	10.6	Pennsylvania	53.6	55.7	46.5
Illinois	36.4	36.4	31.4	25.9	Rhode Island	111.8	105.2	83.5
Indiana	19.1	19.1	20.9	18.4	South Carolina	13.5	18.8	15.5
Iowa	12.9	12.9	13.5	11.7	South Dakota	9.8	8.0	7.7
Kansas	13.7	13.7	12.2	11.7	Tennessee	22.0	27.7	23.3
Kentucky	27.6	27.6	21.8	24.7	Texas	11.3	18.3	13.9
Louisiana	16.5	16.5	20.1	14.9	Utah	13.5	15.7	10.8
Maine	59.5	59.5	68.8	57.2	Vermont	88.0	104.0	109.2
Maryland	44.1	44.1	59.6	47.3	Virginia	22.1	44.5	36.4
Massachusetts	92.6	92.6	91.1	75.1	Washington	22.6	26.4	22.6
Michigan	22.5	22.5	25.3	19.8	West Virginia	21.0	20.9	18.7
Minnesota	29.2	29.2	29.3	24.1	Wisconsin	17.6	19.5	17.7
Mississippi	6.0	6.0	15.6	10.1	Wyoming	21.1	22.1	17.2
Missouri	29.9	29.9	28.2	24.7	Total for U.S.	59.9	53.9	42.4

^aThe number of persons who have attended college at different periods was obtained by adding the estimates for the number of persons 25 years or over, who had completed 1-3 years of college, and the number who had completed 4 or more years as given for the census years 1940, 1950, and 1960 in Statistical Abstracts (eds. 1943, 1956, 1963). Because of the discrepancies of dates between the Yale counts and the census counts the Yale ratios are consistently a little low in the first column and too high in the second.

of how the concentration of Yale alumni has compared in the twentieth century with the availability of alumni of all colleges and universities, broken down state by state. And the results are worth noting. By the eve of World War II, only in Connecticut did the Yale contingent constitute close to 10% of the college-educated population; and aside from Connecticut only in New York and Rhode Island were the Yale-generated alumni more than 1% strong. By the 1950s the Yale cohorts in Vermont and Delaware and the District of Columbia had risen to this level, but New York had dropped to eight-tenths of 1%. By 1960, if we look beyond Connecticut, there seem to have resided on the average from 5 to 12 Yale men per 1,000 college graduates in the rest of New England, the Middle Atlantic states and the region around Washington--but far, far fewer everywhere else.

Another way of translating these figures is to note that by 1960 the median representation among the college-educated populations of the 50 states and the District of Columbia was only 21.6 Yale alumni for every 10,000 who had attended college, i.e., only two-tenths of 1%. The states of Idaho, Iowa, Kansas, Mississippi, Nebraska and Utah show only one-tenth of 1% academic blue blood, or 1 Yale man per 1,000 among their college-educated. And North and South Dakota, with almost a genius for avoiding or repelling Yale alumni, could boast of being the states with the faintest blue contamination of all.

E-4. Occupations

Introduction: Preparation/Performance--What Did They Do?

In 1701 the General Court of Connecticut had voted an "Act for Liberty to erect a Collegiate School" wherein youth might be instructed in the arts and sciences "and fitted for Publick employment both in Church & Civil State." These traditional words were not without their purpose and meaning. Connecticut wanted a school, or preferably a college of higher education, to prepare its youth for service in the ministry and in public life, i.e., for leadership in the colony. And we may reasonably assume that under the rubric "Civil State" the Assembly meant to include not only politics and statesmanship but the making of judges and lawyers and physicians (possibly teachers as well?) to assure for the colony and its towns a supply of educated elders and a continuance of the learned professions.

To be noted, however, is the fact that the preparation contemplated was not to be in politics or law or medicine, or even in divinity exclusively, but rather in the arts and sciences (i.e., the liberal arts), which presumably would make all the students educated and at the same time serve as the best foundation for all their later more specialized vocations. The Collegiate School was to instruct its students in divinity--all its students in divinity--but as a foundation or preparation for life. The intending ministers were expected to build on such elements by later private study, presumably at the College or under a minister in one of the Connecticut towns. The intending lawyers were expected after graduation to "read law" in the office and under the eye of some practising attorney. In short, the College was intended to be preparatory for all the callings and learned professions, but not terminal training for such occupations as required special learning. Meanwhile, of course, through instruction, admonition, and collegiate living, it would offer opportunities for Connecticut boys to grow into responsible men, and discover their public vocations.

With what results? The answers can be found in our series of tables on the later occupations of Yale alumni. Without attempting here to answer the

question of leadership--how eminent did Yale graduates become?--we now command the means to follow the career choices of Yale graduates and alumni through two hundred and seventy-five years of the American experience.

For Yale's graduates in the first one hundred and fourteen years, F. B. Dexter calculated the major vocations of all whom he could classify. For the first forty-odd years this meant only some sixty percent of the total cohort, but by the end of the century Dexter's figures were covering more than ninety percent of all Yale's graduates. His figures, here assembled, tell a familiar but interesting story (E-4.1). In the beginnings, indeed for about forty years, at least one half of Yale's graduates went into the ministry, while some 63 out of 483 (or thirteen percent) became either lawyers or physicians. The next group of 505 alumni, all graduating under President Clap, 1745-62, showed a diminishing calling for the church with only 186 out of 505 becoming ministers (c. 37%), while medicine and the law drew twelve and eleven percent respectively. Graduates of 1763-1777 then registered a continuing decline for the church and a slight increase for lawyers and physicians, with the doctors still outnumbering the lawyers. Suddenly, in the Revolutionary years 1778-1791, the student body began to produce more future lawyers than ministers, a preference that about one in three of Yale's graduates would maintain for many generations after. Evidently the struggle with the mother country and the problems of self-government--perhaps also the desire for economic independence--had encouraged Yale's young men to think that it was in and through the law that careers were to be made and service was to be given.

For this early national period Dexter's figures registered substantial numbers of businessmen, and quite a few teachers, as well. No doubt there had been unrecorded pioneers of these vocations earlier. In any case, it is worth remarking again that up until 1813 Yale College had no professional schools, whether of law or medicine or divinity, and of course no business school either.

On Yale's graduates in the nineteenth century we have a series of tables compiled by others (E-4.2, E-4.3 and E-4.4). These are not identical in their messages but strikingly congruent. For example, both Byrnes' and Burritt's tabulations for the ministry point to its revival after the Revolution, and strong continuance into the 1840s, then some loss of appeal for Yale undergraduates, followed after the Civil War by an almost catastrophic decline. Meanwhile the preference of about one-third of Yale's students for the law continued almost without hesitations, clear down to 1900. In the same century education became perhaps a little more popular. Engagement in trade was irregular. Agriculture languished, and manufacturing took its place. Yet according to

DEXTER'S MAJOR OCCUPATIONS OF YALE GRADUATES, 1702-1815

Occupations	Class Groups					
	1702- 1744	1745- 1762	1763- 1777	1778- 1791	1792- 1805	1806- 1815
Ministers	approx. half	186	154	129	109	108
Lawyers	c. 33	56	52	168	182	191
Physicians	30	c. 64	59	57	37	71
Businessmen					87	67
Teachers					40	47
Farmers and Planters					27	44
Editors and Authors						12
Total No. of Graduates	483	505	484	543	540	601

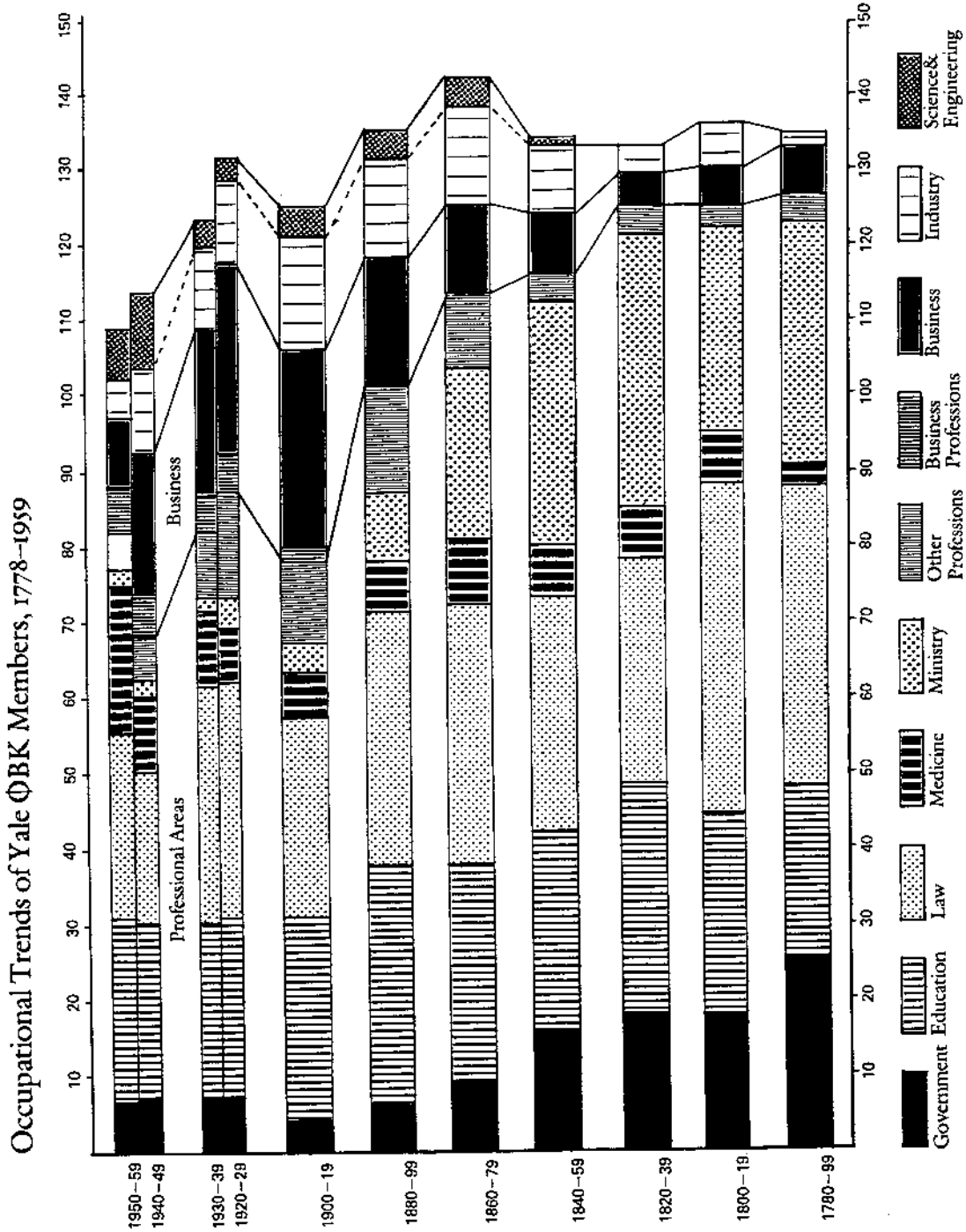
Source. F. B. Dexter, Yale Biographies and Annals.

OCCUPATIONAL DISTRIBUTION OF YALE COLLEGE GRADUATES, 1702-1886

Occupation	1702-1791	1797-1833	1834-1849	1850-1866	1867-1886
Ministry	36%	29%	25%	18%	8%
Law	17%	26%	33%	32%	35%
Medicine	11%	13%	9%	9%	9%
Education	3%	9%	9%	9%	12%
Trade	12%	6%	8%	14%	8%
Manufacturing	1%	1%	2%	3%	7%
Agriculture	6%	5%	5%	4%	...*
Miscellaneous and Unknown	14%	11%	9%	11%	21%

*Agriculture added with Miscellaneous and Unknown category.

Source. Ronald M. Byrnes, "A Statistical Study of the Yale Graduates, 1797-1866," Yale Review (November 1908), pp. 316-338. The statistical materials for the colonial period, 1701-1791, were taken by Byrnes from a compilation made by William B. Bailey, Yale Review (February 1908), and Bailey got his figures originally from the first four volumes of F. B. Dexter, Yale Biographies and Annals. For the period 1797-1866, Byrnes found the records quite irregular but managed to find usable statistical materials for 45 out of the 70 classes. These materials reflected the status of Yale Graduates generally 35 to 50 years after graduation. For the classes 1867-1886, the statistics were compiled from the 20-year class records. These figures are, of course, for the graduates of Yale College.



Burritt the commercial pursuits as a whole came, after the Civil War, to exercise a compelling fascination, which first rivalled and then even surpassed the law.

Were the undergraduates freely homogeneous in their tastes and final choices? Our statistics do not tell us what parental or financial or geographic influences may have helped direct their different decisions. Yet Crawford's interesting graph on the occupational trends of Yale Phi Beta Kappa members sheds some light (E-4.3). Making allowance for his crediting two or more vocations to single individuals (thus achieving totals of 110 or 130 or 140 percent) we find that Yale's best academic students felt the same strong impulse toward the law, a considerably greater attraction toward education, a slightly more prolonged devotion to the ministry, and otherwise mixed preferences very comparable to those of the majority. Yet as one would expect their engagement in the learned professions as a whole was far greater than in business: all the economic occupations together never captured forty percent of their career efforts.

Two further tables complete our review of nineteenth century occupational distributions, especially after the Civil War (E-4.5, E-4.6). Here only those still alive in 1904 are counted, but the professions and occupations are broken down into finer categories and the contributions by classes or generations are made more visible. A number of interesting facts emerge, among them the following. Yale College was still sending far more men into the law than the Law School itself. The Sheffield Scientific School was evidently forwarding its graduates into a wide variety of occupations--including education, the arts, the law and agriculture--in addition to engineering, manufacturing, trade or finance. By 1904, for the University as a whole, only one out of four graduates was connected with the law (not one out of three as in former times though that ratio still obtained for Yale College). Again one observes the rising importance of mercantile and manufacturing pursuits, in particular for the graduates of the 1880s and 1890s.

Pursuing the more discriminating tables made possible by the later directories of living alumni (and it should be noted that these tables record the occupations not of all graduates but of those still living in 1926 or 1936) one may discover the increasing diversity of careers and the decreasing accent on the law. By 1926 (E-4.7) only some twenty-two percent of the graduates of Yale College were in the law, and for the total University constituency the figure was 14.2 percent. This was still the largest single sector; but industry and manufacturing had come up to about twelve percent, commerce and trade to about

OCCUPATIONAL DISTRIBUTION OF YALE UNIVERSITY GRADUATES, 1702-1904

Yale College Graduates: Academical Department

Years	Ministry	Law	Medicine	Education	Commercial pursuits	Public service	Engineering	Agriculture	Literature and journalism	Unclassified
1702-1705	63.6	9.1		18.2		9.1				
1706-1710	63.6		4.5		9.1	4.5	4.5	9.1		4.5
1711-1715	65.0			5.0	15.0			10.0		5.0
1716-1720	68.6	2.9			5.7	5.7		2.9		14.3
1721-1725	50.0	3.3	5.0	6.7	5.0	6.7		8.3		15.0
1726-1730	42.5	8.7	7.5	3.7	6.2	7.5		1.2		22.5
1731-1735	48.9	6.7	6.7	2.2	7.8	2.2		2.2		23.3
1736-1740	42.7	6.7	6.7	2.2	10.1	3.4		2.2		25.9
1741-1745	54.4	7.8	6.8	1.9	10.7	5.8		2.9		9.7
1746-1750	39.7	7.8	15.5	1.7	6.9	6.4		3.4		18.9
1751-1755	38.5	10.9	13.5	2.2	5.4	3.3		7.6		19.6
1756-1760	35.9	10.1	9.1	2.3	13.9	3.5		4.5		21.2
1761-1765	38.1	14.8	12.7	2.6	10.6	.5		6.9		14.3
1766-1770	33.3	8.9	12.6	3.7	11.9	2.2		5.2		22.2
1771-1775	32.9	11.9	11.9	5.6	13.9	6.3		2.8		14.7
1776-1780	17.9	26.3	12.6	3.7	12.6	7.9		2.6	1.6	15.3
1781-1785	23.5	30.9	7.4	5.7	14.7	3.2		2.3		12.9
1786-1790	30.3	33.8	17.2	.5	10.1	2.3				6.7
1791	33.3	44.4		3.7	14.8	3.7				
1797	39.0	42.0	8.0	3.0	6.0			3.0		
1802	30.0	33.0	8.0	2.0	17.0			9.0		
1813, 1814	26.0	36.0	14.0	5.0	12.0			6.0	2.0	
1821, 1822, 1824	34.0	31.0	20.0	5.0	15.0			5.0		
1826-1830	27.0	25.0	12.0	9.0	9.0		1.0	15.0	2.0	.5
1831, 1833, 1834	34.0	32.0	15.0	10.0	4.0			4.0	.3	
1839, 1840	27.0	28.0	9.0	13.0	11.0	1.0	.5	8.0	2.0	.5
1841-1845	27.0	33.0	9.0	8.0	12.0	2.0	.2	5.0	4.0	.2
1846-1850	21.0	34.0	8.0	9.0	15.0	3.0	1.0	4.0	4.0	
1851-1855	17.1	31.6	9.7	11.6	17.1	2.3	1.4	4.9	3.7	.8
1856-1860	18.9	25.8	6.9	10.6	19.8	7.7	.3	5.6	4.5	.1
1861-1865	15.2	28.4	9.1	10.5	24.2	4.4	1.3	2.3	3.5	1.5
1866-1870	11.8	35.5	7.1	9.9	23.2	.9	2.2	2.4	3.9	2.9
1871-1875	10.9	36.9	10.5	11.2	20.7	1.7	.5	3.6	2.9	1.8
1876-1880	6.4	35.4	11.7	9.2	27.2	1.1	.4	2.3	3.9	2.2
1881-1885	6.6	34.5	9.8	12.3	29.9	.6	.7	1.6	4.2	1.5
1886-1890	6.6	31.7	9.7	9.3	32.5	.5	1.4	2.2	1.8	4.4
1891-1895	5.6	32.6	7.5	11.6	27.9	.8	2.1	1.6	2.9	7.9
1896-1900	3.8	30.4	7.8	11.5	33.6	.7	2.4	1.2	2.5	6.5
1901-1904	3.2	23.7	5.8	12.8	42.9	.7	3.2	1.3	3.2	4.4

All Departments and Schools

1821, 1822, 1824	28.3	25.9	32.7	3.9	6.7			2.4		
1826, 1830	21.9	20.5	28.6	7.4	7.1		0.9	11.9	1.4	0.4
1831, 1833, 1834	29.2	27.4	26.7	9.3	3.6			3.6	.3	
1839, 1840	23.3	24.2	19.8	12.3	9.7	0.8	.4	7.5	1.8	.4
1841-1845	23.9	30.5	18.1	7.5	10.5	1.7	.1	4.4	3.4	.1
1846-1850	17.6	33.6	18.5	7.6	12.5	2.5	.8	3.5	3.5	
1851-1855	14.2	29.1	16.8	10.9	15.6	1.9	1.5	4.9	3.5	2.4
1856-1860	15.6	25.9	14.4	9.5	17.2	6.6	.6	5.5	3.3	1.9
1861-1865	12.3	26.2	16.4	8.9	21.6	3.8	2.3	1.9	2.7	3.5
1866-1870	9.5	30.8	10.9	9.4	23.6	.8	4.3	2.4	3.6	4.6
1871-1875	14.4	30.3	11.2	10.3	21.1	1.3	3.6	2.9	2.4	2.4
1876-1880	10.1	30.0	11.5	9.2	24.7	1.1	4.2	2.5	2.7	3.1
1881-1885	12.5	29.6	10	11.6	25.6	.8	4.1	1.6	2.9	2.4
1886-1890	11.7	26.5	9.2	8.4	30.9	.9	4.7	2.5	1.7	5.4
1891-1895	9.2	28.3	8.3	8.5	28.3	1.6	6.7	1.1	1.9	6.5
1896-1900	6.4	26.2	9.7	7.9	32.5	.6	8.9	1.2	1.5	5.7
1901-1904	5.6	23.3	8.5	10	33.7	.4	12.3	1.3	1.9	4.1

Source. Bailey B. Burritt, "Professional Distribution of College and University Graduates," United States Bureau of Education, Bulletin 1912, Number 19 (full number 481), Washington, Government Printing Office.

Burritt seems to have obtained his figures for 1702-1790 from the first four volumes of F. B. Dexter, Yale Biographies and Annals. The sample years from 1791 through 1834 may have been drawn from the Yale Memorabilia collections. From 1839 to 1893 the statistics were drawn from the class histories "carefully worked up by Prof. J. C. Schwab, through whose courtesy they have been used." A comparable but much condensed table may be found in Lewis Sheldon Welch and Walter Camp, Yale: her Campus, Class-Rooms and Athletics (1899) p. 244.

OCCUPATIONAL DISTRIBUTION OF LIVING GRADUATES OF YALE UNIVERSITY, 1904

	Agriculture	Art and Architecture	Education and Science	Engineering	Finance	Government Service	Law and Judiciary	Letters and Journalism	Manufacturing	Medicine	Mercantile Business	Ministry	Transportation	Unspecified	Total
Academical	170	85	826	143	753	99	2139	257	630	557	602	498	121	145	7025
Sheffield Sci. Sch.	61	38	195	710	315	29	190	25	509	219	300	14	65	153	2823
Graduate School	1	-	259	-	13	8	9	4	4	4	3	27	-	21	353
Fine Arts	-	15	-	-	-	-	-	-	-	-	-	-	-	-	15
Music	-	9	-	-	-	-	-	-	-	-	-	1	-	1	11
Forestry	1	-	6	2	-	38	-	-	-	-	-	-	-	-	47
Theology	11	-	121	-	7	3	11	9	2	11	5	641	2	26	849
Medicine	-	-	8	1	3	2	1	1	1	481	5	2	-	28	533
Law, LL. B.	13	-	25	1	46	18	1057	22	28	1	31	9	3	117	1371
Law, M. J., D. C. L.	-	-	4	-	-	1	39	-	-	-	2	1	-	5	52
Honorary Graduates	2	16	90	7	16	14	42	21	8	17	3	33	2	10	281
Totals	259	163	1534	864	1153	212	3488	339	1182	1290	951	1226	193	506	13360
Duplicates	5	7	45	15	15	12	332	9	11	139	14	85	2	4	695
Net Total	254	156	1489	849	1138	200	3156	330	1171	1151	937	1141	191	502	12665
% of Net Total	2.0	1.2	11.8	6.7	9.0	1.6	24.9	2.6	9.2	9.1	7.4	9.0	1.5	4.0	

Source. Directory of the Living Graduates of Yale University, 1904, p. 302.

1904 OCCUPATIONAL DISTRIBUTION OF LIVING GRADUATES OF
YALE COLLEGE AND SHEFFIELD SCIENTIFIC SCHOOL, BY CLASSES

Categories:

Agr. -Farming & Planting	Gov. -Government Service	Med. ---Medicine
Art. -Art & Architecture	Lit. -Journalism & Letters	Merc. --Mercantile Business
Ed. --Education & Science	Law -Law & Judiciary	Min. ---Ministry
Eng. -Engineering	Mfg. -Manufacturing	Trans. --Transportation
Fin. -Finance		Unspec. -Unspecified

Class	Original Total	Living Members	Academical Department														
			Agr.	Art	Ed.	Eng.	Fin.	Gov.	Law	Lit.	Mfg.	Med.	Merc.	Min.	Trans.	Unspec.	
1831	81	1															1
1833	90	3	2		1												
1835	75	2														2	
1836	81	1								1							
1837	104	2								1	1						
1838	70	6	3							2						1	
1839	94	4								1			2			1	
1840	104	13	3		2					2	1		2			3	
1841	79	8					1	1		2	1					3	
1842	106	12	1					1	2				1	3		4	
1843	96	8	2							1			1			3	
1844	104	19	2		1			2		5	2	1		1		4	1
1845	74	8			1			1		3				1	1		1
1846	83	15	1		1			1		1		4	3	1		3	
1847	124	20	4						1	5	1	1	2	2		3	1
1848	87	21	1	1	1	1	1			8			1	3	4		
1849	94	21	2		1			3		5		1	1		5		3
1850	80	25	2		2			2		5	2	1		3	8		
1851	93	29			3					9	3	2	1	2	9		
1852	95	28	3		6			2		5	1	2	3	1	3		2
1853	108	40	3		2	1	4	1	12	4	3	3	2	2	8		
1854	100	36	3		7		4		10	1	2	3		4	1	1	
1855	91	46	3		7		5	2	10	1		2	3	8		5	
1856	97	42	2	1	4		4	3	11	4	1	3	1	7	1		
1857	107	51	3		7		5	1	12	3	1	2		11		6	
1858	103	43	1		4		6	3	7	1	3	2	5	6	1	4	
1859	106	51	3		9		6	1	11	3	2	1	4	9	1	1	
1860	109	56	2		4		3	4	8	4	2	11	5	12		1	
1861	97	57	2		6	1	6	2	15	3	3	2	6	8		3	
1862	100	57	4		7	1	6	1	12	1	1	5	4	13		2	
1863	126	72	3		11		4	3	18	6	5	6	4	9	1	2	
1864	111	74	3		5	2	3	1	24	7	5	12	3	7	2		
1865	101	65	1	1	8	1	12	2	17	3	2	4	4	7		3	
1866	97	70	4	1	4	1	2	1	22	3	4	6	8	12		2	
1867	106	71	2		12	4	6	4	21	5	4	4	3	6			
1868	109	79	5		8	2	5		29	4	8	3	3	10			
1869	116	78	1	1	11	2	8		31	3	6	5	2	4	1	3	
1870	114	86	3	1	9	2	5	1	32	5	5	7	6	8	1	1	
1871	104	82	1		4	5	7	1	31	5	4	5	6	8	3	2	
1872	129	101	6		23		9	1	24	2	3	10	7	11	2	3	
1873	114	92	2	1	12		12	2	32	5	3	6	2	9	4	2	
1874	123	104	4	1	17	2	11	3	37		5	10	4	5	2	3	
1875	96	68	3	2	6		3	2	27	4	4	4	5	8			
1876	123	89	1		10		9	3	35	6	5	12	3	3		2	
1877	119	109	2	1	6	3	6	2	44	7	8	11	9	9		1	
1878	129	103	2	1	9		6	4	41	3	9	9	11	6		2	
1879	137	116	3		10	2	10		33	5	15	10	16	10	2		
1880	122	104	1		9	2	8	2	37	3	8	12	12	8	1	1	

Academical Department (cont.)

Class	Original Total	Living Members	Agr.	Art	Ed.	Eng.	Fin.	Gov.	Law	Lit.	Mfg.	Med.	Merc.	Min.	Trans.	Unspec.
1881	130	110	2	2	11		17		43	3	7	8	8	9		
1882	121	106	4	1	13	1	7	2	33	1	10	13	14	5		2
1883	149	133	1	1	15	4	14	5	41	9	10	10	14	3	4	2
1884	152	137	3		19	1	11	1	50	7	11	11	11	8	3	1
1885	123	113		1	15		19		34	5	4	11	12	10	1	1
1886	139	124	2	1	22	3	13	1	36	2	9	12	13	5	3	2
1887	150	135	3	1	12	4	10	1	46	6	10	15	16	5	2	4
1888	124	114	6		11	3	8	3	33	2	7	17	14	8		2
1889	124	117	1	3	19	2	3	1	45	2	9	9	15	7	1	
1890	146	144	2	4	12	2	14	3	42	6	15	16	17	6	3	2
1891	185	177	5	3	22	3	23	2	57	5	20	10	14	9	3	1
1892	179	166	4		21	5	14	1	53	9	16	15	7	17	2	2
1893	186	172	2	1	24	4	11	2	57	6	24	14	15	4	5	3
1894	237	224	1		24	6	23	3	87	6	11	21	21	12	6	3
1895	250	239	4	6	28	4	35	1	82	4	18	17	19	16	1	4
1896	277	268	2	6	36	8	25		93	8	27	17	21	12	7	6
1897	272	261	3	5	26	7	38	5	71	6	26	28	20	18		7
1898	287	287	8	5	39	5	32	1	97	10	33	20	20	9	7	1
1899	293	284	2	7	26	8	55	2	85	7	23	18	29	5	7	10
1900	316	313	2	7	39	6	31	3	92	4	48	29	28	10	7	7
1901	246	246	3	9	29	4	40	5	53	12	32	16	28	6	8	1
1902	286	284	4	3	32	10	40	2	69	9	52	12	31	8	5	7
1903	306	303	2	3	35	15	36	1	86	7	43	21	30	11	9	4
1904	280	280	5	4	46	6	45		55	8	35	10	30	10	13	13
Totals	9866	7025	170	85	826	143	753	99	2139	257	630	557	602	498	121	145
% Net Total			2.4	1.2	11.8	2.0	10.7	1.4	30.4	3.7	9.0	7.9	8.6	7.1	1.7	2.1

Scientific School

Class	Original Total	Living Members	Agr.	Art	Ed.	Eng.	Fin.	Gov.	Law	Lit.	Mfg.	Med.	Merc.	Min.	Trans.	Unspec.
1852	7	3			3											
1853	7	2				2										
1854	7	5	1			1	1									2
1855	7	4					2									2
1856	12	6	1		1									1	1	2
1857	9	5	2										1			2
1858	12	7			2	1	1		1			1				1
1859	8	5			1	1		2			1	1				
1860	6	3			1	1										1
1861	8	5			1	1										3
1862	6	3		1		1					1					
1863	4	2			1						1					
1864	9	7				1	1					2	1			2
1865	13	10				3	1				4		2			
1866	8	4					2						1			1
1867	16	8		1	3	1	1		1		1					
1868	26	18	2		4	3	2	1	1	2			2			1

Scientific School (cont.)

Class	Original Total	Living Members	Agr.	Art	Ed.	Eng.	Fin.	Gov.	Law	Lit.	Mfg.	Med.	Merc.	Min.	Trans.	Unspec.
1869	26	22	1	1	3	4	2				5	1	1		1	3
1870	27	24	1		1	7	3		1		5					6
1871	26	21	1		2	7	3	1	1		4		2			
1872	23	14			3	3	1		2		1	1	1	1		1
1873	30	20	1		2	4	2	1	1		5		4			
1874	39	31	1	1	4	7	2	1	3		6	2		3		1
1875	54	39	1	2	4	6	4		9	1	6	1	3	1		1
1876	53	43	2	1	4	10	5	1	3	1	2	4	6	2	1	1
1877	54	42	1	1	5	7	2		5		8	9	3			1
1878	40	34			4	6	4		4		10	2	2			2
1879	44	35	2		5	4	3	2	4		7	2	4			2
1880	42	36	2		2	9	6	2			7	5	2		1	
1881	44	38		1	4	8	4	2	2		7	5	2		2	1
1882	36	32		1	3	6	6	1			7	3	3			2
1883	47	45	2	2	5	8	1	1	3	1	8	7	2	1	2	2
1884	43	32	2		2	7	4		2		5	5	2		1	2
1885	69	64	5		8	12	4	3	4	2	11	7	4	1	3	
1886	64	58	1	1	2	14	6	1	5	2	14	5	5		1	1
1887	58	54	2	1	2	9	4	1	4		12	5	6	1		7
1888	79	74	3	2	3	8	10	1	2	2	15	14	9	1	3	1
1889	73	69	2	2	3	10	8		6		12	11	6		2	7
1890	65	62	1	1	8	13	5		1		9	10	13			1
1891	88	85	1	3	3	14	12		6		19	6	5	1	2	13
1892	104	92		1	11	23	9		8		16	7	13		3	1
1893	109	102	2	2	4	20	7	3	12		14	7	24		4	3
1894	142	137	1	1	5	33	20		7	5	23	16	15		1	10
1895	159	155	2	4	9	23	20		7	1	38	16	27		3	5
1896	159	150	4		3	49	22	2	8		32	7	8	1	2	12
1897	176	170	2	1	5	41	33		16	1	36	11	15		2	7
1898	113	112	3	1	3	26	22		7	2	10	5	13	1	7	12
1899	139	131	2	1	9	34	11		8		27	6	24		5	4
1900	135	131		3	6	44	12	1	17	2	22	7	11	2	2	2
1901	142	140		1	12	48	13		4		23	6	20		5	8
1902	130	130	4		12	43	9	1	8		24	6	16		2	5
1903	133	133	2	1	12	52	16		3		22	6	13		3	3
1904	169	169	1		5	76	9	1	14	3	29	10	9		2	10
Totals	3099	2823	61	38	195	710	315	29	190	25	509	219	300	14	65	153
% Net Total			2.2	1.3	6.9	25.2	11.2	1.0	6.7	.9	18.0	7.8	10.6	.5	2.3	5.4

Source. Alumni Directory of Yale University, 1904.

11.4 percent, education to 10.6 percent (thanks to the rising graduate school), banking and finance to 8.2 percent and engineering to seven percent. Owing to the contribution of the Divinity School, the ministry now claimed some five percent of the living graduates and non-graduates of the University, while all the other vocations, from insurance to music to literature, forestry, government service, the military, etc., rated below three percent.

In 1936, or ten years later (E-4.8), the distribution would be strikingly similar, with the arts and music gaining some attention, and with a further slight loss for the law. A tabulation of the relatively moderate University changes, in the various occupational constituencies from 1904 through 1926 to 1936, may be found in table E-4.9; also another table, just for the graduates of the College, in E-4.10. Here the surprises will seem few. Yet if we group related occupations, and count banking and accounting and insurance, for example, under the single head of finance, we see quite clearly that participation in the financial sector during the years from 1904 to 1932 had almost doubled, and commerce and advertising had grown considerably, at least among the graduates of the College (E-4.10).

Were these distributions normal or usual for college-educated men across the country? A measurement for the year 1936 demonstrates that they probably were not (E-4.11). Here one sees that the preoccupation of about twenty-seven percent of Yale's undergraduate alumni with "production," including manufacturing and merchandising, was already slightly greater than the national average; on top of which Yale College men more than doubled the normal percentages for finance and for the law while giving less than one half of the attention that American college men in general were giving to medicine or education. Assigning the various vocations to either the "professions" or "business," one finds that Yale men were about evenly divided between these broad categories, whereas the graduates of other institutions--if the Babcock male sample was accurate--had been going almost sixty-three percent into the professions. Should other measurements of occupational distribution confirm the Babcock sample, we confront a troubling possibility: was it public service that had come to govern our ambitions--or was it money and power?

What has happened since, to Yale's more recent classes? Our tables on the class of 1927 and on the Depression classes of 1931, 1932, 1935 and 1937 both demonstrate that the economic emphasis in the Yale distribution had not changed; rather it had intensified (E-4.12, E-4.13). For the class of 1927, the passing of twenty years would reveal heavy concentrations in commerce and industry. For the Depression classes, admitted in part during the boom period of the

OCCUPATIONAL DISTRIBUTION OF LIVING YALE

	Accounting and Auditing	Advertising	Agriculture	Art and Architecture	Banking (Comm'l. & Investment)	Commercial (Other than those listed)	Communication (Radio, Telephone, Telegraph)	Education	Engineering (all kinds)	Forestry	Government
	GRAD										
Yale College	71	170	204	163	1384	1345	62	1156	242	31	121
Sheffield Sci. Sch.	35	69	156	58	614	983	104	295	1564	42	34
Graduate School	10	5	15	7	59	72	5	1461	161	7	20
Fine Arts	1	-	-	104	-	-	-	13	-	-	-
Music School	-	-	-	-	1	-	-	25	-	-	-
Forestry School	1	1	32	3	10	38	1	61	16	262	2
Medicine	-	-	2	-	1	4	-	8	1	-	-
Law School	4	3	27	2	87	102	2	59	8	-	28
Divinity School	4	1	9	1	5	14	-	251	-	-	3
Nursing School	-	-	-	-	-	-	-	-	-	-	-
Non-Graduates	-	-	3	14	18	6	4	178	18	-	17
Total	126	249	448	352	2179	2564	178	3507	2011	342	225
Duplicates	5	7	12	27	91	98	8	872	143	54	17
Net Total	121	242	436	325	2088	2466	170	2635	1868	288	208
	NON-GRAD										
Yale College	32	61	64	42	268	465	11	61	54	2	19
Sheffield Sci. Sch.	28	40	91	46	264	530	17	37	300	3	20
Graduate School	1	5	4	2	12	32	1	512	22	1	14
Fine Arts	1	5	6	167	3	26	1	25	4	-	4
Music School	2	-	-	5	6	34	1	70	1	-	1
Forestry School	1	1	10	2	-	9	-	11	7	28	1
Medicine	-	3	1	-	6	49	1	8	4	-	-
Law School	4	9	10	4	26	111	1	21	13	-	15
Divinity School	-	1	4	1	8	16	-	79	1	-	5
Nursing School	-	-	-	-	-	-	-	-	-	-	-
Total	69	125	190	269	592	1272	33	824	406	34	79
Net Total, All Living Alumni	190	367	626	594	2680	3738	203	3459	2274	322	287
% of All Living Alumni	.6	1.1	1.9	1.8	8.2	11.4	.6	10.6	7.0	1.0	.9

Source. Statistics taken from Alumni Directory of Yale University, Living Graduates and Non-Graduates, 1926, p. 28.

UNIVERSITY ALUMNI IN 1926

E-4.7
(Cont.)

	Industrial (Manufacturing, etc.)	Insurance	Law and Judiciary	Letters and Journalism	Medicine and Nursing	Military or Naval Service	Ministry	Music	No Occupation	Public Utilities	Science	Transportation	Unspecified	Welfare Work	Total
<u>UNATES</u>															
1343	371	2417	385	703	43	370	32	117	27	88	98	172	56	11171	
1450	213	286	61	400	27	17	6	65	90	220	72	102	10	6973	
77	24	72	71	63	44	215	3	10	12	284	5	38	25	2765	
-	-	-	-	-	-	-	-	-	-	-	-	5	-	123	
1	1	-	-	-	-	-	86	1	-	-	1	1	-	97	
32	7	1	2	1	1	1	-	1	-	6	2	2	3	486	
4	-	1	-	729	-	-	1	3	-	3	-	11	1	769	
75	32	1999	25	4	8	15	-	14	3	3	4	53	10	2567	
4	4	8	23	7	-	870	2	2	1	-	1	10	47	1268	
-	-	-	-	2	-	-	-	-	-	-	-	-	-	2	
12	-	49	30	34	6	41	9	1	-	27	6	1	6	480	
2998	652	4833	597	1943	129	1529	119	214	133	631	189	395	158	26701	
117	31	651	58	274	10	245	32	6	12	148	10	3	18	2949	
2881	621	4182	539	1669	119	1284	87	208	121	483	179	392	140	23752	
<u>UNATES</u>															
337	88	179	73	78	26	30	9	45	12	6	39	192	6	2199	
555	98	45	39	66	34	4	3	43	14	36	29	230	2	2574	
17	7	38	29	3	17	30	1	12	1	92	3	281	14	1151	
14	2	1	5	2	-	1	3	66	-	-	1	276	5	618	
14	1	1	5	1	-	1	237	1	-	-	2	321	3	707	
8	4	1	2	-	2	-	-	-	-	2	-	1	-	90	
20	4	2	1	194	6	4	2	2	-	5	3	66	-	381	
39	20	191	10	8	2	2	1	9	3	4	9	229	3	743	
7	3	11	26	6	-	265	-	1	-	-	-	45	14	493	
-	-	-	-	7	-	-	-	-	-	-	-	1	-	8	
1011	227	469	190	365	87	337	256	179	30	145	86	1642	47	8964	
3892	848	4651	729	2034	206	1621	343	387	151	628	265	2034	187	32716	
11.9	2.6	14.2	2.2	6.2	.6	5.0	1.0	1.2	.5	1.9	.8	6.2	.6	100.0	

OCCUPATIONAL DISTRIBUTION OF LIVING

	Accounting and Auditing	Advertising	Art	Authors, Editors, Newspapermen	Banking (Comm'l. and Investment)	Commercial (Other than those listed)	Communications	Education	Engineering	Farming and Ranching	Forestry	Government	Industrial Enterprises
GRADUATES													
Yale College	137	288	297	506	1897	1728	106	1398	237	209	34	213	1529
Sheffield Sci. School	60	87	71	62	784	1066	151	319	1584	142	66	50	1570
Engineering School	2	-	1	5	7	26	4	38	349	1	1	3	38
Graduate School	10	5	14	94	72	56	17	2132	80	14	22	52	41
Medicine	-	-	-	2	1	1	-	20	-	2	-	1	3
Law School	5	4	2	27	76	92	1	126	8	20	1	37	59
Divinity School	2	-	1	26	7	24	-	278	-	12	-	2	5
Fine Arts	-	2	520	1	1	3	-	63	3	-	-	2	1
Music School	-	-	-	-	-	2	-	49	-	-	-	-	-
Forestry School	-	-	2	2	11	45	3	83	11	24	432	9	28
Nursing School	-	-	-	-	-	1	-	11	-	-	-	-	-
Honorary Graduates	-	1	23	24	19	4	3	208	12	-	3	18	8
Total	216	387	931	749	2975	3048	285	4745	2284	424	559	387	3282
Duplicates	6	5	88	87	104	88	11	1188	182	18	81	38	86
Net Total	210	382	843	662	2871	2960	274	3557	2102	406	478	349	3196
CERTIFICATE HOLDERS													
Engineering	-	-	-	-	-	-	-	1	-	-	-	-	-
Medicine	-	-	-	-	-	-	-	10	1	-	-	-	-
Fine Arts	-	-	120	8	2	2	-	10	1	2	-	1	2
Music	1	-	2	-	2	12	1	37	-	-	-	-	1
Forestry	-	-	-	-	-	-	-	-	-	1	2	-	-
Nursing	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	-	122	8	4	14	1	58	2	3	2	1	3
Duplicates	-	-	-	-	-	-	-	1	1	-	-	-	-
Net Total	1	-	122	8	4	14	1	57	1	3	2	1	3
NON-GRADUATES													
Yale College	37	77	64	117	408	584	12	84	58	74	1	39	391
Sheffield Sci. School	40	49	48	35	305	537	30	52	290	86	4	36	518
Engineering School	-	-	-	-	1	6	-	4	21	1	-	-	3
Graduate School	2	6	12	47	20	44	7	847	46	7	6	30	32
Medicine	1	2	2	3	4	38	1	15	5	2	-	3	14
Law School	4	6	4	12	49	129	1	35	10	18	-	17	43
Divinity School	-	1	1	12	8	21	-	112	-	3	-	8	9
Fine Arts	2	20	309	59	9	49	1	106	12	13	1	7	21
Music	1	-	5	7	9	44	3	72	-	-	-	2	11
Forestry	1	1	2	-	-	9	1	5	4	9	50	4	6
Nursing	-	-	-	-	-	3	-	3	-	-	-	-	1
Total	88	162	447	292	813	1464	56	1335	446	213	62	148	1049
Net Total, All Living Alumni	299	544	1412	962	3688	4438	331	4949	2549	622	542	496	4248
% of All Living Alumni	.7	1.3	3.3	2.2	8.6	10.3	.8	11.5	5.9	1.5	1.3	1.2	9.9

Source. Statistics taken from Alumni Directory of Yale University, Living Graduates & Non-Graduates, 1936, p. 11.

Insurance	Law and Judiciary	Medicine	Military or Naval Service	Ministry	Music	No Occupation	Nursing	Public Utilities	Science	Transportation	Unspecified	Welfare	Total
616	3039	1002	48	322	60	167	-	61	160	140	188	69	14551
329	320	550	34	14	9	103	-	135	309	96	74	21	8006
5	5	2	-	-	-	2	-	16	5	16	6	-	554
28	65	79	93	262	3	20	-	2	509	7	94	54	3825
-	-	1064	1	-	-	2	-	-	9	-	6	1	1113
41	2710	3	5	8	-	14	-	2	1	8	40	12	3302
4	3	9	-	1061	2	6	-	1	1	1	5	51	1501
-	-	-	-	-	1	2	-	-	-	-	2	-	606
1	-	1	-	-	146	1	-	-	-	1	2	-	203
11	2	1	-	1	-	2	-	6	7	1	2	2	685
-	-	1	-	-	-	-	-	-	-	-	31	3	269
2	37	39	6	32	5	2	213	1	1	38	4	3	499
1037	6181	2751	189	1700	226	321	214	224	1039	276	456	219	35105
40	1065	437	4	249	31	17	-	9	219	12	14	36	4115
997	5116	2314	185	1451	195	304	214	215	820	264	442	183	30990
-	-	-	-	-	-	-	-	-	-	7	-	-	8
-	-	12	-	-	-	1	1	-	14	-	8	6	53
-	-	-	-	-	190	2	1	1	-	-	53	2	207
-	-	1	-	-	-	1	-	-	-	1	52	1	304
-	-	-	-	-	-	1	-	-	1	-	-	-	5
-	-	-	-	-	-	-	5	-	-	-	3	-	8
-	-	13	-	-	190	6	8	1	15	8	116	9	585
-	-	1	-	-	-	-	-	-	1	2	-	-	6
-	-	12	-	-	190	6	8	1	14	6	116	9	572
163	167	88	16	20	17	66	-	17	24	55	233	13	2825
144	56	73	35	2	5	70	-	26	40	43	199	4	2727
-	-	-	1	-	-	1	-	-	1	-	13	-	52
18	67	30	32	159	2	15	12	2	163	7	360	43	2016
5	2	190	-	4	2	6	-	-	9	2	53	1	364
25	293	7	5	5	-	13	-	4	3	10	162	2	857
6	8	7	-	314	-	2	-	-	2	-	54	34	602
5	2	2	1	2	1	12	1	-	1	3	436	9	1084
4	1	-	-	1	197	6	3	3	-	2	284	5	660
3	2	-	1	1	-	1	-	-	3	-	2	1	106
-	-	1	-	1	-	-	4	-	-	-	21	1	35
373	598	398	91	509	224	192	20	52	246	122	1817	113	11328
1370	5714	2724	276	1960	609	502	242	288	1080	392	2315	305	42897
3.2	13.3	6.4	.6	4.6	1.4	1.2	.6	.6	2.5	.9	5.5	.7	100.0

CHANGING OCCUPATIONAL DISTRIBUTION OF LIVING YALE UNIVERSITY ALUMNI
1904-1926-1936

Occupations	Living Graduates In 1904	Living Alumni In 1926	Living Alumni In 1936
Government Service	1.6	.9	1.2
Law and Judiciary	24.9	14.2	13.3
Medicine and Nursing	9.1	6.2	6.9
Ministry	9.0	5.0	4.6
Welfare		.6	.7
Education	11.8*	10.6	11.5
Science		1.9	2.5
Letters and Journalism	2.6	2.2	2.2
Art and Architecture	1.2	1.8	3.3
Music		1.0	1.4
Communication		.6	.8
Engineering	6.7	7.0	5.9
Transportation	1.5	.8	.9
Accounting and Auditing		.6	.7
Public Utilities		.5	.6
Industry	9.2	11.9	9.9
Finance	9.0	10.8	11.8
Mercantile	7.4	12.5	11.6
Agriculture and Forestry	2.0	2.9	2.7
Military Service		.6	.6
Unspecified or None	4.0	7.4	6.7

*Includes Science

Sources. Same as for Tables E-4.5, E-4.7 and E-4.8.

CHANGING OCCUPATIONAL DISTRIBUTION OF GRADUATES OF YALE COLLEGE
1904, 1914, 1923, 1932

OCCUPATION*	1904		1914		1923		1932	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Agriculture	170	2.42	218	2.53	215	2.07	194	1.46
Forestry					26	.25	28	.21
Art	85	1.21	128	1.49	123	1.18	252	1.90
Music					21	.20	45	.34
Education	826	11.76	1,067	11.70	1,085	10.42	1,340	10.10
Welfare					45	.43	57	.43
Engineering	143	2.04	281	3.26	255	2.45	240	1.81
Science			68	.79	93	.89	129	.97
Finance	753	10.72	1,209	14.04				
Banking					1,332	12.80	2,018	15.21
Accounting					47	.45	105	.79
Insurance					333	3.20	512	3.86
Government	99	1.41	120	1.39	115	1.10	151	1.14
Military & Naval					45	.43	43	.32
Law	2,139	30.45	2,375	27.58	2,346	22.54	2,764	20.83
Literature	257	3.66	342	3.97	341	3.28	464	3.50
Manufacture	630	8.97	982	11.41				
Industry					1,192	11.45	1,360	10.25
Medicine	557	7.93	603	7.00	682	6.55	866	6.53
Merchandising	602	8.57	480	5.57				
Commerce					1,161	11.15	1,518	11.44
Advertising					163	1.57	242	1.82
Ministry	498	7.09	480	5.57	382	3.67	344	2.59
Transportation	121	1.72	112	1.30	106	1.02	126	.95
Communication					33	.32	101	.76
Public Utilities					17	.16	54	.41
Unspecified	145	2.06	147	1.71	142	1.36	156	1.19
No Occupation			58	.67	110	1.06	156	1.18
TOTAL NUMBER OF LIVING GRADUATES	7,025		8,610		10,410		13,267	

*Occupational titles, e. g., Forestry, Music, Welfare, etc., are set below related titles to show the growth in specialization within these occupational areas as well as the changes in title for some occupations, usually from a broader and more general title, e. g., Finance, to the more definitive Banking, Accounting, and Insurance.

Sources. Directories of the Living Graduates of Yale University, 1904, 1914, 1923, 1932.

COMPARATIVE OCCUPATIONAL DISTRIBUTION OF YALE COLLEGE GRADUATES IN 1936

A Comparison of the Employment of the Living Graduates of Yale College in 1936, and of the Living Graduates of all the Yale Undergraduate Schools (College, Sheffield Scientific School, and the School of Engineering), with the Employment of Graduates from all United States Colleges in the Year 1940.

PROFESSIONS	Living Graduates of Yale College	Living Graduates of Yale College, SSS & Sch. of Engineering	Sample of Working Men Graduates (Babcock)
Education	9.6%	7.7%	16.8%
Medical & Dental	6.9	6.7	15.2
Science (Science, Engineering & Forestry)	3.0	11.9	10.5
Law	20.9	14.6	9.5
Government (Government, Military & Naval)	1.8	1.5	5.4
Ministry	2.2	1.5	3.0
Arts (Art, Authors, Music, Journalism)	5.9	4.4	2.4
SUB-TOTAL	50.3%	48.2%	62.8%
BUSINESS			
Production, Manufacturing & Merchandising	24.4	27.4	23.0
Finance (Banking, Auditing & Insurance)	18.9	17.0	8.4
Transportation, Utilities & Communication	2.1	3.1	2.7
Farming	1.4	1.5	1.7
Miscellaneous	2.9	2.7	.8
SUB-TOTAL	49.7%	51.8%	37.2%
TOTAL (in figures)	14,546	23,106	5,887*

*The Babcock total male sample was 6,399 out of a total college graduate population of 1,704,000. Of this sample, 92% were employed and presumably counted by Babcock in his table.

Sources. For Yale: G. W. Pierson, Yale Historical Statistics, Section E-4.8 "Occupational Distribution of Living Yale University Alumni in 1936".
For all U. S. Colleges: E. Lawrence Babcock, The U. S. College Graduate, New York: Macmillan & Co., 1941 (Table L, p. 22, "Type of Employment of Working Men Graduates by Age Groups").

OCCUPATIONAL DISTRIBUTION OF LIVING ALUMNI OF YALE UNIVERSITY
Graduates of 1927, 20 Years After

	Accounting & Auditing	Advertising	Art	Author, Editor, Newspaperman	Banker, Commercial & Investment	Commerce, Other than Listed Here	Communications	Education	Engineer	Farmer, Rancher	Forestry	Government	Industrial	Insurance	Law & Judiciary	Medicine	Military Service	Ministry	Music	No Occupation	Nursing	Public Utilities	Science	Transportation	Unspecified	Welfare	Total
Yale College	12	13	15	14	27	131	14	40	5	15	17	70	20	90	26	1	3	6	6	2	4	3	4	3	14	541	
Sheffield Scientific School	7	4	2	9	38	12	6	42	2	2	2	55	8	3	24	3	6	6	6	8	9	4	4	1	251		
Total Undergrad.	19	13	19	16	36	169	26	48	47	17	2	19	125	28	93	52	4	12	12	10	13	7	7	15	792		
Graduate School	1	3	5	4	5	1	82	5	6	4	4	10	11	19	7	1	25	1	21	7	221						
Medical School							2	1	47																	52	
Law School							1	4	2	7	1	7	2	3	128	1	1	1	1	1	2	2	1	2	2	163	
Divinity School							1	1	3	1	17	1	2	1	2	1	38	1	1	1	1	1	1	1	2	75	
Sch. of Fine Arts							1	50	8	7	4	3	1	1	1	1	2	2	2	1	6	1	1	6	6	91	
Music School							1	1	4	2	1	3	15	1	1	13	1	1	1	1	1	1	1	1	1	42	
Forestry School							1	1	22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	26	
Sch. of Nursing							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	
Total Graduate and Professional	3	53	15	6	23	11	113	8	3	22	17	15	5	133	60	11	57	15	12	10	1	27	4	45	16	685	

Source. Alumni Directory of Yale University, 1948.

OCCUPATIONAL DISTRIBUTION OF FOUR DEPRESSION CLASSES
25-30 YEARS LATER

Occupations	Living Alumni Class of 1931	Living Alumni Class of 1932	Living Alumni Class of 1935	Living Alumni Class of 1937
Government Service	3.2	3.7	2.6	2.8
Law and Judiciary	11.7	10.3	11.2	8.5
Medicine	9.3	7.8	6.6	6.9
Ministry	.9	.6	1.0	.9
Welfare	.5	.1	1.2	.5
Education	2.9	3.3	3.2	2.8
Science	2.6	2.9	3.9	2.6
Letters and Journalism	3.9	4.5	3.6	3.1
Art and Architecture	1.9	2.7	2.7	3.5
Music	.4	.5	.4	.3
Engineering	5.8	4.2	4.2	4.8
Transportation	.4	.5	.3	.3
Accounting and Auditing	3.0	2.0	2.1	1.4
Public Utilities	1.0	.5	.9	.9
Industry	21.5	22.3	25.0	30.7
Finance	13.7	12.9	13.3	10.5
Mercantile	10.1	12.1	8.6	10.5
Management	3.2	4.8	4.9	4.9
Agriculture and Forestry	1.6	2.5	2.0	1.4
Military Service	.6	.9	.5	1.0
Uncodable or none	1.9	1.0	2.0	1.4

Sources. Tabulation from statistics originally compiled by the office of Paul F. Burnham in 1962 from class and alumni directories and yearbooks, with some additional information from city directories and other sources (cf. Burnham's 30-year follow-up of male college students, May 1967, U.S. Department of Health, Education & Welfare, Office of Education, Bureau of Research, Project No. 5-0816, contract No. OE-3-10-014). Statistical information used with Mr. Burnham's permission but here recategorized to correspond to earlier alumni tables.

1920s, the distribution between professions and economic occupations had shifted, to give the economic pursuits virtually a two-to-one advantage. Small wonder some of us in those days were uncomfortable about the relative lack of attention to scholarship, to literature and the arts, or to the intellectual professions. Of course the more learned or aesthetic vocations were themselves a somewhat secularized version of what had once been subsumed under Church and Civil State. Evidently both ambition and opportunity were calling Yale's graduates into more worldly ways.

Coming now to our final table--for all the graduates and non-graduates known or believed to have been living in April of 1979 (E-4.14)--we have available an Alumni Records Office printout which gives, for the College and for all the Schools as well as for the total University, the distribution of our alumni across the spectrum of more than eighty occupational specialties. This table is extraordinarily illuminating in spite of the fact that some seven thousand out of fifty thousand alumni of the undergraduate schools and more than four thousand out of forty-three thousand of the graduate and professional alumni could not be identified as to profession or occupation.

Looking first at the alumni of the undergraduate schools and at the numbers assigned to each specialty one finds law still in the lead with 6,689, followed by medicine (!) with 4,388, teaching with 2,720, sales or marketing with 2,320, and manufacturing at 1,817, science at 1,299 and industry other than manufacturing 1,290. Converted into percentages of the total undergraduate alumni body this shows a little better than thirteen percent for the law, better than nine percent for medicine (if we count in public health and psychiatry and nursing), about seven percent for education (if we add the administrators but do not count the students), and about ten percent for banking and finance (counting all forms of banking and finance, the brokerage business, investment counseling, insurance and accounting). Grouping the fields for ease of understanding, one finds that architecture, art, theater and music together had drawn 1,399 alumni or 2.8%, while elective office and government administration and the Consular and Diplomatic Services enlisted 1,164 or 2.3% of the available Yale lives. Other groupings will show science (with archeology, sociology and geology) at about 2.8%; while all the engineering specialties (chemical, construction, civil, electrical, electronics, industrial, mechanical, marine, mining, metal and sanitary engineering) commanded the services of some 3,182 individuals or 6.3%. Other groupings show advertising, merchandising, public relations, and sales commanding about eight percent of the Yale constituency; manufacturing of various kinds, about six percent; other business (including agribusiness, amusement, building, public utilities, farming,

OCCUPATIONAL DISTRIBUTION OF

	Undergrad.	Graduate & Professional									
		Y.C., SSS & Eng.	Medi- cine	Law	Divin- ity	Grad- uate	Art	Music	Fores- try	Public Health	Nurs- ing
ACC	686		12	5	27	1	6	2		2	4
ADV	626		3	1	17	34	5	2			
AGR	12				1			1			
AIR	89		3	1	7	1		1	3	1	2
AMS	98		1	1	5			1		1	1
ARC	667		4	3	10	36					1
ARL	20				9						
ARM	142		7	3	37	1		2	2		3
ART	305	1	4	6	64	1,267	8		1		
AVI	148		3	2	10						2
BKO	1,083		22	8	101			3		1	
BKT	525	1	19	7	5		4				
BLD	188		3	4	2	2		2			3
BRS	1,163		19	4	17		3	3	1		
BUS	118		9	3	15		1	2			
CDS	275		14	4	69	1	1	2			
CHE	392				64			1			93
CIN	134		3	1	7	7		1			
COM	221		2	4	22	5	2	2			4
CON	60		3	4	8			1	1		1
CSE	169		1		6			5			16
CVE	230			1	10			4	1		105
DNT	13					1					
DPR	573		1	11	106	5	5	2	2		27
EDA	733		49	194	497	11	14	16	11	16	15
EDS	1,260		7	55	1,199	1		7	3	6	3
EDT	2,720	12	79	462	4,447	56	53	38	20	70	37
ELE	430		2	2	33			1			117
ELT	115				11	1					14
ENG	609		1	4	94	3	4	4			263
FAR	315	2	10	4	10	2	2	5		2	1
FIN	666		17	10	65	1	1				2
FMS	12			57	16	1	2			4	
FRS	124		1	5	65			1,049			1
FRT	199		5	2	9			3			1
GEO	147		1	1	213						6
GSA	818	1	86	39	268	9	8	22	6	5	4
GSL	71		12	3	6	2					
HMG	4	8	28	139	604	124	170		25	469	5
HTM	106		3	4	5	1		2		1	
INE	544		1	1	36	2		4			26
INO	1,161	1	33	11	42	5	7	14	1		4
INS	1,193	2	13	19	57	3	14	6	2		5
IVC	444		11	2	11	1		1			
JRN	443		8	8	35	3	1	1			
LAW	6,689		5,647	36	162		6	3	2	3	6
LIB	103		5	27	106	3	11	1		8	
MAR	55		1								
MCE	473	1	1	1	11	2		1			100
MED	4,388	2,395	11	28	186		6	6	106	12	16
MER	909	3	18	8	25	14	13	8		3	3
MFC	1,817		35	6	43	8	5	27		1	26
MGC	391		9	7	34	3		2			6
MME	25				1						
MMW	81		2	4	44	13		4	1	2	

LIVING ALUMNI IN 1979*

Schools			Total Grad. & Prof. Schools	Total University	Abbreviations for Occupational Fields
Drama	Archi- tecture	Org. & Mgmt.			
4			63	749	ACC Accounting, Auditing
32	1		95	721	ADV Advertising
			2	14	AGR Agribusiness
1			20	109	AIR Air Force
5			15	113	AMS Amusement Enterprises
4	1,080		1,138	1,805	ARC Architecture, City Planning
			9	29	ARL Archaeology
		1	56	198	ARM Army
70	52		1,473	1,778	ART Art, Design
1			18	166	AVI Aviation
2			137	1,220	BKO Banking, other than Trust
		2	38	563	BKT Banking, Trust
4	7		27	215	BLD Building, Contracting
5			52	1,215	BRS Brokerage, Stocks, Bonds & other commodities
1	1		32	150	BUS Business (not otherwise specified)
1			92	367	CDS Consular, Diplomatic Service
		1	159	551	CHE Chemical Engineering
42	3		64	198	CIN Cinema
4			45	266	COM Communications
		1	19	79	CON Consulting Services (other than management)
1	4		33	202	CSE Construction Engineering
1	7		129	359	CVE Civil Engineering
			1	14	DNT Dentistry
4	2		165	738	DPR Data Processing, Computer Sciences
25	9		856	1,589	EDA Education, Administration
8	3		1,292	2,552	EDS Education, Student
240	18		5,532	8,252	EDT Education, Teaching
4			159	589	ELE Electrical Engineering
1			27	142	ELT Electronics
1	13		387	996	ENG Engineering (not otherwise specified)
2	8		46	363	FAR Farming, Ranching
2	1		99	765	FIN Finance, Economics, Fund raising, Foundations
			80	92	FMS Foreign Missions
2	1		1,124	1,248	FRS Forestry, Ecology, Environmental Affairs
	2		22	221	FRT Foreign Trade
			221	368	GEO Geology, Geophysics
28	39		515	1,333	GSA Government Service, Appointive
			23	94	GSL Government Service, Elective
133	13		1,718	1,722	HMG Home Management
7			23	129	HTM Hotel and Restaurant
4	5		79	623	INE Industrial Engineering
7	4		129	1,290	INO Industry, other than manufacturing
6	1		128	1,321	INS Insurance, actuary
			27	471	IVC Investment Counseling
11			67	510	JRN Journalism
7	2		5,874	2,563	LAW Law
13	1		175	278	LIB Library Work
			1	56	MAR Marine Corps
1			118	591	MCE Mechanical Engineering
3	1		2,770	7,158	MED Medicine, including all specialties
24	2		121	1,030	MER Merchandising (wholesale, retail)
9	2		162	1,979	MFG Manufacturing
3	1		65	456	MGC Management Consultant
			1	26	MME Marine Engineering
2	3		75	156	MMW Museum Work

OCCUPATIONAL DISTRIBUTION OF

	Undergrad.	Graduate & Professional										
		Y.C., SSS & Eng.	Medi- cine	Law	Divin- ity	Grad- uate	Art	Music	Fores- try	Public Health	Nurs- ing	Engi- neering
MNE	49				3				1			2
MNS	487		2	12	3,320	244		8	4	2	3	
MTE	127				12							47
MUC	1							2				
MUS	258			2	4	64	1	1,116			2	
MUX	8					25		238				
NAV	174		1	2	4	18		1	4			2
NRS	5					9	3	5		15	1,000	
PBH	162		33	2	18	91		1	3	920	53	3
PBR	235			11	6	24	2	3		1	2	
PBU	117			4		6		2	2			8
PER	292			5	18	54	3	1	6			4
PHO	80		1	1	1	4	19				1	
PSY	116		8	3	9	36	1	1		1	2	
PTG	493		1	11	13	43	17	2				1
RAD	76			6	4	9		6				1
RET	53		1	5	4	12	2	4	7			
RST	666		1	19	9	19	1	8	5		3	1
SAL	2,320		2	23	16	53	8	13	30	2	1	26
SCI	1,299		16	3	25	2,638	1	4	21	19	12	67
SHP	73		1	2								1
SOC	6			1	2	9						
SSE	21					4				1		1
TEV	132			5	1	9	2	2		1		
THR	160			3	2	12	6	2				
TRP	224			5	3	20	2		2			31
WEL	166		3	10	122	85	5	3	2	4	12	3
WRT	555			24	16	144	11	5	4	1	4	1
?	7,048		23	77	610	2,533	176	145	68	30	117	60
Totals	50,385		2,520	6,465	5,419	15,134	1,890	1,924	1,421	1,185	1,818	1,182

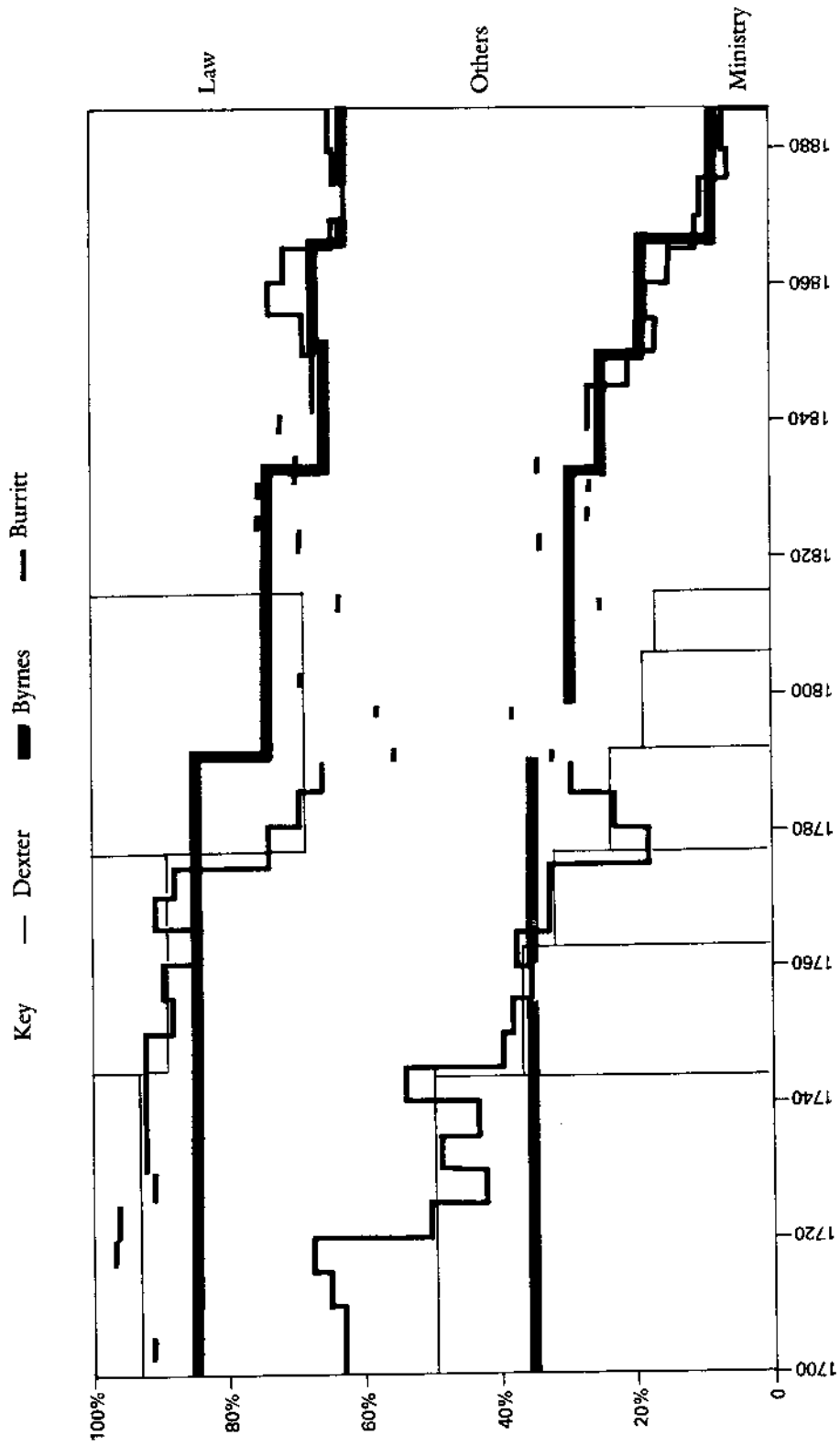
Source. Alumni Records Office Printout, 3/04/79. Honorary degree holders omitted.

*Individuals are counted only once each -- so graduate and professional school totals do not include Yale undergraduate alumni.

LIVING ALUMNI IN 1979*

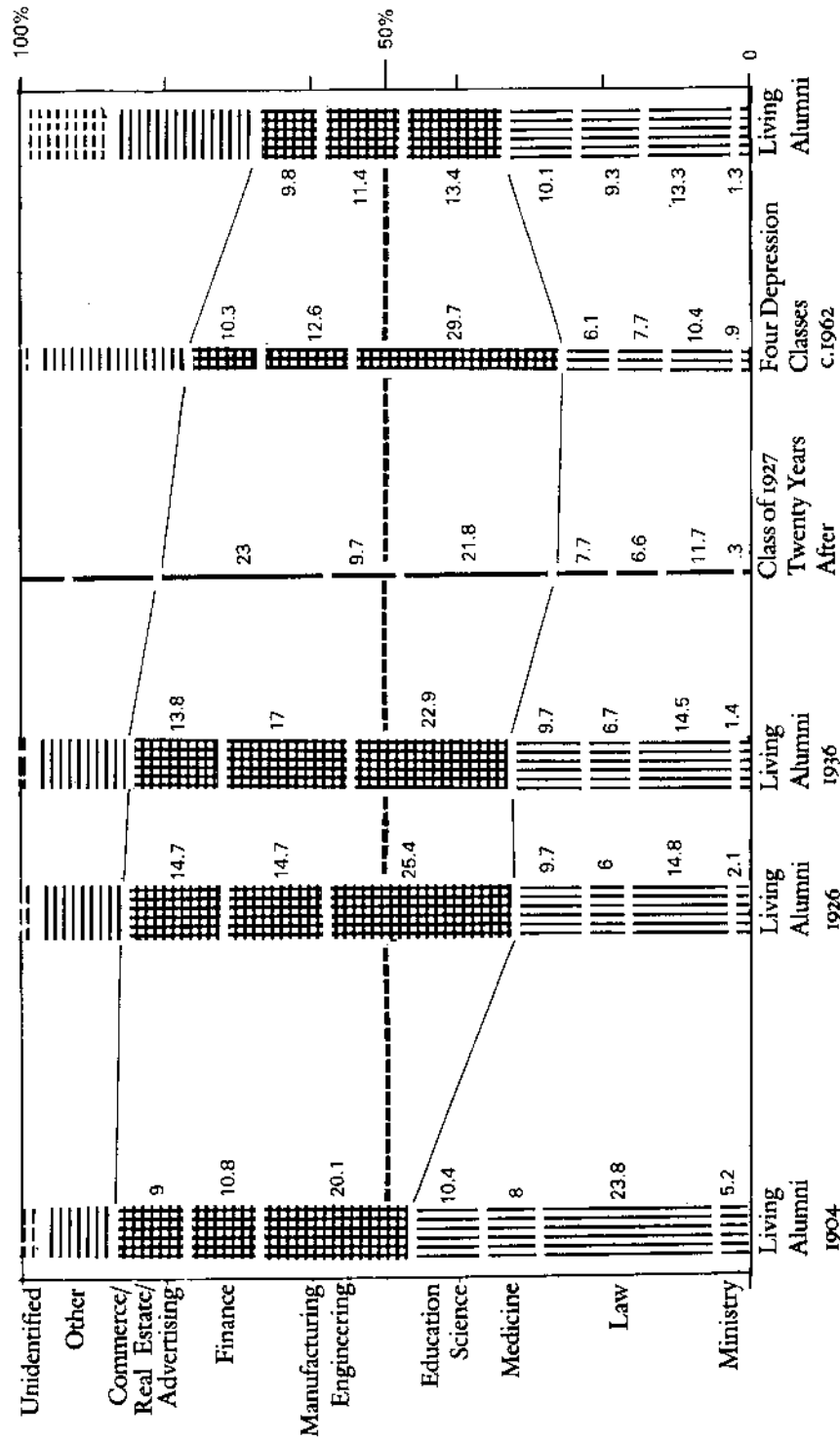
Schools			Total Grad. & Prof. Schools	Total Uni- versity	Abbreviations for Occupational Fields
Drama	Archi- tecture	Org. & Mgmt.			
			6	55	MNE Mining Engineering
8	4		3,607	4,094	MNS Ministry
			59	186	MTE Metallurgical Engineering
			2	3	MUC Music (composition, arranging)
5			1,194	1,452	MUS Music (performance, recording, publishing, broadcasting, management)
			263	271	MUX Music (education-college)
1	1		34	208	NAV Navy
2			1,034	1,039	NRS Nursing
3	1		1,128	1,290	PBH Public Health, Health Care Adm. & Management
21	2		72	307	PBR Public Relations
1			23	140	PBU Public Utilities
3	2		96	388	PER Personnel work, labor relations, unions
4	1		32	112	PHO Photography
2			63	179	PSY Psychiatry, psychology, psychotherapy, mental health
14			102	595	PTG Publishing, Printing
26			52	128	RAD Radio
			35	88	RET Retired
11	7		84	750	RST Real Estate
20	3		197	2,517	SAL Sales, Marketing
6			2,812	4,111	SCI Science
	1		5	78	SHP Shipping
			12	18	SOC Sociology
			6	27	SSE Sanitary Engineering
71			91	223	TEV Television
961	1		987	1,147	THR Theatre
1	5		69	293	TRP Transportation
14			263	429	WEL Welfare work, social work, voluntary services
104	1		315	870	WRT Writing and Editorial Work
366	92	43	4,340	11,388	? Unidentified
2,369	1,413	43	42,783	83,168	Total Living Alumni in 1979*

Decline of the Ministry, Rise of the Law, 1702-1886



Sources: Tables E-4.1, E-4.2, E-4.4.

The Changing Occupational Distribution of Living Alumni of the Undergraduate Schools, 1904-1979



Sources: Tables E-4.6, E-4.8, E-4.12, E-4.13, F-4.14.

forestry, hotel and restaurant, and real estate), about 3.6%. Communications of various kinds would total at least three percent, etc., etc.

If we turn now to the graduate and professional schools a number of interesting facts clamour for notice. The first is the extraordinary diversity of occupation demonstrated by the graduates of the Graduate School, the Law School, the Divinity School and the Forestry School. Of the eighty-odd occupations specified they have missed very few. Often the numbers are not very great--and this suggests a second observation. How faithful did the students in the graduate and professional schools remain to their initial intentions? Calculation will show that more than ninety percent of the graduates in medicine and nursing remained in the health professions; and some eighty percent of those trained in the law stayed with the law (possibly more if government service is taken into account). The School of Architecture seems to have contributed three-quarters of its production to the profession of architecture; the same for forestry. In art and the ministry about two-thirds of the graduates continued in their choice of career; and the same would be true in music. But apparently only about forty-one percent of the drama alumni were in 1979 still engaged in theatrical enterprise. What had happened to those who had not continued? Evidently some of them had scattered into related or even quite different occupations; but for the graduate and professional schools as a whole 1,718 are listed as having home management as their occupation. This suggests that a certain number of the women graduates or alumnae had withdrawn from the professional or labor markets to marry and raise families.

Reviewing this whole series of occupational tables a student of American society will unquestionably make discoveries this compiler has missed. But not the least of the rewards will be the telescopic view of a coherent and self-conscious and disciplined group developing and changing, within the context of an evolving American society, down through two hundred and seventy-five years. Occupationally, as well as in other ways, the alumni of the University open a window on our past.

E-5. Vital Statistics

Introduction: The Length of Yale Lives

The later career records of Yale's undergraduates, through almost three centuries, offer an unusual resource for Yale, for New Haven and for Connecticut, but most of all for the nation. For the threads of such lives, originating quite separately in farm and town and city, and characteristically often from far beyond New England, had by four years of college-going in New Haven been drawn and woven together in an intense fabric of experience and group loyalty, then been pulled out and stretched again across the length and breadth of the country. Beginning as anonymous young Americans, they had studied and worshipped and played and lived together, and then returned to make their contributions to the nation; contributions of energy and leadership in so many of the areas and callings and significant occupations that one wonders if the history of our nation could have been the same without them. (Cf. the Yale graduates listed in the "Dictionary of American Biography", and also G. W. Pierson, "The Education of American Leaders", 1969.)

Who were they? We know their names. As one of the oldest record-keeping corporations in the country, Yale can supply the identity and considerable personal information on a surprising number of its graduates and non-graduates, famous or not. Almost a century ago, the Yale Historian-Librarian, Franklin Bowditch Dexter (one of the first two professors of American History in the U.S.), pursued the available clues on Yale's early graduates, through family papers, local histories, church records, funeral sermons, and even graveyard markers, and so put together his invaluable "Yale Biographies and Annals, 1701-1815" (6 vols.), after which he also edited his series of "Biographical Notices and Obituary Records". In 1914 the University Secretary, Anson Phelps Stokes, published his "Memorials of Eminent Yale Men" (2 vols.). In 1929, for "The Memorial Quadrangle", Robert Dudley French gathered information on a great number of Yale worthies. Available also are reminiscences and biographies or autobiographies of outstanding individuals, to illuminate the more methodical class or college histories, the reunion records, and all the miscellaneous newsprint long accumulating in the Archives and the Alumni Records Office. Yet

on the lives of Yale men since Dexter's count (there were no women undergraduates until 1969)--i.e., on the whole host of male undergraduates since 1815--on the achievements and routines and failures of this interconnected and notably able company of Americans, not nearly enough has been done. Beyond the neglected obituaries, neither the individual biographical investigations nor the composite portraits exist except as possibilities. With the honorable exception of Franklin Bowditch Dexter, the potentials of Yale men's lives for American social history have not been realized. Our resources remain both underdeveloped and unexploited.*

Some things, however, we do begin to know. In general and by generations we know where the students came from (cf. B-1 tables), what percentages were of Yale parentage (B-2), where the more recent classes had prepared (B-3), how old they had been (B-4), and what they had been compelled or had elected to study (C series). Through university catalogs and directories we can also follow them, as graduates or alumni, and discover where they proceeded to live, and into what professions or occupations they gravitated (E-2, E-3, E-4).

About their ancestry we are as yet hardly informed. With the exception of one study (now a century out of date, see E-5.3 and E-5.4), we also know nothing about their marriages or divorces, their children, grandchildren or other family connections. As already suggested, on the bio-social side our group archives are still deficient and sadly unappreciated.

Happily, our life span and mortality statistics can offer more positive returns.

Already presented and commented are the tables on "The Living and the Dead" (E-1 series). These show, at Presidential or census intervals, just how many graduates (or non-graduates) there had been, and how many were still alive. Now we propose to ask: How long did they live?

Inevitably, and happily, we can turn to Dexter, and the tables he composed or had composed for the classes from 1701 to 1791 (E-5.1). These tables were published between 1885 and 1907 but their message remains fresh and surprising. Their message is that our colonial predecessors survived a lot better than many of us are disposed to credit. Not only did some 349 out of 1,979 reach the age of eighty (almost eighteen percent), and 175 the age of eighty-five, but the

*One example of what might be learned is John S. Whitehead's article on the Class of 1880, Yale Alumni Magazine, June 1980.

DEXTER'S MORTALITY TABLES FOR THE CLASSES 1702-1791

Age	1702-1744		1745-1762		1763-1777		1778-1791	
	No. At Risk	No. Dying In Year	No. At Risk	No. Dying In Year	No. At Risk	No. Dying In Year	No. At Risk	No. Dying In Year
15					2		1	
16					8		8	
17					19		28	
18					48		75	
19	261.8	4	189.25	1	107		142	1
20	211.1	2	187.30	5	182	3	244	
21	296.8	2	270.91	5	256	3	341	4
22	353.3	5	335.01	3	328	5	395	7
23	386.0	2	375.58	6	369	5	445	3
24	411.3	5	408.08	3	393	1	469	5
25	425.8	8	429.18	5	416	7	486	9
26	430.8	5	439.34	3	419	5	489	4
27	431.8	5	444.64	4	424	5	491	5
28	432.2	4	449.37	4	424	1	493	4
29	431	2	448.00	12	430	8	495	2
30	429	4	436.30	8	430	8	494	6
31	425	4	429	4	423	7	489	2
32	421	3	425	3	416	6	488	3
33	418	6	422	2	411	7	485	2
34	412	1	420	4	404	5	483	4
35	411	7	416	6	399	2	479	2
36	404	6	410	7	397	6	477	5
37	398	5	403	5	391	4	472	8
38	393	9	398	5	387	4	464	12
39	384	7	393	2	383	5	452	3
40	377	5	391	3	378		449	3
41	372	2	388.3	5	378	6	446	8
42	370	5	384	6	372	6	438	3
43	365	2	378	5	366	6	435	8
44	363	2	373	7	360	3	427	4
45	361	5	366	4	357	2	423	7
46	356	3	362	5	355	4	416	8
47	353	8	357	7	351	3	408	4
48	345	7	350	2	348	4	404	5
49	338	10	348.3	6	344	5	399	4
50	328	3	343	10	339	8	395	5
51	325	6	333	7	331	7	390	4
52	319	13	325	4	324	5	386	5
53	306	8	321	7	319	7	381	7
54	298	6	314	6	312	6	374	5
55	292	7	308	7	306	10	369	8
56	285	12	301.3	6	296	8	361	10
57	273	10	296	5	288	6	351	8
58	263	8	291	11	282	7	343	7
59	255	8	280	8	275	5	336	12
60	247	7	272	7	270	4	324	5
61	240	8	265	5	266	13	319	13
62	232	9	260	8	253	6	306	9
63	223	8	252	10	247	8	297	10
64	215	14	242.3	11	239	5	287	4
65	201	9	232	13	234	8	283	7

DEXTER'S MORTALITY TABLES FOR THE CLASSES 1702-1791 (cont.)

Age	<u>1702-1744</u>		<u>1745-1762</u>		<u>1763-1777</u>		<u>1778-1791</u>	
	No. At Risk	No. Dying In Year	No. At Risk	No. Dying In Year	No. At Risk	No. Dying In Year	No. At Risk	No. Dying In Year
66	192	11	219	9	226	12	276	14
67	181	9	210	13	214	12	262	8
68	172	8	197	2	202	10	254	13
69	164	11	195	11	192	10	241	11
70	153	10	184	15	182	3	230	10
71	143	9	169	7	179	11	220	10
72	134	9	162	12	168	11	210	8
73	125	15	150	6	157	10	202	11
74	110	8	144	10	147	11	191	10
75	102	8	134	10	136	14	181	11
76	94	10	124	12	122	11	170	10
77	84	10	112	6	111	11	160	16
78	74	9	106	8	100	8	144	12
79	65	3	98	11	92	10	132	14
80	62	10	87	16	82	12	118	8
81	52	9	71	10	70	10	110	16
82	43	5	61	5	60	9	94	10
83	38	4	56	9	51	6	84	13
84	34	1	47	8	45	2	71	11
85	33	4	39	9	43	6	60	13
86	29	3	30	7	37	3	47	10
87	26	5	23	7	34	4	37	5
88	21	2	16	4	30	4	32	6
89	19	5	12	2	26	6	26	7
90	14	6	10	1	20	9	19	5
91	8	4	9	1	11	5	14	5
92	4	1	8	2	6	2	9	3
93	3		6	3	4	1	6	2
94	3		3	2	3	1	4	
95	3	1	1	1	2	1	4	1
96	2	1			1	1	4	1
97	1						3	1
98	1						2	
99	1						2	1
100	1						1	
101	1						1	
102	1						1	1
103	1	1						
Total:		473		491		475		540

Source. F. B. Dexter, Yale Biographies and Annals, Vols. I, II, III, IV.

absolute majority of Yale's graduates in the first ninety years lived beyond the age of sixty. Thus, the median age of death among those graduating in the years 1702-44 (the first statistical group) proves to have been between sixty-one and sixty-two (when survivors dropped from 240 to 232 out of 473). In the second group, for the classes of 1745-62, the median age of death was sixty-three to sixty-four. For the third group, 1763-77, it was sixty-four; and for the last group, 1778-91, it was sixty-six to sixty-seven. So we learn, as well, that for the less durable the chances of survival had improved during the colonial times by at least five years. Was this stretch-out due to a rather heavy early mortality (as popularly supposed) and then longer life for the survivors? Apparently not. Whatever the death rates may have been before graduation, there were no deaths at ages fifteen to eighteen among the 123 who had graduated that young; only six died at age nineteen; then the mortality between the ages of twenty and forty was steady but quite moderate; in fact Yale's colonial graduates only began to drop off in substantial numbers when they reached their fifties and sixties. Dexter's tables invite thoughtful inspection.

For the nineteenth century, without knowledge of birthdates and without the indefatigable labors of Dexter to light the way, we have had to eschew any efforts to classify Yale's graduates as a whole or by age at death. Instead we have selected five-year clusters of classes and asked: How long did these classes on average survive after graduation? And what were the median moments of death? The results are presented in table E-5.2.

Comparing the classes with each other and the generations or clusters of classes across the span of sixty years, the reader will catch sight of a number of teasing phenomena. For example, why were the smallest classes (1819, 1838, 1856, 1858, 1859 and 1875) almost invariably the weakest or least durable? Was there something in the American air the year they were born? Unlikely, as for any single class the years of birth stretched a decade (cf. B-4.1 and B-4.4). In contrast, the class of 1872, while losing half its members by forty-eight years after graduation, obviously kept many of its survivors going into a really ripe old age, to boost the class average years of survival to fifty-two after graduation.

Again, comparing clusters, one notes the mortifying effects of the Civil War on the classes graduating in the late 1850s. Otherwise the combined classes from the War of 1812 to 1860 seem to have experienced roughly the same mortality. Then for the graduates of 1871-75 the median age at death rose a clear two years, and the average age about five. Obviously, the weaker half of the class were living considerably longer, and the stronger members longer still.

LIFE SPANS AFTER GRADUATION

For Yale College Classes of 1816-20, 1836-40, 1856-60, 1871-75

Classes	Number Known/ Total Grads.	Average Length of Years After Graduation	Median Length of Years After Graduation
1816	58 / 61	40.7 years	45 years
1817	58 / 61	42.2 years	46 years
1818	64 / 67	42.1 years	48 years
1819	39 / 39	32.5 years	36 years
1820	58 / 58	39.4 years	44 years
1816-20	277 / 286	40.04 years	45 years

1836	80 / 81	41.8 years	47 years
1837	105 / 106	40.97 years	46 years
1838	70 / 70	37.9 years	43 years
1839	94 / 95	39.4 years	47 years
1840	106 / 107	39.5 years	45 years
1836-40	455 / 459	39.96 years	45-46 years

1856	93 / 97	39.6 years	44 years
1857	105 / 107	40.9 years	45 years
1858	99 / 105	39.2 years	41 years
1859	99 / 107	37.4 years	40 years
1860	106 / 112	38.2 years	44 years
1856-60	502 / 528	39.06 years	43 years

1871	105 / 105	42.9 years	46 years
1872	132 / 133	52.1 years	48 years
1873	114 / 114	43.0 years	48 years
1874	124 / 124	45.3 years	48 years
1875	98 / 98	40.1 years	46 years
1871-75	573 / 574	45.1 years	47 years

Source. Catalogue of the Officers and Graduates of Yale University, 1701-1924 (for 1871-75, the annotated copy in the Yale Archives).

How long? The figures for "years after graduation" can be converted into ages by referral to table B-4.3. There one will find that the class of 1816 was estimated to have averaged 21 years, 8.4 months on graduation, while its average date of death (E-5.2) was 40.7 years later. Adding the two figures one gets an estimated average of 62.4 years: and if adding medians is permitted, they suggest a median age at death of just over sixty-six years. For 1817 the average and median figures would be 65.3 and 68.2; while for the frail class of 1819 the returns would show only 53.2 years and 56.5 years. Again for the class of 1836 the average and median figures would be 64.2 and 68.6; for 1837, about 62.7 and 67.1; for 1838, 60.6 and 65.3; for 1839, 61.9 and 68.9; and for 1840, 61.6 and 66.3. Such figures suggest that the classes of the late 1830s varied considerably but averaged just over sixty-two years of life and perhaps had a median age at death of just over sixty-seven.

In the early 1870s the average ages at graduation ranged from 22 to 22.8 years (table B-4.7) which allows us to calculate that 1871 averaged 65.7 years of life; 1872, 74.6 (!); 1873, 65; 1874, 68; 1875, 62.35. These quite variable groups, when averaged with each other, yield 67.5 for the whole cluster; a life span more than five years greater than had been enjoyed by Yale graduates generally in times gone by. And the median moment of death, for these post-Civil War classes, seems now to have occurred at about seventy.

What of the twentieth century? Here only approximations are yet possible but they seem full of meaning.

As of the moment of composition (April, 1980), average death ages for the classes since 1900 could not be calculated because too many were still alive. One member of '99 survived, two from 1902S, five from 1904 and 1904S, four from 1905 and 1905S, eleven from each of the next two years, and twenty from 1908 and 1908S, etc. The annual median ages of death are also out of reach, because of the sheer mass of data required. We do know, however, how many in each class graduated in good standing and on schedule (see tables in A-2 series), and the Alumni Records Office has supplied a print-out showing how many in each class now, in 1980, survived. Dividing the first or graduating totals into the second or surviving figures, we learn that as of April, 1980, forty-five percent of 1923 and 1923S survived, thirty-seven percent of 1924 and 1924S, forty-eight percent of 1925 and 1925S, forty-six percent of 1926-1926S, but fifty-six percent each for the graduates of 1927-1927S and 1928-1928S, and sixty-two percent for 1929, etc. So all the classes before 1927 were more dead than alive, and vice versa for those that came after. This puts the median moment of death (in

1980) at between fifty-three and fifty-four years after graduation, i.e., at about seventy-six years of age.

The same records indicate that some ten percent of Yale's graduates are still alive at age ninety, twenty percent at age eighty-five, thirty-eight percent at age eighty, eighty-five percent at age sixty-two to sixty-three, and at least ninety-five percent for all the classes since 1952 (i.e., aged fifty or younger). Given the current uneasiness about forced retirements at sixty-five or seventy, and the unexpected costs of social security for an aging population--to say nothing of hopes for national health care insurance--should we regard Yale's predictive figures as exhilarating? Or deeply depressing?

Reviewing our figures across almost three centuries, one finds that in the colonial period all of nine percent were alive at age ninety, almost eighteen percent at age eighty, and twenty to thirty-one percent at age seventy-six. So the differences among the hardiest, then and now, are perhaps less than one would expect. Yet over the same span of 280 years the median ages at death have risen from sixty-one to sixty-two, to sixty-four, to sixty-seven, to seventy, to seventy-six--a gain of almost fifteen years.

One way of understanding this is to say that the less durable halves of Yale's classes now live about twenty-five percent longer on average than they once did. But the more durable halves? After passing the median point they seem to drop faster. For all the average gains in vitality, we seem to have no more centenarians than we ever did and not many more nonagenarians. Whether the gains in health and the general prolongation of life will eventually overtop such barriers one cannot say. The aging that has already happened, however, may be enough to signal some quite serious consequences for our society.

PROPORTION OF GRADUATES MARRIED IN DIFFERENT PERIODS, BY OCCUPATION, 1702-1886

Occupation	1702-1791	1797-1833	1834-1849	1850-1866	1867-1886*
Ministry	90.5%	90.9%	92.8%	93.0%	74.9%
Law	91.3%	72.6%	75.4%	75.4%	61.9%
Medicine	85.5%	77.4%	78.9%	82.8%	63.9%
Education	67.1%	71.8%	81.5%	82.6%	74.9%
Agriculture	92.2%	72.7%	82.0%	73.3%	---
Trade	86.5%	74.0%	75.0%	80.7%	56.9%
Manufacturing	92.8%	77.7%	82.8%	89.5%	68.9%
Miscellaneous and Unknown	75.0%	84.6%	71.7%	76.0%	66.9%
TOTAL	88.3%	78.8%	81.2%	81.3%	66.3%

* The coefficient of correction, 4.9% has been added to each percentage, considering the longer time required for professional training in this later period and the subsequent deferment of marriage.

Source. Ronald M. Byrnes, "A Statistical Study of the Yale Graduates, 1797-1866," Yale Review (November 1908), pp. 316-338. The statistical materials for the colonial period, 1701-1791, were taken by Byrnes from a compilation made by William B. Bailey, Yale Review (February 1908), and Bailey got his figures originally from the first four volumes of F. B. Dexter, Yale Biographies and Annals. For the period 1797-1866, Byrnes found the records quite irregular but managed to find usable statistical materials for 45 out of the 70 classes. These materials reflected the status of Yale Graduates generally 35 to 50 years after graduation. For the classes 1867-1886, the statistics were compiled from the 20-year class records. These figures are, of course, for the graduates of Yale College.

AVERAGE AGE AT MARRIAGE OF YALE COLLEGE GRADUATES, 1702-1886

Occupation	1702-1791	1797-1833*	1834-1849**	1850-1866***	1867-1886
Ministry	27.9 yrs.	29.3 yrs.	29.2 yrs.	29.6 yrs.	29.7 yrs.
Law	27.5 "	29.0 "	29.3 "	29.5 "	30.9 "
Medicine	27.7 "	29.4 "	29.6 "	31.2 "	31.7 "
Education	---	29.9 "	30.8 "	32.4 "	30.3 "
Agriculture	26.6 "	28.0 "	25.6 "	28.8 "	---
Trade	27.1 "	29.9 "	29.9 "	29.0 "	29.6 "
Manufacturing	---	27.4 "	27.0 "	28.7 "	30.1 "
Miscellaneous and Unknown	---	28.1 "	31.5 "	29.4 "	30.1 "
TOTAL	27.7 yrs.	29.1 yrs.	29.3 yrs.	29.8 yrs.	30.5 yrs.

Source. Ronald M. Hyrnes, "A Statistical Study of the Yale Graduates, 1797-1866," Yale Review (November 1908), pp. 316-338.

* Based on a graduate population of 664 out of 924

** Based on a graduate population of 1,095 out of 1,421

*** Based on a graduate population of 1,158 out of 1,505

F

FINANCES

F-1. Elements of Yale's Early Finances

F-1 Elements of Yale's Early Finances

Introduction: Yale's Three-Legged Stool

In the evolution of American colleges, sooner or later, one comes to the problem of costs. Pursuing their intellectual errands, on behalf of a materialistic society itself preoccupied with the conquest of a continental wilderness, how did the colleges survive? Who endowed them? Who equipped them? Who paid their running expenses? And who gave shape and distribution to such services and benefits as they had to offer? These questions are important, yet difficult to answer. They are important because, whatever the college's vision, its resources determined the issue of survival, and either encouraged or limited or deflected its best efforts. All too often the want of means seems to have delayed or entirely prevented the realization of academic dreams. Yet certainties of cause and effect are not easy to determine. Again and again the finances of an institution can be so obscure that one is troubled to ascertain even what they were, and puzzled to interpret their meaning.

For Yale College the printed treasurer's reports did not start until 1830. Prior to that the accounts had been kept in manuscript--entered in enormous leather-bound folios--somewhat irregularly and often in very confusing order--receipts (or expenditures) of the most diverse kinds all intermingled--records kept by a series of treasurers using sometimes dissimilar systems. On top of that, Yale's early treasury papers were until 1980 in some disarray. So one deciphered the running meaning only with great pains and uncertainty. I wish to make clear, therefore, that my tables for Yale's colonial finances are derived only in small part directly from the treasurer's manuscript records. They come instead mostly from the available printed sources: from the limited or special researches of earlier historians, and from the publications of the writings of Clap and Stiles and others. Complete precision is further impeded by still another complication: the obscure and changeable character of colonial currencies. So until some painstaking and sophisticated study can be made of the whole voluminous corpus of Yale's unpublished treasury papers, we must content ourselves with approximations. I believe, however, that the tables here presented come pretty close to the facts and to the balance of the evidence; I

am sure they give us the major elements of a sometimes entertaining, sometimes poignant story.

What supported the Collegiate School, and Yale College, through the difficult beginning years of the eighteenth century? Our panorama of the receipts of the College (F-1.1) makes the answer quite clear. Yale's collegiate establishment rested on an intriguing variety of supports, from student tuitions to Colony grants to the congregational clergy and benevolent strangers. Together these made up what I like to call Yale's three-legged stool.

The basic and indispensable yearly income--the financial seat of the institution--was of course the monies from tuitions and other interesting student charges as levied in the term bills (F-1.2). But such charges, however ingeniously contrived, could not either establish or fully maintain the College. Instead, this seat of instruction and learning needed supporting legs, and we can identify three. 1) The Colony of Connecticut, through its General Court or Assembly, voted both annual subsidies and occasional aids or exemptions or emergency reimbursements. 2) A second source of both continuing and intermittent support was the "Congregational Establishment," or rather the personal participation of the congregational ministers, their moral backing, and the occasional financial support of their parishioners. 3) The third source clearly was the irregular but indispensable support of benevolent strangers from both old and new England.

Obviously such supports could be and often were quite different in kind. From the legislature came annual grants that started at £120 in overvalued produce or "country pay," and continued in freshly-voted annuities increasing gradually to £100 in lawful money, until the annuities were terminated, suddenly and for good, in 1754. In the same fifty-three-year span, the Connecticut Assembly also aided the College by grants of land, or from the sale of land, by special grants for the construction or repair of the College buildings, by the authorisation of briefs or a lottery, by duties on rum (Yale owes not a little to colonial drinking habits), or by the transfer of proceeds from the sale of a French vessel captured by the Colony frigate. How many pounds or dollars the Colony actually contributed to Yale by these various supportive devices it is almost impossible to say. A century ago Kingsley estimated the total at better than \$24,000. Whatever the exact figure, we can readily see from our panorama that it was the Assembly which did the most (after the tuitions and student charges) to make sure that the College survived. Obviously, at a critical moment, New Haven also did not a little to make possible the establishment of

RECEIPTS OF THE COLLEGE, 1701-1789

Connecticut Assembly Annual & Special Purpose Grants	Rector/ President, Tutors, Professors, Students	Buildings
<p>Oct. 1701. Assembly chartered collegiate school and granted "the full & just sum of one hundred & twenty pounds in Country Pay to be paid Annually. . . " Country pay meant payment in commodities (wheat, lumber, etc.) which for tax purposes were overvalued by 50%. So the collegiate school could look for \$80 in money, yet it sometimes realized less from the sale of the commodities in Boston. This annual subsidy was re-enacted (with gradual increments) to 1755.</p>	<p>1703. Students exempted from taxes, watching, warding and all public service.</p>	<p>1701-02. Donations of c. \$50. Nathaniel Lynde of Saybrook offered house and land, for so long as school continued at Saybrook (house occupied 1708-1716).</p> <p>1703. "General contribution" throughout the colony to build a college house (no known returns).</p>
<p>1712. Connecticut annual grants increased 25% to \$100 in money or bills of credit. No more "country pay".</p> <p>1715. Grant of \$500 for a College House.</p> <p>1719. Extra \$40 (annually for 7 years) voted toward maintenance of Rector (commuted for sum of \$300). Rector freed from all taxes.</p> <p>1721. Assembly authorized Brief which netted \$100 for Rector's House.</p> <p>1722-23. Grant of impost duty on rum yielded \$230.</p> <p>1726. Grants to Newington for loss of Rev. E. Williams.</p> <p>1728. Grant of impost on rum: \$222. Extra \$50 added to annuity.</p> <p>1729 & 1730. Extra \$80 instead.</p>	<p>1719-22. Rector freed from taxes as "Special good-will" of Assembly. Also special 7-year grant for his maintenance. Duty on rum and subscription to build Rector's House. House completed 1722.</p> <p>1725. Assembly freed Newington of taxes for 4 years and voted \$100 compensation for loss of Rev. Elisha Williams, to be Yale Rector.</p>	<p>1715-16. Connecticut Assembly granted \$500, from sale of land gained in Massachusetts boundary dispute, for building a college house.</p> <p>1716. New Haven people subscribed between \$1500 and \$2000 in money, materials, labor and land for bringing the collegiate school to New Haven and building a college house. Building started in 1717.</p> <p>1718-21. After colony and New Haven funds used up, arrival in Boston of bales of goods from Elihu Yale made possible the finishing of "Yale College." \$562 realized. Another Yale shipment in 1721 added about \$100.</p> <p>1721-23. Colony "Brief" and parish subscriptions of \$100, plus \$300 from Assembly (\$230 from "impost upon Rum") with Yale's \$100 and sale of college lands, used for building Rector's House. College bought 1 1/2 acres across street and contracted with H. Caner for \$500. Yale's Second Building.</p>
<p>1731 & 1732. Extra \$100 instead. Annuity from Assembly continued at \$200 in money or bills of credit to 1741.</p> <p>1732. Litchfield County land grants: 1500 acres.</p> <p>1735. \$50 voted for repairs to college.</p> <p>1736. \$128 18s 3d (\$134 7s 0d?) for repairs to college.</p> <p>1737. Tax exemptions to Rector and tutors</p> <p>1738. Survey costs.</p>	<p>1737. Rector and students freed from pole taxes and Rector's estate from assessment.</p>	<p>1736-37. Assembly paid \$134 (\$180?) for repairs to Yale College.</p>

Land	Books	Apparatus	Miscellaneous
<p>16 Oct. 1701. In that it hath pleased ye Lord... to put it into the hearts of his faithful ministers to take soe great paines, and be at soe considerable charge for setting up a Collegiat School." Major James Fitch offered glass for a house, and nails if necessary, and gave 637 acres in Killingly. Title to this first college farm was disputed and in 1730 it was exchanged for 528 acres in Salisbury. It produced £5 in rent in 1721.</p> <p>1701-02? Offer of Lynde House and 8-10 acres at Saybrook for use of school, if at Saybrook.</p> <p>1708-16. Use of Lynde land and house at Saybrook.</p>	<p>Nov. 1701. Saybrook. Some books ("40 folios"?) given by Trustees to help establish Collegiate School.</p>		<p>Fitch farm valued at £150.</p> <p>1704-05. Requests of corn, and provisions.</p>
<p>1716. Joseph Peck gave 2 acres and New Haven proprietors granted adjacent 8 acres on north side of Green if College settled and stayed in New Haven. A dozen men donated 1-5 acres (40 acres).</p> <p>1717. Trustees bought 1 1/4 acres (at corner of present Chapel & College Streets) from New Haven Church for £26 in bills of credit (£13 sterling?).</p> <p>1719-20. Joseph Moss, father and son, gave 8 and 7 acres in New Haven. Samuel Smith gave 8 acres in North Haven. All but 10 acres sold for cash, 1721, to build Rector's House.</p> <p>1721-22. Trustees bought 1 1/2 acres on s/w corner of College & Chapel Streets for Rector's House from New Haven Church for £43.</p>	<p>1713-14? "Donations of valuable books" (8 boxes: 170-200 vols.) from Sir John Davis and non-conformist ministers in Devon.</p> <p>1714. Jeremiah Dummer sent 9 boxes (368) "choice" books from England, including 92 at own expense; 29 from Gov. Elihu Yale; and copies of their works from Isaac Newton, Richard Steele, Richard Blackmore, Dean Kennet, Edmund Calamy, Dr. Burnet, Robert Boyle and others (a "very valuable and considerable library," some 900 vols., c. £260 sterling).</p> <p>1716. Francis Nicholson: books.</p> <p>1716-18. Further boxes of books from J. Dummer.</p> <p>1717. Further books from Gov. Yale.</p> <p>1718. About 1/5 of books lost in move from Saybrook to New Haven.</p> <p>1718-21. 417? books from Gov. Yale.</p> <p>1722-23. Dr. Daniel Turner of London: 28 vols. Anatomy, physick & chirurgery.</p> <p>1725-27-29. More books from J. Dummer.</p>	<p>1715. Two globes (celestial & terrestrial) sent with books by J. Dummer (apparently ruined in move to New Haven).</p>	<p>1715. Citizens of New Haven and others from Milford, Derby and Branford pledged over £1500 in money, materials and labor to bring the collegiate school to New Haven. Gov. Saltonstall gave £50, Mrs. Saltonstall £10, J. Brenton of Newport £50.</p> <p>1718. Books, bales of goods, a portrait and Arms of King George I from Gov. Elihu Yale.</p> <p>1719. Trustees paid Rev. Cutler £190 for old home and lot.</p> <p>1723? First college bell given by Mrs. Abigail Woodbridge.</p>
<p>1732. Dean George Berkeley sent deed to Whitehall, his 96-acre farm in Rhode Island. Income from Berkeley farm to support America's first post-graduate fellowships. Farm let in 1762 for 999 years for £18 sterling and 40 rods of stone wall.</p> <p>1732. Assembly granted Yale 300-acre farm in each of 5 townships west of the Housatonic, plus £40 in 1735 to survey them. This increased Yale holdings to c. 2243 acres which Clap rented out.</p>	<p>1730. Joseph Thompson and others: 40 books. Rev. Isaac Watts sent all his published works and followed with others later. Hon. S. Holden: Baxter's Practical Works, 5 vols.</p> <p>1731. Dean George Berkeley: Greek and Latin books to be given as prizes.</p> <p>1733. Great gift of library (c. 680 books) from Dean G. Berkeley and his friends: "the finest collection ever brought to America" up to that time. Especially strong in literature, natural history, medicine.</p> <p>1738. Dr. Watts: 5 folios. Johnston's Latin psalms, 8 vols.</p> <p>1739. Rector Williams earned College £14 from books sold.</p>	<p>1734. Joseph Thompson gave complete set of surveying instruments. Rector, tutors, trustees and others provided for reflecting telescope, a double microscope, barometer and thermometer, prisms, mirrors, scales, magnifying glass, magnet, camera obscura, syringe, pipes, tubes.</p> <p>1738. Rev. Dr. Watts sent 2 large globes.</p>	

Connecticut Assembly Annual & Special Purpose Grants	Rector/President, Tutors, Professors, Students	Buildings
<p>1740. Grant of £310 in bills to Windham for loss of Rev. T. Clap.</p> <p>1741. £42 for new covering the college.</p> <p>1741-43. £30 added to annual subsidy in bills of credit, new tenor.</p> <p>1742. £40 for new kitchen and fence for Rector's House.</p> <p>1743. Annuity augmented to £100 in lawful money, which continued to 1755.</p> <p>1745. £108 voted for repair of Rector's/President's House.</p> <p>1747-48. Assembly authorized lottery to help build new college.</p> <p>1749-50. Assembly authorized proceeds from French vessel, captured by Colony frigate, for new college.</p>	<p>1740. Assembly paid Windham £310 (£53 sterling) for loss of Rev. Thomas Clap.</p> <p>1740-43. Nouquier bequest of £27 sterling for support of Rector and Tutors.</p> <p>1744-45. Repair of Rector's House.</p> <p>1745. Gift from Colonel Philip Livingston of £38, 10s. sterling, "as a small acknowledgement of the sence i have for the favour and Education my sons have had there." Clap secured it for any purpose, and husbanded it for Yale's first professorship.</p> <p>1745. "That all ye Lands and Ratable Estate belonging to ye Sd College not Exceeding ye Yearly Vallue of five Hundred Pound Sterling lying in any town in this Government, and the Persons Families and Estates of ye President and Professors Lying and being in ye Town of New-Haven and ye Persons of ye Tutors Students & Such and So many of ye Servants of Sd College as give their Constant attendance on ye Business of it shall be freed and Exempted from all Rates Taxes Military Service Working at High Ways & other such like Duties and Services."</p> <p>1746. John Ellery bequest of £100 for needy students designed for the Ministry.</p>	<p>1741. Repairs to Yale College.</p> <p>1742. Repairs and improvements for Rector's House.</p> <p>1744-45. New covering and sash glass for Rector's/President's House.</p> <p>1747-48. First authorized college lottery yielded \$5200 old tenor for a new college.</p> <p>1749-51. \$4000 (£383 sterling) from French prize for new college. Cornerstone laid 1750.</p>
<p>1750-52. £628 old tenor to repair old college.</p> <p>1751. Assembly voted £7754 old tenor to build new college, Connecticut Hall.</p> <p>1754. Assembly voted £3800 old tenor (£250 sterling?) to complete Connecticut Hall (total cost £1616 sterling).</p> <p>1755. Assembly ceased to renew annual grants (and never resumed).</p>	<p>1752-56. Bequest of Gershom Clark '43 of £500 old tenor (£33. 10s. sterling) toward professorship of Divinity. Adding this to Livingston bequest, Clap personally contributed £20, bought land at £40, and started a subscription for the necessary professor's house.</p> <p>1755-58. Clap, his friends, 49 of the clergy, and many members of the Assembly contributed toward Professor's House. Cost, £285 sterling.</p>	<p>1750-52. Repairs to old college kitchen and floors.</p> <p>1751. Appropriation from Assembly to continue and finish new college, Connecticut Hall.</p> <p>1754. £3800 received from Military Commissioners to complete Connecticut Hall. Third Bldg.</p> <p>1756. Clap and 45 friends subscribed £880 old tenor (£77 sterling) for Professor's House. Altogether 158 donors contributed £225. House built 1757-58. Fourth bldg.</p>
<p>1755. Special grant to extinguish debt on Chapel: £328.</p> <p>1767. £223 from impost on rum for cancelling debts (£180) and for repairs to old college and coloring windows of new college and chapel.</p> <p>1768. £182 from duty on rum to pay debts and finish library room in chapel.</p> <p>1788. Deficit of £226 reduced by £83 out of duty on rum.</p>		<p>1761. 42 donations brought £144 for new Chapel; and Richard Jackson, colony agent, sent £100.</p> <p>1763. New Chapel built, cost £850.</p> <p>1765. Subscriptions to finish Chapel steeple; grant from Assembly to extinguish debt and finish Chapel.</p> <p>1768. Part of new grant used to finish library in Chapel.</p>

RECEIPTS OF THE COLLEGE, 1701-1789

Connecticut Assembly Annual & Special Purpose Grants	Rector/President, Tutors, Professors, Students	Buildings
<p>1770. \$218 debt met.</p> <p>1772. \$180 for unpaid balance.</p> <p>1774. \$107 for balance owing.</p> <p>1778. \$243 to move Dr. Stiles' family to New Haven.</p>	<p>1770. On receipt of assembly support, Nehemiah Strong '55 appointed Professor of Mathematics and Natural Philosophy (Yale's second professor).</p> <p>1778. Expenses of moving Dr. Stiles' family from Portsmouth paid by Treasurer of Connecticut.</p> <p>1778. Stiles appointed Professor of Ecclesiastical History (without extra pay).</p>	<p>1774. Insufficient subscription for new kitchen and dining hall.</p> <p>1775. Two thirds of old Yale College torn down, leaving only kitchen, great hall and former library.</p>
<p>Total received from Colony and State of Connecticut, 1701-1792, estimated by Kingsley at \$24,898.10 (including \$2,220 from the lottery and \$5,000 from the French prize).</p>	<p>1781. Rev. Salter land endowment for study of Hebrew and Oriental Languages.</p> <p>1781. Professor Strong threw up his office.</p>	<p>1782. Brick Commons built by Corporation at \$558. Sixth bldg. Rest of old Yale College torn down.</p>

Land	Books	Apparatus	Miscellaneous
<p>1770. Governor Trumbull gave tract of land in Lebanon.</p>	<p>1770. Bequest of £10 from Rev. Thomas Ruggles '23 for library.</p> <p>1777. Kennicott's Hebrew Bible with variant readings.</p> <p>1779. Elias Beers; Bedford's Chronology, and other books later.</p>	<p>1779. David Austin: a planetarium. Stiles listed anatomical paintings, human skeleton, portable sextant and 2 quadrants, also lunarium and cometarium.</p>	<p>1777. Elizabeth Smith of Wethersfield, £200; others, £50.</p> <p>1778. President Stiles: £40.</p>
<p>1781. Rev. Salter of Mansfield gave 200 acres to encourage study of Hebrew and Oriental Languages. In 1792 leased for \$470 and 1d annual rent.</p>	<p>1782. Yale's books reassembled after dispersion in Revolution-- reduced by losses from c. 3000 to c. 2500 books.</p> <p>1786. Treatise on Future Punishment.</p> <p>1788. Sundry books.</p> <p>1788-95. Rev. J. Erskine of Edinburgh: 120 vols. to promote piety and literature.</p> <p>1789. Rev. E. Williams of Hartford: books. Jared Eliot and Thomas Ruggles' donations for books invested in U. S. stocks.</p>	<p>1781. Rev. Nathan Strong: a scioptic glass.</p> <p>1784. Stiles had Joseph Badger '85 build a new planetarium.</p> <p>1789. E. Stiles and J. Hillhouse '73 raised \$300; two-thirds expended for reflecting telescope, orrery, optical instruments, whirling table, surveying instruments, & "Priestley's instrument for producing fixed air."</p>	<p>1782. Bequest of Dr. Daniel Lathrop '33, \$500 sterling without restrictions.</p> <p>1783. Portrait of Rabbi Isaac Carigal of Newport received from Jacob R. Rivers of Leicester, Mass.</p> <p>1783. Trustees sent circular letter abroad asking for benefactions in money or books.</p> <p>1784. Painting of chapel pulpit and gallery contributed by J. Atwater.</p> <p>1789. Hon. Dudley L. North: an elegant portrait of his great-grandfather Gov. Elisha Yale. Gov. Trumbull: portrait of his father, the former Governor. Noah Webster: a part of the profits of his Grammatical Institute for prizes to encourage study of English Language. Captain Peter Pond: a collection of fossils.</p>
<p>Sources. F. S. Dexter, <i>Biographies & Annals</i>; Richard S. Warch, <i>School of the Prophets</i>; E. Baldwin, <i>Annals of Yale College</i>; T. Clap, <i>Annals</i>; Ezra Stiles, <i>Literary Diary</i>; Bernard C. Steiner, <i>The History of Education in Connecticut</i>; Henry M. Fuller, <i>The Philosophical Apparatus of Yale College</i>, in <i>Papers in Honor of Andrew Keogh</i> (1938); Louis W. McKeehan, <i>Yale Science. The First Hundred Years, 1701-1801</i> (1947); A catalogue of surviving early scientific instruments of Yale College placed on display in the Sterling Memorial Library, October 1947; Anne Stokely Pratt, the books sent from England by Jeremiah Dummer to Yale College, in <i>Papers in Honor of Andrew Keogh</i>; Anne S. Pratt and Andrew Keogh, <i>The Yale Library of 1742</i>, in <i>Yale University Library Gazette</i>, October 1940.</p>			

TUITION AND OTHER STUDENT CHARGES, 1701-1787

Year	Tuition	Room Rent	Board#	Repairs and Contingent Charges	Sweeping and Making Beds	Recitation, Library and Miscellaneous	Senior Charges
1701 to 30s			?			finest+	?
1718 to 30s		20s (non-residents: same)	4s 4d per week (plus buttery charges)#		included in board charge	2s for seat in New Haven (Center) Church --late matriculants charged 5s per qtr. missed	20s diploma 20s commencement dinner
1721			4s 4d per week		included in board		
1724			4s 8d per week		included in board	finest+	
1726	40s				included in board		
1727	50s	(5s to 7s 6d per quarter) included in board	5s per week (5s per quarter for boarding out)		included in board		20s diploma 20s commencement dinner
1730		included in board	6s per week		included in board	finest+	30s and 30s
1736	60s				included in board		30s diploma 30s "public entertainment"
1738	Bond required						
1743	6s per qtr. 24s per yr. new tenor				included in board	revised library fees*	
1747 to 4s 6d sterling per qtr.		(1s 2d per qtr.) included in board	14-17s per week (in old depreciated currency)		(7d - 8d per qtr.) included in board	Clap's system of fines+	
1748							
1749	5s sterling per quarter						
1754 to 1755					14d sterling in Conn. Hall, 9d in old Yale Coll.	16d rent of coal bin in cellar	
1756	6s 6d sterling per qtr.						

TUITION AND OTHER STUDENT CHARGES, 1701-1787 (continued)

Year	Tuition	Room Rent	Board#	Repairs and Contingent Charges	Sweeping and Making Beds	Recitation, Library and Miscellaneous	Senior Charges
1764	30s ster- ling per yr.						
1766	9s ster- ling per qtr.	1s 2d ster- ling per qtr.	4s 6d ster- ling per qtr.	1s sterling per quarter			
1768		6s per year					
1774	9s ster- ling per qtr.	1s 2d per qtr.		1s per qtr.	3 half pence per week	cellar rent. 1s 4d per qtr. Library charges*	8s 6d degree 7s 6d dinner
1787	61 per qtr.	3s per qtr.		3s 3d per qtr.	1s 8d per qtr.		

Sources. Laws of Yale College; Sillies, Literary Diary; F. B. Dexter, Biographies and Annals, and Documentary History; R. Warch, School of the Prophets; B. Kelley, Yale: A History.

In addition to his tuition, room and board charges, etc., each student was also liable for any charges he might run up at the buttery. Some incurred no such charges, but other students added considerably to their quarterly expenses by indulging themselves at the buttery. One Sophomore in the class of 1732 in a single quarter ran up a bill of £11. 1. 2 (Warch, p. 152).

+ In 1704 the Trustees "for preventing of irreligion idleness and other immoralities" ordered students should be amerced not over 6d for absence from Sabbath worship, 2d for absence from prayers, 4d for missing academic exercises, and for other immoralities according to their character not exceeding 5s for each crime.

In 1723 the fine for missing study hours was set at 6d, and disturbances at commencement "by hallooing, singing or ringing the Bell unseasonably Firing Gunns" not over half a crown for the first offense (Dexter, Documentary History, p. 246). In September 1734 it was voted that no student "shall play at chards," 3s, and bringing in a pack could mean a fine of 5s.

Through much of his term President Clap was accused of excessive fines as punishment (but also for revenue). He collected £172 in a stretch of three years. According to the Laws of Yale College, between 1748 and 1772 these fines were scaled as follows: absence from prayers 1 penny; tardiness 1/2 penny; absence from church 4 pence; playing cards 2 pence; playing at dice 6 pence; bringing strong liquor into the college 6 pence; doing damage to the college or jumping out of windows 1 shilling.

* President Clap rearranged the books of Yale College and drew up a catalogue in such a way as to list the books by subject matter and in an order suitable to the progression of the curriculum. The books could then apparently be charged out, though Dexter later believed that almost all the use had been by resident graduates. According to the Laws of 1774 each undergraduate paid the librarian 6 pence per month for every folio volume, 4 pence per month for every quarto volume, 2 pence per month for every octavo volume and 1 farthing per month for every pamphlet.

SALARIES AND EXPENDITURES, 1701-1786
(a partial record)

	Tutors (and Librarians)	Scholars of the House & Monitors	Treasurer/Steward/Miscellaneous	Total Expenditures and Receipts
<p>Rector/ President/ Professors</p> <p>1701-02. Rector A. Pierson paid \$20 for his labors in teaching first student (and promised "entertainment," i. e. board & lodging, if he should move to Saybrook).</p> <p>1702-03. Rector Pierson paid \$50 "country pay" for services to Feb. 1703 (with promise of \$120 salary and accommodations if he moved to Saybrook).</p> <p>1703. April. Rector paid \$30 and voted \$45 for next six months.</p> <p>1703-04. Pierson bought 6 1/2 acres in Saybrook and was offered \$100 "country pay" to move there by March 1704.</p>	<p>1702-04. Daniel Hooker voted \$50 "country pay" and tuition of his students at 30s. per year per student.</p> <p>1703-04. D. Hooker paid \$5 (for brief service?)</p> <p>1704. Feb. Tutor Hart offered \$50 "country pay," "money for the pupils included." Credited with \$9 "tuition money" (i. e. 6 students).</p>		<p>1702. Two books for accounts & records bought by Treasurer for \$1.19s.</p>	<p>1701-02. Connecticut Assembly began annual subsidy at \$120 "country pay" (See P-1, 1).</p> <p>1703. School allowed to send a "brief" or authorized appeal to defray costs of tutor and building, but no record of any receipts.</p>
<p>1707-16. No rector's salary.</p> <p>1716. Trustees voted to pay \$100 to a rector with student boarding charges to be added.</p>	<p>1714-16. Each tutor could graze one horse in College lot.</p> <p>1717-18. \$45 from Assembly for 3 tutors at Wethersfield.</p>			<p>1716. Treasury surplus c. \$250.</p>
<p>1719. Rector Cutler paid \$140, and \$180 for old home and lot.</p> <p>1726-27. Rector E. Williams paid \$140.</p> <p>1727-28. Salary raised to \$212.</p> <p>1728-29. Salary raised to \$250.</p> <p>1729-30. Salary raised to \$300.</p>	<p>1728-29. \$60 to each tutor.</p> <p>1729-30. Tutors paid \$65 with senior tutor getting extra \$5 as Librarian.</p>	<p>1720s. Monitor and Scholar of the House each received \$3 stipend.</p>	<p>1729s. Treasurer paid salary of \$8.</p> <p>1727-30. Payments to stewards of from \$34 to \$72 annually.</p> <p>1728. Treasurer paid \$8 Commencement dinner cost \$48. 5s. 6d. and mileage reimbursement to trustees \$6. 4s.</p>	<p>1726-27. \$163 received from tuition and room rents, and \$100 from colony against expenses of \$313. 16s. 4d.</p> <p>1727-28. After receipt of \$222 from impost on rum, surplus of \$114. 1s. 5d.</p>

SALARIES AND EXPENDITURES, 1701-1785 (cont.)
(a partial record)

Rector/President/Professors	Tutors (and Librarians)	Scholars of the House & Monitors	Treasurer/Steward/Miscellaneous	Total Expenditures and Receipts
1738-39. Rector Williams £391. 5s. 2d. for salary and disbursements.		1730s. Monitor and Scholar of the House each received £3 stipend, receiving £3.	1730s. Treasurer paid salary of £8.	1738-39. £369. 18s. 3d. tuition and room rent, £200 from colony, and £630. 9s. 1d. altogether against expenditures of £594. 13s. 5d.
1739-40. Rector salary £300.	1738-39. Tutors £80; senior tutor £85 as librarian. 1739-40. Tutors (extra-ordinary) £105, £95, £95.	1740-41. Monitor's fee raised to £4. 1741-42. Scholar of House £7. 1742-44. Scholar of House 15s; Monitor £1. *	1740-41. Trustees' mileage, 4. 2s; Rent of seats on Sundays at church £9. 7s. 6d.; Commencement dinner £50. Steward allowed 50% advance for his care and trouble.	1740-41. Expenditures £650. 0s. 5d.; receipts £767. 14s. 11d.
1742-43. Rector Clap £100 in lawful money. *	1740-41. Tutors £90; senior tutor £100 + £5 extra-ordinary. 1741-42. Senior tutor £110. 1742-43. £25 and £20. *	1743-44. Scholar of House 15s; Monitor £1. *	1743-44. Trustees' mileage, £2. 11s; Commencement dinner £15. 4s. 7d. *	1743-44. Total expenses £251. 18s. 4d.; total receipts £327. 6s. 10d.
1743-44. £115 for salary and £3. 9s. 6d. for disbursements to Rector Clap. *	1743-44. Tutors £25; senior tutor £30 with £2. 10s as librarian. *	1744-45. Scholar of House £7; Monitors £13 total tenp.		
1744-45. President Clap £85 and £2. 12s. 6d.	1745-46. Tutors £20 and £1. 10s, £18, £18.	1745-46. Scholar of House and Monitor each £1. 2s. 1746-47. Scholar of House £9; 2 Monitors £14.		
1745-46. President Clap £90 and £8. 12s. 16d.	1750-51. Stiles as senior tutor and librarian £23, others £20.	1750-51. Scholar of House £9; 2 Monitors £14.		1750-51. Favorable balance of £3. 9s. 8d. given to tutors.
1746-47. President Clap £100 and £2. 2s. 4d.	1757-58. Senior tutor and librarian £24. 1758-59. Tutors £24, £20, £20. 1760-61. To tutors for extraordinary expenses, each £12. 1761-62. Senior tutor and librarian £40. 1763-64. Tutors £49 and £43.			1755. Annual grants from general assembly ceased. 1756-57. Total expenditures £288. 5s. 2d.; total receipts £370. 14s. 5d.
1755-56. Professor Daggett £38 plus £5 for moving and £1. 11 for rent. 1756-57. Professor Daggett £36. 1757-58. To the President for entertaining the Fellows many years past. £21. 2s. 8d.				1763-64. Deficit £20. 3s. 11d. on account of carpentry.
1762-63. President £110. 1763-64. President £110.		1762-63. Monitors £15.		

SALARIES AND EXPENDITURES, 1701-1786 (cont.)
(a partial record)

	Tutors (and Librarians) the House & Monitors	Scholars of the House & Monitors	Treasurer/ Steward/ Miscellaneous	Total Expenditures and Receipts
<p>1766-67. Rector/President/Professors paid £113. 6s. 8d.</p> <p>1767. Daggett paid retroactively £200 as President pro tem and Professor.</p>	<p>1766. Tutors £57. 1s. 4d.; senior tutor £8 in addition.</p> <p>1767-68. Three tutors each £57. 6s. 8d.; senior tutor £65. 6s. 8d.</p>			<p>1766. Revenues of about £340; deficit of about £160.</p> <p>1768-69. Assembly voted £122. 16s. 10d. for indebtedness.</p> <p>1769-70. Assembly voted £238 in rum duty to meet deficit.</p> <p>1770-71. Assembly voted £216 to meet outstanding debt.</p>
<p>1770-71. Nehemiah Strong, Prof. of Mathematics and Natural Philosophy offered £70 "for the current year."</p> <p>1776-78. Accounts in disarray. Professor's salary in arrears.</p> <p>1777-78. Professor's salary £160; Professor of Divinity £90; Professor of Mathematics £70. President also received degree money, use of President's house and lot, and rent of 18 acres; whole living estimated at £220 annually.</p> <p>1779-80. President's salary £160 or £2000 continental, to be realized as "Beef £7. 10. 0. . . £333. 6. 0; Pork @ 10. 10. 0. . . £350; Wheat 12 Doll. per Bush . . . £840; Ind. Corn @ 6 Do. per Bush . . . £640; total £1963. 6. 0 Continental."</p> <p>1780-81. President's salary £240, degree money £55, Prof. Wales £37. 3s. 4d.</p> <p>1782-83. President's salary estimated at £180 in grain.</p> <p>1783-84. President's salary £280 with £82 for extra expenses.</p> <p>1785-86. President's salary £237 and £100 additional, plus £100 for degrees. "All this about clears me of Debt".</p> <p>1786-87. President's salary £300.</p>	<p>1777-78. Three tutors each £70.</p>			<p>1777-78. Stiles estimated tuition income at c. £500; other student charges c. £65; land leases £160; funds £16; total £801.</p>
<p>1781-82. Tutors altogether, £348.</p>			1783. Treasurer £10.	<p>1781. Stiles estimated rent rolls at £250 "L. M. Silver p. ann.", "tuitions at £600, interest at £70.</p> <p>1782-83. Total income £1338. 12s.</p>

* These accounts were settled in "Lawful Money at 6/8 per ounce to be answered in Bills of Old Tenour at the Rate of four to one." Settled in sterling in 1744 and after. Sources, Corporation Minutes, and "The Accounts of the College", 1738-1782. Also Dexter, Yale Biographies and Annals; Clap, Annals; Literary Diaries of Ezra Stiles; Richard Warch, School of the Prophets; Brooks M. Kelsey, Yale: A History. Clap and Stiles spoke from personal knowledge; Dexter and other Yale historians from use of the Corporation Minutes and the voluminous and difficult Treasurer's records.

the College in this town; but afterwards its assistance was inconspicuous, until it helped in the Centum Millia drive (1831).

Meanwhile and all the while the Church, in the persons of its congregational ministers, helped to build the Rector's house, the Professor's house, and the Chapel, served as Fellows of the Corporation, supplied the Rectors and Presidents and many of the tutors, provided not a few of the students (by parentage or prior instruction), and took large boatloads of Yale's graduates (fifty percent in the first forty years) for staffing the pulpits of its churches new and old, in Connecticut or beyond. Intermittently a large number of individuals, some in the colonies but most from England, made large or small contributions in books, in goods, in pounds, in land, in equipment, or in globes and other philosophical apparatus. First and last one begins to see in our panorama how important it was also to have enterprising protagonists (like Dummer and Clap) to stimulate the public spirit of the legislators, the idealism of the public and the generosity of benevolent strangers.

To return to our metaphor, the seat of Yale's financial stool was not exactly an ample seat. Nor was it altogether reliable, since steady enrollments could not always be counted on. And as for the three legs of this colonial stool, they required constant attention. Somehow they were never in what could be called a state of perfect repair--and halfway through the century they began to go to pieces. First the religious disturbance known as the Great Awakening splintered the Congregational Churches and so split the ministerial leg of Yale's support. The tensions thus created also divided the legislature so that critics of the College, among them Yale's own alumni, managed to terminate the annual subsidies to the institution, and thereafter resisted all but a few deficit rescue appropriations. In 1754 the legislative leg simply dropped out of the stool, and efforts to replace it, for almost forty years, did not succeed. This withdrawal of Colony support, and loss of stability, had no little to do with Clap's later difficulties and resignation, and with the failure of the Corporation afterwards to find anyone to preside over the College except pro tempore Naphtali Daggett.

A few special features of Yale's financial relations seem worthy of remark. The Colony government on several occasions helped secure a new Rector or President by paying for his release from his parish and for his expenses of moving. Again the Assembly granted the College personnel (by echo from an ancient clerical privilege) some important private exemptions. In 1703 the students were exempted from taxes and watching and warding. In 1719 the Rector was freed from taxes; and in 1745, after the new charter, the President,

professors, students, and servants of the College were all freed and exempted "from all Rates Taxes Military Service Working at High Ways & other such like Duties and Services." Finally, there seems to have been a beginning, but only a very small beginning, of support from the graduates of the College. In 1763, Jared Eliot ('06) created the first fund for the library by gift of £10 (which was matched in 1770 by a bequest from Thomas Ruggles '23). In 1745 Colonel Philip Livingston (a parent) had given thirty-eight pounds, ten shillings, "as a small acknowledgment of the sence I have for the favour and Education my sons have had there," and so made nearly possible Yale's first professorship and professor. But it would not be until the Colonial period was over, or in 1782, with the bequest of £500 sterling from Dr. Daniel Lathrop '33, that any substantial gift came to Yale from its own alumni.

Finances in the Early Republic

Passing by tables F-1.2 and F-1.3, which contain not a few nuggets of rewarding information, I call attention to the "College Receipts and Endowments in the Early Republic" (F-1.4). There one sees at once the importance of the bargain made by Yale with the State in 1792, whereby the Governor, Lieutenant Governor and six senior Assistants came on the Yale Corporation and Yale in return (by piecemeal legislation) received \$40,630. Obviously Yale was able to convert the renewal of State support not only into buildings but into professorships. Three further State grants were also of genuine importance: the grant that made possible the establishment of the Medical Institution (1810-13); the small grant of 1816 out of Federal money paid to the State for outlays in the War of 1812 (which may have contributed toward Chauncey Goodrich's appointment or the new Dining Hall?); and the bank bonus turned over by the State in 1831 to make possible the building of the Trumbull Art Gallery. One cannot fail to notice, however, the increasing gaps in our column for State aid, and the \$7,000 grant in 1831 would be the last such contribution (until the transfer of the Federal Land Grant College income in 1863). Clearly, the State leg-of-support had been withdrawn again, though the recognition of that fact by the withdrawal of the State senators from the Yale Corporation would not come until 1872.

In compensation one notes the increasing density of entries in the column for the faculty and the graduates. Now there was evidently not only a President but a group of faculty members who were able, willing and determined to help the College succeed. And, increasingly, Yale was receiving gifts from its alumni, who in 1827 formed a society "to sustain and advance" Yale's interest,

and who in 1831 joined with the officers to put across the first great endowment drive of Yale's history, the Centum Millia fund. Meanwhile, benevolent strangers (now, however, with few Englishmen among them) continued to make occasional gifts and bequests of land, apparatus, books and, not uninterestingly, of portraits. One senses a growing interest in the arts, as well as support for the sciences and for the general welfare of the institution.

So after 130 years Yale's three-legged stool had for the second time lost its public leg, but was replacing that with an organized alumni support, to balance the Church and the benevolent strangers. Of course the clerical leg no longer represented all of the congregational clergy--and it excluded the ministers and followers of the Episcopalian, Methodist and Baptist churches, to say nothing of the growing non-religious element in the State. Its public influence had shrunk. Yale's clerical constituency was still strong enough to hold onto the clerical succession in the Corporation, and strong enough, as we know from other sources, to encourage the religious revivals in the College, and the annual "prayer for colleges." But it could not be relied on for the financial security of the institution, and its occupational recruitment of Yale's graduates would by the Civil War drop from 33% to 15% (E-4.4).

The Professor's House?

If one inquires, next, about faculty salaries (F-1.3 and F-1.6), quite a few items of interest can be found in the schedules. Let me call attention to one. In the 1750s Clap had gone out of his way to procure land and a house for Yale's first professor (F-1.1). Apparently this was the academic expectation: a house (or the rent money for a house) was one of the perquisites of a professor. When finally Timothy Dwight, however, came to appoint a whole group of professors--Jeremiah Day, Benjamin Silliman, James Luce Kingsley, and a part-time professor of law--the Corporation called a halt to the ancient custom and expectation. So Jeremiah Day got his salary but to his surprise no home. He (and possibly others) felt a little aggrieved; so, belatedly, he and the others were paid \$820 instead of \$670, the extra \$150 being in lieu of the expected house. In time, this converted perquisite was swallowed up by the slowly rising salary level for the professors. But then in 1834 the whole thing would happen again. In securing a revision of the charter from the legislature in order to be able to hold larger properties tax-free, the College gave up the exemption from taxation of its faculty! Once again, and once again belatedly, the Corporation was moved to recognize that the faculty had suffered a loss (F-2.10); so for many years an increment of \$40 was nailed to the top of the standard

COLLEGE RECEIPTS AND ENDOWMENTS IN THE EARLY REPUBLIC, 1789-1832

Grants from State of Connecticut	Buildings	Professorships	Gifts from Faculty and Graduates	Gifts from "Benevolent Strangers"
<p>1792-96. Commissioners appointed to receive taxes due and apply same for benefit of Yale College on the addition of Governor, Lieutenant Governor, and six Senior Assistants to Yale Corporation. \$2500 allowed for a new building or college for the reception and accommodation of students, residue for professors, etc. Part of monies need to endow professorship of mathematics and natural philosophy, 1794. Fifty percent of receipts reserved to State, but reservation dropped in 1800, allowing building of Berkeley College and Lyceum. Altogether Yale College received \$40,639.</p>	<p>1793-94. Union Hall ("South College") erected at cost of \$2500 out of tax monies from General Assembly after Governor, Lieutenant Governor and six Senior Assistants added to Yale Corporation. Yale's third dormitory.</p> <p>1801-04. Fourth dormitory and first classroom building added to Brick Row when Berkeley Hall ("North Middle College") and Connecticut Lyceum erected from General Assembly tax receipts voted in 1792-96-1800.</p>	<p>1792-94. Professorship of mathematics and natural philosophy re-established out of monies received in political bargain with State. \$1700 reserved until 1801, to yield \$150.</p> <p>1801. Law professorship instituted, with small salary. Hon. Elizur Goodrich appointed to teach Seniors the principles of National and International Law and U. S. Constitution to 1810. Jeremiah Day appointed to professorship of Mathematics, Natural Philosophy and Astronomy.</p> <p>1802. New chair in Chemistry, Mineralogy and Geology established and Benjamin Silliman appointed.</p> <p>1802. Professorship of the Ancient Languages (Hebrew, Greek, Latin) and Ecclesiastical History established and James Luce Kingsley appointed in 1805. In 1817 Ecclesiastical History taken from chair and in 1831 Hebrew dropped and a separate professorship of Greek created.</p>	<p>1791. Rev. Samuel Luskwood '45 of Corporation, by bequest, a state certificate for \$336 from which \$1,122 realized for benefit of library.</p> <p>1806. Silliman brought double-barreled airpump from England.</p> <p>1807. Hon. Oliver Wolcott '78, late Secretary of U. S. Treasury, \$2,000, the interest to go to library.</p>	<p>Gifts from "Benevolent Strangers"</p> <p>1790. Portrait of Professor Nehemiah Strong painted and presented by Ralph Earl.</p> <p>1792. Gift from William Flystop: more books from Dr. Erskine of Edinburgh.</p> <p>1794. John Ford of Bradford: a house and farm.</p> <p>1801. Jeremiah Alwater of New Haven: two chandeliers for the Chapel.</p> <p>1804. "George Washington at the Battle of Trenton" by John Trumbull presented by The Society of the Cincinnati of Connecticut.</p> <p>1805. \$1,750 from The Society of Cincinnati of Connecticut on its dissolution.</p> <p>1808. "Bishop Berkeley and his Entourage", by Simbert presented by Isaac Athrop.</p>

COLLEGE RECEIPTS AND ENDOWMENTS IN THE EARLY REPUBLIC, 1789-1832 (cont.)

Grants from State of Connecticut	Buildings	Professorships	Gifts from Faculty and Graduates	Gifts from "Benevolent Strangers"
<p>1814. Legislature granted \$20,000 (\$10,000?) for new joint Medical Institute: Yale's first professional school.</p> <p>1816. State granted \$8,785 to Yale College for support of literature and religion from monies paid to Connecticut by Federal Government for outlays in recent war.</p>	<p>1814. Medical Institution installed in James Hill-house & hotel at head of College Street; rented, then purchased for \$20,000 (in 1850 bought and refurbished by Joseph Sheffield for Scientific School).</p> <p>1819. Dining Hall built behind Brick Row, and old Dining Hall converted to chemical laboratory. New building turned over to Physics and Astronomy and named Philosophical Building in 1842. Second floor contained Mineralogical and Geological Cabinet, 1820-76 -- 80 also known as Cabinet Building. From 1876 to 1880 it was used as Reading Room of College.</p> <p>1820-21. Fifth dormitory, North College, built out of College funds.</p>	<p>1810-13. Medical Institute of Yale College established with Benjamin Silliman (for Pharmacy) and 4 new professors: Ernes Mason '53 in Materia Medica & Botany; Nathan Smith in Theory and Practice of Physics, Surgery & Obstetrics, Ed Veer '95 in Materia Medica and Botany (later, Theory and Practice of Medicine), and Jonathan Knight '08 in Anatomy and Physiology.</p> <p>1817. Rev. Chauncy A. Goodrich '10 appointed Professor of Rhetoric and English Literature to take over instruction formerly given by President Dwight.</p>	<p>1810. Through efforts of Silliman part of cabinet of minerals of Col. George Gibbs of Newport loaned to college. Put in room in South Middle Row of 10,000 specimens added in 1812 and bought in 1835.</p> <p>1817. Bequest from Noah Linsley '91 of Wheeling, West Virginia: \$3,000. Later applied to use of library. Portrait of Timothy Dwight by John Trumbull presented by Class of 1817.</p>	<p>1833. Legacy from Isaac Beane of New Haven: 1800 acres in Holland, Vermont.</p>
<p>1822. Legislative Committee estimated total Colony and State gifts to Yale from 1701, at \$73,803.</p>	<p>1822. Theological Department of Yale College established and \$27,512 raised for Dwight Professorship of Didactic Theology (almost \$17,000 from Yale graduates) Nathaniel W. Taylor '07 transferred to chair from pupil of Center Church. A third of endowment was lost in 1825 with failure of Eagle Bank.</p>	<p>1820. Marble bust of Gen. David Humphreys '71 presented by widow.</p> <p>1822? Plunge battery or "calorimotor" received from his friend Robert Here of Philadelphia, for Silliman's lectures.</p> <p>1822. Professor James L. Kingale '90: \$500 for use of library. Rev. Jedidah Morse '83 and Samuel F. B. Morse '10: each \$500 in books. S. F. B. Morse also made a gift of several important paintings.</p> <p>1822-30. Graduates subscribed \$15,826 toward fund of \$27,512 for Dwight Professorship of Didactic Theology. Major gifts: Timothy Dwight '27: \$5,000; William Leffingwell '07: \$2,000; Arthur Champlin '07: \$1,500; Henry S. Ellsworth '10: \$1,000; members of Faculty: \$3,341.</p> <p>1823. Gift of \$500 from Eli Whitney '92 for books on practical mechanics and physical science, portrait of Jeremiah Day by S. F. P. Morse presented by Class of 1823.</p>	<p>1821. Portrait of first Governor, Jonathan Trumbull, presented by John Trumbull.</p> <p>1823. Roswell Colt of Baltimore: land worth \$900-1,000.</p> <p>1822-28. Eleazar F. Backus, Arthur Tappan and others subscribed \$9,220 toward Professorship of Sacred Literature.</p> <p>1823. \$1,530 for Theological purposes from Professor C. A. Goodrich (\$500) and a number of others.</p> <p>1823. Fund of \$5,000 established by David C. DeForest for scholarship for students descended from his mother who had or who would accept the DeForest name; also for annual prize of \$100 to the Senior who would pronounce the best English oration.</p> <p>1823-24. \$500 given anonymously by Daniel Wadsworth of Hartford as fund for books in Natural History, Chemistry and Geology.</p>	

COLLEGE RECEIPTS AND ENDOWMENTS IN THE EARLY REPUBLIC, 1789-1832 (cont.)

Grants from State of Connecticut	Buildings	Professorships	Gifts from Faculty and Graduates	Gifts from "Benefvolent Strangers"
<p>1824. Chapel (second Chapel, later known as "Old Chapel") built at cost of \$12,000 about a quarter of which came from "Friends of the College"; Fourth floor used for library, 1824-43. First chapel re-named Athenaeum, and its spire replaced by octagonal tower for telescope given by Sheldon Clark (1829).</p>	<p>1824. Gift of \$5,000 from Sheldon Clark to be held at interest for 24 years. In 1847 Clark Professorship in Moral Philosophy and Metaphysics established and Noah Porter appointed.</p>	<p>1824. Nine acres of land, by bequest from John Elliot '86, brought \$689 for Theological Department library.</p> <p>1824. Gift of library and \$567 for indigent students from Benevolent Society of Yale College, on its dissolution.</p> <p>1825. Stillman raised \$20,000 to buy Gibbs Collection, Aluma of South Carolina contributed \$700, and alumni of New Haven and officers of the college: \$10,000.</p> <p>1825. Failure of Eagle Bank, founded in 1811 by Treasurer James Hithouse '73, Simon Baldwin '81, Eli Whitney '82 and William W. Woolsey, brought severe losses to both Yale and New Haven.</p> <p>1825-32. Gift of \$2,000 from Thomas Day '87 of Hartford for scholarship fund for descendants of President Jeremiah Day.</p> <p>1826. Daniel Boardman '81 of New York: 1010 acres in Granby, Vermont.</p> <p>1827. Graduates formed Society of the Alumni of Yale College "to sustain and advance" its interest. Membership, \$2,000. Raised \$3,814 and paid \$737 to Theological Department. Rest intended for "Professorship of the Alumni".</p> <p>1827. William C. Woodbridge '11: a large map of Rome; and George Hoady '01 of New Haven: a portrait of Eli Whitney '92.</p> <p>1828. Isaac Mills '06 of New Haven: 109 acres in Ashtabula County, Ohio.</p>	<p>1824. Sheldon Clark of Oxford, Conn. gave \$1,000 for a scholarship and \$5,000 to be put at compound interest for 24 years for a professorship.</p> <p>1824. William W. Woolsey of New York father of T. D. Woolsey '20: tract of land in Cheshire County, New York (c. \$1,000). Unknown benefactor: \$500 for enlargement of library.</p> <p>1825. Citizens of New York: \$3,000 toward purchase of Gibbs Collection. Anonymous benefactor: \$500.</p>	<p>1827. Joseph Stansbury of London: Ackerman's History of the Universities of Oxford and Cambridge, with "splendid engravings," 4 vols. quarto.</p> <p>1828. Commodore Isaac Hall, U. S. N., pictures and minerals.</p> <p>1828. Sheldon Clark: \$1,250 for an achromatic telescope and a pair of 21-inch globes. Commodore Isaac Hall, U. S. Navy: collection of pictures and minerals. Ithiel Town of New Haven: \$500. Samuel S. Lusk of Albany: Montanus' Hebrew Bible and Greek Testament (6 vols.) from library of Rev. John Davenport, founder and first pastor of New Haven.</p> <p>1828-32. Arthur Tappan, frequent benefactor, contributed (\$4,108?) for beneficiaries of American Education Society.</p> <p>1829. John McAdams, from Naples: models of ancient temples and a sarcophagus at Paestum.</p>

COLLEGE RECEIPTS AND ENDOWMENTS IN THE EARLY REPUBLIC, 1789-1832 (cont.)

Grants from State of Connecticut	Buildings	Professorships	Gifts from Faculty and Graduates	Gifts from "Benevolent Strangers"
<p>1831. Gift of \$7,000 from State (part of bonus received for Bridgeport Bank Charter) used for building Trumbull Gallery. Last grant from Connecticut until transfer of Federal funds under Morrill Land Grant (1863).</p>	<p>1832. Trumbull Gallery built at cost of \$4,000 out of grant from Connecticut Legislature from bonus for Bridgeport Bank Charter.</p>	<p>1831. Centum Milla Fund allowed establishment of separate professorship of Greek and appointment of Theodore Dwight Woolsey. Mathematics divided from Natural Philosophy and Astronomy, and in 1838 Anthony D. Stanley would be appointed.</p> <p>1833. Law professorship in Yale College now named for Chancellor James Kent '81 on account of small endowment (\$8,600?) received from his friends and admirers.</p>	<p>1830. Two portraits of Gen. David Humphreys presented by his widow.</p> <p>1831. Class of 1831 on graduation gave \$1,000.</p> <p>1831-35. Centum Milla Fund or first great endowment drive raised over \$100,000 (subscriptions \$105,938), much of it from alumni and officers of the College. Stephen VanTasselaar '63 and members of VanTasselaar family in Albany gave \$8,000; another "friend" in Albany: \$5,000; Israel Munson of Boston: \$5,000; C. A. and C. R. Lewis of New London: \$3,000; William W. Woolsey of New York: \$2,250; President Day and Professors Stillman, Goodrich and Daggott: each \$1,000; eight other Professors and the Treasurer: \$3,800; five tutors: \$450; and some 120 friends, students or graduates in New Haven, about \$15,000 more. It has been calculated that out of 597 subscribers in Connecticut and the rest of the States, 51% were graduates of the college and they contributed about 60% of the total fund. \$82,850 preserved as permanent endowment.</p>	<p>1831. John Trumbull, left a widower, presented Yale with a number of large battle scenes and some 250 portraits, to be housed in new Trumbull Gallery, in return for an annuity.</p> <p>1831. Joseph Henry heavy magnet received by College.</p> <p>1831-35. Almost 300 non-alumni subscribers contributed about \$40,000 to Centum Milla Fund.</p>
<p>Sources, F. B. Dexter, <i>Annals & Biographies</i>; E. Baldwin, <i>Annals of Yale College</i> (1831, 1838); W. L. Kingsley, <i>Yale College: A Sketch of Its History</i> (1879); B. C. Steiner, <i>The History of Education in Connecticut</i> (1893); A. P. Stokes, <i>Yale Endowments</i> (1917); B. Kelley, <i>Yale: A History</i> (1974); L. W. MacKeehan, <i>Yale Science. The First Hundred Years, 1701-1801</i> (1947); Henry M. Fuller, <i>The Philosophical Apparatus of Yale College, in Papers in Honor of Andrew Keopff</i> (1938); and <i>A Catalogue of Surviving Early Scientific Instruments of Yale College, published by Yale University on the Centennial of the Sheffield Scientific School in 1947</i>.</p>				

TUITION AND OTHER STUDENT CHARGES, 1787-1833

Year	Tuition	Room Rent	Board#	Repairs and Contingent Charges	Sweeping and Making Beds*	Recitation, Library and Miscellaneous	Senior Charges
1787	\$1 per qtr.	3s per qtr.		3s 3d per qtr.	1s 8d per qtr.		\$1 4s degrec
1795	\$4 per qtr.	Conn. Hall \$1 Union Hall \$1 Per qtr.	"Collected by Steward"	\$1.50 per qtr.	\$.33 per qtr.	Folios 9¢ Quartos 6¢ Octavos 3¢ Pamphlets 1¢ per month; double if over, or if recited	\$1 Triennial Catalogue \$2 commencement dinner
1800			no buttery debts beyond \$1.25 per mo.				
1808	\$6 per qtr.	\$.75 per qtr.		\$.60 per qtr.	\$.33 per qtr.	Folios 12¢ Quartos 8¢ Octavos 6¢ double if recited	
1809	end of qtr. system	\$6 per year	students pay share of Steward's salary				
1810	\$11 per term = \$33 per year						\$1 to Steward
1811		\$2 per term		\$.80 per term	\$.44 per term		\$1 and \$2 cat. and dinner
1817							\$1 catalogue \$2 dinner \$1 expenses of commencement \$1.50 diploma & sealing no catalogue charge
1822	\$33 per year	Seniors \$4. Juniors \$3.34 Sophrs. \$2.67 Freshmen \$2. Per term	est. \$65-\$75	av. \$16	\$.75 per term	Total est. costs \$150-\$200	

TUITION AND OTHER STUDENT CHARGES, 1787-1833 (cont.)

Year	Tuition	Room Rent	Board#	Repairs and Contingent Charges	Sweeping and Making Beds*	Recitation, Library and Miscellaneous	Senior Charges
1823	same	same	same	same	same	same	same
1824	\$33 per year			Total estimated at \$140-\$190 per year			
1833-34	\$33 per year	\$1 higher per year		Total estimate returned to \$150-\$200 per year			

Sources. Laws of Yale College, from 1787 to 1822; Corporation Minutes (1807-37); annual Catalogue, 1822-34.

* Commons. Required of students, with some interruptions, 1718-1841. Meals were served in "Yale College" to 1782, then in the (first) separate dining hall, then in 1818 in the second dining hall or "Philosophical Building", also in a rented, cheaper Commons on High Street, 1827-41.

* Students living out of college paid their own rents, but were still charged for sweeping, 6¢ a quarter in 1808, 8¢ a term in 1811.

FACULTY SALARIES, 1786-1832

Year	President	Professors	Tutors ^o	Treasurer, Librarian, & Others	Total Costs of Instruction
1786-87	\$300? Stiles paid \$268.9.5	\$200? Prof. Wales paid \$191.2.3	\$90, \$85, \$85		
1787-88		Wales: \$173.10.11	\$90, \$85, \$85		
1788-89		Wales: \$177.15.6 1/2	\$85, \$80, \$80		
1789-90		Wales: \$173.6.8	\$85, \$80, \$70, \$70		
1790-91	Stiles \$300 +degree fees \$48	Wales: \$170.11.1	3 Tutors: \$250		
1791-92		Wales: \$167.15.6			
1792-93	Stiles \$311 and \$169	Wales: \$194	Senior tutor still acting as librarian		
1793-94					
1794-95					
1795-96	Dwight 250 for 3 mos.	Prof. Meigs \$162 for 3 mos.	\$61.25, 52.75, 52.75 for 3 mos.		
1796-97	Dwight \$1080	Prof. Meigs \$600 +\$50	\$350, 310, 310		\$3098
1797-98	Dwight \$1005	Meigs \$503	\$188 & 2 p/t T		
1798-99	Dwight 692 Dec. -June	Meigs 490 + 30	310, 310, 300, 230	Hebrician \$50	2412
1799-1800					
1800-01	Dwight 1299	Meigs 651	429, 410, 350, 308 274, & 2 p/t T	Treasurer 60	2587
1801-02	Dwight 1335		450, 430, 3 at 310 & 1 p/t T	Prof. Law 200	3222
1802-03		Prof. Jeremiah Day 670, but no home			
1803-04					3763
1804-05	Dwight 1553	Day 500	351, 335, 251, 225		
1805-06	Dwight 1500	Day 570, Kingsley 670, Silliman 168	5 at 335	Hebrew teacher 80 Kingsley, Librarian Treasurer 60	
1806-07	Dwight 1500	D-S-K 820 (670+150 in lieu of house rent)	4 at 335, 1 p/t T	Prof. of law 150	
1807-08	Dwight 1500	same	5 at 335		5725
1808-09	Dwight 1500	same	4 at 335, 1 p/t T	Prof. of law 102	5563
1809-10	Dwight 1500	Profs. raised to 1000	5 at 380		5737
1810-11	Dwight 1500	D-S-K each 1000	5 at 380 + board		6400

FACULTY SALARIES, 1786-1832 (cont.)

Year	President	Professors	Tutors*	Treasurer, Librarian, & Others	Total Costs of Instruction
1811-12	Dwight \$1500	Day-Silliman-Kingsley each at \$1000	4 at \$380, also 323 & 247		\$6590
1812-13	Dwight 1500		5 at 380, 1 at 247 plus board	Treasurer \$150	6647
1813-14	Dwight 1500		5 at 380, 50 later added		7110
1814-15	Dwight 1500		460, 4 at 430, 269 and board		6949
1815-16		Prof. raised to 1100			7710
1816-17	Dwight 500 Day 1128 + 300 grant	S & K at 1100 + 300 grant in August "to reimburse increased expenses in the past"	5 at 430		7834
1817-18	Day 1300	S 1100, Kingsley 1300, Fitch 1200, C. A. Goodrich 800, Fisher 710, Prof. Div. House rent 100	4 at 430, 301, 129		9139
1818-19	Day 1300				9616
1819-20					9405
1820-21		S 1100, K-F-G 1200, Fisher 1520 (to Europe)	460, 3 at 430, 410		10,133
1821-22		Fisher 759	450, 3 at 430, 4 p/t T		9888
1822-23		S 1175, K-F-G 1200, Dutton 1100	470, 5 at 430, 2 p/t T*	Dr. Nathan Smith 400 per year for 5 years	10,755
1823-24					11,885
1824-25				Gibbs becomes Librarian at 100	10,739
1825-26			Tutors extra 100 after 2 years	Treasurer 150 Librarian 100	11,421
1826-27					10,443
1827-28		S & K 1100, Olmstead 1100, Fitch & Goodrich 1200	570, 520, 443, 430, 430, 362		10,351
1828-29					10,947
1829-30		S & K 1100 F-G-O 1200	552, 4 at 430, 387, 2 p/t T	Treas. "salary" 150	11,735
1830-31		S & K 1100 F-G-O 1200	570, 510, 5 at 430, & 2 p/t T	Treasurer 150 Librarian 100	11,302
1831-32	Day 1300	also T. D. Woolsey 1100	570, 519, 4 at 430, & 1 p/t T*		13,074

Sources. Corporation Minutes; Yale College Treasury Book A; Treasurer's Annual Reports 1809-1832; Treasurer's Records, "Abstracts," 1796-; Stiles, Literary Diary; and Brooks Kelley, Yale: a History.

* The Treasurer's accounts suggest that, at least on some occasions, some or all of the Tutors were also given free board.

TREASURER'S REPORT OF 1830-31

Disbursements by the Treasurer of Yale College from July 31, 1830, to August 1, 1831, for current expenses of the Academical Department, viz.

Inchewals,	81,330 02
Repairs,	1,763 95
Diplomas,	115 75
Printing,	229 28
Improvement,	348 09
Appropriations to indigent students	906
Interest and Discounts	720 91
Debitures,	136 80
Laboratory,	855 20
Linsley's Legacy,	10 75
Lockwood's do.,	19 74
Stranger's Donation	29 25
Apparatus,	64 85
Wood for Public Rooms,	351 83
Cleaning Colleges,	108 00
Observatory,	155 73
Monitors,	47 75
Sweepers,	558 50
Premiums,	90
Singing Society,	15
Insurance,	150
Plymouth Claim,	42 50
Miscellanies,	3 75
Instruction,	11,302 63
Librarian,	100
Telescope and Globes,	162 25
Repairs of Fences,	20 10
Seed Rye,	13 07
Treasurer's Salary,	150
Salary of Agent to obtain funds,	400
Gymnasium,	5
	<hr/>
	\$39,208 34

Receipts for the same period.

Interest, and dividends on Bank Stock,	81,137 07
Rents,	1,003 70½
Do. of White Hall Farm,	140
Do. of Pew in Chapel,	15
Collected on Term Bills	16,565 37
Miscellanies,	21 72½
Subscription to Cabinet,	57 50
Gen. Potter's Donation,	42 50
Diplomas,	74
	<hr/>
	\$10,674 57

Excess of disbursements beyond receipts, \$533 51

General Statement of the Funds of Yale College, August 1, 1831.

Funds of the Academical department.	
Notes, &c. producing interest,	\$20,245 77
Phoenix Bank Stock,	4,723 91
	<hr/>
Deduct debts owed by the College,	24,069 05
	10,005 78
	<hr/>
Balance,	\$14,063 00
Interest on \$14,063 00,	\$843 83
Ground Rents,	774 96
Rents of houses in New Haven,	745
	<hr/>
Whole income from funds,	\$2,363 70
Funds of the Medical Institution.	
Phoenix Bank Stock,	\$4,376 08½
Funds of the Theological department.	
Dwight Professor, Notes, stocks and sub-	
scriptions	\$15,046 64
Lands unproductive,	1,250
	<hr/>
	\$10,208 64
Fund of Professor of Sacred Literature.	
Notes, Stock and Cash,	\$5,917 70
A lot of about 14 acres in New Haven, given	
by Roswell Colt, Esq. of Baltimore, to	
the Theological department, under a	
contract of sale, subject to the ratifica-	
tion of the corporation, at \$65 per acre.	\$910 00

professorial salary, only in its turn, finally, to be overtaken, swallowed up, and forgotten in the slow raising of the salary level as the society grew more prosperous and the College expanded.

The First Printed Treasurer's Report

Our series on the financial infancy and youth of Yale College concludes, not inappropriately, with the first printed Treasurer's Report of 1830-31 (F-1.7). There among the interesting miscellany of information, one finds openly acknowledged the extremely meager state of the College's endowments, and the payment of \$400 to an Agent to raise more funds. Also the costs of instruction, one notes, were \$11,303 out of a total expenditure of \$20,208. So by 1830 only some fifty-six percent of Yale's expendable monies were going to the faculty for instruction? Whereas in 1739-40, for a Rector and two Tutors, the costs had been \$465 out of total expenditures of \$595 (or seventy-seven percent)! Students of our academic condition may be interested to compare these figures with twentieth century distributions and their further dramatic reductions of the faculty share.

F-2. From College to University

F-2 From College to University

Introduction: 1830-1915-1976: The Two Centuries in Retrospect

The range of manageable statistical materials on Yale's financial history, from the College of 1830 to the University of 1976, is incomplete in coverage and quite uneven in depth, yet sufficiently diverse and penetrating to suggest some dramatic features in Yale's growth, and remind us also of things once familiar but now half-forgotten.

Most obviously we are reminded of the overall changes in scale and in basic character. Over 145 years, Yale came to know a tremendous expansion, a multiplication and elevation of functions, and simply sky-rocketing costs.

Embedded in the same figures are a whole series of signals to remind us also that change did not always come slowly and evenly. Much gradual growth there was. But the major transformations arrived sometimes suddenly and almost violently. Thus, from 1830 (perhaps even from 1795) until 1914 seems one slowly unfolding story. The nineteenth century for Yale, as perhaps also for our country, lasted until World War I. Then, bracketed by the agonies of two World Wars, came a much more intensive and drastic quarter-century of academic change, while our country was going through the excesses of prosperity and depression--after which, ushered in by an atomic explosion, came thirty years of social, educational, and financial changes more violent still. Will men some day say that the twentieth century lasted only from 1915 to 1976? It hardly seems likely, with the pace still accelerating and the dangers still intensifying from year to troubled year. Yet meanwhile the basic differences between the two centuries can be observed-everywhere: in the university's receipts and expenditures, in the changing roles of the schools and departments, in the escalated tuitions as also in the building patterns and in the mushroom growth of a non-teaching administration.

Financially, as in so many other matters, the nineteenth century was the century of Yale College. Its receipts and expenditures (see F-2.1) were far larger than those for the other schools, indeed larger than those for "the University"

right down to the eve of World War I. Our Table F-2.2 shows that the endowment of the College was also greater than the University endowment as late as the 1890s.

After World War I, what a different story! First one sees the sudden--and it was very sudden--rise of the Medical School in expenditures and receipts and in endowment most of all. By 1930 its permanent funds were double those of the College (F-2.2). One by one the other professional schools, led by the Law, took on an independent life and a financial importance almost worlds away from their nineteenth century modest simplicity.

As for the College, the great reorganization of 1919-20 put an end to its financial dominance and independence. Thereafter no longer would the new funds be going almost automatically to the College; instead they were credited to the University, and their uses were University uses of many new kinds. In the early 1920s one spots the attempt to set up a separate endowment for fine teaching in the Common Freshman Year (F-2.2). But this revival of traditional values promptly stopped in its tracks; through forty years the fund hardly improved on its beginnings. Instead the appropriations for the Graduate School began to grow and, year after year, the expenditures for professional instruction moved up on those of Yale College. Finally the funds of the Common Freshman Year and the funds of the Sheffield Scientific School and the funds credited to the Graduate School and the funds of Yale College itself were poured together into a new crucible called the Faculty of the Arts and Sciences. Such a reallocation testifies to the closer interrelations between the arts and the sciences and between the intermediate and advanced modes of instruction. Yet it marks also a critical shift in academic authority (which could hardly have been imagined or welcomed in the older Yale).

Not a few other changes of balance in the Treasurer's Reports are worth remarking, most notably some changes of emphasis among the categories of expenditure. Let me signal just one. In the nineteenth century the burdens and the costs of administration were borne almost entirely by the several faculties, and the budget for administration was nonexistent or minimal. In the early 1900s, however, with the growing complexity and size of the other departments in the University, a quite palpable University administration began to emerge, which by 1914 was charging each of the schools and especially Yale College substantial sums for its own salaries and for other general costs. In our "second century" the expenditures for administration, for services, and for maintenance of properties have each kept rising until the major non-academic costs have come to match and in combination greatly exceed the costs of instruction in all the arts and sciences (see F-2.15 and F-2.16).

INCOME AND EXPENSE ACCOUNTS, BY DEPARTMENT AND SCHOOL, 1830-1915

Term	Academical Department				Sheffield Scientific Sch.		Theological Department		Medical Department		Law School		Art School	
	Yale College		Instruc- tion	Cur'nt Exp's.	Rec.	Exp.	Rec.	Exp.	Rec.	Exp.	Rec.	Exp.	Rec.	Exp.
	Total Rec'ts.	Total Rec'ts.												
1829-30	16,136	19,471	11,735	20,308										
1834-35	13,100	24,324	12,476	27,349										
1839-40	17,739	30,480	14,210	28,180										
1844-45	16,218	33,137	15,495	34,377										
1849-50	17,373	34,135	14,939	34,898										
1854-55	22,707	51,773	16,826	46,848										
1859-60	29,401	60,628	25,504	60,738										
1864-65	31,681	90,125	35,105	85,515	20,077	13,080	14,437	10,544	979	1,390				
1869-70	41,876	121,569	44,297	202,077†	45,104	32,784	95,488†	121,968†	1,252	1,336				
1874-75	68,008	200,878†	57,868	241,397†	52,249	55,923	103,604†	95,879†	2,060	2,070	5,240		5,421	12,762
1879-80	100,298	141,634	68,382	134,432	43,007	45,118	24,785	25,135	2,743	2,435	7,373		7,373	7,854
1884-85	101,748	161,637	88,773	168,336	60,073	62,059	33,085	32,523	3,913	7,507	7,086		6,896	9,274
1889-90	152,052	212,454	100,513	199,411	75,531	75,705	35,899	34,157	7,796	9,940	13,015		12,642	9,691
1894-95	264,594	344,887	141,566	343,021	144,032	138,925	47,413	47,229	16,866	12,527	23,151		23,058	9,969
1899-00	293,680	379,394	184,098	373,332	131,904	133,153	42,936	43,293	22,331	23,831	22,637		22,786	13,583
1904-05	324,341	416,180	208,104	434,538	181,150	185,001	59,028	50,185	28,062	28,062	37,192		37,504	28,389
1909-10	334,013	475,777	224,274	475,035	249,408	246,898	52,731	53,567	29,880	45,295	68,591		52,903	14,654
1914-15	426,520	585,305	280,628	583,979	371,568	372,014	69,173	71,619	82,099	54,676	52,401		52,630	13,809

Source. Reports of the Treasurer, Yale University.
 General Note. Figures for receipts and expenditures exclude all credit balances, debit balances, and university gifts to income.
 † Some of the irregularities in the sequence of income and expenditures are accounted for by the fact that the Treasurer on occasion included funds and expenses for building.
 * Figure is for 1870-71, the first year the Treasurer reported any "University" income and expenditures. Classified as "Special University" rather than Academical Funds in 1870-71 were the Funds for Botany and Sanskrit; in 1874-75 the Salter, Bronson and Woolsey funds were added, and the salaries of the Librarians and Treasurer and a Medical School appropriation were paid. In 1879-80 the Gymnasium, Society Libraries, and Philosophical (i. e. Graduate) School were included, along with a new fund and some gifts to University income. Thereafter this "Special University" category expanded to cover the Reading Room, Infirmary, Observatory and Loomis Fund, and Dining Hall--then in 1904-05 also Steam Heat and Carpentry, or Building and Maintenance, were added. Meanwhile the income for most of these special activities had come to consist largely of transfers for charges to the Academical or Professional Schools) with some University gifts to income or appropriations; so they ceased to mean very much, and in 1914-15 a number of the maintenance services were listed separately as "commercial".

INCOME AND EXPENSE ACCOUNTS, BY DEPARTMENT AND SCHOOL, 1830-1915 (cont.)

	Music School		Forestry School		University+			
	Rec.	Exp.	Rec.	Exp.	Special Receipts	Special Expenditures	General Receipts	General Expenditures
1829-30								
1834-35								
1839-40								
1844-45								
1849-50								
1854-55								
1859-60								
1864-65								
1869-70					3,723*	4,585*		
1874-75					11,125	13,802		
1879-80					40,546	35,053		
1884-85					37,304	52,521		
1889-90					68,835	66,288		
1894-95	250	3,330			145,518	138,119	52,045†	48,785†
1899-00	9,643	8,843	535	862	123,823	125,163	54,562	59,176
1904-05	18,332	20,614	2,451	4,138		446,819	123,885	151,727
1909-10	22,713	25,628	24,785	25,448		377,686	425,127	361,493
1914-15	30,923	38,335	29,471	29,919		268,261	468,915#	468,737#

+ The Graduate School seems not to have been recognized as a distinct budgetary unit but to have been given the title of Philosophical School, and listed in the University Special accounts. In 1904-05 and 1909-10 it was recognized as the Graduate School and transferred into the University General accounts. Its expenditures were listed in 1879-80 as 1,525; in 1884-85 as 329; in 1889-90 as 4,020; in 1894-95 as 2,899; in 1899-1900 as 6,448; in 1904-05 as 6,642 (excluding instruction--tuition receipts were 13,631); in 1909-10 as 43,209; and in 1914-15 (as a separate school) 142,867.

† 1894-95 shows the recognition of general university purposes in the Treasurer's Report, and the practice of donations to income to schools or departments which were running a deficit. Transfers of credit between the schools also register the tending of instructors, supplies or equipment.

Where once the general university income and expenditures had been non-existent, by 1914-15 the gifts and bequests to the university had begun to mount, and a central administration was growing, which in that year charged the Schools and Departments \$75,567 for its General Administration services.

PERMANENT FUNDS OF YALE UNIVERSITY, 1830-1975

Total Endowment Funds
Excluding Unexpended Income, Student Loans, Building and Reserve Funds, etc.

Year	University (Miscell. & General Funds)	Yale College (Academical Department)	Theological Dept. Divinity School	Medical Dept. Sch. of Medicine	Law Dept. Law School	Sheffield Scientific School	Sch. Fine Arts School of A & A	Library	Musical Dept. Sch. of Music
1830		30,856 ^a							
1835		167,351	36,033 ^b	10,900					
1840		222,007	40,822 ^b	11,717 ^b					
1845		250,137	43,411	15,217					
1850		269,108	52,094	14,450	4,617 ^b				
1855		335,182	66,979	14,400	7,577				
1860		411,662	83,073	17,400	8,309				
1865		670,180	192,977	19,498	8,459	111,300			
1870		872,666	308,455	21,333	8,714	213,900			(32,337) ^c
1875	181,700 ^c	648,221	239,398	21,333	10,000	244,150			(38,457) ^c
1880	324,261	867,634	300,836	28,561	10,000	234,671			(47,798) ^c
1885	485,494	960,257	445,112	33,784	11,600	143,905			(52,487) ^c
1890	807,431	1,223,862	443,125	41,457 ^b	41,600	164,415			(67,387) ^c
1895	1,250,226	1,548,856	631,164	45,024 ^b	73,351	240,569			(121,297) ^c
1900	1,834,117	1,599,175 ^d	663,918	106,494	82,814	438,805			(321,152) ^c
1905	3,018,907	2,004,238	697,076	159,987	149,259	448,786			528,373
1910	6,901,752	2,201,303	882,734	248,100	358,261	722,001			633,838
1915	8,797,740	2,236,838	1,091,254	1,151,699	502,536	764,142 ^c			979,369
1920	13,180,316	2,406,455	1,372,762	1,879,049	500,083	826,613 ^e			998,898
1925	26,906,341	2,804,375	1,379,587	4,014,004	815,239	1,071,723 ^e			1,044,374
1930	56,781,950	3,240,125	2,161,631	8,244,779	2,126,622	1,643,622 ^e			2,562,832
1935	73,826,054	3,408,718	2,921,085	7,695,883	1,643,022	1,763,176 ^e			2,460,172
1940	78,522,865	4,023,647	3,045,587	12,316,883	1,763,052	1,963,088 ^e			2,603,978
1945	82,189,130	4,188,780	3,143,050	11,447,273	2,560,146	1,961,122 ^e			2,753,778
1950	92,358,599	4,489,928	3,162,855	12,569,551	2,873,280	2,995,424 ^e			2,851,349
1955	103,634,201	5,587,252	3,279,017	13,778,631	3,047,001	3,991,205 ^e			3,398,370
1960	138,312,387	7,135,631	3,370,823	18,879,348	4,553,586	4,267,497 ^e			6,267,345
1965	212,256,327	10,802,235	4,654,397	25,028,859	9,159,083	6,350,422 ^e			10,748,415
1970	236,678,221	17,103,709	4,572,521	26,426,541	10,396,191	6,350,422 ^e			21,596,659
1975	203,446,824		7,548,848	32,024,532	12,223,709				40,425,132

Note. A number of the minor offices (e.g., infirmary, the service bureau, the dining halls, etc.) are not separately catalogued in this table but are included in the final column: Total Funds of University.

Source. Annual Reports of the Treasurer, at the end of each academic year.

a) This sum included \$2,768 in "good" notes of graduates, while it excluded debts of about \$13,000 owed by the College. The interest on the balance of \$17,856 was \$1,071; ground rents brought in \$862, and houses rented in New Haven another \$740, so the whole income from funds was \$2,674. Current expenditures had been \$20,308 against receipts of \$19,471, showing an "excess of expenditures" of \$837.59. Receipts from term bills were \$16,136 as against expenditures for instruction of \$11,735.

... Cont.

PERMANENT FUNDS OF YALE UNIVERSITY, 1830-1975 (cont.)

Total Endowment Funds
Excluding Unexpended Income, Student Loans, Building and Reserve Funds, etc.

Sch. Forestry & Environ. Studs.	Observatory	Graduate School	Freshman Yr. Funds	School of Nursing	Drama School	Art Gallery	School of Architecture	Fac. of Arts & Sciences	Total Funds of University	Year
150,000	(8,000) ^c								5,347,783	1830
200,000	(10,000) ^c								7,442,115	1835
370,020	(434,504) ^c	362,645							11,967,166	1840
541,537	(452,468) ^c	722,081							16,152,835	1845
678,619	527,937	1,424,021							24,048,730	1850
946,350	495,472	928,418	152,747						41,646,983	1855
1,415,147	552,553	1,177,702	154,840	1,023,712					82,856,841	1900
1,394,153	544,033	1,224,164	155,728	1,023,704					95,838,569	1905
1,368,938	572,139	1,262,300	159,126	1,037,874					101,075,903	1910
1,349,600	570,519	1,629,176	176,465	1,032,856					111,682,337 ^f	1915
1,353,387	644,460	1,747,589	206,384	1,049,565	812,777	350,778			127,392,152	1920
1,786,236	651,084	2,557,320	273,840	1,100,889	812,777	350,778			144,245,046	1925
2,288,143	655,692	6,096,885	629,203	1,152,466	865,607	1,700,373			227,358,636	1930
4,511,599	782,261	13,685,242	1,017,084	1,446,805	1,070,017	3,324,719			358,411,441	1935
6,378,270		17,854,858		1,465,065	1,076,150	21,082,957		11,311,148 ^g	495,876,619	1970
8,252,698				1,573,471	1,385,116		1,196,087	145,054,770 ^g	511,316,458	1975

b) To help them get started the college or academical department made cash advances to Yale's new professional schools; thus the Theological Department owed the college \$632 in 1835 and \$1,116 in 1840. That same year the Medical Department owed the college \$200. In 1850 Yale had expended \$4,617 for law books but only \$2,772 had been raised by subscription. In 1880 the Treasurer's Report showed cash advances to the Art School of at least \$16,867; and in 1890 and 1895 cash advances of more than \$12,000 and \$16,000 were recorded for the Medical School.

c) From 1871 the Treasurer's Reports carried certain particular endowments (for example the Sanskrit Professorship) as university endowments. And for the rest of the century the Library and the Observatory endowments were counted as university endowments (indicated by ()).

...Cont.

PERMANENT FUNDS OF YALE UNIVERSITY, 1830-1975 (cont.)

Total Endowment Funds
 Excluding Unexpended Income, Student Loans, Building and Reserve Funds, etc.

- d) This included \$340,069 for grounds and buildings and \$92,607 for advances to the Observatory and other branches of the University.
- e) These were funds held by the university for the benefit of the Sheffield Scientific School. Separately the Board of Trustees of the Scientific School held securities and a considerable endowment in real estate and buildings. By 1920 the securities were valued at \$829,613, the land and buildings at \$1,053,019. In subsequent years these endowments, which were legally the property of the Sheffield Trustees and not of Yale University, gradually increased, and in 1940 totalled \$2,837,697. After 1945, when the Sheffield Scientific School went out of existence as a separate school, its incomes were applied to the Engineering School and to graduate work in the sciences. By 1970 the university's holdings of such funds were lumped in with the general university funds, and in 1975 were allocated to the Faculty of Arts & Sciences total. By 1970 the separate security holdings of the Board of Trustees of the Sheffield Scientific School amounted to \$5,649,514.
- f) Including \$5,118,539 in an unamortized building fund.
- g) In 1975 the endowment figures for the College and the Graduate School and Art Gallery were no longer given separately but were included in the new category, Faculty of Arts & Sciences, a category to which the Treasurer had already assigned certain miscellaneous university funds in 1970.

Buildings

The story in buildings is much the same. Once upon a time they came singly, with great pains, yet at comparatively modest cost. Each building had community purpose(s) and character and with the generations became, as it were, a familiar and remembered partner in the community enterprise. But in the twentieth century there were just too many buildings: too many old buildings torn down, too many new and greater structures erected, and the names came so rapidly and the purposes proved so diverse and specialized that one could no longer easily know them all or ascertain their financial histories. Hence, only approximate overall totals of expenditure have seemed appropriate and feasible for our record of the most recent times (F-2.5). Notwithstanding such shortcomings, and as the figures stand, one cannot fail to be impressed by the expenditures for 1917 (the building of the Harkness Memorial Quadrangle) and by the great building boom of the 1920s and the early 1930s (from the Harkness monies and the Sterling bequest). One sees then the arrest imposed by the Depression and World War II, and the very slow, almost tentative resumption of new building in the 1950s and after. How relatively restrained has been the physical expansion of the University since World War II is in part concealed by the decline of the dollar and the consequent inflation of all the financial costs.

The reader will also note that our first building table (F-2.3) makes it possible to see which are Yale's oldest and longest lived buildings: first, Connecticut Hall, the lone survivor from the old Brick Row; next, the Library of 1843 (now Dwight Chapel and Dwight Hall); next, Street Hall for painting; then Farnam and Durfee and Battell, still bounding and defining the Old Campus.

The listing can also be read to show the eras of greatest mortality for the ancient buildings of Yale: for the old Brick Row it was the 1890s, and for the fraternities and the 1892 gym and other satellite structures around the Old Campus it was the late 1920s and early 1930s, when even some comparatively youthful buildings had to be razed to make way for the Sterling Library and the residential colleges.

Those interested can of course use the same tables to calculate the approximate life expectancy for the new buildings for each of the periods or presidential administrations in Yale's past.

BUILDINGS, 1701-1900

Date of Construction/ Acquisition	Date of Demolition or Sale	Name of Building	Later Names or Uses	Reported Costs or Gifts
1717-18 1722	1775 & 1782 1801	"Yale College" Rector's House	(first) President's House	£2500-3000 c. £600
1750-53		Connecticut Hall	"South Middle College" in old Brick Row	c. £20, 764 old tenor or £1, 616 sterling. c. £225 sterling
1757-58	?	House on York St. for Prof. of Divinity		
1761-63	1893	(first) Chapel	Conv. to Athenaeum, 1824-93	more than £1, 178 sterling. £558
1782	1888	Commons and Kitchen	"Old Laboratory" for Chemistry, 1820-88	
1793-94	1893	Union Hall	"South College" in old Brick Row	£2500 (c. \$9000?) out of 1792 Legislative grant and bargain. \$3216
1797-98		Conn. Hall: fourth storey added		
1799	1860	(second) President's House	Conv. to Analytical Lab. for Scientific School, 1847-60	\$6081 from sale of first President's House for \$982 & Legislative grant. \$10, 000? \$11, 000? built from the rest of \$40, 630 (\$45, 804?) received from Legis- lature, 1792-1800. c. \$12, 000 from same Legislative grant. Originally from State grant of \$20, 000.
1801	1895	Berkeley Hall	Soon "North College" then "North Middle College"	
1803-04	1901	Connecticut Lyceum	"Lyceum"	
1814 1860	1858 1931	Medical Institution	Sold in 1858 to Joseph E. Sheffield & refitted by him & given to Scientific School. Known as Sheffield Hall (see 1860)	
7 September 1819 Corporation insured College buildings in the amount of \$30, 000.				
1819	1890	(second) Commons	Also "Philosophical Building" or "Cabinet". Used as Reading Room, 1876-90	"Out of College Funds" c. \$6902, furnishings \$1242 (\$10, 000?).
1820 1823-24	1901 1896	"North College" (second) Chapel	Conv. to classrooms, 1876-96	\$11, 061 c. \$12, 000 (c. \$2, 000 subscribed).
1832	1901	Trumbull Gallery	Treasury Building, 1868-1901	\$4000 of \$7000 from Conn. Legislature (from bank charter). (less than \$13, 000)
1833	1930	State Hospital*	Later North Ward, Yale-New Haven Hospital	
1835	1869	Divinity College		Authorized at \$12, 000 approp. \$9, 247? later appraised at \$13, 000. \$36, 254 (subscriptions c. \$18, 000).
1842-45		Library	Conv. to Dwight Memorial Chapel & Dwight Hall, 1931-	

*Related Institution

BUILDINGS, 1701-1900 (cont.)

Date of Construction/ Acquisition	Date of Demolition or Sale	Name of Building	Later Names or Uses	Reported Costs or Gifts
1851-53	1911	Alumni Hall	Also called "Graduates Hall"	\$27,478 (\$11,000 by Linonia and Brothers in Unity)
1855-56 Corporation insured 8 College buildings at \$38,000, rest at \$35,000				
1859	1917	(first indoor) Gymnasium	Commons, 1892-1901 Herrick Hall, 1902-17	\$11,170
1860	1931	Sheffield Hall	Later, South Sheffield Hall. Given by J.E. Sheffield (see 1814)	Sold to Sheffield in 1853 for nominal \$25,000, refitted a lab. for \$28,000
1859-60	1957	(second) Medical School	After 1923 rented to U. Conn. College of Pharmacy	From sale of old Medical School approp. \$13,904
1864-66		Art Building	Named Street Hall, 1928	\$195,242
1869-70	1931	East Divinity Hall	Renamed Edwards Hall, 1909	c. \$130,000 (\$190,000?)
1869-70		Farnam Hall		\$126,185 (\$54,000 from Y. C.)
1870-71		Durfee Hall		\$132,871
1871	1931	(first) Marquand Chapel		\$25,000?
1872-73		North Sheffield Hall	Second S. S. S. Building	\$100,384 gift of Jos. E. Sheffield, plus \$15,000 equipment
1873		East Ward*	Renamed Tompkins East,	-----
1873	1931	West Ward*	Yale-New Haven Hospital	-----
1873-74	1931	West Divinity Hall	Renamed Taylor Hall, 1909	c. \$160,000?
1873-76	1917	(first) Peabody Museum		\$106,000 (equipped almost \$170,000)
1874-76		Battell Chapel	Addition in 1893	\$200,349 + \$26,352?
1875	1910	Yale Boathouse	Succeeded boathouses of 1859, 1863	Altogether \$16,500
1876	1929	Power House & Laundry*	In Yale-New Haven Hospital	-----
1877		Isolation Pavilions & Morgue*	In State Hospital, renamed New Haven Hospital, 1884	-----
1881	1931	Trowbridge Library	By Marquand Chapel	\$10,500
1881	1931	Nurses' Dormitory*	In Yale-New Haven Hospital	-----
1882-83	1931	Sloane Physical Laboratory	Renamed Sloane Lecture Hall, 1912	From Sloane family gifts of \$83,000, \$150,000, \$40,707 + \$6000 for apparatus and books
1882		459 Prospect St.	Built for Observatory officer, later rented	
1882 1972	1964	477 Prospect St.	Built for Observatory officer, then rented: in 1964 sold to Day Prospect Hill School, in 1972 reacquired & rented	Not over \$5000 each

BUILDINGS, 1701-1900 (cont.)

Date of Construction/ Acquisition	Date of Demolition or Sale	Name of Building	Later Names or Uses	Reported Costs or Gifts
1882-83	1956	Winchester Observatory	Sold to Day Prospect Hill School, 1956	\$27,000 from land gift of nearly \$100,000
1885-86		485 Prospect St.		\$106,878 (\$104,865?)
1885-86		Lawrance Hall		\$191,282. Initial gift of \$60,000 from E. B. Monroe
		Dwight Hall		-----
1886	1923	Superintendent's Quarters*	In Yale-New Haven Hospital	-----
1887-88	1931	Kent Chemical Lab.	Renamed Kent Hall, 1922	By gifts of \$30,000 and \$45,000: \$76,738
1888	1928	C. B. Farnham Operating Amphi- theatre*	In Yale-New Haven Hospital	-----
1888-90	1926	Osborn Hall	Classroom Building on original Yale corner	\$180,000
1888-90		Chittenden Library	Renamed Linsly- Chittenden, 1930	\$124,713
1889	1927	Gifford Ward*	In Yale-New Haven Hospital	-----
1889	1957	Sheffield Mansion	Sheffield Biological Lab., 1889-1913, Physiological Chem., 1913-24, Applied Physiology, 1924-46, Dunham Annex, 1946-57	Built by I. Towne, 1832 Bought & enlarged by J. E. Sheffield, 1859 (at \$25,000?). bequest valued at \$108,500 in 1889. \$322,532?
1890-92	1932	University Gym- nasium	Second Gym, on Elm St.	
1891-92		Welch Hall		\$125,000 (\$100,791?)
1892	1929	Gifford Chapel*	In Yale-New Haven Hospital	-----
1892	1901	Psychological Labs.	On Elm St. & 295 York St.	? ?
1892		Yale Infirmary	At 276 Prospect St. Replaced by Health Center in 1971	\$57,874
1892	1967	Winchester Hall	For Engineering	\$153,629
1893	1917	Boiler House & Steam Department		\$35,256
1893-94	1933	White Hall	Part of Berkeley Oval	\$168,287 (\$163,643?)
1893-94	1933	Berkeley Hall	Part of Berkeley Oval	\$107,118
1894		Vanderbilt Hall		\$535,822
1894-95		Sheffield Chemical Laboratory	Renamed Sheff. Lab. of Eng'g. Mechanics, 1922	\$100,077, and equipment \$36,977
1894-97		Ac. Buildings & Grounds		\$307,871
1894		Hendrie Hall	Added to in 1900	\$134,039 + ?
1895	1917	College St. Hall	Sold 1917, burned 1921	"by purchase"
1895	1932	125 High St.	Named Gibbs Hall, 1916	"by purchase"
1896		Phelps Hall and Archway		\$125,939
1896	1917	Pierson Hall	Dormitory, demolished for Wrexham Tower	\$79,320
1899	1930	Kitchen*	In Yale-New Haven Hospital	-----
1899	1916	Pres. Dwight's House	Used for Music, 1886-99	by private purchase

BUILDINGS, 1701-1900 (cont.)

Date of Construction/ Acquisition	Date of Demolition or Sale	Name of Building	Later Names or Uses	Reported Costs or Gifts
1899		Marsh Hall	O. C. Marsh's Home	by bequest. Cost c. \$30,000 in 1876- (not including furnishings)
1900	1933	Roundhouse	South end of Berkeley Oval	? ?
1900	1959	Maternity Ward*	South Ward in Yale- New Haven Hospital	-----
1900	1929	Medical Clinic Amphitheatre*	In Yale-New Haven Hospital	-----
1900-01	1933	Fayerweather Hall	In Berkeley Oval	\$156,439?

Sources. For buildings and dates: Buildings and Grounds of Yale University, edited by R. C. Carroll, 1979. For costs: Reports of the Treasurer; typescript dated December 16, 1946 by Asst. Treasurer H. J. Ostrander, entitled "Buildings erected prior to July 1, 1898;" Ledger book "abstracts" of Treasurer's accounts, 1796-1899, in Treasurer's Records; also J. Day Memorial to Assembly, 1822, and a variety of biographies, local histories, and books about Yale.

Note. The cost figures vary in accuracy, and it has not been feasible by a search of Treasury records to verify many reported figures. In general the costs of the land (often acquired years before) have not been included. In 1899 the Treasurer estimated all University and School "properties" at \$3,022,856 plus \$264,424 in stocks, while President Dwight would later set the estimate at \$4,554,000 and claim that almost two million dollars had been given to Yale for buildings during his administration.

NEW BUILDINGS AND PLANT VALUES, 1900-1942

Date of Construction/ Acquisition	Name of Building	Uses and Later Names (see also "Buildings and Grounds of Yale University," Sept. 1979)	Reported Costs of Each Building	New Gifts for Building	Annual Expenditure for Construction	Estimated Value of Plant
1900-01				491,470	450,215	
1901	Jane Ellen Hope Memorial Building [Book and Snake]	University Clinic; since 1960 medical research and admin. offices	95,863			
	Woodbridge Hall 80 High St. (gift)	"Tomb" for members of the Sheff. Sc. Sch. fraternity living in the "Cloister" at 1 Hillhouse Ave.; became a Senior Society in 1933	62,868			
1901-02	Bicentennial Buildings	Central administrative offices Carpentry Dept., razed 1917	481,870 565,516	493,118	551,895	
1902	[Yale Field Property (given to Univ.)]	'01 Dining Hall '02 Woolsey and Memorial Halls				
1902-03	Byers Hall Kirtland Hall	S.S.S. social and religious center; 1933-39 Univ. Treasurer's office; 1940 became part of Stillman College	80,000	36,472	352,152	
1903	Lampson Lyceum and Hall Vanderbilt - Sheffield Hall #1	1904-63 Dept. of Geology; 1964 Dept. of Industrial Admin.; now Dept. of Psychology	109,280			
1903-04		part of Berkeley Oval; razed 1933 for Berkeley College in 1940 remodeled as part of Stillman College	200,000			
				40,500	86,669	

1904-05	Hammond Metallurgical Laboratory	since 1970 Hammond Hall, faculty offices and sculpture studios of the Sch. of Art	128,742	2,502	
1905	[Hillhouse Estate purchased] Gales Ferry Boat House, Gales Ferry, Conn. (purchase and gift)	in 1910 paid for by Mrs. Russell Sage and named Pierson-Sage Square			
1905-06				118,384	288,683
1906	Vanderbilt-Sheffield Hall #2	in 1940 made part of Silliman College	300,000		
1906-07	Linsly Hall	part of Univ. Library, in 1930 remodelled into classrooms as part of Linsly-Chittenden Hall	270,638	246,902	222,310
1907-08				136,435	104,706
1908	Leet Oliver Memorial Hall	S.S. building, later Dept. of Mathematics	150,000		
1908-09				462,320	188,710
1909	Stable and Garage Carnegie Swimming Pool Haughton Hall	to 1929 razed 1932 in Berkeley Oval, razed 1933 for Berkeley College	40,000 135,000		
1908-10	Art School Addition	wing added to Street Hall (1911?)			
1909-10	Adee Boat House	1916 naval training station; sold 1958	101,682	164,325	96,248

F
3
4

1910	[Berzelius] [Franklin Hall] 451 (formerly 119) College St.	"Lomb" of S. S. S. Fraternity, converted to Senior Society 1933 Built by S. S. S. Theta Xi Fraternity, sold to Univ. 1935, used as Alumni Hall to 1955, then Treasurer's Office			
1910-11	Mason Laboratory of Mechanical Engineering	1967 remodelled for Dept. of Engineering and Applied Science	200,000	440,993	275,994
1911	Day Missions Library	1931 razed for Calhoun College, library moved to Sterling Divinity Quadrangle Library of Elizabethan folios and quartos, early engravings and paintings			
1909-12	Sloane Physics Laboratory	1958 underground addition	385,528		
1911-12	[Elina] (built c. 1772; purchased) Wright Memorial Hall	a Tory Tavern until 1781, purchased by Senior Society and enlarged dormitory, and later also post office razed 1928	327,908	418,648	591,203
1912	Baseball Cage Daniels Gateway Porter Gateway [Saint Elmo]	S. S. S. Fraternity Delta Phi, sold to Univ. 1962	16,157		
1912-13	Dunham Laboratory of Electrical Engineering	additions 1958, from 1964: "Dunham Laboratory"	123,093 1,225,000 (B)	104,025	424,027
1913	Pierson-Sage Heating Plant	1964 addition, now Pierson-Sage Boiler and Refrigeration Plant	47,156		

1913-14	[Yale Demonstration and Research Forest, Keene, New Hampshire] [land acquired for Yale Engineering Camp, East Lyme] Hopkins Hall (built 1840, purchased) [Saint Anthony Hall]	enlarged by further gifts and purchases 1913-38 addition 1926 demolished for Sterling Law Bldgs. 1930 erected by S. S. S. fraternity Delta Psi, part sold to Univ. 1945			
1913-14	Osborn Memorial Laboratories Yale Bowl	biological sciences temporarily enlarged 1920, press box added 1929, modernized 1959 later part Y-NHH to 1963	541,063 507,436	125,000 217,177	
1914	[Isolation Pavilion (Howard Building)]				
1914-15				62,592	2,006,854
1915	Heliosat Building Squash Courts and Bowling alleys	part of Winchester Observatory, to 1957 razed 1929 for Trumbull College	24,022		
1915-16				56,322	2,069,026
1916-17	125 High St. (purchased 1895)	named Josiah Willard Gibbs Hall, offices for Graduate School			
1916-17	Albert Arnold Sprague Memorial Hall	Music School, John Herrick Jackson Music Library added	196,450	235,870	2,279,746
1917	Yale Armory Artillery Hall	now, indoor polo field and rifle range removed 1927 for Sterling Mem. Library	116,634		

	Boardman Administration Building Anthony N. Brady Memorial Laboratory	new part of Y-NIIIH for School of Medicine, 1927-28 extensions	167, 746	
1917-18	Central Power Plant, University Operations Building (Service Building) 20 Ashmun St.	additions 1954, 1965, 1969 central refrigeration system added (cost 98,598 (D))	17: 781,514 21-22: 39,362 25-26: 95,150 27-28: 18,852 28-29: 76,915 30-31: 196,724 31-32: 51,303 32-33: 267,167 34-36: 75,034	1,125,999 646,744
1918	Brady Laboratory Annex Nathan Smith Hall (purchased)	to 1927 old Elm City Hospital renamed for first Dean of Medical School, used for chemical warfare, pharmacology labs. Sold 1956, razed 1957 sold 1948 to U.S. for Vet. Adm. Hosp.	97,662	
1918-19	[William Ward Winchester Hospital] 143 Elm St. (built 1891, gift)			209,969 150,372
1919	326 Temple St.	Old Center Church Pastor's house, remodelled, entrance to 66 Wall Street.		
1919-20	Infirmary Improvements		10,000	200,847 181,664
1920	28 Hillhouse Ave. (built 1884, purchased)	named Henry Barnard Hall 1925, center for Dept. of Education		12,958,492

1917-21	Memorial Quadrangle 74-76-78 Wall Street	in 1933 remodelled to make Branford and Saybrook Colleges 76, 78 purch. 4/21/17; 74 purch. 7/1/21	6, 000, 000	48, 000 (D)	250, 268	275, 955	12, 958, 492
1920-21	149 Elm Street (built 1764-67, purchased) 37 Hillhouse Ave. (built 1869, purchased) Health Department Building (purchased) 435 College St. 320 Temple Street (before 1812, purchased) Central and Pierson- Sage Power Plants additions	John Pierpont house, made into Faculty Club, enlarged and improved 1929, 1950-51; Club suspended 1977 leased apartments, 1957 Dept. of Economics razed 1929, replaced by new stone building 1930-31 Jedidiah Morse house, later women Graduate students' offices see 1917-18	22, 647	39, 362	58, 701	96, 000 (D)	
1921-22	Yale Bowl (completion)	replaced in 1929	237, 639	1, 651, 291	1, 408, 147		13, 056, 554
1922	Medical and Pediatric Laboratory (Bowen Forest, Vt. (gift)) Private Pavilion 31 Hillhouse Ave. (built 1826, bequest) 34 Hillhouse Ave. (purchased)	named Winchester Building in 1948 Noah Porter's house, used for residences for Univ. officers B. Silliman II and Walter Camp House, razed 1936, Univ. parking lot 1958					

1922-23	Sterling Chemistry Laboratory	1, 573, 622	1, 728, 652	15, 498, 171
1923	52 Hillhouse Ave. (built 1849, purchased) 23 Hillhouse Ave. (built 1855, purchased) 47 Hillhouse Ave. (built 1862, purchased) [Ray Tompkins Memorial] 158 Whitney Ave. (purchased)	various uses: since 1977 School of Org. and Management 1941 razed, Univ. Parking lot 1954 House of Pres. Angell 1924-37, razed 1941 520 acres: Yale Golf Course and Natural Preserve John North house	2, 092, 619 1, 858, 434 (C, D) alt.: 59, 462 (C) 87, 800 (D)	
1923-24	Bob Cook Boat House, Derby Sage Hall of Forestry Sterling Hall of Medicine Nathan Smith Hall alterations Sterling Power Plant	Bowers Hall added in 1931 additions 1931, 1957-58, 1965-66, 1971, 1973, 1976-78 for School of Nursing	60, 000 (B) 234, 737 (C) 1, 241, 412 1, 541, 790 (C) 48, 000 599, 075 (D)	922, 516 1, 495, 967 17, 385, 659
1924	77 Prospect St. (built 1884) 310-312 Temple St. (built 1870) 89 Trumbull St. (built 1890)	bought from Wolf's Head Senior Society, now Univ. offices purchased for housing purchased for housing (now offices) alterations ?	35, 000 (E) 12, 962 (B)	

	Weir Hall	Miller property, with old Alumni Hall Towers, fitted for architects, remodelled 1965	61,739	
	Lapham Field House		316,631 276,306 (B)	
1923-25	Peabody Museum of Natural History		977,383 806,210 (B)	
1924-25				799,090 997,181 18,425,781
1925	Southern Observing Station, S. Africa Edwin McClellan Hall	moved to Australia in 1952, Argentina 1962 remodelled 1977	60,789 169,565 150,494 (B)	
	301 Prospect St. (purchased)	purchased for rent, women's dormitory, 1977 S. O. M.	80,000 (D)	
1924-26	Wolf's Head	Senior Society, old tomb at 77 Prospect St.		
1925-26	Central Heating Plant Dickinson and Wheelock Halls University Theatre	see 1917-18 incorporated into Jonathan Edwards College 1932 1931 facade redesigned, addition 1957	95,158 524,666 473,059 (C) 509,638 492,130 (B) 500,322 (D)	663,218 865,835 18,751,293
1926	[Phipps Polo Field] Tracy Hall and other buildings, Yale Engineering Camp 87 Trumbull St. (built 1807, 1871) [Yale Golf Course]	purchased for residences for Univ. officers small clubhouse 1959	47,500 (E)	

1926-27	Sterling Chemistry Lab alterations William L. Harkness Hall	Depts. of French, German and Music; classrooms	22, 575 822, 072 (D, F) 823, 903 727, 962	1, 461, 949	2, 037, 312	19, 808, 172
1927	Baseball stands at Yale Field Charles E. Coxé Memorial Gym. 340 Edwards St. (bequest) 78 Lake Place Alumni War Memorial	Coxé Cage offices, apartments	208, 952 263, 660 244, 766 (B) 24, 500 (D) 154, 713 146, 683 (C)			
1926-28	Charles W. Bingham Hall	dormitory and offices, site of Osborn Hall	1, 089, 650 (D, F) 1, 083, 945 1, 073, 729 (B, C)			
1927-28	Extension of Brady Memorial Lab (built 1917) Farnam Memorial Lauder Hall Central Heating Plant Art Gallery (first wing) Battell Chapel alterations Walker Camp Gateway	Med. School Labs and offices see 1917-18 "old Art Gallery" - completed Spring '29	513, 500 (B) 1, 281, 244 18, 852 1, 146, 639 (F) 76, 581 (C) 180, 612 181, 382 (C)	3, 720, 439	3, 546, 072	20, 882, 221

Observatory		14,917 (C)		
1928	DeWitt Cuyler Field House (at Yale Field) 88 Trumbull Street Sterling Dormitory (purchased) (Berkeley Divinity School moved to New Haven) 432-34 Temple Street (purchased) 442 Temple Street (purchased) 56 Hillhouse Ave. (built 1835, purchased) (Psi Upsilon)	for track and field sports 1954 sold to Episcopal Diocese of Conn., 1967 repurchased 1957 sold to Y-NHH 1980 repurchased. Leased for apts. rentals } rentals } rented, 1974 S. O. M. after 1934 the Fence Club	23,632 (C)	
1927-29	additions to Central Power Plant (built 1917-18)		196,724	
1928-29	Greenhouse Landscape House Service Bureaus		19,470 22,812 76,915 73,445 (C)	2,209,343 2,746,086 23,699,243
1929	[Zeta Psi (new)] 305 Crown Street	purchased by Univ. 1973 Yale Hope Mission		

1927-30	Sterling Memorial Library		7,818,654 7,799,960 (B)		
1928-30	Raleigh Fitkin Memorial Pavilion	1952 title transferred to Y-NHH	667,931 557,579 (C)	12,610,239	8,693,895
	Laboratory for Medicine and Pediatrics		843,438 (C) 843,338 (B)		
	Institute of Human Relations		2,000,647		
	Department of University Health (435 College St.)	replacing old DUH building; new Office of Admissions	487,040		
	31 South St.		103,000		
	Pierston-Sage Healing Plant addition		15,700		
1930	15 Hillhouse Ave. (built 1894-95)	old Alpha Delta Phi house purchased			
	Bureau of Appointments Building (built 1893, purchased)	old New Haven Colony Historical Soc.; razed 1939 for Silliman College			
	[Delta Kappa Epsilon]	purchased by University 1973			
	William Whitman Farnam Memorial Garden (gift)	"Windycott"	43,475		
	325-327 Temple St. (purchased)	offices, apartments, sold 1960			

1929-31	Clinic and Service Building, Y-NHH		2,470,086 1,794,368 (C)		
1930-31	Sterling Law Buildings Central Heating Plant (built 1917-18) Anthropoid Experiment Station, Fla. Sterling Hall of Medicine extension	1977 renovated	3,589,897 3,555,199 (C) 196,724 168,530 (C) 115,534 1,097,999	12,068,879	12,723,172 35,498,278
1931	202 Prospect St. (purchased) Bowers Hall Irving Fisher House (built 1894, purchased) Dwight Chapel and Dwight Hall 55 Hillhouse Ave. (built 1859, purchased)	rented to faculty addition to Sage Hall rented, 1970 razed by remodel of Old Library Peabody Museum and Bingham Oceanographic Lab., 1937-60	40,000 (E) 189,084 176,982 (C) 191,283 (C) 150,000 (E)		
1930-32	Sterling Hall of Graduate Studies Payne Whitney Gymnasium Pierson College Davenport College		2,478,208 5,541,699 5,535,789 (B, C) 3,597,909 (F)		

1931-32	Sterling Divinity Quadrangle Sheffield Hall, Sterling Tower, Strathcona Hall Ray Tompkins House Calhoun College [Briton-Hadden Memorial Building] Central Heating Plant	additions 1957, 1975	2,166,484 1,261,546 1,259,161 (B) 583,048 582,519 (B, C) 1,680,131 1,689,813 (B, C) 115,534 112,529 (C) 51,303	8,336,753	10,400,160	48,273,437
1932	204 Prospect St. (purchased) Jonathan Edwards College 11 Rose St. Building #1	rented (incl. Dickinson and Wheelock Halls 1925-26) new costs	1,139,700 1,082,845 (C)			
1929-33	Trumbull College	Sterling Quadrangle with major additions	1,778,394 1,744,710 (B, C) 1,740,971 (D)			
1931-33	Sarah Wey Tompkins Memorial Pavilion	title transferred to Y-NHH 1952	1,130,861 (C, F)			
1932-33	Sterling Power House Central Heating Plant Pierson-Sage Plant	(see 1923-24) (see 1917-18) (see 1913)	456,937 267,167 15,903	1,235,858	3,506,320	61,463,015
1933	30 College St.	Mouse House, School of Medicine				

1 Hillhouse Ave. (built 1886, gift) 17 Hillhouse Ave. (built 1898, purchased)	old Cloister Hall old The Colony, razed 1869			
1930-34 [Yale Forest, Union, Comm. (gift)]			3,004,298	4,178,154
1933-34 [Branford College] Saybrook College] Berkeley College	Memorial Quadrangle 1917-20	1,323,454 1,863,715 1,857,041 (C)		67,082,147
1934 124 Prospect St. (built 1907, purchased) 370 Temple St. (built 1906, purchased)	old Schem Hall (Phi Sigma Kappa), sold to Berkeley Divinity School 1940, repurchased 1971 old Vernon Hall of Phi Gamma Delta			
1934-35 Central Heating Plant	(see 1917-18)	73,287	3,039,399	2,378,825
1935 27 Hillhouse Ave. (built 1886, purchased) Beta Theta Pi (built 1926-27, purchased) 96 Wall St. (built 1897, purchased) 451 College St. (built 1926-27, purchased)	leased back, later Graduate and Prof'l Student Center York Hall of Chi Phi fraternity, named Stoeckel Hall 1954 old Franklin Hall of Theta Xi (see 1910)	1,744,709 100,000 (D)		

1935-36	215 Park St. (built 1931) Timothy Dwight College	former Alpha Delta Phi on its demise	47,800 (D) 1,726,220 (C) 1,759,628 (D)		
1935-36	Central Heating Plant	(see 1917-18)	1,747	202,020	1,062,122
1934-37	43 Hillhouse Ave. (built 1871, bequest)	the President's House			
1936-37				219,287	184,752
1937	205 Park St. (built 1930, purchased)	old Alpha Chi Rho fraternity made into Drama Annex			
1937-38					70,739,940
1938	{St. Thomas More Chapel and the More House}				
1938-39	Welch Hall Old Campus improve- ments	Lawrance and Farnam Halls	270,890 (C)		71,186,979
1939-40	{Yale Forestry Camp (gift, Norfolk, Conn.)				71,491,594
1940	Sillman College	remodelling of Vanderbilt Scientific & Ebers Halls, now dorms with Maester's House	+ 153,487 (C) 1,932,857 (C)		
1940-41	Pierson-Sage Electrical Work and Sterling Power Plant extension		43,446		71,983,326

1941	Yale Medical Library	642, 799 (B, C)	
1941-42			72, 005, 386
1942	Sachem's Wood (Built 1828)	razed	

General Note. This table has been put together from a variety of incomplete, somewhat inaccurate and often conflicting sources, many of which can no longer be verified or corrected. As our only reasonably comprehensive accounting for a great building period it offers much useful but not always strictly accurate information. The dates may be those of completion or of construction from start to finish. The costs may be those of the buildings themselves or they may include equipment, machinery, or other embellishments. Where land was acquired without a building, or when an affiliated organization such as an undergraduate fraternity or the New Haven Hospital bought or built, the fact is indicated by the use of brackets.

Sources. Those interested in Yale's buildings should first of all consult the outstandingly informative and useful booklet, Buildings and Grounds of Yale University (1979), which gives the names, dates, architects, and multitudinous later uses or additions or transfers of ownership of each building owned by Yale since the beginning. Our table relies on this book for all such information. Unfortunately it gives no financial data on purchases or construction or enlargement costs; and for these, as for the dates as well, such authorities as one can find are often quite deficient or contradictory.

Our figures on new gifts for building and also for annual expenditure for construction are taken from a typescript table, dated November 12, 1946, which was compiled at that time for G. W. Pierson by Comptroller and Assistant Treasurer Harry J. Ostrander.

Our figures for estimated value of plant are taken from a typescript table supplied by Harry J. Ostrander, dated April 8, 1940, and entitled "Yale University: Statement of Total Cost of Operation of Plant from 1911-12 to 1938-39 inclusive, with notation of buildings added from 1922-23."

Our figures on reported costs of each building, unless otherwise noted, are derived from a typescript table dated December 16, 1946, supplied by Harry J. Ostrander under title: "Buildings Erected Subsequent to July 1, 1898." Where these figures are missing or where costs for the same buildings can be found elsewhere the sources are identified as follows:

- (A) "Exhibit B": Tabulation -- Building Repairs Reserve, 1966-67. Courtesy of Edward Dunn, Director Facilities Planning Office.
- (C) "Exhibit C": costs of Yale Buildings [1922-41]. Courtesy of Edward Dunn.
- (D) "Tax-Exempt Yale Buildings in New Haven." Courtesy of Edward Dunn.
- (E) From deeds filed in Associate Treasurer's Office - info. from S. F. Miller to Dunn in 1973.
- (F) S. H. Francis "final cost" reports. Courtesy of Edward Dunn.

BUILDING CONSTRUCTION/RENOVATION COSTS, 1950-1976

1950	112,602
1951	250,000
1952	45,199
1953	1,741,606
1954	979,478
1955	3,549,407
1956	3,440,407
1957	2,143,564
1958	3,706,747
1959	3,154,711
1960	1,101,554
1961	3,763,842
1962	9,419,886
1963	12,916,614
1964	10,988,380
1965	996,682
1966	1,965,468
1967	2,830,216
1968	3,733,989
1969	5,531,092
1970	7,594,571
1971	9,582,265
1972	3,749,071
1973	4,431,053
1974	9,472,830
1975	7,849,374
1976	6,321,203

Source. Figures supplied July 9, 1981, by courtesy of Leonard V. Wesolowski, Comptroller and Associate Vice-President for Finance and Administration.

Tuitions

Our tables on tuition and other student costs (F-2.6 through F-2.9) are more extensive, and are detailed enough to tell us a very great deal. In the nineteenth century one can watch the glacial rise of tuitions in Yale College from 33 dollars, in 1810 and still in 1830, all the way to 155 dollars and even 160 by 1916 (a five-fold increase in just over 100 years). In like fashion, the estimated total costs of a year at college crawled from 150 dollars to somewhere between 340 and 770 by the early 1900s, at which point the University seems to have given up the game of guessing how much the students would in sober fact or unsoberly spend.

In the same century the professional schools seem to have begun by piecemeal offerings which gradually were put together into solid blocks of instruction and tuition charge, while one year of study for the degree stretched to two or finally to three (see Tables F-2.6 to F-2.8). Generally the professional school charges were at or a little below the tuition and the living costs for the academic students; but there was one exception. The Divinity School, for more than 100 years, made no charge whatever for its teaching, and consistently minimized its estimates for bed and board. No doubt this was because the profession attracted few students of means and none who could expect to make money afterwards. No doubt the other-worldly character of the vocation had a good deal to do with it. What effects such charity may have had on the character of the student body is not revealed. It was the opinion in the College that Yale's ablest B.A.s went into the law.

In student costs after World War I: again a great change. Overnight the tuition in the College doubled and by 1930 it had almost tripled (F-2.9). And that trend was followed at different speeds by the professional schools. Suddenly in 1931 the Divinity School itself began to charge a very modest fee. After World War II, the Medical School started charging more than Yale College, quickly followed by the Law School. Then the College recouped itself, combining its charges for tuition and room and board at \$1600 (with \$800 for tuition); and that package of charges, already some five times the rate in 1916 (only 30 years earlier), proceeded to climb until in 1976 it had reached a total of almost six thousand dollars, of which \$4050 was for the costs of instruction. By 1981 the total annual charge would exceed ten thousand dollars, and the end of such escalation was still nowhere in sight.

TUITION AND OTHER UNDERGRADUATE COSTS, 1833-1886

Year	Yale Coll. Tuition	Room and Other Charges by Treasurer	Total Charges by Treasurer	Estimated Board	Hedding, Fuel, Books, Furniture, Washing, etc.	Est. Total Necessary Expenses for College Year
1833-34	\$ 33	RR, repairs, wood, etc. av. \$16	\$ 49	\$ 70-80	F, L \$ 8-16 B 5-15 F'n 5-15 W 8-18 T 5-7	\$150-200
1834-35	33	\$ 21	54	70-80	same	150-200
1835-36	33	19	52	70-80	F, L 6-15 B 5-15 F'n 5-15 W 6-16 T 5-7	150-200
1836-37	33	21	54	70-80	same	150-200
1837-38	33	21	54	70-80	same	150-200
1838-39	33	21	54	80-90	same	160-210
1839-40	33	21	54	Commons made voluntary 1839 abolished 1842		
1840-41	33	21	54	80-90	same	160-210
1841-42	33	21	54	80-90	same	160-210
1842-49	33	21	54	60-90	same	140-210
1850-51	33	21	54	64-90	same	150-215
1851-52	33	21	54	64-100	same	150-225
1852-54	38	21	60	70-100	W 10-18 T 6-8	164-231
1854-55	39	21	60	80-120	W 12-18	174-251
1855-56	39	21	60	90-140	F, L 10-20 T 8-12	190-280
1856-57	45	24	69	90-140	F'n 5-20 W 12-24 T 9-12	200-300
1857-58	45	24	69	100-140	same	210-300
1858-59	45	27 (incl. T)	72	100-140	F, L 12-20 W 12-21	215-300

Scientific School
 matriculation \$ 5
 Engineering \$90(30/term)
 Appl. Chem. \$180-210
 (60-70/term)
 matriculation 3
 Engineering 80
 Scientific Sch. 150
 +5 miscellaneous
 Engineering 89
 Lab programs 153
 Apparatus 5-10

TUITION AND OTHER UNDERGRADUATE COSTS, 1833-1886 (cont.)

Year	Yale Coll. Yearly Tuition	Room and Other Charges by Treasurer	Total Charges by Treasurer	Estimated Board	Bedding, Fuel, Books, Furniture, Washing, etc.	Est. Total Necessary Expenses for College Year	Scientific School
1859-60	\$ 45	\$ 30	\$ 75	\$110-150	B 7-20 W 12-20	\$230-320	Sheffield Scientific Sch. \$100 per year (35+35+30)
1860-61	45	34	79	110-150	F, I, B 10-20 F, n 10-20 W 15-25	234-324	100 per yr. (35+35+30) Graduation 5 Analyt. Chem +55 chem. apparatus, libr. +5-10 miscell. materials 100 +3 for use of gym (vol.) Engineering 100 "Select Course" 100 Analyt. Chem. 175 100 or 175 100 or 175 + 6 for use of gym (vol.) 125 or 200 per year (45+45+35) Ph. B. fee 10 125 or 200 125 or 200 5 from all stud. for reading room & gym 150 or 225 (55+55+40) 150 or 225
1861-62	45	35	80	110-160	same	235-325	
1862-63	45	35	80	110-160	same	235-325	
1863-64	45	40 (av. room 20)	85	140-200	F, L 15-25	280-380	
1865-66	45	40	85	160-280	same	295-455	
1866-67	60	40	100	160-280	same	310-470	
1867-68	60	42 (Soc. tax 8)	102	160-280	same	312-472	
1868-69	60	42	102	160-280	W 20-40	317-487	
1869-70	60	c. 48	102	160-280	same	317-487	
1870-71	90	av. RR 28 (12.50 to 50) c. 57	124.50-140	160-280	same	339.50-547	
1871-72	90	(av. RR 35) c. 58	125-182	150-280	same	340-567	
1872-73	90	c. 58	125-183	160-280	same	340-568	
1873-74	90	c. 58	125-183	160-280	same	340-568	
1874-75	140 (115 plus incidentals)	RR 25-140 220 R, av. 35	160-320	4-6/wk: 150-300	F, L, W 35-65 B, F, n 30-65	375-650 graduation 18	
1875-78	140	RR 25-140	160-320	150-300	same	375-650	
1878-79	140	RR 25-140	160-220	3.50-7/wk: 130-260	F, L, W 30-60 B, F, n 30-60	350-600	

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TUITION AND OTHER UNDERGRADUATE COSTS, 1833-1886 (cont.)

Year	Yale Coll. Tuition	Room and Other Charges by Treasurer	Total Charges by Treasurer	Estimated Board	Hedding, Fuel, Books, Furniture, Washing, etc. *	Est. Total Necessary Expenses for College Year	Sheffield Scientific Sch.
1879-80	\$140	RR 25-140 220 R, av. 35	\$160-220	\$130-220	F, L, W B, Fn 30-60 30-60	\$350-560	\$150 or 220 also, Freshmen: 5 each for chem., mineralogy, zoology 5 reading room & gym 150 or 220 150 or 220
1880-81	140	RR 25-140	160-220	140-220	same	330-560	
1881-82	140	RR 25-140	160-220	110-260 av. 4.75/wk	same	330-600	
1882-83	140	RR 25-140	160-220	130-260	same	350-600	
1883-86	140	RR 25-140	160-220	3.50-7/wk av. under 5	F, L, W B, Fn 20-60 30-60	350-600	150 or 220 150 or 220

*KEY:
 B = Books
 F = Fuel
 Fn = Furniture
 L = Lights
 R = Room(s)
 RR = Room rents (indiv.)
 W = Washing
 T = Soc. & class taxes

Source. The figures here given are the official charges and the estimated particular and general costs as published annually in the Yale College Catalogues.

Note. The Laws of Yale College showed that in 1848 the room rents were still the same as in 1833. In 1852 they were: Seniors \$5.50 per term, Juniors \$4.75, Sophomores \$3.67, and Freshmen \$2.50. In 1858 they were: \$6, \$5.25, \$4.50 and \$3.50 per term and in 1864 they stood at \$24.50, \$21.50, \$18.50, and \$15.50 per year. Graduation charges for Seniors were \$6 in 1848, \$9.50 in 1852, \$12 in 1858 and \$18 in 1870.

TUITION AND OTHER UNDERGRADUATE COSTS, 1886-1918

Year	Yale College Tuition & Incidentals	Room Charges	Estimated Range of Particular & Total Costs				Sheffield Scientific Sch.
			Lowest	Average	Very Liberal		
1886-87	\$140	250 rooms at \$20-160 (few rooms w/ steam heat: +25-30)	\$140	\$140	\$140	\$150 or 220	
			Treas., Tuition & Incidentals				
			1/2 rm. Yale Coll.	10	45	80	
			Board	130	200	260	
			Furniture	8	20	30	
			Fuel & light	14	18	25	
			Washing	15	27	45	
			Textbks & Stationery	10	30	50	
			Subscriptions to societies, sports, periodicals	0	30	100	
			Private servant for care of room	0	0	25	
			Sundries	8	70	175	
				333	580	950	
1887-88	150	nearly 250 R at RR \$.50 to \$6 per week (steam heat: +25-30 per yr.)	150	150	150	150 or 220	
			Tuition, etc.				
			1/2 R Yale Coll.	15	75	110	
			Board 37 wks	130	200	270	
			Sundries	8	75	200	
			(reat the same: " "	"	"	"	
				350	625	1025	
1888-88	155	same	125	125	125	150 or 210-10 (i.e 60 for Chem. Lab, fee +10 for flasks & crucible supplied by student)	
			Tuition				
			Incidentals	30	30	30	
			1/2 R	15	75	110	
			Board	110	200	270	
			Furniture	8	20	30	
			Fuel & lights	14	20	28	
			Washing	10	25	42	
			Textbks & stationery	10	30	50	
			Subscriptions	0	30	100	
			Private servant	0	0	25	
			Sundries	8	75	200	
				330	630	1030	
1889-90	155	same	340	630	1030	150 or 220	
			Rd. 110-200-300				
1890-91	155	RR \$.50 to \$.80 per wk.	355	630	1050	150 or 220	
			Rd. 125-200-288				

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TUITION AND OTHER UNDERGRADUATE COSTS, 1886-1918 (cont.)

Year	Yale College Tuition & Incidentals	Room Charges	Estimated Range of Particular & Total Costs			Sheffield Scientific Sch.
			Lowest	Average	Very Liberal	
1881-92	\$ 155	same	\$350	\$615	\$1025	\$150 or 220 + 5 for mineralogy, zoology and anatomy
1892-93	155	nearly 300 R RR \$.50 to .9 per wk	350	590	1025	150 or 220 +15 incidentals +15 per term for chem. & biol. students in chem. lab.
1893-94	155	same	350	590	1025	+10 on owa)
1894-95	155	RR \$.50 to 10 per wk	350	535	860	150 or 220
1895-96	155	RR \$.75 to 10 per wk	350	535	860	150 or 220
1896-97	155	same	350	545	830	
1897-98	155	same	350	545	800	
1898-99	155	same	350	545	800	
1899-1900	155	over 450 R RR \$.75 to 10/wk (incl. .61 below \$2 50 at 2-2.50 68 at 3 or 3.50 55 at 4 or 4.50 per wk)	350	545	800	
1900-01	155	same	350	545	800	
1901-02	155	same	350	545	800	
1902-03	155	same	350	545	800	
1903-04	155	over 470 R RR \$1-10 per wk	350	545	800	
1904-05	155	same	350	545	800	150 or 220 SSS offers rooms in Vanderbilt Scientific, \$5-14, in Byerra Hall, \$6 per wk for singles, doubles, triples. 150 or 220
1905-06	155	nearly 500 R RR \$1-10 per wk	335	545	800	
1906-07	155	RR \$1-12 per wk	335	545	800	150 or 220 SSS offers more rooms, \$4-11.50 per wk

TUITION AND OTHER UNDERGRADUATE COSTS, 1886-1918 (cont.)

Year.	Yale College		Room Charges	Estimated Range of Particular & Total Costs			Sheffield Scientific Sch.
	Tuition & Incidentals	Incidentals		Lowest	Average	Very Liberal	
1907-08	\$155		same	Bd. \$117-175-250	\$338	\$525	\$150
1908-09	155		same	Bd. same	335	525	+15 Summer Surveying course
1909-10	155		same	Bd. same	335	525	150
1910-11	155		same	Bd. same	340	525	150
1911-12	155		c. 600 double R RR \$30-267 per student	Bd. \$3.50-8 per wk av. c. \$5		(no estimates of costs)	+15 per term: Chem., Biol., Mining, Metallurgy + 5 Mech. Engineering
1912-13	155		same	Bd. \$3.50-7 per wk av. 5.25		(no estimates of costs)	150
1913-14	155		600 R	Bd. c. \$3.50-8 per wk av. 5			+22.50 per term for labs + 7.50 Mech. Eng'g
1914-15	155, For entering class: c. 160 per yr. i. e. 40 per yr + 8 per hr per yr (8x15 hrs=120)		same	Bd. \$3.50-7 per wk av. 5.50			150 +22.50 per term for labs +10 per yr for Biol. lab + 7.50 per term Mech. Eng'g & Electr. Eng'g (Seniors \$15/term)
1915-18	155, 160		same	Bd. est. av. 5.50/wk actual av. 5.55			+15 Summer Surveying, Mech. Eng'g, Elect. Eng'g
1916-17	155, 160		same	Bd. est. av. 5.50/wk actual av. 6.02			+ 5 Testing masonry
1917-18	160		same	Bd. est. av. 6.50/wk			180 per yr +10.50 incidentals + labs, etc.
							180
							180
							180

Source. The figures here given are the official charges and the estimated particular and general costs as published annually in the Yale College Catalogues.

PROFESSIONAL SCHOOL TUITIONS AND OTHER STUDENT COSTS, 1880-1918

Academic Year	Philos. & the Arts Graduate School	Medical School	Divinity School
1860-61	T variable for PhD but "not exceeding \$100 yearly"	T\$73.50 12.50/course; Obstr. 6; mat. 5; grad. 15; dipl. & lic. 4.50	T\$0 incid. exps. 3.50
1861-62	T c. 100	T 73.50	T 0 incid. exps. 5
1862-66	c. 100	73.50	0
1866-67		87.50 mat. 7.50; p. course 15; grad. 25; dipl. & lic. 16; 3rd yr free	0 Bd. as low as 4/wk F & L c. 15
1867-68	c. 100	107.50 summer t. 60+10	0
1868-69	c. 100	107.50	0 Bd. est. 4.50/wk
1869-70	c. 100	107.50	0
1870-71	c. 100	107.50	0 Bd. est. 4-5/wk F & L 15-25 care of R 5
1871-72	c. 100	5+100+5 in adv. or spring t. 60 + labs 10	0 "Students whose circum- stances req. it" will receive \$1/wk toward Bd. & free washing & 100/yr scholarship.
1872-74	c. 100	5+100 (or 60+60) lib'y 10; demonstr'r 5; grad. 25	0
1874-75	c. 100	5+100 (or 60+60)	0
1875-76	c. 100	105 winter; 60 spring	0
1876-77	c. 100	105 or 60	0

KEY to abbreviations:

abs. = in absentia
adm. = admittance
av. = average
dipl. = diploma
est. = estimated
exps. = expenses
hr = hour
incid. = incidentals
instr. = instruction

instrs. = instruments
lab. = laboratory fee
lic. = license
mat. = matriculation
micr. = microscope
mo. = month
p. or / = per
pract. = practice
stds. = students

PROFESSIONAL SCHOOL TUITIONS AND OTHER STUDENT COSTS, 1860-1918 (cont.)

Law School	Art School	Music School	Forestry School	Academic Year
TS150/2 yrs; 80/1 yr R 10/mo. (7 after 1 yr)				1860-61
T 150 or 80 dipl. 5				1861-62
150 or 80				1862-66
150 or 80				1866-67
150 or 80				1867-68
150 or 80				1868-69
T+lib'y 80 in adv. (or fall 40; spring 50) 2 t. req. of bar members, 3 t. of BA & BS grads., 4 t. of others Bd. & R est. 6.50-10/wk	Art School TS? Drawing 40/t. Ptg. 60/t.			1869-70
90 (45+55) Bd. & R est. 5-10/wk	T ? "as moderate as possible, not exceeding the rate of \$10/mo."			1870-71
90	100 p. yr. or 12 p. mo.			1871-72
90	100 p. yr. or 12 p. mo.			1872-74
90 dipl. 5 adm. to bar c.5 Bd. est. 6+/wk	100 p. yr. or 12 p. mo.			1874-75
90 adm. to bar 8	100 36 a quarter of 3 mos. min.			1875-76
90 [+5 adm. to pract. in US courts, CT]	100			1876-77

subs'n = substitution
t. = term
wk = week
yr = year

Bd. = board
F = furniture
G = gas
H = heat

L = laundry
Obstr. = Obstetrics
Ptg = Painting
R = room(s)
Rd'g = Reading Room
Sculp. = Sculpture
T = tuition
SSS = Sheffield Scientific School
YC = Yale College
[] = optional

PROFESSIONAL SCHOOL TUITIONS AND OTHER STUDENT COSTS, 1860-1918 (cont.)

Academic Year	Philos. & the Arts Graduate School	Medical School	Divinity School
1877-78	T c. \$100	T\$105 winter 60 spring	T\$0 F & L 25-35 R care & incid. 10 Bd. 3.25-4/wk
1878-79	T c. 100	T 105 or 60	
1879-80	c. 100 MA instr. 100+10	200 each of 2 yrs; 3rd yr 100 mat. 5; lab. 10; demonst'r 10; grad. 30	T 0 F & L 25-30 Bd. 2.75-4/wk
1880-81	c. 100	235	0
1881-82	c. 100	235	0
1882-83	c. 100	5+125/yr grad. 30	0
1883-84	c. 100	130+155	0
1884-86	c. 100	130+155	F & L 25-37 R 10 Bd. 3-3.50/wk
1886-87	c. 100	130-155	0 Bd. est. 3.25-3.50/wk 4th yr R free
1887-89	100	5+125+10 1st yr 125+5 2nd yr 75 3rd yr grad. 30	0
1889-90	100	140-130-105	0 Bd. est. 3.50-4/wk
1890-91	100	5+140+10 1st yr 5+140 2nd yr 80+30 3rd yr	0 R care 15 Bd. est. 3-4/wk
1891-92	100	155-145-110	0 Bd. est. 3.25-4/wk
1892-94	100	155-145-110 +Practical Pharmacy 5	0 Bd. est. 3-4/wk
1894-95	100	155-145-110	0
1895-96	100 Bd. est. 3.50-8/wk av. 5/wk	155-150-140 4th yr 80	0
1896-97	100 [gym 5; Rd'g 2]	155-150-140-80	0
1897-99	100	155-150-140-80	0
1899-1900	100	155-160-150-130	0
1900-01	100	165-160-150-130 + labs.	0
1901-02	100 Bd. est. 3.50-8/wk av. under 5/wk	165-160-150-150 grad. 10	0 est. exps. 179-260 (R care 15; H&G 13-25; Bd. 102-136/34 wks; bedding rent 1.50; L 18; texts 20-50; gym 10; subs'n 4.50)

PROFESSIONAL SCHOOL TUITIONS AND OTHER STUDENT COSTS, 1860-1918 (cont.)

Law School	Art School	Music School	Forestry School	Academic Year
T\$90 (or 40-30-30) Bd. est. 5+/wk	T\$100			1877-78
T 100 (or 45-35-35) grad. course 125	T 100			1878-79
100	100			1879-80
100	100			1880-81
100	100			1881-82
100	100 (30x3 +10)			1882-83
100	100			1883-84
100, then 1st yr grad. 125 (or 50-40-40) 2nd yr grad. 200 (or 80-70-70)	100			1884-86
	100 4th yr 10 5th yr "hon." 10			1886-87
100-125-200 dipl. 5; bar 8; US courts 5; Bd. & R est. 5+/wk	100			1887-89
100-125-200	100			1889-90
100-125-200	100			1890-91
100-125-200	100 (10/mo. + 5/yr)			1891-92
100-125-200	100			1892-94
100-125-200	100	Music School T\$100 (Theory 50) "with reduction for need and natural talent"		1894-95
100-125-200	100	T 100 Ctf. 5 deg. 10		1895-96
125 (45-40-40) 200 (80-70-70) 200 (80-70-70)	100	100 violin extra		1896-97
125-200-200	100 4th yr 1/2 rate 5th yr "hon." 15	50-200 p. yr Theory 50 Piano 50-100 Organ 50 Violin 100-150		1897-99
125-200-200	100			1899-1900
125-200-200	100	50-200	Forestry School T\$100	1900-01
125-200-200	100 (10/mo. +10/ yr) min. 3 mos. 4th yr 1/2 rate 5th yr "hon." 15		[gym 5, Rd'g 2] summer sch. 20+15 Bd. under 5/wk excursion +25	1901-02

PROFESSIONAL SCHOOL TUITIONS AND OTHER STUDENT COSTS, 1860-1918 (cont.)

Academic Year	Philos. & the Arts Graduate School	Medical School	Divinity School	Law School
1902-03	T\$100	T\$165-160-150-150	T\$0 incid. 5; R care 10; G & H 25	T\$150 all yrs grad. 5
1903-04	T 100	T 165-160-150-150	T 0 Bd. 128/32 wks est. exps. 168-245	T 150 est. exps. <u>low av. lib'l</u>
1904-05	100	165-160-150-150	0	T 150 150 150 Bd. 125 175 250 1/2H&L 35 120 175 L 15 25 40 325 470 615 +texts 45-40-40
1905-06	100	165-160-150-150	0 est. 170.50-247.50	150 texts 35, 25, 20-40
1906-07	100	165-160-150-150	0 est. 175.50-252.50 (incl. lib'y & incid.)	150
1907-08	100	165-160-150-150 micr. 6; Obstr. 3	0 est. 191-266	150
1908-09	100	165-160-150-150	0 est. 191-268.50	150
1909-10	100 MA abs. 25	150 1st yr mat. 5; lab 30; micr. 3 150+3 2nd yr 150 3rd yr 150 4th yr	0 est. 194-271	150 texts 30, 25, 20-40
1910-11	100	150 4th yr Obstr. 3; grad. 10 texts, lab sup- plies, 25-50 (150 total)	0 est. 204-321	150
1911-12	100	188-153-150-163 Bd. est. 5/wk	0	150
1912-13	100	188-153-150-163	0	150, est. exps.: <u>low av. lib'l</u>
1913-14	100+	188-153-150-163	0	T 150 150 150 texts 30 40 52 Bd. 112 190 250 RHL 45 120 175 J. 15 25 40 352 525 667
1914-15	125 (incl. 3 hr or 1 course in YC or SSS) adm. to other courses 8/hr [lab 10-45] part time 20+15/2 hrs	223-165-153-163	0	150

PROFESSIONAL SCHOOL TUITIONS AND OTHER STUDENT COSTS, 1860-1918 (cont.)

Art School	Music School	Forestry School	Academic Year
T\$100 lib'y & equip. 10	T\$50-200	T\$100 travel 50 excursions 15	1902-03
T 100 4th yr 1/2 rate 5th yr 15	T 50-200	T 100 R & Bd. 7+/wk	1903-04
100	50-200 Theory 50 piano instr. 50-100 organ 50-75 violin 100-150 violincello 100 singing 75-100	100+ Juniors 4 terms 150 Seniors 3 terms 125 summer sch. 25+25 travel 10 Bd. 5-7/wk	1904-05
100	ensemble 25 pract. R piano 15/1 hr/wk 25/2 hr/wk pract. R organ 18/1 hr/wk	100+ field trip 30 +transp. to South Bd. in camp 4-5/wk	1905-06
100	50-200	100+ excursion 15 Senior travel 60 texts 15; instrs. 15	1906-07
100	50-200	100+	1907-08
100	50-200 piano instr. 75	100+	1908-09
100	50-200	100+ Senior travel 70 R & Bd. 7+/wk	1909-10
100	50-200	100+ travel not over 100	1910-11
100	50-200	100+	1911-12
100 40 p. t. of 4 mos. lib'y 10 4th yr 1/2 rate	50-200	100-	1912-13
90 (45 p. t.) 2 yrs prescribed 4th yr 50 15 p. yr after	50-200	150-50-150	1913-14
90-180 Ptg & Sculp. 90 materials 10-20 Arch. 180	50-200 Theory 50 pract. piano 100/yr organ 100 violin 150 violincello 100 singing 100	150-50-150 Bio. labs 10	1914-15

PROFESSIONAL SCHOOL TUITIONS AND OTHER STUDENT COSTS, 1860-1918 (cont.)

Academic Year	Philos. & the Arts Graduate School	Medical School	Divinity School	Law School
1915-16	T\$125	T\$200 1st yr 165 2nd yr 153 3rd yr 163 4th yr	T\$0	T\$150
1916-17	T 125	T 250-165-153-163 stds. supply micr. & blood counting instrs. 25/yr	T 0	T 150
1917-18	125 part time 35+15/ 2 hrs deg. yr 30	200 p. yr mat. 5	0 est. 212-331 incl. instr. by other faculties 18-50	150

PROFESSIONAL SCHOOL TUITIONS AND OTHER STUDENT COSTS, 1860-1918 (cont.)

Art School	Music School	Forestry School	Academic Year
T\$90-180	T\$50-200	T\$150-50-150	1915-16
T 90-180 materials 15-30	T 50-200	T 150-50-150	1916-17
90-180	50-200 viola 150 Public Sch. Music 100 pract. piano 15+10/2 hrs organ 18+12/2 hrs	150-50-150	1917-18

Sources. Annual University Catalogues.

Note. Where no figures are given it may be assumed that the charges, as listed for previous years, continued.

TUITIONS AND OTHER STUDENT COSTS, 1919-1976 (cont.)

Law School	School of Fine Arts	School of Music	School of Forestry	School of Nursing	Academic Year
T\$200 deg. 10 summer 50	T\$90-180 Drawing & Ptg. 90 Sculp. 90 Arch. 180	T\$185-210 Theory 60 Piano-Organ 125 Violin-Viola 150 Singing 125 deg. 10	T\$125 summer 35 deg. 10 labs		1919-20
T 200 deg. 20	T 90-180	T 185-210 deg. 20	T 125		1920-21
200 summer 65	90-180 +equip. 3	185-210	125 misc. 60-65 trip c.100		1921-22
200	90-180	185-210 sight-singing 20	125 R 3+/wk Bd. 8+/wk		1922-23
200 books c.55	90-180 equip. 5-10	185-210 extra pract. hr/wk 15-18	125 R 4+/wk Bd. 8+/wk Junior trip 35 Senior trip 125	T\$600/28 mos. Precl. (4 mos.) T 100, +M 200 2 t. (of 12 mos.) Clin. 250 uniform 150 texts 30 est. not over 1000/28 mos.	1924-25
250	90-200 Arch. 180 Art 90 Drama 200	185-210	125	T 600 (same)	1925-26
250	150-250 Arch. 250 Ptg & Sculp. 150 Drama 200 misc. 30-60	185-210 Ensemble 35	200 summer trip 50	325 mat. 10 Precl. t. 50 2 Clin. yr. 250 deg. 20	1926-27
300 [H, gym, pool 10-10-6]	150-250	185-210	200+50 R 4+/wk Bd. 8+/wk	325 (same)	1927-28

av. = average
bks = books
deg. = degree or graduation fees
est. = estimated (costs)
exp. = expenses
hr = hour
m. = men
mat. = matriculation fee
md. = married
min. = minimum
ml = meal(s)
misc. = miscellaneous

mo. = month
p. or / = per
pract. = practice
s. = single(s)
std. = student
t. = term
tr'g = training
w. = women
wk = week
w.o. = without
yr = year
[] = optional or if available

TUITIONS AND OTHER STUDENT COSTS, 1918-1976

Academic Year	Undergraduates		Graduate School	Medical School	Divinity School
	YC	SSS(& Sch. Eng'g)			
1919-20	T\$240 (incl. lib'y & gym) [16/hr for more than 15 hrs instr.] Bd. 7-10 av. 8.50 +R, +deg. 10	T\$240 labs 10-60 R, Bd, etc. deg. 10	T\$200 PhD yr 75 R, Bd, etc. deg. 10	T\$240 mat. 5 texts 50-75 deg. 10	T None care of R lib'y & admin. 10 heat 10-20(gas?) deg. 10
1920-21	T 300 R, Bd., etc. deg. 20	T 300 R, Bd, etc. misc. 15 deg. 20	T 200 PhD yr 75 other deg. yrs 50 deg. 20	T 300 texts 250 deg. 20	T 0 Incidentals 44-54
1921-22	300	300 summer trip in Eng'g c.100	200 [gym 10, pool 10]	300 texts 500	0 (same)
1922-23	300 R 100-330 Bd. 9/wk	300+	200	300	0
1924-25	300 F R 80-360 YC 110-330	300 R 110-330	200	300	0
1925-26	300 Bd. 8.50/wk	300	200	300 misc. est. not over 600	0
1926-27	350	350 R 72-300	200	300	0
1927-28	350 Bd. 8.50/6 days	350 labs 10-75	200 [R 4.50-7/wk R w. 3-6/wk] [H 10]	300	0

KEY to abbreviations:

Arch. = Architecture
Bd. = board
Clin. = clinical
D = dissertations (fee)
Eng'g = Engineering
F = Freshman
H = health fees
Ins. = insurance
L = laundry
M = maintenance
MD = program for M. D. degree

Ptg = Painting
Precl. = preclinical
PH = Public Health program
R = room, room rents
RC = residential colleges
Sculp. = Sculpture
SSS = Sheffield Scientific School
T = tuition (for year)
YC = Yale College
abs. = in absentia
apts. = apartments

TUITIONS AND OTHER STUDENT COSTS, 1919-1976 (cont.)

Academic Year	Undergraduates				
	YC	SSS(& Sch. Eng'g)	Graduate School	Medical School	Divinity School
1928-29	T\$400	T\$400 R 72-330	T\$200 R 4.50-6/wk	T\$500	T\$0
1929-30	T 400	T 400	T 200	T 500	T 0
1930-31	450 F R 80-270 YC R 110-350	450	300	500	0 misc. 49-64
1931-32	450	450 SSS & Sch. Eng'g	300 3 yrs req. for PhD; MA, 2 yrs	500	150 misc. 29-44
1932-33	450	450	300	500	
1933-34	450 Bd. 8/wk for 21 meals RC R 110-400	450	300 Incl. grad. pro- grams in Eng'g	500 for MD cand. 300 for PH	150 R 100 Bd. 6 days/wk 6
1934-35	450	450 summer Eng'g 55+20/course	300 H 10 R 152-450 deg. 20 [gym 10]	500 or 300	150 deg. 20 [H 10 gym 10]
1935-36	<u>Undergraduates</u> 450 +est. undergraduate exps.: avg. non-self-supporting std. 1600/yr avg. self-supporting 1250/yr possible minimum 1000/yr F Rs. 100-340/yr RC Rs. 110-400/yr Other Rs. 80-350/yr		300 Hall Grad. Std. Rs. 160-450 R w. 152-342 apts. 40/mo	500 or 300	150 R 100/yr or 5/wk Bd. 5/6 days
1936-37	450 Rs. singles 150-325 doubles 125-325/std. triples 150-250/std.		300 D yr 75 labs 10-45 [H 10, gym 20]	500 or 300 R 3.50-5.50/wk outside exps. est. not over 600	150 [H 10 gym 20]
1937-38	450 F Bd. 8/wk for 21 meals RC Bd. 8 for 21, 7 for 14, 5.50 for 10=min.		300	500 or 300	150
1938-39	450 Rs. s. 125-325 tr. 125-325 dbl. 125-350 other Rs. 100-350		300 HGS Rs. 160-350 (most 200)	500 or 300	150
1939-40	450 Rs. 110-400		300	500 or 300	150
1940-41	450		300 Grad. w. R. 140-360	500 or 300	150
1941-42	450 F & RC Rs. 200-325/man/yr		325 D yr 100	500 for MD 400 for PH	150
WAR					

TUITIONS AND OTHER STUDENT COSTS, 1919-1976 (cont.)

Law School	School of Fine Arts	School of Music	School of Forestry	School of Nursing	Academic Year
TS350	T\$200-300 Arch. 300 Ptg. &Sculp. 200 Drama 200	T\$185-210 R 4+/wk Bd. 8+/wk	TS200 +50	T\$325 (same)	1928-29
T 400	T 300-200-300	T 185-210 Theory 75 1 exerc./wk, Applied Music 140 2 exerc./wk 280 pract. hr 15-18	T 200 +50 R 5+/wk	T 325 uniform, bks 175 Bd, L 1st t. 140 est. not over 700/yr	1929-30
450	300-200-300	215	200 +50 misc. 40	325	1930-31
450	300-200-300 equip. 15-20	215	200 -50	325	1931-32
450	300-200-300	215	200 -50	325	1932-33
450	300-200-350	215 some R 152-450	200 +50	325	1933-34
450 R 170-275 H 10	Arch. 300 +20 Ptg 200 +15 Sculp. 200+15+tools Drama 350+15 [R 152-450]	215	200 +50 texts, instrs. 40 +trips 195 Bd. 8/wk R 5+/wk	325	1934-35
450	Arch. 300 +30 Ptg 200 +15 Sculp. 200+15+tools Drama 350 +15 deg. 20	215	300 +50	330 for whole course +uniform 175 Bd. & L 140 total exp. / 30 mos. not over 800	1935-36
450 -50 +regist., H, diploma	200-350 extras same	215	300 +50	330	1936-37
450 Rs.: s. 200-270 dbl. 255-295	200-350	215	300 +50	430 (5+5+75+150+175+20) total exp. c. 950	1937-38
450		215	300 +50	430	1938-39
450	200-350	215	300 +50	430	1939-40
450	200-350	215	300 +50	430	1940-41
450	200-350	310 1 lesson/wk: major 125, minor 90 pract. R fees/wk: piano 20+15, organ 25+20, harpsichord 75 special fees for prep. & special stds.	300 +50	480/32 mos. tot. exp. c. 1000 (incl. psychiatry affil.)	1941-42
					WAR

TUITIONS AND OTHER STUDENT COSTS, 1919-1976 (cont.)

Academic Year	Undergraduates (YC & Sch. of Eng'g)	Graduate School	Medical School	Divinity School	Law School
1945-46	T\$430 M c. 665 R 316 Bd. 10/wk gym 10 Accident Ins. 16	T\$325 D yr 100 (80 abs) 1/4 time 50 1/2 100 3/4 150 Per t.	T\$500 MD 400 MPH, DPH(50 abs.) mat. 5 deg. 20 hosp'n 10 exam boards 25+20	T\$150	T\$450
1946-47	T 500 R 325 Bd. 10/wk gym 10 Acc. Ins. 16 +labs	T 375 D yr 150(100 abs) part time 150-250-350 R 175-275 R w. 160-208	T 600 MD, 400 PH	T 200	T 500
1947-48	600	445 D yr 200(125 abs) part time 150-300-400	750 MD, 450 PH(+ supervised field tr'g 100) texts, etc. c. 800	250 (4th yr 210 or 120) R 100 R w. 105-180 Bd. 8.75/6 days	600
1948-49	600	445	750 or 450+100	250	750
1949-50	600 Bd. 370/21 ml 350/14 ml	445	750 or 450 +100	250 R 100 R w. 105-180 Bd. 10/6 days	750
1950-51	600	445	750 or 450 +100	250 STM deg. +40 Bd. c. 350	750
1951-52	600 other exp. 376 Bd. 456	445 H 25 R 185-275 R w. 160-225	750 or 450 +100	250 STM 300 (50 abs.)	750
1952-53	1600 inclusive fee 37.50/t. off if exceeding "normal occupancy," 1 m/R.	500 gym 15	800 or 500 +100	250 Bd. 390 R 150 R w. 105-180	750
1953-54	1600 (nonresident, w.o. R & Bd., T 800)	500	800 or 500 +100	250	750
1954-55		500 spec. lang. rev. 25A.	800 or 500 +100 total T 3200/4-6 yrs supplies 900/4 yrs	300 Bd. 900/3 yrs MRE 600/2 yrs STM deg. 300/1 yr	750 H 25 [gym 15]
1955-56	1800 (1000 w.o. R & Bd.)	600 D yr 250 lang. 75/yr	900 or 600 texts, etc. 500/3 yrs tot. misc. 1000	400 total est. 1360	900
1956-57	1800 (1000)	600	900 or 600 misc. 500	400 total est. 1370	1000
1957-58	2000 (1100)	700 bond fee 6	1000 or 700 bond fee 6	400 bond fee 6	1000 bond 5
1958-59	2150 (1250)	800 labs 10-70 med. ins. 20 bond fee 5	1000 or 700 H & Ins. 45	500	1000

TUITIONS AND OTHER STUDENT COSTS, 1919-1976 (cont.)

Art & Arch. School	School of Drama	School of Music	School of Forestry	School of Nursing	Academic Year
T Arch. \$350 +30 Ptg 200 +15 Sculp. 200 +15 Gen. Arts Course 100 Bd. 9+/wk min. exp. 600/t.	T\$350 +15	T\$310 (as in 1941-42)	T\$300 +50 +field trips Bd. c. 7/wk	T\$560/30 mos. M 290 misc. 240 total c. 1090	1945-46
Arch. 450 Ptg 325 Sculp. 325 Gen. Arts 150	T 450	T 360 major 125 minor 90	T 310 for M. For. 375 for D. For. summer t. 100 +incidentals	T 560	1946-47
Arch. 500 Ptg 450 Sculp. 450 Gen. Arts 250 meals 10+/wk IR 80-138 Min. exp. c. 1500	500	430 major 150 minor 110	370 for M. For. 450 for D. For. summer 120 +misc.	630/31 mos. M 360 Affil. 40	1947-48
same	500	430	370-450	750 M 440 uniform 70 misc. 130 total c. 1390	1948-49 1949-50
same	500	430	370-450	750 total c. 1395	1950-51
same	500	430	370-450	750	1951-52
Arch. 600 Design 500 min. exp. c. 1600	600	450 major 170 minor 120 pract. 35, 45, or 75 for 2 hrs/wk	450 for M. For. 450 for D. For. +texts 50-85 R 5+/wk Bd. 15+/wk incid. 15-30	900 M. 520 misc. 205 +travel, navy blue tailored coat & hat	1952-53
same Bd. min. 15/wk R 200-325/yr	600	450	450 summer t. 120 accid. ins. 16 labs [H 10, gym 15] summer exp. c. 350-400 est. acad. totals: s. 1450, md. 2000	925 total c. 1700	1953-54
same Bd. 15+/wk	600	450 est. min. 1370	450 summer t. 120 accid. ins. 16 labs [H 10, gym 15] summer exp. c. 350-400 est. acad. totals: s. 1450, md. 2000	975/5 terms M 520 misc. 50 total c. 1700	1954-55
Arch. 800 Design 600 ext. exp. 1800 Est. 1600-1800	700 total exps. c. 1800	550 instr. pract. 1 hr/day 210 est. min. 1910	500 for M. For. 600 for D. For. summer t. 120 D yr 250 tot. est. s. 1500 md. 2000	975 +720+180	1955-56
Arch. 800 Design 700 bond 6 Min. exp. 1900	700 bond 6	550 bond 6 550 +6 hr pract. /wk: piano 25 organ 30-50 harpsichord 40 est. min. 1700+	500 for M. For. 700 for D. For. D 250 bond 6	600/yr 900/yr Mental Health & Psych. Nursing	1956-57
Arch. 1000 Art 800	750	550 bond 6 550 +6 hr pract. /wk: piano 25 organ 30-50 harpsichord 40 est. min. 1700+	600-800 +summer 150 D yr 250	600-900 +summer field work 100 H & Infirmary 25 bond 6 deg. 20	1957-58 1958-59

TUITIONS AND OTHER STUDENT COSTS, 1919-1976 (cont.)

Academic Year	Undergraduates (YC & Sch. of Eng'g)	Graduate School	Medical School	Divinity School	Law School
1959-60	TS2300 (1400)	TS1000 R 275-425 R w. 300-425 Bd. 469/18 ml	TS1150 for M. D. 1000 for P. H. texts 600	T\$500	TS1200
1960-61	T 2300 (1400)	T 1000	T 1150 or 1000	T 700	T 1200
1961-62	2550 (1550)	1350	1400 H 65	775 all inclusive (exc. R & Bd.)	1350 17 ml/wk 492
1962-63	2550 (1550)	1350 H 65 Spoken American English 50	1400 or 1350	775 est. min. exp.: s. 2067 md. 3100	1350 Bd. 512
1963-64	2550 (1550)	1600 D yr 350	1400	775 est. min. exp.: s. 2200 md. 3200	1350 min. est. 2309
1964-65	2800 (1800)	1600 R 250-425 R w. 300-425 md. 50-165/mo. Bd. c. 500	1400 or 1600 est. min. 3000	775 +R 275 R w. 325 md. 625, 725, 825/10 mos. Bd. 552	1650 av. R 475 Bd. 522
1965-66	2800 (1800)	1600 Bd. c. 500	1600 or 1600	775 est. min. exp.: s. 2102 md. 3100	1650
1966-67	3000 (1950)	1900 D yr 400 Bd. c. 530	1600 or 1900	775 est. min. exp.: s. 2190 md. 3250	1900 Bd. 573 min. est. 3800
1967-68	3300 (2150)	1900	1900 or 1900 +PH supervised field tr'g 400	1000 Bd. 585 Internship yr 125	1900 Bd. 623
1968-69	3300 (2150)	2150 D yr 500	2150 or 2150 +PH tr'g 400 est. exp. 4150/3 yrs R 350 md. 65-75/mo. Bd. 705/18 ml	1000	2150 Bd. 635 min. est. 4100
1969-70	3600 (2350, incl. lab, gym, H, nosp. ins., grad. fees, but w. o. R & Bd.)	2350 D yr 600 (100 abs) Bd. 610/18 ml R 350-525 apts. 80-175/mo.	2350 +PH tr'g 500 Bd. 705/18 ml R 500 apts. 115-125/mo.	1000 R 380 apts. 850-950-1050 (for 10 mos.) Bd. 650 est. min. s. 2770 md. 3950	2300 Bd. 635 R av. 275 R w. 350-625 min. est. 4500
1970-71	3900 (2530)	2530 D yr 750	2550 for MD +PH tr'g 600 (125 abs.)	1400 R 400 Bd. 750 apts. 900-1150	2430 Bd. 23-50/17ml min. est. 4700
1971-72	4400 (2700)	2900 4th yr T 1000 D yr 100 R 500-650 apts. 80-175/mo. Bd. 615/12 ml	2900 for MD +PH tr'g 800 min. est. 5500	1750 est. s. 3750 md. 5000	2800 JSD 400 R 300 R w. 500-650 cafet. req. at least 250

TUITIONS AND OTHER STUDENT COSTS, 1919-1976 (cont.)

Art & Arch. School	School of Drama	School of Music	School of Forestry	School of Nursing	Academic Year
T\$Arch. 1000 Art 800	T\$750+	T\$720	T\$700 for M. For. 1000 for D. For. est. exp. s. 1800	T\$700	1959-60
T 1000 or 800	T 800+	T 800	T 700 +300 1000 +250	T 700	1960-61
Arch. 1350 Art 1150 min. est. 2550	1000+	1000	1000+250 for M. For. 1350+250 for D. For.	900 (inclusive)	1961-62
Arch. 1350 Art 1350 City Planning 1350 [R 250-425]	1000	1000 R 10/wk Bd. 23/wk	700 or 1000 summer exps. 500-575 R 9/wk Bd. 20+/wk	700	1962-63
1350	1000 min. est. 2500	1000	700 or 1000	700	1963-64
Arch. 1600 Art 1400 City Pl'g 1600 min. est. 3300	1000	1000	1000+250 for M. For. 1600 for D. For. est. exp. s. 2400 md. 3400	1100	1964-65
1600-1400-1600	1300 min. est. 2800	1200	1200 (D. For. to Grad. Sch.) est. exp. s. 2700 md. 4200	1100	1965-66
1600-1400-1600	1300 +lib'y 400 min. est. 2800	1200	1200	1100	1966-67
1900-1700-1900	1700+	1200	1200	1800	1967-68
1900-1700-1900	1700 min. est. 3200	1200 Bd. c.25/wk R c.12/wk	1200 (MF or MFS)	2150	1968-69
2200-2000-2200	1800 min. est. 4000	1600 pract. 7 hrs/wk 30-40 est. 3800+	1600 Bd. 80+/wk est. s. 3100 md. 4600	2350	1968-70
2200-2000-2200 R 400-600 Bd. 25+/wk	1800 Bd.25+/wk R 400-600 est. 4000	1600 av. R 12/wk	1800 Bd. 95+/wk R 65+/wk apts. 150+/mo. est. s. 3600 md. 5000	2550	1970-71
2550-2350-2550 Bd. 30+/wk	2150 min. est. 4500	1950 pract. 40-50 min. est. 4500	2150 est. s. 4000 md. 5500	2900	1971-72

TUITIONS AND OTHER STUDENT COSTS, 1919-1976 (cont.)

Academic Year	Undergraduates (YC & Sch. of Eng'g)	Graduate School	Medical School	Divinity School	Law School
1972-73	T\$4750 (3200)	T\$3200 after 3 yrs 1200 R 600-700 apts. 100-185/mo. Bd. 688/12 ml	T\$3200 for MD +PH tr'g 600 R 600 apts. 125-135/mo.	T\$2050 internship 50 apts. 1050-1350 Bd. 800/18 ml est. s. 4100	T\$3100 R av. 300 R w. 600-700 req. cafet. 400
1973-74	T 5000 (3400)	T 3400 after 3 yrs 1300 R 600-750 apts. 100-195 Bd. 679/12 ml	T 3400(MD, MPH, DPH) +Nat'l Boards 25 +equip. PH in abs. 100 est. s. 6900+	T 2200 apts. 1150-1450 Bd. 825/18 ml est. s. 4500 md. 6000	T 3300 R av. 340 R w. 600-750 req. cafet. 440
1974-75	5350 (3650)	3650 after 3 yrs 1400 R 700-800 apts. 100-205 Bd. 729	3650 R 725 apts. 130-150/mo. Bd. 454/5 ml	2350 R 600 apts. 1200-1600 Bd. 880/18 ml est. s. 4900 md. 6400	3500 R 65-725 R w. 700-800
1975-76	5920 (4050)	4050 after 3 yrs 1500 auditing fees: spouses 50 other 500 R 750-900 apts. 125-315 Bd. 793	4100 R 770 apts. 130-160 Bd. 505/5 ml est. s. 8100	2600 R 670 apts. 1440 Bd. 980/18 ml est. s. 5300 md. 7000	3850 R 770-900 req. cafet. 500

TUITIONS AND OTHER STUDENT COSTS, 1919-1976 (cont.)

Art & Arch. School	School of Drama	School of Music	School of Forestry & Environmental Sci.	School of Nursing	Academic Year
T\$2650 R 600-700 apts. 110-200/mo. est. s. 5350 md. 6350	T\$2150	TS2250	T\$2450 Bd. 90+/mo. est. 4300 s. 5800 md.	T\$3200	1972-73
T 3050-2850-2850 Bd. 30+/wk R 600-750 apts. 110-200/mo. min. est. 5450-5650 md. 6650	T 2600 min. est. 5100	T 2400	T 2600 Bd. 95+/mo. R 565 apts. 150/mo. est. 4800 & 5800	T 3400	1973-74
3250-3000-3000 +supplies 200-500 min. est. s. 5600-5850 md. 6850	2750 min. est. 5500	2650 est. 5000-	2800 Bd. 125+/mo. R 450+ apts. 100-250 est. 5200 & 6400	3400 +summer term 1350	1974-75
3650-3350-3350 R 750-900 R md. 125-225/wk min. est. s. 5600-5850 md. 6850	3050 min. est. 5500	2900 R 20-30/wk apts. 150+ (110-200)/mo.	3100 Bd. 125+/mo. apts. 1350-1600 est. 6050 & 7050	3750 +summer term 1450	1975-76

Sources. School statements in the annual University Catalogues.

Decline of the Faculty

The parties who felt the two world wars and Vietnam and the "stagflation" of the 1970s most severely, however, were the faculties, who saw themselves substantially impoverished after each of the great conflicts (F-2.10 to F-2.12). In 1919-20 the University did manage to give its instructors some modest raises but it was not until 1926-30, thanks to the Great Endowment Drive of 1926 and the brief interval of prosperity afterwards, that the faculties made up a part of what they had lost. Again after World War II the inflation of the currency and the flooding in of students forced the understaffed faculty to work harder and for less real compensation. A fair estimate, as of the year 1950, was that they were contributing (involuntarily because of no matching salary raises) approximately \$1,000 a year each, on the average, to keep the University going. Then in the late 1960s, it all started to happen again. The inflation of the currency, uncertain management of University finances, and almost astronomical energy costs produced a series of deficits that required the cutting of expenditures wherever they could be cut. How serious were these financial problems is suggested, but only suggested, by our tables. The arrest of faculty growth, the decimation of the younger teachers, and the decline in the ratio of faculty to students (Tables D-1.6, D-1.7, D-1.8) have already provided us with corroborative evidence.

Perhaps the clearest way to dramatize these academic declines is to compare the salary curves to the costs of living. After World War I it was estimated that the cost of living had almost doubled since 1914, while, even with the belated raises of 1919-20, professorial salaries had risen some 25-40%. In 1929, after ten more years, the cost of living was still almost double, but salaries were finally raised some 50% or 60% above the 1914 norms. The long depression then brought costs down somewhat, and the University, with great courage, did not lower its salary scale. But inevitably further raises or new appointments were out, while junior promotions had to be postponed and postponed again (some able men served as assistant professors for 9, 10, 11, 13, or even 16 years). Then, in the World War II interval from 1940 to 1953, the cost of living went up 92%, and national income rose still further, while the salaries of professors rose 23%, of associate professors 30%, of assistant professors 33%, and of instructors 63%. Two years later, after the first of President Griswold's efforts at redress, Provost Furniss could report that by 1953 the average compensation of physicians had risen 200% above the 1940 earnings, and for lawyers the rise had been 96%, while the average wage of all the employed in the country had gone up 174%, yet for the four Yale faculty ranks the percentages of gain were 38.4%, 46.2%, 46.3%, and 81.8%.

FACULTY SALARIES, 1832-1919

Year	President	Academical Professors	Other Professors	Tutors	Others
1832-33	J. Day \$1300	J. L. Kingsley \$1100 B. Silliman 1220? C. A. Goodrich 1200 D. Olmsted 1200 T. D. Woolsey 1100	N. W. Taylor \$1013? E. T. Fitch 1200	\$540, 4 at 430, 415 & less	Lib'n 100 Treas. 150 Agent W. Warner 800
1833-34			Taylor 1495? J. W. Gibbs 1307?		Lib'n 187 Treas. Off. 1433
1834-35			Taylor 1200 Gibbs 800		
1835-36			T. 1200?; F. 1240 G. 1150?		Lib'n 200 Treas. Off. 1402
1836-37	Day 1340	1240 & 1140	G. 1300? + Lib'n Law Prof. in YC 390 MD Profs. 200	540, 500, 6 at 430	Treas. 380
1837-38	(40 added "in consideration of their liability to pay taxes")	G. & O. 1240 K., S., & W. 1140 A. D. Stanley 1000	Gibbs 960? + Lib'n Goodrich 800?		
1838-39		Goodrich from Rhetoric to Pastoral charge	Gibbs 795? + Lib'n Goodrich 1200		
1839-40			Gibbs 700 + Lib'n (last year) Asst. Prof. Thacher ? Dr. North 1000 Dr. Knight 600 Law Prof. 390		
1840-41			Gibbs 750		Lib'n Herrick 333 Lib'n 400 Treas. Off. 1690
1841-42					Lib'n 200 Treas. Warner 1140
1842-43					
1843-44					
1844-45					
1845-46	Day 1340	1240 & 1140			
1846-47	T. D. Woolsey 1340	1240 & 1140 Stanley 1240	1200, 1000, 950? Dr. North 1000 Asst. Prof. J. Hadley 450?	540, 500, 430(?)	Lib'n 500(667?) Treas. 350 Treas. Off. 1548
1847-48		Noah Porter 1248	Goodrich 1200 Thacher 1100 Law Prof. 390		Lib'n 500
1848-49					Treas. Off. 1940
1849-50					Treas. Off. 1790
1850-51			Thacher ? Hadley ?		Lib'n 500 Treas. Off. 1740

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FACULTY SALARIES, 1832-1919 (cont.)

Year	President	Acad'l Professors	Other Professors	Tutors	Instructors	Others
1851-52	Woolsey \$1500	Ac. Profs. \$1300		to \$550		Herrick Treas. & Lib'n? Lib'y 893 Treas. Off. 1397 Lib'y 1047 Treas. Off. 1124
1852-53			Law Prof. 390	average 550		Lib'n 1125 Treas. Off. 1322 Lib'n & Asst. 1417 Treas. Off. 1450 Herrick Treas. & Lib'n 1600
1853-54	Woolsey 1700	Ac. Profs. 1500 max.		715, 2 at 700, 5 at 600	Mark Bailey, Inst. Elec. 1000	
1854-55						
1855-56	Woolsey 1800	Ac. Profs. raised to 1600 H. A. Newton 1110?	Taylor 1272; Goodrich 1225; Gibbs 1225; B. Silliman, Jr. 1400; Prof. Law 390 B. S. Jr. 1500		Bailey 1200 G. Stoeckel, Music, 300	
1856-57	Woolsey 2000	9 Profs. at 1800 Newton 1800		880, 800, 750 & part time	Stoeckel 300	
1857-58						Herrick, T&L 1800 (last year)
1858-59	Woolsey 2000 +420 deg. money		D. C. Gilman 1500 Asst. Prof. T. Dwight 750	885, 850, 4 at 750		Treas. Herrick 1800 Treas. Off. 2230 Lib'n & Asst. 1687 Treas. Off. 2617 Lib'n 1710 Treas. Off. 2633 Treas. Off. 2650 Lib'n 1800
1859-60						
1860-61	degrees 384		Prof. T. Dwight 1431? B. S. Jr. 1500; G. P. Fisher 1085?; J. M. Hoppin 1050?			
1861-62		Newton 2000; others 1800	Fisher 1550; Hoppin 1500; S. W. Johnson 1491; Dwight 1450; G. J. Brush 1372		Bailey 1200	
1862-63	Woolsey 2000	1800	Fisher 1725; Hoppin 1710; T. D. 1795; W. A. Norton 746	985, 850, 750	Bailey 1200	Lib'n 1800 Treas. Off. 2883
1863-64			Div. Profs. 2100; Gilman 2070 Brush 2040; A. E. Verrill 1000			Lib'n 1800 Treas. Off. 3223
1864-65	Woolsey 2500	Raise to 2300 Newton 2500		1090, 930, 850	Bailey 1400 Stoeckel 900 +350 for Commencement gym instr. F. G. Welch 335?	Lib'n 2000 Secretary 85 Treas. Off. 3710 Lib'n 1590
1865-66	Woolsey 2800	Prof. max. to 2600		some: extra 50		Secretary 100 Treas. 2300 Treas. Off. 3700 Lib'n 1800 F. B. Dexter for Lib. Cat. 225
1866-67	(In 3rd term) Woolsey 2800+ 400 for degree	9 received additional 300, Newton 2800; others 2600-2500	2 got 209, 7 got 50 2300-2300; 1800 and less	1050, 1015, 1000, 950, 900	Welch 315 & exps.	

FACULTY SALARIES, 1832-1919 (cont.)

Year	President	Acad'l Professors	Other Professors	Asst. Professors	Tutors	Instructors	Others
1867-68	Woolsey \$2800	\$2600-2500, 2800	\$2500-2300, 1800 & less		\$1050, 1015, 1000, 950, 900		Lib'n \$2200 Treas. 2600 Sec'y 100 Lib'n 2600
1868-69	Woolsey 3000	Raises of 350, 300, 250, 100	Prof. O. E. Daggett 3000		1200-1150-1000	Stoekel 945?	Lib'n 2800 Dexter: Registrar 1500 & Sec'y 100 Treas. Off. 9545
1869-70			Daggett, J. F. Weir, W. D. Whitney 3000				Lib'n 3000 Dexter 1800 & 100 Treas. Off. 5030
1870-71	Woolsey 3200	12 Profs. at 3000 Newton 2750	S. S. 2500 W. D. Trowbridge 3000		1533, 1500-1300-1230-1200	T. R. Lounsbury, Instr. in Eng. 1000 Bailey 1400	Treas. Off. 4600
1871-72	Porter 3200		SSS to 2800 J. H. Niemeyer 2000	\$2150, 1800	1500-1350-1200		Dexter 1765+
1872-73	Porter 3700+ 300	Newton 2800; Whitney 3000+1100 for lang. instruction	2000-1580 Law Prof. 390	2800 and less	1300-1290	Stoekel 900	
1873-74		3000, 2800, 2500 Whitney 4150	3000-2800-2500-2300-1800-1500	1 at 2500 w. tenure 2 at 1450	1500-1240-1200	Bailey 1700 others 1000	Dexter 1784+
1874-75	Porter 4200+	9 Profs. to 3500, 5 at 3000 Whitney 3000+1100			1500-1350-1200		Treas. 1800? Registrar 2170?
1875-76	Porter 4200	12 at 3500; 4 at 3000			1800-1500-1300	Stoekel 1394	Registrar 2300 Reg. Off. 2920
1876-77	+240 preaching, +56.75 care of Coll. church, +484 for degrees				1800-1500-1350-1200		Registrar 2300 Sec'y 200
1877-78			3000-2600-2000-1900, etc.	1 at 3000			Treas. 2500
1878-79			Art: 3000 & 2000 Div.: 1 at 3500	1 at 2850			Registrar 1700?
1879-80	3990+480 for degrees	some at 3325, 2850		1 at 2000	1500-1300-1200		Treas. 2500 Registrar 1585?
1880-81							
1881-82				2000, 1750	1750	1 at 1000	Treas. 1500? Sec'y 200
1882-83				1 at 1350			Sec'y 200
1883-84				2000, 1850, 1450	1750, 1500, 1350, 1200	1800, 1700, 1500	Sec'y 200
1884-85					1600, 1500, 1350	Bailey 1800	
1885-86	Porter 4200+	3500 or less	Div.: 3200, 2500 Med.: 1500, 900, 8 at 300 SSS: 3000, 2500, 2000				

FACULTY SALARIES, 1832-1919 (cont.)

Year	President	Acad'l Professors	Other Professors	Asst. Profs.	Tutors	Instructors	Others
1886-87	T. Dwight \$4200+	\$3500 or less	Med.: 2000, 800, 300			Stoeckel 900	Sec'y Dexter 480
1887-88							Registrar 2200
1888-89							Treas. 2837?
1889-90				1800			Registrar 2200
1890-91	Dwight 4200+ 736 for deg. +1200 for pulpit supply		SSS: 3250 Med.: 750, 300, 150 Stoeckel, Music 2000			2000, 1800, 1500, 1000, 600	Treas. 3500; Lib'n 3500; Sec'y 480 Law Lib'n 800 Head of Dept. 3500
1891-92							Treas. 3500; Lib'n 3500; Reg. 2200; Sec'y 480
1892-93	Dwight 4200+					1200, 1200, 1100	Sec'y 500 Stenog. 740
1893-94						1300	Reg. 1800; Sten. 1000; Sec'y 500
1894-95						2250, 1500	Treas. 3500; Lib'n 3500; Reg. 1800; Sec'y 500; Sten. 1000
1895-96							Stenographer 564
1896-97							
1897-98							
1898-99	Dwight 4200+	3750, 3500, 3000	SSS up to 3750 H. Parker, Music 3500	2250, 2000, 1900, 1800, 1700, 1600	1400, 1300, 1150, 1000	Railey 2500 1800, 1700, 1500, 1300, 1200, 1150	Treas. 3500 Registrar 1800 Bursar 2000 Stenographer 931
1899-1900	Hadley 6500	Normal 3750 4000, 3650, 23 at 3750, 3 at 3500, 2 at 3250, 5 at 3000, 2800, 2500	Med.: 2000, 1200, 500	1750-2500 Median 2000	Normal 1150- 1300-1400	Range 250-2000 most at 1000, 1300, 1500 or 1700. Also, 250, 400, 600, 725, 800 975, 1200, 1400, 1600, 1800, 2100, 2500 Range 1000-1150 -1300-1800	Deans & Directors 2000-5000 Chittenden 4500 H. P. Wright 4250 Treas. 5000 Dexter 3500 Van Name 3500 Anderson, gym 2500 Dr. Seaver, gym 2000
1900-01	Hadley 6500	1 at 4000		2500, 2000, 1750			
1901-02		Maximum 4000		av. range 2500- 2000-1500		1000-1300-1500 also 500, 1200, 1400, 1600	
1902-03				2500-1100	1000-1300		
1903-04							

FACULTY SALARIES, 1832-1919 (cont.)

Year	President	Acad'l Professors	Other Profs.	Assistant Professors	Instructors	Others
1904-05	Hadley \$6500			\$2200-1800-1500	\$500-1500	
1905-06				1500-1800-2200 also 1600, 1775	Tutors (last) 1000, 1100, 1300 Instrs. 500-1700	
1906-07		Max. 5000 Normal 4000 Beginners at 3000 + lighter load		1800 first 3 yrs or yr by yr 2400 next 5 yrs or yr by yr 3000 at 9th yr	Instrs. 1000 1st yr 1200 2nd yr 1400 3rd yr 1600 4th yr	Deans 5000
1907-08				1800, 2750	5 at 1600	
1908-09				Outsiders 2500 at once 3 yrs at 1800 5 yrs at 2500 2750 quasi-permanent		
1909-10		3000-4000-4500		Most at 1800 or 2500; also 1750, 2000, 2100, 2750, 3000, 3500	1000-1400-1600	
1910-11	Hadley 7000 + 2000 for enter- tainment	Normal 4000-4500-5000 2 each at 3000, 3150, 3500, 4500; 22 at 4000, 12 at 5000; and 1/2 salary sabbatical every 7 years		Normal 2000 3 yrs 2500 3 yrs 3000 after & only if w. o. time limit	Normal 1000 1st yr 1200 2nd yr 1400 3rd yr 1600 4th yr & after also 1800	
1911-12						
1912-13						
1913-14		Normal 4000-4500-5000		2000-2500-3000	1000-1200-1400-1500- 1600	
1914-15						
1915-16						
1916-17						
1917-18						
1918-19	Hadley 45,000	Minimum raised to 4000 maximum at 7500	One lawyer of 7000	Normal 2500-3000-3500 promotion only if vacancy	Normal 1250-1500-1750- 2000	Admins. 5500- 7000
1919-20	Hadley 15,000	Normal 5000-6000-7000 a few at 4000 or 4500 two at 8000		2500-3000-3500	1500-1750-2000	

Sources. Information extracted selectively from the enormous files of Treasurer's Records, especially from the "Abstracts" (from 1796) and the "Cash Books" or Ledgers recording the items of receipt or expenditure by day or month. As of 1980, not all the unwieldy Treasurer's accounts had been collected in Beinecke, or reconciled with each other, or organized and classified for consultation. In consequence the figures here tabulated must be regarded as selective and representative but incomplete, sometimes also as approximate rather than exact, and occasionally (for reasons not recorded) quite eccentric or inconsistent. Individual salaries also found in Record, Academic Professors, 1871-1910, and in Academic Department. Detail of Expense for 1913-1920.

Note. Each year one or more professors received a modest supplement to salary for acting as "locating officer", or as examination officer, or for caring for the College church.

FACULTY SALARIES, 1920-1958

Year	President	Professors	Associate Professors	Assistant Professors	Instructors	Deans Directors	Average Faculties Salaries
1920-21	Angell: 15,000 + 3,000 for entertainment	Faculty of Arts and Sciences: Normal: \$5000-6000-7000 Average \$6014 Law: N'l, \$8000(?) FAS: Av. \$5982 Law: N'l, 9000(?) FAS: Av. 6110 Law: N'l, 10,000(?) FAS: Av. 6154 FAS: Av. 6196 FAS: Av. 6314 FAS: Av. 6381 FAS: Av. 6502 FAS: Av. 6828 (Excl. 4 on part pay) Total University Fac.: 1 at \$12,000 1 at 10,000 +10 in Law or Med. 1 at 9500 +1 in Law 1 at 9000 +1 in Med. 1 at 8500 +1 elsewhere 14 at 8000 +6 Deans 8 at 7500 29 at 7000 14 at 6500	FAS: \$4900 Av. \$4900 Av. 4714 Av. 4600 Av. 4647 Av. 4500 Av. 4530 Av. 4652 Av. 4636 Av. 5086 Total Fac.: 1 at 8000 1 at 7000 1 at 6500 3 at 6000 9 at 5000 3 at 4750 16 at 4500 9 at 4000 1 at 3500	FAS: \$3687 Av. \$3687 Av. 3608 Av. 3528 Av. 3523 Av. 3495 Av. 3525 Av. 3380 Av. 3387 Av. 3769 (Excl. 1 at 6000 and 1 at 4000) Total Fac.: 1 at 6000 2 at 5000 1 at 5000 9 at 4500 1 at 4250 19 at 4000 1 at 3800 1 at 3750 26 at 3500	FAS: \$2322 Av. \$2322 Av. 2234 Av. 2139 Av. 2151 Av. 2109 Av. 2184 Av. 2327 Av. 2250 Av. 2306 (Excl. 3 at 1200 and 2 at 1000) Total Fac.: 1 at 3100 6 at 2750 53 at 2500 1 at 2200 21 at 2100 7 at 2000 16 at 1800 1 at 1600 6 at 1500	FAS: \$8080(?) N'l: \$8080(?) N'l. 8000 1 at 6000	Total Faculty of Arts and Sciences (Grad., Y. C., S.S.S., Fresh. Yr.) Av. \$3898 (in 1916-17: \$2788) Av. 3984 Av. 3854 Av. 3848 Av. 3781 Av. 3899 Av. 4037 Av. 3995 Total University Faculty: Av. 4391 Av. 4391
1921-22							
1922-23							
1923-24							
1924-25							
1925-26							
1926-27							
1927-28	15,000						
1928-29	35,000						

FACULTY SALARIES, 1920-1958 (cont.)

Year	President	Professors	Associate Professors	Assistant Professors	Instructors	Deans Directors	Average Faculties Salaries
1929-30		18 at 6000 11 at 5500 14 at 5000 Corp. voted \$6000 min. Excl. Administ. and Prof'l. Schools 11 at 8000 +5 Specials 28 at 7500 16 at 7000 10 at 6500 19 at 6000 Corp. voted \$10,000 for limited number N'l. maximum at \$9000 review in 3 or 5 years		1 at 3200 41 at 3000 1 at 2800 1 at 2500 1 at 2000	1 at 1400 1 at 1250 3 at 1200 2 at 1000		
1930-31					N'l. 2100, 2400 2700, 3000		
1931-32							
1932-33							
1933-34							
1934-35		FAS: N'l. 6000-10,000 Av. 8307 Prof'l. Schools: N'l. 6000-15,000 1 at 16,000 Av. 8800	FAS: N'l. 4500-6000 Av. 5244 Prof'l. Schools: N'l. 4000-8000 Av. 5713	FAS: N'l. 3500-4500 Av. 3996 Prof'l. Schools: N'l. 3000-5000 1 at 2700 Av. 3883	FAS: N'l. 2100-2400- 2700-3000 Av. 2595 Prof'l. Schools: N'l. 2000-3000 1 at 1750 Av. 2556	up to 12,000 and 13,500	Total University Av. Prof. 8527 ACF. 5428 AP. 3959 I. 2584
1935-36							
1936-37	25,000						
1937-38	Seymour: 25,000 +						
1938-39	3000						

FACULTY SALARIES, 1920-1958 (cont.)

Year	President	Professors	Associate Professors	Assistant Professors	Instructors	Deans Directors	Average Faculties Salaries
1939-40		N'l. still same for FAS: 6000-10,000	N'l. 4000-5000 and exceptions actually: 9 at 6000 some at 5500	N'l. 3000, 3250, 3250, 3500, 3500 actually: 14 at 4500	N'l. 2000, 2000 2500, 2500 actually: 2100- 3000		
1940-41		FAS: 6000-10,000 2 at 12,000 15 at 10,000 2 at 4500	4000-5000 4 at 6000 2 at 3500	3000-3500 7 at 4500 rest at 3000-4000	2000-2500 3 at 3000		
1941-42		1 at 12,000	1 at 6500	7 at 4500	1 at 3250	N'l.	Av. P. 8131
1942-43		15 at 10,000	10 at 6000		4 at 3000	10,000-12,000	AOP. 5903 AP. 3888 L. 2370 but after deductions: 7429, 5693, 4993, 2251
1943-44							
1944-45		starting: 6500					
1945-46		N'l. 7000(?)=10,000 selective to 12,000	5000-6000 selective to 7000	3000, 4000, 4300 selective to 5000	2400, 2500, 2800, 3000 selective to 3500		
1946-47							
1947-48							
1948-49							
1949-50	25,000	FAS: 8000-14,000	FAS: 6000-7500	FAS: 4300-5500	FAS: 3000-4000		
1950-51	Griswold: 25,000	Law: 11,000-15,000 Med: 8000-15,000	Law: 8000-10,000 Med: 8000-10,000	Law: 6000-7000 Med: 6000-7000			
1951-52		some Med. 13,000		some bonuses to married instructors			

FACULTY SALARIES, 1920-1958 (cont.)

Year	President	Professors	Associate Professors	Assistant Professors	Instructors	Deans Directors	Average Faculties Salaries
1952-53		N'l. 8500-12,000	N'l. 6500-7500	N'l. 4750 for 3 yrs 5500 for 3 yrs	N'l. 3500, 3750 4000, 4250 full-time assistants: 3200		
1953-54							Av. P. 9967 AOP, 7010 AP, 5180 I. 3977 but after deductions: 7976, 5772, 4381, 3465
1954-55		Minimum: 10,000 N'l. maximum: 12,000 Sterlings at: 15,000	N'l. 6500-9000	N'l. 3 yrs: 5250 3 yrs: 6000	N'l. 2 yrs: 4250 2 yrs: 4500 Without degree 3500-4250		
1955-56	25,000						
1956-57	28,000						
1957-58							

Sources. Corporation votes on salary scales, 1920-29; and more detailed folders on Faculty of the Arts and Sciences, Faculty Salaries, and Faculty Salaries investigation in the Records of the Provost: YRG 3-A, 1, 23, and 58.

FACULTY SALARIES, 1958-80
(excluding Medicine and Nursing)

	President	Deans/ Directors	Professors (Average)	Associate Professors (Average)	Assistant Professors (Average)	Instructors (Average)	Total Faculty (Average)
1958-59							
Salary	30,000		\$13,212	\$ 8,335	\$ 6,402	\$ 5,020	\$ 8,273
Salary plus Fringe Benefits			14,625	9,466	7,097	5,069	9,038
1959-60	Min. 12,000 ^{cc} Max. 25,000 ^{cc}	S 11,000 S&FB 12,430		8,000 9,040	6,500 7,345	5,000 5,650	7,703 8,704
1960-61			13,909 15,678	9,125 10,286	7,004 7,895	5,459 6,153	8,988 10,131
1961-62			14,607 16,506	9,821 11,098	7,466 8,437	5,789 6,542	9,509 10,745
1962-63	33,000		15,298 17,370	9,753 11,186	7,444 8,483	6,343 7,270	10,589 12,068
1963-64			16,072 18,262	10,302 11,759	7,609 8,674	6,345 7,177	11,169 12,710
1964-65			17,493 19,881	10,944 12,460	8,029 9,166	6,750 7,576	12,202 13,877
1965-66			17,972 20,621	11,255 12,918	8,363 9,635	7,085 8,059	12,571 14,431
1966-67			18,793 21,385	11,893 13,578	8,901 10,218	7,425 8,391	13,388 15,269
1967-68			19,464 22,118	12,539 14,313	9,474 10,884	8,378 8,823	14,202 16,146
1968-69			20,354 24,069	13,388 15,602	9,995 11,646	8,657 9,271	15,281 17,675
1969-70		S 23,957 S&FB 27,495		14,285 16,591	10,935 12,701	9,657 10,292	17,133 19,714
	Min. 23,000 ^{cc} Max. 46,000 ^{cc}	Min. 17,000 Max. 29,000		12,500 15,000	10,000 12,000	9,500 10,500	
1970-71			24,761 28,627 17,500 31,000	14,871 17,388 13,000 16,000	11,302 13,232 10,000 12,750	10,018 10,763 9,500 10,500	17,772 20,565
1971-72			24,656 28,940 17,500 31,000	15,250 18,214 13,500 17,000	11,748 13,891 10,000 14,500	10,250 11,196 9,500 10,500	18,309 21,551

FACULTY SALARIES, 1958-80
(excluding Medicine and Nursing)

	President	Deans/ Directors	Professors (Average)	Associate Professors (Average)	Assistant Professors (Average)	Instructors (Average)	Total Faculty (Average)
1972-73		S	25,487	15,605	11,929	10,464	18,848
		S&FB	29,719	18,089	13,614	11,458	21,838
		Min.	18,000	14,000	10,000	9,500	
		Max.	32,000	18,000	14,500	10,500	
1973-74			26,371	15,927	12,019	10,761	19,277
			30,935	18,671	13,799	11,705	22,462
			18,000	14,000	10,000	9,500	
			32,000	18,500	14,500	11,000	
1974-75			27,842	16,854	12,481	10,938	20,301
			31,965	19,122	13,953	11,820	23,210
			19,000	14,000	10,500	10,000	
			33,500	20,000	15,000	12,000	
1975-76			29,648	18,003	13,227	11,980	21,922
			34,092	20,481	14,807	12,986	25,021
			20,000	16,000	11,500	11,000	
			37,000	22,000	17,000	14,000	
1976-77			31,019	19,306	14,590	13,794	23,149
			35,630	21,860	16,235	15,102	26,346
			22,000	17,000	12,500	11,500	
			39,000	23,000	18,000	14,000	
1977-78			32,308	20,541	15,356	13,650	23,973
			37,078	23,292	17,197	14,022	27,289
			23,000	18,000	13,000	12,000	
			40,500	26,000	19,500	14,750	
1978-79			34,359	21,103	16,127	15,037	25,316
			39,241	24,101	18,089	16,426	28,765
			24,000	18,750	13,500	12,500	
			43,500	27,000	21,000	15,750	
1979-80			36,561	22,298	17,154	15,098	27,130
			41,912	25,680	19,440	16,468	31,004
		Min. 40,000 ^a	25,000	20,250	14,500	12,500	
		Max. 80,000 ^a	46,500	29,000	23,000	16,750	

Sources. Faculty salaries and fringe benefits from data supplied to AAUP, compiled by Maryse Eymonerie, 2/27/81, made available by the office of the Comptroller. Minimum and maximum salaries for 1969-1980 supplied by the office of the Provost, courtesy Josephine R. Broude, Feb. 1981. Salary ranges for Deans and Directors supplied by Associate Treasurer William J. Feeney, 2/22/82. Salaries for Presidents and Provosts after 1962-63 still confidential in 1982.

^a Including Medical & Nursing Deans

UNIVERSITY ALUMNI FUND, 1891-1976

Year	Number of Contributors	Gifts to Current Use	Gifts to Alumni Fund Endowment	Total Gifts to Alumni Fund Endowment
1890-91	385	\$ 11,015		
1891-92	(a)	10,872		
1892-93	(a)	8,641		
1893-94	(a)	7,141	\$ 3,645	\$ 3,645
1894-95	(a)	6,549	60	3,705
1895-96	(a)	9,013		3,705
1896-97	(a)	9,718	10	3,715
1897-98	(a)	11,547	1,877	5,592
1898-99	(a)	11,632	2,072	7,664
1899-1900	1,308	12,400	2,922	10,587
1900-01	1,506	19,919	10,588	21,175
1901-02	1,690	24,081	14,531	35,707
1902-03	1,885	32,043	22,608	58,314
1903-04	2,027	35,949	22,386	80,700
1904-05	2,497	53,361	32,175	112,875
1905-06	2,875	114,419	77,431	190,306
1906-07	2,704	72,283	52,693	242,999
1907-08	2,523	84,197	56,720	306,149
1908-09	3,024	72,425	53,505	359,653
1909-10	3,027	130,164*	94,750*	454,404
1910-11	3,053	74,703	100,339	554,742
1911-12	3,273	92,519	59,631	614,373
1912-13	3,624	79,072	44,784	659,157
1913-14	4,053	104,454	82,652	741,809
1914-15	4,162	90,683	55,658	797,467
1915-16	4,481	109,499	72,747	870,214
1916-17	6,290	244,465	365,462	1,235,675
1917-18	5,573	458,004	171,548	1,407,223
1918-19	5,121	408,682	333,649	1,740,872
1919-20	7,940	404,517	165,025	1,905,897
1920-21	9,228	364,291	130,850	2,036,747
1921-22	9,493	309,806	147,060	2,183,807
1922-23	9,359	344,559	168,400	2,352,208
1923-24	9,576	315,851	103,048	2,455,255
1924-25	9,349	305,445	264,896	2,722,606
1925-26	9,223	331,203	294,034	3,016,641
1926-27	9,311	571,894	451,820	3,468,461
1927-28	7,295	514,266	391,115	3,859,575
1928-29	8,246	363,584	241,328	4,100,904
1929-30	7,689	364,974	216,918	4,317,822
1930-31	7,165	232,946	101,878	4,419,710
1931-32	6,475	249,703	61,337	4,481,046
1932-33	6,677	163,243	11,750	4,492,796
1933-34	7,045	146,052	1,568	4,494,364
1934-35	7,355	142,652	80	4,494,443
1935-36	7,741	178,209	10,054	4,504,497
1936-37	8,627	190,116	27,001	4,531,498
1937-38	8,873	184,354	74,858	4,606,356
1938-39	9,183	169,438	777,030	5,383,387
1939-40	10,322	181,849	256,484	5,639,870

UNIVERSITY ALUMNI FUND, 1891-1976 (cont.)

Year	Number of Contributors	Gifts to Current Use	Gifts to Alumni Fund Endowment	Total Gifts to Alumni Fund Endowment
1940-41	10,817	\$ 186,535	\$ 24,698	\$ 5,664,569
1941-42	11,281	200,539	35,102	5,699,671
1942-43	13,485	260,541	280,969	5,980,640
1943-44	15,203	292,946	13,129	5,993,770
1944-45	15,511	331,034	16,721	6,010,491
1945-46	15,681	367,903	28,859	6,039,350
1946-47	15,846	430,034	19,978	6,059,329
1947-48	16,818	454,791	62,488	6,121,816
1948-49	18,725	508,765	139,575	6,261,392
1949-50	21,230	770,182	77,976	5,323,377+
1950-51	24,698	1,010,324	271,142	5,594,519
1951-52	24,242	1,015,418	41,520	5,636,039
1952-53	24,854	1,021,832	134,273	5,770,312
1953-54	25,607	1,083,123	16,619	5,786,931
1954-55	27,502	1,302,324	21,531	5,298,462
1955-56	29,539	1,603,323	82,694	5,381,156
1956-57	30,615	1,736,837	46,185	5,427,341
1957-58	32,462	1,850,027	72,877	5,500,217
1958-59	33,241	2,140,131**	484,812	5,985,029
1959-60	33,903	2,313,131**	134,449	6,119,478
1960-61	35,076	2,720,029**	912,783	7,032,261
1961-62	34,140	2,860,229**	659,059	7,691,320
1962-63	35,349	3,001,139**	135,475	7,826,795
1963-64	34,926	3,151,939**	975,129	8,801,924
1964-65	35,798	3,301,943**	414,498	9,216,422
1965-66	36,633	4,001,943**	952,523	10,168,945
1966-67	37,082	4,051,942**	632,908	10,801,853
1967-68	37,616	4,361,942**	431,718	11,233,571
1968-69	36,516	4,616,279	622,445#	11,833,765
1969-70	34,896	4,658,727	406,261#	12,240,026
1970-71	35,189	4,895,326	398,687#	12,638,713
1971-72	35,853	6,385,808	1,025,737#	13,664,450
1972-73	35,348	5,252,054	710,770#	14,254,888
1973-74	35,846	6,016,254	633,116#	14,847,570
1974-75	35,656	6,732,161	1,163,925#	16,010,295
1975-76	35,968	7,148,833	779,276#	16,790,770

Sources. The Number of Contributors and Gifts to Current Use from Yale Alumni Fund Annual Report, 1978-79. Gifts and Total Gifts to Alumni Fund Endowment supplied by Henry W. Estabrook, Executive Director of Bequests and Endowment Program, Alumni Fund. These gifts to endowment represent bequests received, plus gifts to endowment from living donors, plus in memoriam gifts.

(a) Only cumulative totals of contributors were reported.

* Special 25th-Reunion giving started by Class of 1885.

** During the years 1958-1968, as a courteous gesture, the gifts to current use were always tailored out of a reserve for contingencies to honor the class from which the chairman of the alumni fund came.

+ The curious reduction in the accumulated alumni fund endowment of about a million dollars came about when a donor or donors to a particular Class Endowment withdrew what had been given and allowed the amount to be used for another University purpose.

From 1968 the book values of total gifts to endowment, as reported by the University, have differed from the total of gifts actually given because losses on investments were taken into account and because irrevocable gifts of life income trusts were counted even though the capital had not been received.

The improvement of the university's finances in the late 1950s, coupled with a much-improved market for scholars as this country implemented its enormous expansion in higher education, at last brought academic salaries here (and elsewhere) to much more satisfactory levels by 1963--only to have this ten-year revival jeopardized by the Vietnam War, and effectively reversed by the economic vicissitudes which followed.

Some measure of what has happened over the longer run is provided by the Consumer Price Index of the Historical Statistics of the U.S., Colonial Times to 1970, Bicentennial Edition of the Bureau of the Census. Using 1967 prices as a base or 100, this index showed prices in 1800 at 51, in 1814 at 63, in 1824 at 33, in 1834 at 30, in 1844 at 28, in 1854 at 27 and in 1859 at 27. By 1864 the Civil War had raised the price index back to 47, but by 1874 it had dropped again to 34, in 1884 to 27, and by 1900 to 25. There followed a slight rise to 27 in 1904 and 1909, and to 30.1 in 1914. Then in 1919, 1924 and 1929 the index stood at just over 51 (or more than double the 1900 level). In the Depression it sank to about 40, in 1944 stood at 52.7, in 1954 at 80.5, in 1964 at 92.9 and in 1974 at 147.7. In another four years it would pass 200, or 8 times the price level of 1900, and by 1980 the deflation of the dollar had not yet been arrested. How stable and relatively comfortable had been the non-progressive salaries of the nineteenth century--how unstable and precarious were the escalating salaries of the twentieth--can be understood from such figures.

Scattered through our salary tables are also a number of quite different and interesting indicators. Let me call attention to just one: the normal scale. Once the professors had run the institution, as democratic equals, and almost all of them had been paid the same. There was, so to speak, just one salary for professors--and the president himself received only a little more (F-2.10). As the faculty members increased, the professorial rank split, and a rate for assistant professors had to be devised. But this rate, too, applied to all.

By 1900 the normal scale had become such a habit that it threatened a kind of suffocation. Or so President Hadley thought. And he wanted to pay each professor "what he was worth." Secretary Anson Phelps Stokes, fearing the encouragement of petty jealousies, argued otherwise. Out of this emerged a compromise: the gradation of salaries within ranks, but the retention of normal scales or ranges for each rank, with time in the rank the chief determinant. In later years one detects an increasing discrimination and willingness to reward exceptional distinction: in the creation of a super-rank, the Sterling professors; in the elevation of the deans and directors; in the widening separations between the offices

ENDOWMENT FUNDS, 1946-1980

Market value in millions

<u>Academic Year Ending</u>				
1946	\$114.7*		1964	\$445.3
1947	115.2*		1965	457.1
1948	116.5*		1966	471.9
1949	121.3*		1967	504.8
1950	132.1		1968	545.7
1951	143.0		1969	521.8
1952	153.0		1970	419.2
1953	153.2		1971	547.1
1954	178.1		1972	395.2
1955	214.9		1973	517.1
1956	245.5		1974	461.1
1957	256.6		1975	517.7
1958	260.7		1976	567.6
1959	303.6		1977	562.9
1960	312.7		1978	545.0
1961	352.5		1979	585.4
1962	328.9		1980	676.4
1963	392.3			

Source. Office of Comptroller, courtesy Leonard V. Wesolowski, 6/23/81.

*Book (not market) value.

UNIVERSITY INCOME AND EXPENDITURES, BY CATEGORIES, 1900-1975

Income.

Academic Year	Student Fees & Charges	Dormitory Rentals	Total Grants and Gifts to Income, Restricted Unrestricted	(From U. S. Gov't Programs, Grants and Contracts)	Endowment or Investment Income	Net Total Income ^c	+ Surplus or - Deficit
1899-1900	487,022		16,978		255,967	769,598	+ 21,765
1904-1905	457,333	80,363	48,700		296,952	901,725	+ 17,398
1909-1910	515,763	120,014	112,279		592,184	1,197,570	+ 26,405
1914-1915	557,941	194,818	164,000		827,254	1,627,528	- 5,416
1919-1920	705,360	188,138	587,331		1,388,206	2,657,270	- 14,339
1924-1925	1,214,413	317,010	813,499		2,477,699	4,365,931	+ 17,367
1929-1930	1,899,287	391,656	1,310,281		4,123,459	6,957,580	- 65,408
1934-1935	2,053,159	290,954	1,241,346		3,269,437	6,526,204	- 393,536
1939-1940	2,202,059	360,068	1,104,555	(21,211)	3,980,988	7,429,129	- 133,568
1949-1950	4,717,394		3,182,003	(428,503)	5,038,128	14,752,878	- 448,486
1954-1955	8,619,364		4,839,137	(1,010,976)	7,453,136	21,729,226	- 452,898
1959-1960	13,489,842		13,688,490	(6,880,457)	12,173,584	37,790,310	+ 30,015
1964-1965	17,727,568		20,990,314	(12,745,915)	17,455,762 ^a	55,756,811	-1,298,175
1969-1970	25,980,467		49,746,533	(35,008,063)	32,416,663 ^a	125,183,062	-1,800,090
1974-1975	40,466,063		60,191,304	(51,000,000)	34,059,866 ^b	171,365,554	- 200,000

^a Includes \$5,567,875 from capital gains.

^b Includes \$6,846,045 from capital gains.

^c After sometimes substantial deductions for annuities, interest on funds, mortgage interest amortization, transfers and debit balances.

UNIVERSITY INCOME AND EXPENDITURES, BY CATEGORIES, 1900-1975 (cont.)

Expenditures

Academic Year	Salaries for Instruction & Retirement	Salaries & Costs of Administration	Plant Operation	Libraries	Scholarships, Fellowships, Prizes & Stud. Aid ^e	Museums, Gallery	Laboratories & Research	Public Services Lectures Concerts	Net Total Expenditures
1899-1900	361,395	114,743 ^d	117,060	18,636	58,412	42,182 ^f			769,598
1904-1905	453,347	118,846 ^d	178,030	25,731	76,632				919,123
1909-1910	597,254	88,787	217,678	72,903	86,665	37,475		33,533	1,171,165
1914-1915	789,180	114,177	209,198	88,072	104,168	113,437		41,599	1,632,944
1919-1920	1,177,163	226,687	532,864	121,312	131,306	207,571		45,404	2,671,609
1924-1925	1,743,388	350,968	1,068,096	214,683	266,114	335,679		44,639	4,348,564
1929-1930	2,513,572	500,309	1,683,333	368,716	515,839	563,257		94,564	7,022,988
1934-1935	2,950,993	561,444	1,908,029	482,141	633,850	920,002		89,363	6,919,740
1939-1940	2,939,513	829,063	841,899	509,158	690,473	83,536	1,023,219	57,374	7,562,718
1949-1950	4,798,852	2,277,284	2,851,536	1,314,818	1,415,764	158,736	2,234,900	84,617	15,201,364
1954-1955	5,935,457	2,849,433	4,181,357	1,061,116	2,058,878	163,568	3,631,170	110,502	22,191,297
1959-1960	9,498,699	4,509,049	5,556,292	1,822,692	3,436,005	486,833	9,586,539	163,288	37,760,295
1964-1965	12,426,759	7,246,870	7,793,559	2,822,418	5,468,030	779,582	16,618,891	222,569	57,054,986
1969-1970	31,300,000	33,000,000	30,900,000	3,300,000	15,000,000		42,765,415		125,800,000
1974-1975	37,100,000	49,600,000	47,500,000	2,800,000	15,800,000		45,800,000		171,400,000

^d Salaries and wages (other than for instruction). Librarians included.

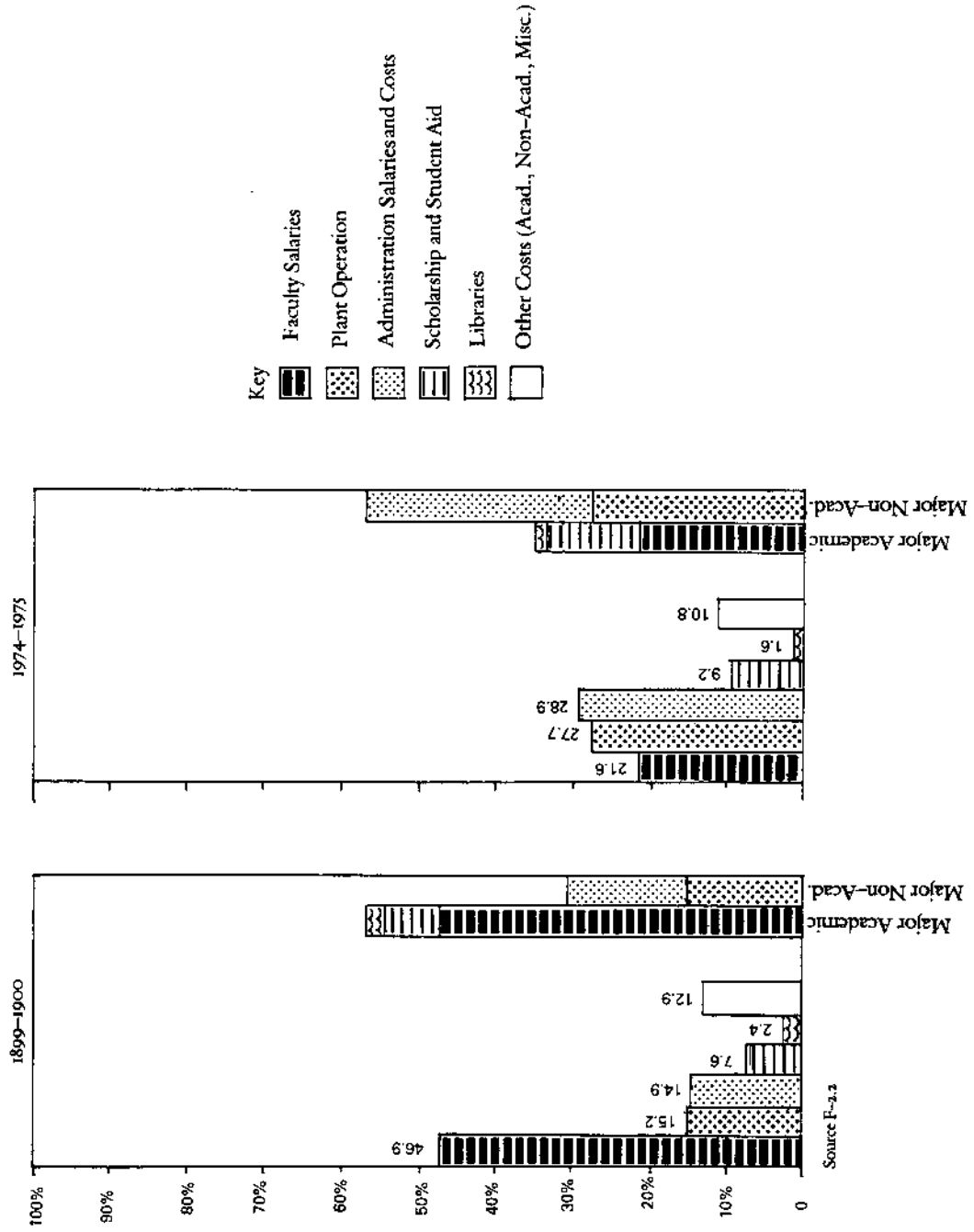
^e Excluding loans.

^f Including legal expenses and incidentals.

Sources. Annual Treasurer's Reports. Figures for 1969-1970 and 1974-1975 expenditures and deficits taken in part from Report of the Committee on the Economic Status of the Faculty of Yale College and the Graduate School, February 1979.

Note. This table presents the major categories but not all the sources of income or expenditure. Taxes and insurance are included in Plant Operation costs; but infirmary and Dining Halls, Printing and Postage, annuities, balances, and sundry credits to income are recognized only in the Net Totals of Expenditure or of Income.

Shifts Among the Major Categories of Costs, 1899-1975



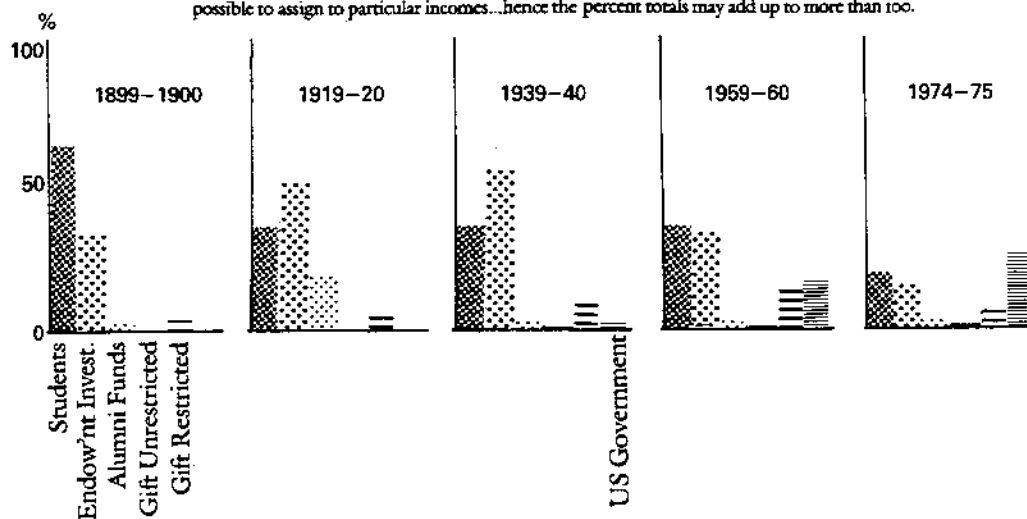
Source: F-2.3

Shifts Among the Major Categories of Income

	Student Fees and Charges	From Endowment and Investments	Gifts: Alumni Fund	Other Gifts: Unrestricted	Restricted Gifts and Privately Sponsored Research	US Government Programs, Grants and Contracts
1899-1900	\$487,022 =63%	255,697 =33%	10,000 =1.3%	6,978 =0.9%		
1919-20	894,498 =34%	1,388,206 =52%	474,759 =18%	112,572 =4%		
1939-40	2,562,127 =34%	3,980,988 =54%	321,411 =4%	19,010 =0.3%	764,134 =10%	21,211 =0.3%
1959-60	13,489,842 =36%	12,173,584 =32%	1,900,758 =5%	267,427 =0.7%	4,639,758 =12%	6,880,457 =18%
1974-75	40,466,063 =24%	34,059,866 =20%	6,300,000 =4%	3,633,964 =2%	9,200,000 =5%	51,000,000 =30%

Source: Reports of the Treasurer and Table F-2.15.

Note: The percentages are on gross receipts from particular sources measured against net total receipts, after substantial deductions for annuities, interest added to funds, bond premiums amortized, etc. These deductions it has not been possible to assign to particular incomes...hence the percent totals may add up to more than 100.



RECEIPTS AND EXPENDITURES, SURPLUS OR DEFICIT, 1946-1980

Academic Year Ending	Receipts in millions	Expend- itures in millions	Surplus (Deficit) in thousands	Academic Year Ending	Receipts in millions	Expend- itures in millions	Surplus (Deficit) in thousands
1946	\$ 9.3	\$ 9.2	\$ 82	1964	\$51.6	\$52.2	\$ (540)
1947	11.7	12.2	(499)	1965	55.7	57.0	(1,298)
1948	13.3	13.1	209	1966	78.5	79.9	(1,395)
1949	13.7	14.2	(526)	1967	89.6	89.9	(280)
1950	14.7	15.2	(450)	1968	99.4	100.0	(590)
1951	14.8	14.7	89	1969	110.9	111.8	(878)
1952	15.7	15.8	(106)	1970	123.4	125.2	(1,754)
1953	19.8	19.8	(9)	1971	128.1	130.7	(2,572)
1954	20.8	20.8	(9)	1972	136.9	138.1	(1,187)
1955	21.7	22.2	(453)	1973	143.9	144.8	(896)
1956	24.8	24.8	17	1974	157.4	157.5	(146)
1957	27.3	27.3	13	1975	171.2	171.4	(173)
1958	29.9	29.9	13	1976	188.3	190.0	(1,740)
1959	33.0	33.0	25	1977	202.7	209.3	(6,563)
1960	37.8	37.8	30	1978	216.5	218.5	(1,995)
1961	39.3	39.3	37	1979	231.5	234.0	(2,492)
1962	44.5	44.5	34	1980	264.7	266.6	(1,888)
1963	48.6	48.6	34				

Source: Office of Comptroller, courtesy Leonard V. Wesolowski, 6/23/81 and 7/10/81.

and remunerations of President, professors, and instructors. Yet still the concept of normal scales, or overlapping ranges within and between ranks helps to make possible the peaceable association of scholars and teachers of many capacities, ages and kinds: all partners in a general understanding, and all without written contract.

Endowments and Deficits

The table on Endowment Funds, 1946-1980, with the tables on receipts and expenditures, surpluses or deficits, for the post-World War-II period (F-2.14, F-2.15, and F-2.18) memorialize those sometimes exuberant but more often harrowing years. Here in the unstable and ever more swollen numbers one can see the signs of a marked university expansion, then of the irresistible and increasingly dangerous inflation, exacerbated by unanticipated stock market declines or stagnation, and some experiments with deficit financing. How President Brewster and the Corporation--in apparent accord with advices from the head of the Ford Foundation, McGeorge Bundy '40--proceeded to use up contingency funds, and go into endowments for anticipated capital gains, hardly surfaces in these figures. And certainly no mere handful of statistics could do justice to the anxieties and expediencies of the sixties and seventies. But just to compare the gross figures for 1950 and 1976, or to note the increasing dependence on federal support (F-2.15 and F-2.17), or to see how the balance of effort had to be diverted more to administration than to instruction (F-2.16), is to understand that more than hard times and fiscal restraints were involved. After 275 years Yale's existence was not in question. Yet for Yale's continuing independence, and for its character as a university of the liberal arts, things were perhaps coming once again uncomfortably close to a struggle for survival.

F-3. Growth of Yale Library

F-3 Growth of Yale Library

Introduction: The Capital of Books

Yale's earliest endowments were its charter--a disputed farm--and some books. Its most important endowments, continuously through at least the first two and a half centuries of its history, have been its legal standing as a tax-protected, self-governing institution--its buildings and grounds (dormitories, quadrangles, classrooms, laboratories and museums)--and its books, more books and still more books.

Today endowments are most often measured quite differently: in terms of accumulated "capital endowment" or invested reserves. Occasionally one can also find items for buildings and grounds, perhaps carried at cost on a treasurer's accounts. But such monetary measurements yield too narrow a reckoning. Clearly it is not possible to estimate the financial value of the printed matter--the resources of learning--which Yale has from the beginning been accumulating for the benefit of its faculties and its students and the society of which it has been a part. Yet, given Yale's errand, books were and are at the heart of the enterprise. They have defined the quality of the College and the stature of the University. They have been guarantors of Yale's future.

The beginnings and first hundred years of the College library are rather sharply outlined in our tables (F-1.1 and F-3.1). Apparently the early building of the Yale collections took place in three stages. Following on the initial deposits of some folios by James Pierpont and some of the other founding ministers, there came a remarkably quick and successful putting together of a miscellaneous collection of some 1300 volumes, both ancient and modern. Jeremiah Dummer was the chief agent, and Sir John Davie and Elihu Yale were the major contributors. Soon also, encouraged by the former tutor, Samuel Johnson, Dean Berkeley sent over almost 1000 volumes originally gathered for his intended college in Bermuda: "the finest library" received in New England up to that time (1733). End of stage one.

Stage two saw the ordering and cataloguing and intellectual arrangement

of Yale's books so that they could be shelved for use and consulted according to the logical progression of the course of study. Here the great systematizer and promoter was Rector and President Thomas Clap.

There followed a half century of virtual stagnation--or a third stage of trying to preserve what Yale had and of slowly and painfully exploring for the ways and means to make the library better and more complete. Two small bequests were received. And the Senior Tutors did what they could to watch over and care for Yale's capital of books--until in the nineteenth century the work of adding to the collection could be financed and carried forward.

By good fortune that difficult but persistent process of growth was never fatally interrupted. Yale never had to start over; Yale's library was not destroyed by fire. Of course, there was that other menace, made memorable in the old saying that "three removes are as good as a fire." Happily, Yale knew but two major removes. In the first, from Saybrook to New Haven (and part way by ox-cart), an appreciable percentage of Yale's little treasury of print did disappear. Again in the second removal, this time for safety during the Revolution, some twenty percent of the books that had been squirreled away outside of town somehow never got back. But thereafter progress was resumed and was uninterrupted.

Meanwhile there had come into existence two miniature collections, rival junior libraries, as it were, under the same paternal roof: the books accumulated by the Linonian Society and by the Brothers in Unity Society. As we know, these spontaneous libraries were not intended to duplicate or replace the Yale books, but to add to the resources of their student members literature of a more general character and lighter sort, books that would appeal to the undergraduates for their entertainment and self-education rather than textbooks for class or religious treatises. As we also know, these little libraries came to be regarded as capital assets by the two societies, and were used to attract members. In typical American fashion, size, or the sheer number of their volumes, came to seem competitively important in their society rivalry. So in the nineteenth century the Linonia and the Brothers libraries grew apace until together they virtually equalled the size of the Yale College Library. But already times were changing. Fraternities, athletics, and other activities began to divert undergraduate efforts and attention, and the two societies came on lean and somnolent days, in 1872 finally surrendering their libraries to the College. The College has kept them ever since together, as a reading library of modest size but renewable contents for the diversion and entertainment and instruction and enjoyment (not to mention dozing opportunities) of undergraduates.

GROWTH OF YALE LIBRARY, 1701-1922
 Estimates of Accumulated Holdings

Foundations, 1654-1718:

Eaton-Davenport-Pierpont Legacy*

Folios given by other founding trustees (1701-02)

Books sent from England by J. Dummer

Library turned over by Sir J. Davie

Books given by Elihu Yale before 1718

Gifts from others (see F-1.1)

Accumulated Total by 1718:
 about 1300 volumes

1718. Transfer from Saybrook: about 1/5th (or 260 volumes) lost in move to New Haven.

1718-42. Library more than doubled.

437 volumes from Elihu Yale and later gifts from Dummer.

Donations from Dr. Turner, Rev. Isaac Watts, Joseph Thompson and others.

1733. Dean Berkeley's personal and college libraries (almost 1000 volumes).

Less: some sales of duplicates by Rector Williams.

1742. Clap counted the Yale library at 2450 volumes.

From the earlier donations about 300 volumes had not survived to be catalogued.

Of the 2450 listed by Clap, 1558 would still be available 200 years later. Of the 892 later missing, an estimated 290 had been worn out, sold as duplicates, or replaced by better copies -- the rest apparently lost.

1743. "The whole Number in the Library is about 2600." Clap catalogue.

1753. Honorable Fellowship Club founded. Later known as Linonian Society or Linonia. Its library begun in 1769.

1755. "The whole Number in the Library is about 3000." Clap.

1766. About 4000 (Clap).

1768. Brothers in Unity Society founded.

1770. Linonia, 100.

1776-83. A number of books, sent out of town for safety, failed to return. Stiles estimated loss at nearly 600: from c. 3000 to 2448 volumes.

1781. Brothers in Unity, 163.

1790. c.2700. Linonia, 350.

1800. c.4000. Linonian Society, 475 volumes.

1805. Benjamin Silliman purchased about 690 titles (1440 vols.) for \$4,500 in Europe.

1808. c.4700. Brothers in Unity library, 723.

1811. Linonia, 700.

1822. Linonia, 1,187.

*I am inclined to believe that all or part of the £20 worth of books, given in 1655 by Governor Eaton to Rev. John Davenport, for Davenport's proposed college in New Haven, came to the Collegiate School through Davenport's son-in-law, Rev. James Pierpont of New Haven, one of the founding Ministers and Trustees.

GROWTH OF YALE LIBRARY, 1701-1922
 Estimates of Accumulated Holdings (cont.)

1823. c. 6500 (6620?).
1825. Brothers in Unity, 1730.
1831. c. 9000; Linonia, 3500.
1834. Alfred E. Perkins bequest of \$10,000 fund for purchase of books.
1835. c. 10,000. Brothers in Unity, 4565.
1837. Linonia, 5581.
1841. Linonia, 7500.
1843. First library building opened (now Dwight Chapel).
1845. James Luce Kingsley visited booksellers in England and on the Continent with \$8,000-15,000 (long accumulating) for purchase of books to strengthen Yale's resources.
1846. Linonia, 10,103; Brothers, 9140.
1849. 20,515 volumes and c. 3000 pamphlets. Literary Societies, 27,166.
1850. c. 21,000.
1851. Brothers, 11,651.
1854. Yale College, c. 30,000 (first mention in catalogues); L & B, 27,000; Prof'l, 5000.
1856. c. 63,000 including Linonia and Brothers in Unity and Professional School libraries.
1857. c. 65,000 total.
1858. c. 66,000 total.
1859. c. 67,000 total.
1860. Yale College, c. 35,000 (38,000?); Linonia, 11,300; Brothers, 12,000.
1861. Yale College, 40,500 + pamphlets; Professional Schools, 5000; Linonia and Brothers, 24,000. Total University, c. 69,500.
1862. c. 71,000 total.
1863. c. 72,400 total.
1865. c. 75,500 (44,500 + Linonia, 13,000; Brothers, 13,000; Professional, 5000).
1866. c. 77,500 total.
1867. c. 80,190 total.
1868. c. 81,000 total.

GROWTH OF YALE LIBRARY, 1701-1922
 Estimates of Accumulated Holdings (cont.)

1869. c. 83,000 (Yale College, 51,000; Linonia, 13,500; Brothers, 13,500; Professional, 5,000).
1870. c. 90,000 (Y. C. 55,000; Linonia, 13,500; Brothers, 13,500; Professional, 8000).
1871. c. 97,000 (Y. C. 60,000; Linonia, 13,500; Brothers, 13,500; Professional, 10,000).
1872. Linonian and Brothers in Unity Societies turned over their libraries to Yale College. Each numbered about 13,500 volumes; but in the consolidation many duplicates or worn-out volumes were thrown out, and some others "more appropriate in character to the College Library" were transferred, leaving 17,000 (16,000?) volumes as the core of Linonia and Brothers, the undergraduates' reading library. Total University, c. 86,000.
1873. c. 100,000 (Y. C. 65,000; L & B, 18,000; Professional, 17,000).
1874. c. 105,000 (Y. C. 70,000; L & B, 18,000; Professional, 17,000).
1875. c. 111,000 (Y. C. 75,000; L & B, 19,000; Professional, 17,000).
1876. c. 117,000 (Y. C. 80,000; L & B, 20,000; Professional, 17,000).
1877. c. 121,000 (Y. C. 83,000; L & B, 20,000; Professional, 18,000).
1878. c. 127,000 (Y. C. 88,000; L & B, 21,000; Professional, 18,000).
1879. Yale College library "now exceeds 80,000, to which must be added many thousand unbound pamphlets. For some years past, the average annual increase has been equal to the entire growth of the last century..." Addison VanName. Catalogue estimate, 133,000 total (Y. C. 93,000; L & B, 22,000; Professional, 18,800).
1880. c. 139,000 (Y. C. 98,000; L & B, 22,500; Professional, 18,500).
1881. c. 146,000 (Y. C. 103,000; L & B, 24,000; Professional, 19,000).
1882. c. 152,000 (Y. C. 107,000; L & B, 25,000; Professional, 20,000).
1883. c. 161,000 (Y. C. 115,000; L & B, 26,000; Professional, 20,000).
1884. c. 167,000 (Y. C. 120,000; L & B, 27,000; Professional, 20,000).
1885. c. 173,000 (Y. C. 125,000; L & B, 28,000; Professional, 20,000).
1886. c. 183,000 (Y. C. 130,000; L & B, 29,000; Professional, 24,000).
1887. University c. 160,000. Catalogue estimate 188,000 (Y. C. 135,000 plus 60,000 or 70,000 pamphlets).
1888. Nearly 200,000.
1889. Over 200,000.
1890. c. 180,000? c. 200,000? Second Library building, Chittenden Hall, opened.
1891. Over 200,000 total (University, 155,000).

GROWTH OF YALE LIBRARY, 1701-1922
 Estimates of Accumulated Holdings (cont.)

1892.	Over 200,000 total.
1893.	" " "
1894.	c. 220,000.
1895.	c. 225,000.
1896.	c. 245,000.
1897.	c. 280,000.
1898.	c. 290,000 (including 25,000 in L & B).
1899.	c. 300,000.
1900.	c. 310,000.
1901.	c. 350,000.
1902.	c. 360,000.
1903.	c. 370,000 total. University Library, 290,000; L & B, 24,000; Law, 20,000; SSS, 10,000; Divinity, 15,000; etc.
1904.	c. 390,000 total. University, 300,000.
1905.	c. 475,000 (Y. C. c. 375,000-400,000).
1906.	c. 500,000.
1907.	c. 500,000.
1908.	c. 550,000.
1909.	c. 575,000.
1910.	c. 600,000.
1911.	c. 500,000.
1912.	Greater than 900,000.
1913.	Exceeds 950,000.
1914.	c. 1,000,000.
1915.	c. 1,000,000.
1916.	c. 1,000,000.
1917.	c. 1,100,000.
1918.	c. 1.1 million; growing @ 40,000 per year, + 5000 periodicals.
1919.	(same)

GROWTH OF YALE LIBRARY, 1701-1922
Estimates of Accumulated Holdings (cont.)

1920. Over 1,250,000 (growing @ 40,000 plus 9,000 periodicals per year).
1921. (same)
1922. Over 1,500,000.
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Sources. Tables F-1.1 and F-1.4; Library Catalogues of 1742, 1743, 1790-92, 1808, 1823; and University Bulletin, General Catalogue Number, 1854-1922. Also Addison VanName on Library in W. L. Kingsley, *Yale College: A Sketch of Its History with Notices...*, 1879; and Bishop Berkeley's Gift of Books in 1733, *Yale University Library Gazette*, July 1933; Anne S. Pratt and Andrew Keogh, *The Yale Library of 1742*, *Yale University Library Gazette*, October 1940; Andrew Keogh, *Benjamin Silliman's Trip to Europe in 1805, Bookmen's Holiday*, ed. Deoch Fulton, 1943; Zara Jones Powers, *A Yale Bibliophile in European Book Shops*, in *Papers in Honor of Andrew Keogh*, 1938; catalogues of the "L and B" Library; Welch and Camp, *Yale: Her Campus, Class-Rooms and Athletics*, 1899; F. B. Dexter, *Literary Diary of Ezra Stiles*, 1901; *Yale University Library Gazette*, April 1980.

TOTAL HOLDINGS OF YALE UNIVERSITY LIBRARY, 1923-1978

1923	1,313,682	1951	4,056,276
1924	1,358,023	1952	4,139,659
1925	1,399,660	1953	4,215,841
1926	1,775,077	1954	4,246,115
1927	1,838,099	1955	4,280,473
1928	1,902,512	1956	4,080,346
1929	1,922,157	1957	4,142,730
1930	1,983,338	1958	4,215,909
1931	2,036,405	1959	4,309,882
1932	2,130,600	1960	4,394,985
1933	2,227,565	1961	4,482,878
1934	2,325,540	1962	4,572,893
1935	2,445,682	1963	4,693,072
1936	2,558,179	1964	4,703,457
1937	2,663,063	1965	4,846,328
1938	2,748,918	1966	5,013,491
1939	2,850,349	1967	5,183,790
1940	2,955,539	1968	no report
1941	3,074,817	1969	5,463,573
1942	3,180,934	1970	5,645,982
1943	3,281,739	1971	5,829,035
1944	3,365,475	1972	5,933,856
1945	3,432,363	1973	6,175,168
1946	3,539,596	1974	6,350,824
1947	3,642,730	1975	6,518,848
1948	3,770,813	1976	6,692,632
1949	3,877,819	1977	6,904,563
1950	3,982,642	1978	7,072,345

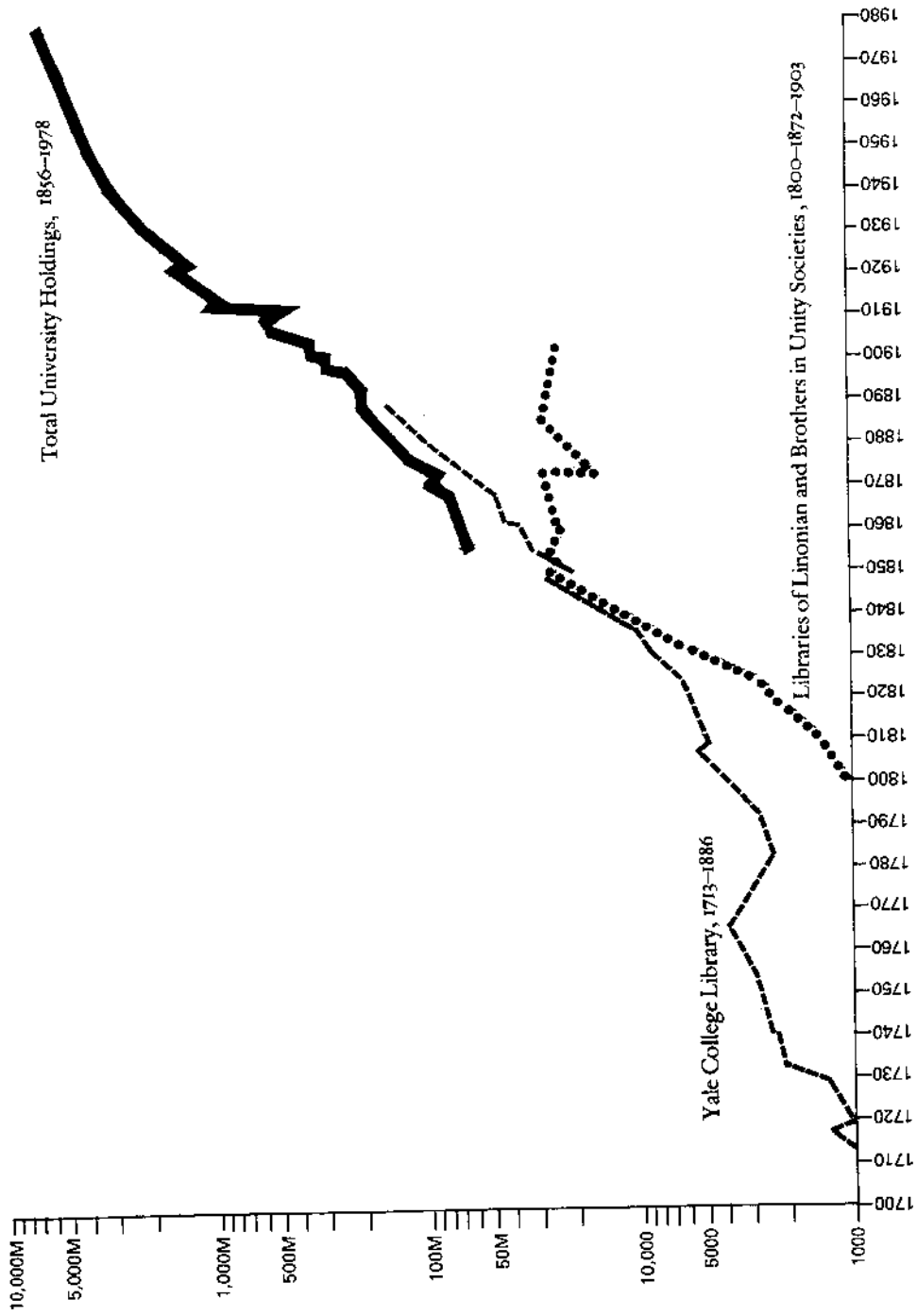
Source. Annual reports of the University Library, analyzed by Jean K. Webb in 1979.

The early nineteenth century also saw the beginnings of small supplementary libraries for the new professional departments (Schools) of medicine, divinity and law. And in sober fact the old College library had always had its own higher or "university" purposes. The books that Jeremiah Dummer and his English friends had sent, and the purposeful library that Dean Berkeley had accumulated for his enterprise in Bermuda: these were such--alike in quantity, quality and depth of learning--as to make Clap's library in 1742 and after one of the more advanced scholar's workshops in America. Indeed Berkeley's gift contemplated a use by resident graduates after their first degrees, i.e., by what we would call graduate students. And, according to F. B. Dexter, in fact it was the tutors and the resident graduates who made the most use of Yale's holdings. And it was for them and their kind--surely not just for the undergraduates--that the Corporation voted and B. Silliman expended considerable monies in English and European bookshops in 1805. Again it was for the advancement of learning that Kingsley repeated the book-buying pilgrimage forty years later. Two years before that, in 1843, Yale's library had been given its own separate and magnificent building, and its first full-time librarian. In 1865 Addison VanName would succeed to that office. And the almost astronomical growth of the modern Yale libraries would get under way.

How understand that growth? We should see behind the figures (F-3.2) the development not only of substantial professional school libraries but also of lesser, special-purpose collections, to forward the ever-advancing researches of the faculties or to honor and make useful the life-long collecting efforts of booklovers among Yale's graduates and friends. Some collections would be topic- or author-oriented and incredibly comprehensive; others would specialize in manuscripts and rare documents; still others could only be described as collections of collections. And even the largest collections by themselves are not whole libraries. By 1976 the Yale University Library would comprehend about forty different libraries, great and small.

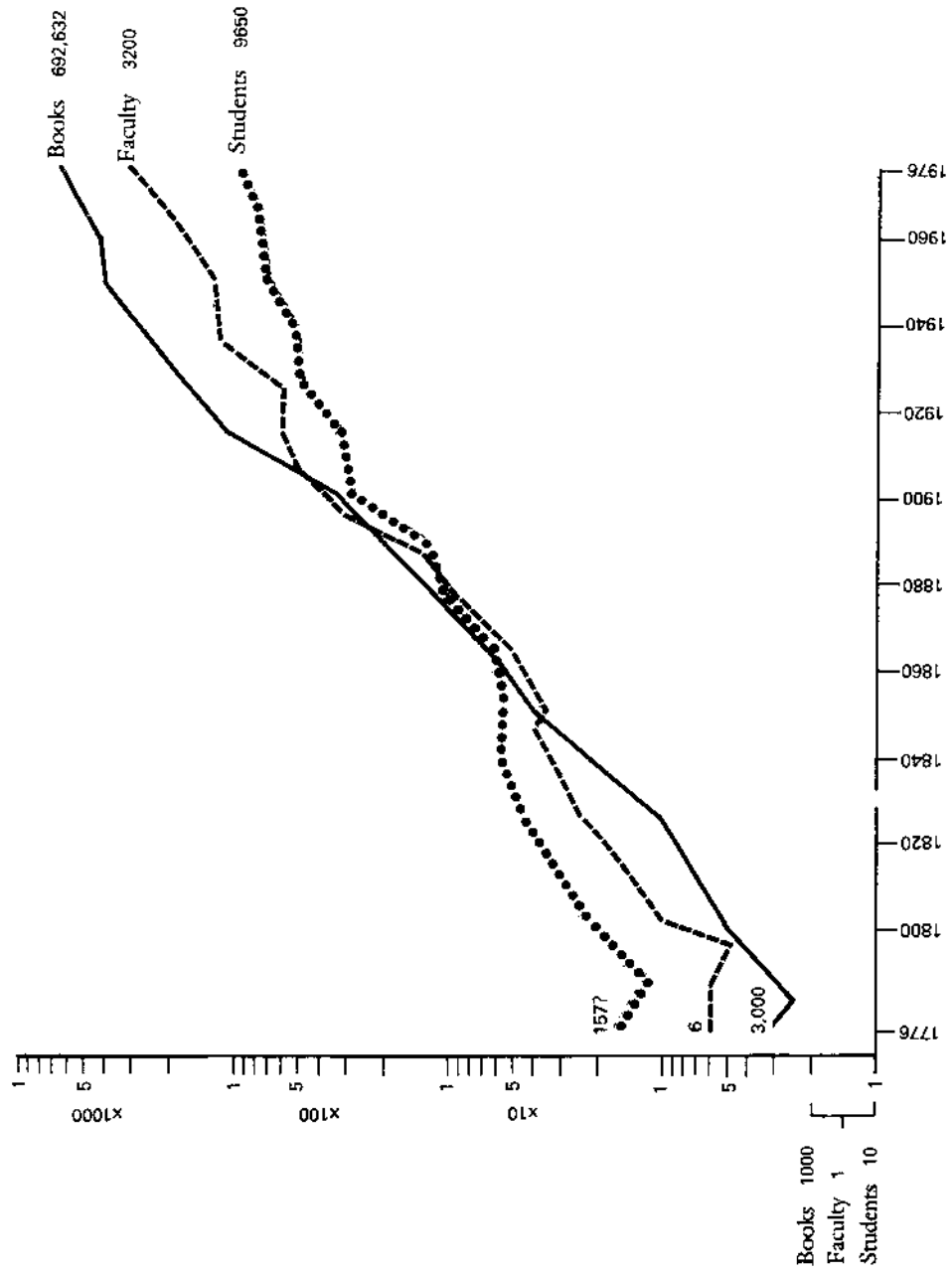
In the longer perspective, these book numbers are suggestive. Printing began in Europe c. 1450. And so fast did the new magic develop that by the end of the sixteenth century more than 100,000 printed books had sprung into existence in Europe. The first elements of the British Museum did not take shape until the year of Yale's founding, 1701, it would not open until 1759, and its collections of printed books would not reach 200,000 until the 1820s. On the Continent, however, the catalogues of the Bibliotheque Nationale would show 6,000 titles by 1622, and by the 1720s some 80,000 volumes plus 16,000 manuscripts; while what would become the Nationalbibliothek in Vienna by 1727 numbered some 90,000 volumes. By contrast, in 1733 Yale's collection of some

Books Accumulated, 1713-1980



Sources: Tables F-5.1 and F-5.2.

Students: Faculty: Books, 1776-1979



Sources: A-1.1 to A-1.8, D-1.1 to D-1.4, D-4.1 to D-4.18, F-1.1 to F-3.3

3,000 titles was small, yet rather distinguished in quality and, for a colonial holding, exceptional.

Pursuing the comparisons into modern times, we may note that by the 1960s the Bibliotheque Nationale contained over six million volumes, while in the United States a library of at least 100,000 titles seemed indispensable if a liberal arts college was to aspire to any quality. It had taken old Yale College--and the debating societies, and the professional schools--until 1872 to achieve that 100,000 count (though in 1872 no such numbers would have been required for excellence). One hundred years later, in 1972, Yale's total holdings would be about six million, and in 1976 seven million, or seventy times what had been considered a possible college minimum a year or two earlier.

Concealed in the multimillion figures are increasing collections of manuscripts and many items both precious and unique. In incunabula and illuminated manuscripts and the papers of famous writers the holdings have become outstanding. In 1963 the Beinecke family provided the University with an original and separate treasure house, itself a treasure, to house its greatest rarities and irreplaceable holdings, in a way to preserve and display and make them useful.

From some "forty folios" allegedly kept in Parson Russel's parlor to some forty distinct libraries now, and from a few ox-carts of books carried with difficulty from Saybrook to New Haven on the road toward a pyramid of seven million volumes: it's quite a story. Yale's library has become, we are told, the second greatest university library in the world and each year (despite a dwindling share in Yale's revenues, cf. F-2.2) it adds perhaps a tenth of the world's total annual output of books to its collections.

In 1924 Professor Chauncey Brewster Tinker, the great twentieth century champion of Yale's library, and builder of its rare book collections, challenged the graduates and friends of the University with this statement: "If we are not willing to compete with the best libraries in this country, it is folly for us to attempt to be one of the great universities, for scholars and teachers, graduate students, and, at last, undergraduate students will go where the books are." Three years earlier, in his 1921 inaugural address, President James Rowland Angell had asserted that "Where the greatest investigators and scholars are gathered, thither will come the intellectual elite from all the world." The two statements interlock and bear quoting here. For manuscripts and books have ever been and one hopes will long remain what most attract scholars, students and human talent: the nectar that lures and the honey that feeds the bees of the world's learning.

