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Institute of Education Sciences

Projections of Education Statistics to 2018

Thirty-seventh Edition

NCES 2009-062

U. S. DEPARTMENT OF EDUCATION

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SEPTEMBER 2009

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Foreword

Projections of Education Statistics to 2018 is the 37th report in a series begun in 1964. It includes statistics on elementary and secondary schools and degree-granting institutions. This report provides revisions of projections shown in *Projections of Education Statistics to 2017*. Included are projections of enrollment, graduates, teachers, and expenditures to the year 2018. This is the first edition of the *Projections of Education Statistics* to include projections of first-time freshmen in public and private postsecondary institutions.

In addition to projections at the national level, the report includes projections of public elementary and secondary school enrollment and public high school graduates to the year 2018 at the state level. The projections in this report were produced by the National Center for Education Statistics (NCES) to provide researchers, policy analysts, and others with state-level projections developed using a consistent methodology. They are not intended to supplant detailed projections prepared for individual states.

Assumptions regarding the population and the economy are the key factors underlying the projections of education statistics. NCES projections do not reflect changes in national, state, or local education policies that may affect enrollment levels.

Appendix A of this report outlines the projection methodology and describes the models and assumptions used to develop the national and state projections. The enrollment models use enrollment data and population estimates and projections from NCES and the U.S. Census Bureau. The models are based on the mathematical projection of past data patterns into the future. The models also use projections of economic variables from IHS Global Insight, an economic forecasting service.

The projections presented in this report are based on the 2000 census and assumptions for the fertility rate, internal migration, net immigration, and mortality rate. For further information, see appendix A.

Most of the projections of education statistics include three alternatives, based on different assumptions about demographic and economic growth paths. Although the first alternative set of projections (middle alternative projections) in each table is deemed to represent the most likely projections, the low and high alternatives provide a range of outcomes.

Val Plisko, Associate Commissioner

Early Childhood, International, and Crosscutting Studies Division

September 2009

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About This Report

Guide to This Edition

This edition of *Projections of Education Statistics* provides projections for key education statistics, including enrollment, graduates, teachers, and expenditures in elementary and secondary schools. Included are national data on enrollment and graduates for the past 15 years and projections to the year 2018, as well as state-level data on enrollment in public elementary and secondary schools and public high school graduates to the year 2018.

State-level data on enrollment and graduates in private schools are not included. Further research and model development are needed to develop reliable projections of private school enrollment and graduates by state. The projections of public and private elementary and secondary school enrollment do not include projections of the number of students who will be homeschooled because more data are required to develop reliable projections.

Similar methodologies were used to obtain a uniform set of projections for each of the 50 states and the District of Columbia. These projections are further adjusted to agree with the national projections of public elementary and secondary school enrollment and public high school graduates contained in this report.

The summary of projections provides highlights of the national and state data, while the reference tables and figures present more detail. All calculations within the *Projections of Education Statistics* are based on unrounded estimates. Therefore, the reader may find that a calculation, such as a difference or percentage change, cited in the text or figure may not be identical to the calculation obtained by using the rounded values shown in the accompanying tables.

Appendix A describes the methodology and assumptions used to develop the projections; appendix B presents supplementary tables; appendix C describes data sources; appendix D is a list of abbreviations; appendix E presents the references; and appendix F is a glossary of terms.

Limitations of Projections

Projections of a time series usually differ from the final reported data due to errors from many sources, such as the properties of the projection methodologies, which depend on the validity of many assumptions. Therefore, alternative projections are shown for most statistical series to denote the uncertainty involved in making projections. The low and high alternative projections are not statistical confidence limits. They are based on alternative forecasts of economic variables produced by the economic consulting firm IHS Global Insight and incorporate an adjustment that takes into account past forecast errors.

The mean absolute percentage error is one way to express the forecast accuracy of past projections. This measure expresses the average value of the absolute value of errors in percentage terms. For example, the mean absolute percentage errors of public school enrollment in grades PK–12 for lead times of 1, 2, 5, and 10 years were 0.3, 0.6, 1.3, and 2.3 percent, respectively. In contrast, mean absolute percentage errors for bachelor's degrees for lead times of 1, 2, 5, and 10 years were 0.9, 1.9, 6.0, and 13.5 percent, respectively. For more information on mean absolute percentage errors, see table A-2 in appendix A.

Alternative projections are presented for enrollment in degree-granting institutions, earned degrees conferred, elementary and secondary teachers, and expenditures of public elementary and secondary schools.

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Summary of Projections

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Section 1. Elementary and Secondary Enrollment

Introduction

Total public and private elementary and secondary school enrollment reached a record 55 million in fall 2006, representing a 12 percent increase since fall 1993. Between 2006, the last year of actual public school data, and 2018, a further increase of 8 percent is expected, with increases projected in public schools and decreases projected in private schools. Increases in public school enrollment are expected in the Midwest, South, and West, and a decrease is expected in the Northeast.

Factors affecting the projections

The projected changes in enrollment reflect factors such as internal migration, legal and illegal immigration, the relatively high level of births in the 1990s and 2000s, and resultant changes in the population (reference figure 1), rather than changes in enrollment rates.

Factors that were not considered

The projections do not assume changes in policies or attitudes that may affect enrollment levels. For example, they do not account for changing state and local policies on prekindergarten and kindergarten programs. Continued expansion of these programs could lead to higher enrollments at the elementary school level. Projections also exclude the number of students who are homeschooled because national data are available for only a limited time period.

National

Enrollment increases are expected at both the PK–8 and 9–12 grade spans (figures A and B; reference figures 2, 3, and 4; and tables 1, 2, and 3).

Total enrollment

Total elementary and secondary enrollment

- increased 12 percent between 1993 and 2006; and
- is projected to increase an additional 8 percent between 2006 and 2018.

Enrollment in grades PK–8

Enrollment in prekindergarten through grade 8

- increased 7 percent between 1993 and 2006; and
- is projected to increase an additional 10 percent between 2006 and 2018.

Enrollment in grades 9–12

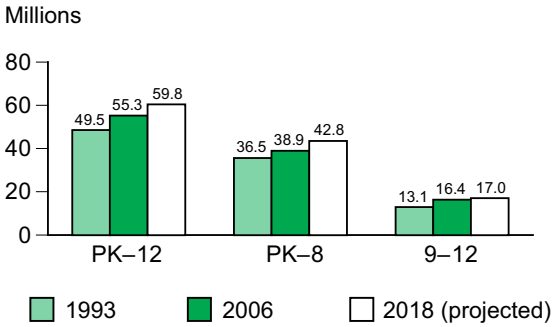
Enrollment in grades 9–12

- increased 26 percent between 1993 and 2006; and
- is projected to increase an additional 3 percent between 2006 and 2018.

The grade progression rate method

The method used to project school enrollments assumes that future trends in factors affecting enrollments will be consistent with past patterns. It implicitly includes the net effect of factors such as dropouts, deaths, nonpromotion, and transfers to and from public schools. See appendix A, page 91, for more details.

Figure A. Actual and projected numbers for elementary and secondary enrollment, PK–12, PK–8, and 9–12: Selected years, 1993 through 2018



NOTE: Detail may not sum to totals because of rounding. The private school number for 2006 is estimated using data from the Private School Universe Survey.
SOURCE: U.S. Dept. of Education, NCES, Common Core of Data surveys, various years; Private School Universe Survey, various years; and National Elementary and Secondary School Enrollment Model. (See reference table 1.)

Public elementary and secondary enrollment

Enrollment in public elementary and secondary schools

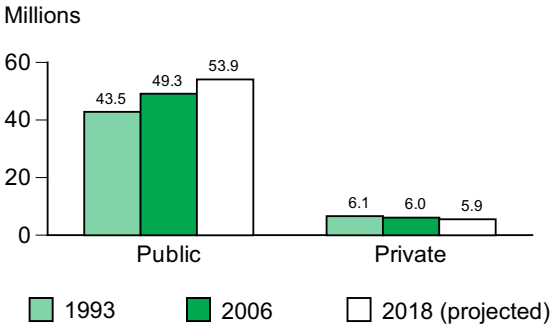
- increased 13 percent between 1993 and 2006; and
- is projected to increase an additional 9 percent between 2006 and 2018.

Private elementary and secondary enrollment

Enrollment in private elementary and secondary schools

- decreased 1 percent between 1993 and 2006; and
- is projected to decrease an additional 2 percent between 2006 and 2018.

Figure B. Actual and projected numbers for elementary and secondary enrollment, by control of school: Selected years, 1993 through 2018



NOTE: The private school number for 2006 is estimated using data from the Private School Universe Survey.
SOURCE: U.S. Dept. of Education, NCES, Common Core of Data surveys, various years; Private School Universe Survey, various years; and National Elementary and Secondary School Enrollment Model. (See reference table 1.)

State and Regional (Public School Data)

States

The expected 9 percent national increase in public school enrollment between 2006 and 2018 plays out differently among the states (reference figures 5–7 and tables 4–9).

- Increases are projected for 34 states and the District of Columbia, with
  - increases of more than 15 percent projected for 9 states;
  - increases between 5 and 15 percent projected for 14 states; and
  - increases of less than 5 percent projected for 11 states and the District of Columbia.

Table A. Projected percentage increases in public elementary and secondary school enrollment, by state: 2006 through 2018

State	Percent change	State	Percent change
Arizona	42.2	Alaska	8.5
Nevada	40.2	Oklahoma	7.1
Texas	32.1	Nebraska	7.0
Utah	29.7	South Carolina	5.8
Idaho	26.1	Minnesota	5.5
Georgia	25.2	Missouri	4.7
Florida	24.0	Kansas	3.8
North Carolina	22.9	Kentucky	3.6
Colorado	19.3	Montana	3.3
Tennessee	12.9	Indiana	3.2
Delaware	11.7	District of Columbia	3.1
Virginia	11.5	Maryland	2.4
Oregon	11.0	Illinois	2.3
Wyoming	10.6	Wisconsin	2.2
New Mexico	10.5	Alabama	1.4
Arkansas	9.1	Iowa	1.3
Washington	8.7	New Hampshire	1.1
California	8.6		

SOURCE: U.S. Dept. of Education, NCES, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (See reference table 5.)

- Decreases are projected for 16 states, with
  - decreases of 5 percent or more projected for 8 states; and
  - decreases between 4.99 and 0.01 percent projected for 8 states.

Regions

Between 2006 and 2018, public elementary and secondary enrollment is projected to

- increase 18 percent in the South;
- increase 15 percent in the West;
- increase less than 1 percent in the Midwest; and
- decrease 5 percent in the Northeast.

Table B. Projected percent decreases in public elementary and secondary school enrollment, by state: 2006 through 2018

State	Percent change	State	Percent change
Rhode Island	-11.5	Maine	-4.5
New York	-9.0	Louisiana	-3.6
North Dakota	-8.5	Ohio	-3.1
Michigan	-7.9	West Virginia	-2.4
Vermont	-7.4	New Jersey	-2.4
Massachusetts	-6.2	Pennsylvania	-1.7
Connecticut	-5.9	Mississippi	-0.8
Hawaii	-5.7	South Dakota	-0.5

SOURCE: U.S. Dept. of Education, NCES, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (See reference table 5.)

Accuracy of Projections

An analysis of projection errors from the past 24 editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for lead times of 1, 2, 5, and 10 years out for projections of public school enrollment in grades PK–12 were 0.3, 0.6, 1.3, and 2.3 percent, respectively. For the 1-year-out prediction, this means that one would expect the projection to be within 0.3 percent of the actual value, on average. For projections of public school enrollment in grades PK–8, the MAPEs for lead times of 1, 2, 5, and 10 years out were 0.4, 0.6, 1.4, and 3.1 percent, respectively, while the MAPEs for projections of public school enrollment in grades 9–12 were 0.4, 0.7, 1.4, and 2.2 percent, respectively, for the same lead times. For more information, see table A-2 in appendix A.

Section 2. Enrollment in Postsecondary Degree-Granting Institutions

Introduction

Total enrollment in degree-granting institutions is expected to increase between fall 2007, the last year of actual data, and fall 2018. Degree-granting institutions are postsecondary institutions that provide study beyond secondary school and offer programs terminating in an associate's, baccalaureate, or higher degree and participate in federal financial aid programs. Differential growth is expected by student characteristics such as age, sex, and attendance status (part-time or full-time). Enrollment is expected to increase in both public and private degree-granting institutions.

Factors affecting the projections

Changes in age-specific enrollment rates and college-age populations will affect enrollment levels between 2007 and 2018. An important factor is the expected increase in the population of 25- to 29-year-olds (reference figure 8 and appendix table B-4).

Three alternative sets of projections

Middle, low, and high sets of projections were made for total enrollment in degree-granting institutions and for enrollment by age, sex, attendance status, level (undergraduate, graduate, or first-professional), and control of institution.

Factors that were not considered

The enrollment projections do not take into account such factors as the cost of a college education, the economic value of an education, and the impact of distance learning due to technological changes. These factors may produce changes in enrollment levels. The racial/ethnic backgrounds of nonresident aliens are not known.

Assumptions underlying the projections

The middle alternative uses a baseline scenario of the economy for projections of disposable income and unemployment rates. The low and high alternative forecasts are based on variables from alternative economic scenarios that were developed by the economic consulting firm IHS Global Insight. For more details, see appendix A.

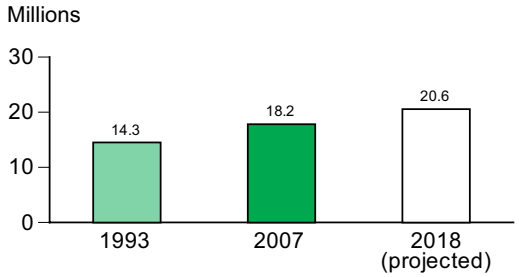
Total Enrollment

Total enrollment in degree-granting institutions increased 28 percent from 1993 to 2007, a period of 14 years (figure C; reference figure 10 and table 10).

Between 2007 and 2018, a period of 11 years, total enrollment is projected to increase

- 13 percent, to 20.6 million, in the middle alternative projections;
- 9 percent, to 19.9 million, in the low alternative projections; and
- 17 percent, to 21.3 million, in the high alternative projections.

Figure C. Actual and middle alternative projected numbers for total enrollment in degree-granting institutions: Selected years, 1993 through 2018



SOURCE: U.S. Dept. of Education, NCES, Integrated Postsecondary Education Data System (IPEDS), "Fall Enrollment Survey," various years; and Enrollment in Degree-Granting Institutions Model. (See reference table 10.)

Enrollment by Selected Characteristics and Control of Institution

Enrollment by age of student

Between 2007 and 2018, in the middle alternative projections, enrollment (figure D; reference figures 11, 13, and 14 and tables 11–13) is projected to increase

- 9 percent for students who are 18 to 24 years old;
- 25 percent for students who are 25 to 34 years old; and
- 12 percent for students who are 35 years old and over.

Enrollment by sex of student

Between 2007 and 2018, in the middle alternative projections, enrollment (figure D; reference figure 12 and tables 10–21) is projected to increase

- 9 percent for men; and
- 16 percent for women.

Enrollment by attendance status

Between 2007 and 2018, in the middle alternative projections, enrollment (figure D; reference figure 15 and tables 10–21) is projected to increase

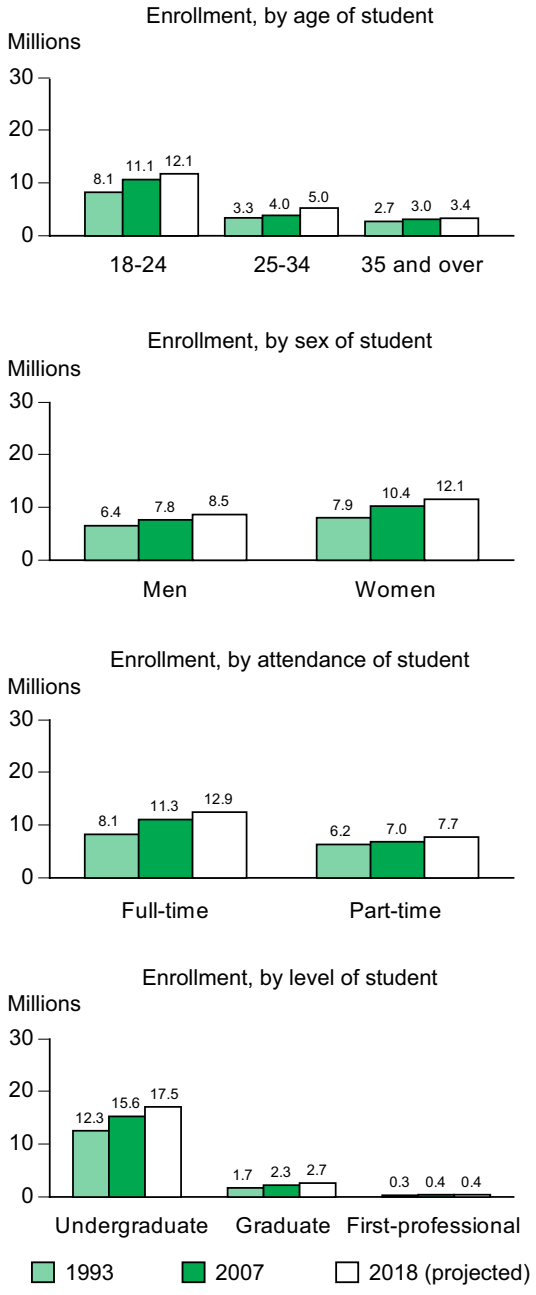
- 15 percent for full-time students; and
- 10 percent for part-time students.

Enrollment by level

Between 2007 and 2018, in the middle alternative projections, enrollment (figure D; reference figures 18 and 19 and tables 19–21) is projected to increase

- 12 percent for undergraduate students;
- 18 percent for graduate students; and
- 20 percent for first-professional students (see page 15 for a definition of first-professional).

Figure D. Actual and middle alternative projected numbers for total enrollment in degree-granting institutions, by selected characteristics: Selected years, 1993 through 2018



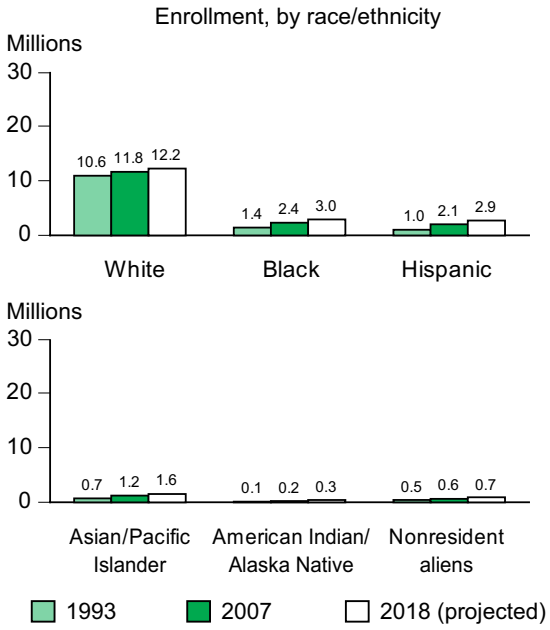
See notes at end of figure (on next page).

Enrollment by race/ethnicity

Between 2007 and 2018, enrollment (figure D, reference figure 20 and table 22) is projected to increase

- 4 percent for students who are White;
- 26 percent for students who are Black;
- 38 percent for students who are Hispanic;
- 29 percent for students who are Asian or Pacific Islander;
- 32 percent for students who are American Indian or Alaska Native; and
- 14 percent for students who are nonresident aliens.

Figure D. Actual and middle alternative projected numbers for total enrollment in degree-granting institutions, by selected characteristics: Selected years, 1993 through 2018 —Continued



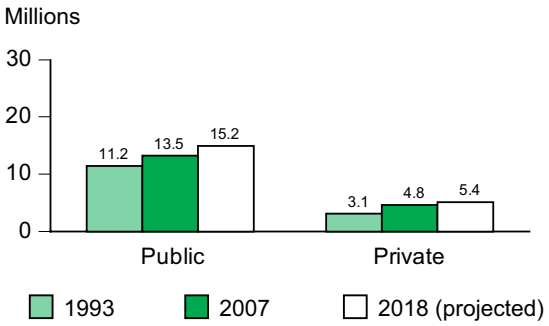
NOTE: Race categories exclude persons of Hispanic ethnicity. The racial/ethnic backgrounds of nonresident aliens are not known.
SOURCE: U.S. Dept. of Education, NCES, Integrated Postsecondary Education Data System (IPEDS), "Fall Enrollment Survey," various years; and Enrollment in Degree-Granting Institutions Model and Enrollment in Degree-Granting Institutions by Race/Ethnicity Model. (See reference tables 10, 11 and 19–22.)

Enrollment in public and private institutions

Between 2007 and 2018, in the middle alternative projections, enrollment (figure E; reference figure 16 and table 10) is projected to increase

- 13 percent in public institutions; and
- 13 percent in private institutions.

Figure E. Actual and middle alternative projected numbers for total enrollment in degree-granting institutions, by control of institution: Selected years, 1993 through 2018



SOURCE: U.S. Dept. of Education, NCES, Integrated Postsecondary Education Data System (IPEDS), "Fall Enrollment Survey," various years; and Enrollment in Degree-Granting Institutions Model. (See reference table 10.)

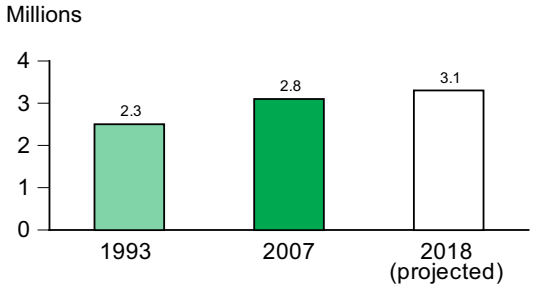
First-Time Freshmen Enrollment

First-time freshmen enrollment in degree-granting institutions increased 22 percent from 1993 to 2007 (figure F; reference figure 22 and table 10).

Between 2007 and 2018, in the middle alternative projections, first-time freshmen enrollment is projected to

- increase 12 percent overall;
- increase 8 percent for men; and
- increase 15 percent for women.

Figure F. Actual and middle alternative projected numbers for first-time freshmen fall enrollment in degree-granting institutions: Selected years, 1993 through 2018



SOURCE: U.S. Dept. of Education, NCES, Integrated Postsecondary Education Data System (IPEDS), "Fall Enrollment Survey," various years; Enrollment in Degree-Granting Institutions Model, 1973–2007; and First-Time Freshmen Model, 1975-2007. (See reference table 10.)

Accuracy of Projections

For projections of total enrollment in degree-granting institutions, an analysis of projection errors based on the past eight editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for lead times of 1, 2, 5, and 10 years out were 1.3, 2.2, 4.6, and 10.4 percent, respectively. For the 1-year-out prediction, this means that one would expect the projection to be within 1.3 percent of the actual value, on average. For more information, see table A-2 in appendix A.

Section 3. High School Graduates

Introduction

Between 2005–06, the last year of actual data, and 2018–19, the number of high school graduates is projected to increase nationally by 9 percent. Public schools are expected to have an increase in high school graduates, and private schools are expected to have a decrease. Increases are expected in the Midwest, West, and South, and a decrease is expected in the Northeast.

Factors affecting the projections

Projected increases in the number of graduates reflect changes in the 18-year-old population over the projection period, rather than changes in the graduation rates of 12th-graders. Projections of graduates could be affected by changes in policies influencing graduation requirements.

Definition

A high school graduate is defined as an individual who has received formal recognition from school authorities, by the granting of a diploma, for completing a prescribed course of study. This definition does not include other high school completers or high school equivalency recipients.

National

Total number of high school graduates

The total number of high school graduates (figure G; reference figure 23 and table 24)

- increased 27 percent between 1993–94 and 2005–06, a period of 12 years; and
- is projected to increase an additional 9 percent between 2005–06 and 2018–19, a period of 13 years.

Public high school graduates

The number of public high school graduates

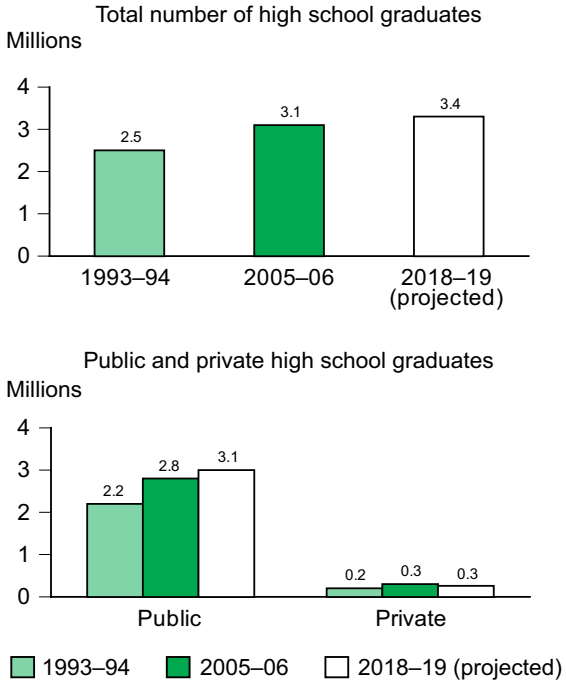
- increased 27 percent between 1993–94 and 2005–06; and
- is projected to increase an additional 11 percent between 2005–06 and 2018–19.

Private high school graduates

The number of private high school graduates

- increased 27 percent between 1993–94 and 2005–06; and
- is projected to decrease 10 percent between 2005–06 and 2018–19.

Figure G. Actual and projected numbers for high school graduates, total and by control of school: Selected years, 1993–94 through 2018–19



NOTE: Detail may not sum to totals because of rounding. The private school number for 2005–06 is estimated using data from the Private School Universe Survey.
SOURCE: U.S. Dept. of Education, NCES, Common Core of Data surveys, various years; Private School Universe Survey, various years; and National High School Graduates Model. (See reference table 24.)

State and Regional (Public School Data)

States

The expected 11 percent national increase in public high school graduates between 2005–06 and 2018–19 plays out differently among the states (reference figure 24 and tables 25 and 26).

- Increases are projected for 33 states, with
  - increases of more than 15 percent projected for 13 states;
  - increases between 5 and 15 percent projected for 12 states; and
  - increases of less than 5 percent projected for 8 states.
- Decreases are projected for 17 states and the District of Columbia, with
  - decreases of 15 percent or more projected for 4 states and the District of Columbia;
  - decreases between 5 and 15 percent projected for 10 states; and
  - decreases between 4.99 and 0.01 percent projected for 3 states.

Regions

Between 2005–06 and 2018–19, the number of public high school graduates is projected to

- increase 23 percent in the South;
- increase 16 percent in the West;
- increase 2 percent in the Midwest; and
- decrease 3 percent in the Northeast.

Table C. Projected percentage changes in the number of public high school graduates, by state: 2005–06 through 2018–19

State	Percent change	State	Percent change
Nevada	59.1	Rhode Island	-21.0
Utah	53.0	North Dakota	-20.4
Georgia	41.3	District of Columbia	-19.4
Texas	40.0	Hawaii	-18.6
Idaho	33.6	Vermont	-15.9
North Carolina	33.2	Maine	-12.7
Arizona	32.5	New York	-11.5
Colorado	29.8	South Dakota	-11.2
Florida	22.7	Louisiana	-8.6
Tennessee	21.9	Montana	-8.6
Virginia	17.5	Michigan	-8.1
Delaware	17.1	New Hampshire	-8.1
Indiana	15.1	Maryland	-6.9
Oregon	15.0	Massachusetts	-6.2
Kentucky	13.2	Alaska	-5.5
Arkansas	11.0	Connecticut	-3.9
California	11.0	Wisconsin	-1.2
Alabama	10.8	New Jersey	-0.9
Pennsylvania	10.4		
Mississippi	7.6		
South Carolina	6.9		
Illinois	6.8		
Nebraska	6.2		
Oklahoma	6.2		
Washington	5.9		
New Mexico	4.6		
Missouri	4.6		
Wyoming	4.2		
Iowa	3.5		
West Virginia	2.6		
Kansas	0.9		
Ohio	0.3		
Minnesota	#		

Rounds to zero.
SOURCE: U.S. Dept. of Education, NCES: Common Core of Data surveys and State Public High School Graduates Model. (See reference table 26.)

Accuracy of Projections

For NCES projections of public high school graduates produced over the last 18 years, the mean absolute percentage errors (MAPEs) for lead times of 1, 2, 5, and 10 years out were 1.0, 0.9, 1.8, and 3.8, respectively. For more information, see table A-2 in appendix A.

Section 4. Degrees Conferred

Introduction

Continuing growth in enrollment in degree-granting institutions has been reflected by an increase in the number of degrees conferred. Increases in the number of degrees conferred are expected to continue between 2006–07, the last year of actual data, and 2018–19.

Three alternative sets of projections

Middle, low, and high sets of projections were developed for the total number of degrees conferred at each level—associate's, bachelor's, master's, doctor's, and first-professional—as well as for the number conferred at each level, by sex of recipient.

Assumptions underlying the projections

The middle alternative uses projections of the college-age populations developed by the Census Bureau and the middle alternative projections of college enrollment from this report. The low and high alternative projections of degrees were based on the alternative enrollment projections. Some factors that may affect future numbers of degrees, such as choice of degree and labor force requirement, were not included in the projection models.

Degrees, by Level of Degree and Sex of Recipient

Between 1993–94 and 2006–07, the number and proportion of degrees awarded to women rose at all levels. In 2006–07, women earned the majority of associate's, bachelor's, and master's degrees, and 50 percent of doctor's and first-professional degrees. Between 2006–07 and 2018–19, continued increases are expected in the number of degrees awarded to women, as well as men, at all levels (figure H; reference figures 25–29 and tables 27–31).

Associate's degrees

Between 2006–07 and 2018–19, in the middle alternative projections, the number of associate's degrees is projected to

- increase 25 percent overall;
- increase 16 percent for men; and
- increase 31 percent for women.

Bachelor's degrees

Between 2006–07 and 2018–19, in the middle alternative projections, the number of bachelor's degrees is projected to

- increase 19 percent overall;
- increase 14 percent for men; and
- increase 23 percent for women.

Figure H. Actual and middle alternative projected numbers for degrees conferred, by level and sex of recipient: Selected years, 1993–94 through 2018–19

See notes at end of figure (on next page).

Master's degrees

Between 2006–07 and 2018–19, in the middle alternative projections, the number of master's degrees is projected to

- increase 28 percent overall;
- increase 23 percent for men; and
- increase 31 percent for women.

Doctor's degrees

Between 2006–07 and 2018–19, in the middle alternative projections, the number of doctor's degrees is projected to

- increase 49 percent overall;
- increase 35 percent for men; and
- increase 63 percent for women.

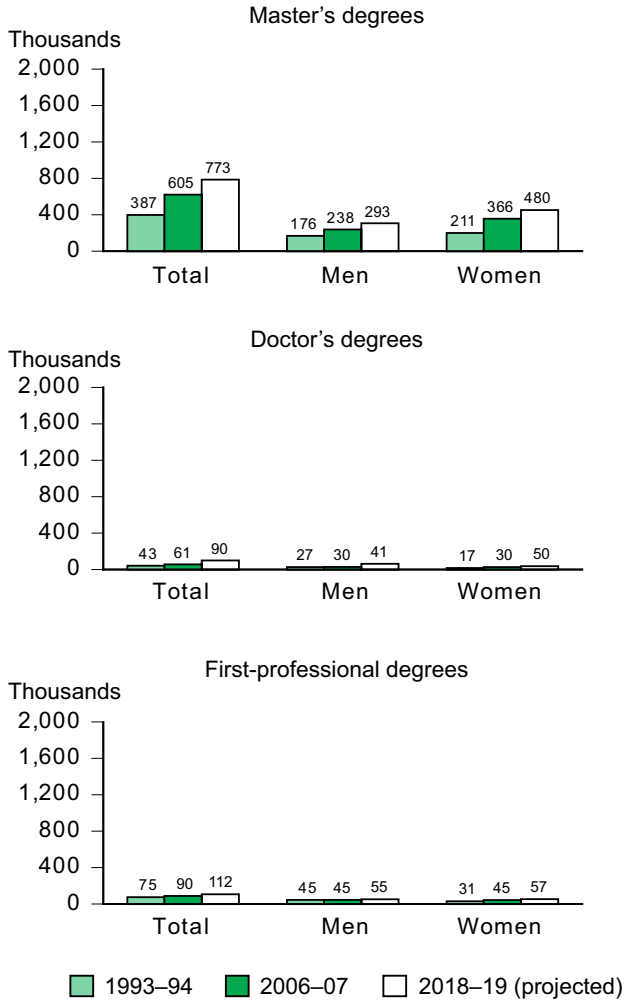
Each year during that time period, women are projected to receive more doctor's degrees than men in each set of alternative projections.

First-professional degrees

Between 2006–07 and 2018–19, in the middle alternative projections, the number of first-professional degrees is projected to

- increase 24 percent overall;
- increase 22 percent for men; and
- increase 27 percent for women.

Figure H. Actual and middle alternative projected numbers for degrees conferred, by level and sex of recipient: Selected years, 1993–94 through 2018–19—Continued



NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Dept. of Education, NCES, Integrated Postsecondary Education Data System (IPEDS), "Completions Survey," various years; and Degrees Conferred Model. (See reference tables 27–31.)

Definition

A first-professional degree is one that signifies both completion of the academic requirements for beginning practice in a given profession and a level of professional skill beyond that required for a bachelor's degree. A first-professional degree is based on a program requiring at least 2 academic years of work beyond the bachelor's degree. Degree fields include dentistry, medicine, optometry, osteopathic medicine, pharmacy, podiatric medicine, veterinary medicine, chiropractic, law, and theological professions.

Accuracy of Projections

An analysis of projection errors from the past 12 editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for associate's degree projections were 2.1 percent for 1 year out, 3.3 percent for 2 years out, 6.0 percent for 5 years out, and 15.6 percent for 10 years out. The MAPEs for bachelor's degree projections were 0.9, 1.9, 6.0, and 13.5 percent, respectively, for lead times of 1, 2, 5, and 10 years out. The MAPEs for master's degrees were 1.5, 3.5, 12.4, and 25.0 percent, respectively. For doctor's degrees, the MAPEs were 3.4, 5.5, 6.1, and 11.9 percent, respectively. For first-professional degrees, the MAPEs were 1.3, 1.7, 5.1, and 13.8 percent, respectively. For more information on the MAPEs of different NCES projection series, see table A-2 in appendix A.

Section 5. Elementary and Secondary Teachers

Introduction

Between fall 2006, the last year of actual public school data, and fall 2018, the number of teachers in elementary and secondary schools is projected to rise. The numbers of both public and private school teachers are projected to grow. The pupil/teacher ratios are projected to decrease in both public and private schools. The annual number of new teacher hires is projected to increase in both public and private schools.

Factors affecting the projections

The projected increase in the number of elementary and secondary teachers is related to projected levels of enrollments and education revenue receipts from state sources per capita.

Three alternative sets of projections

Middle, low, and high sets of projections were produced for the number of teachers and the pupil/teacher ratio, by control of school (public or private).

Factors that were not considered

The projections do not take into account possible changes in the number of teachers due to the effects of government policies.

Assumptions underlying the projections

In order to provide a range of possible outcomes of the number of public school teachers, the alternative projections make varying economic assumptions about the growth of assistance by state governments to local governments.

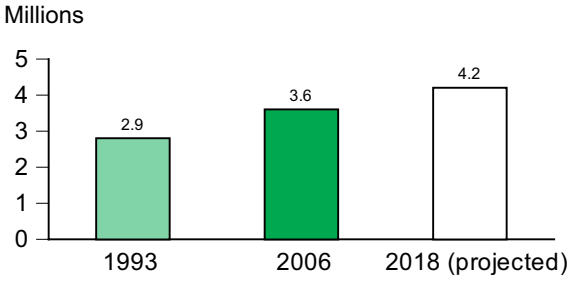
Teachers in Elementary and Secondary Schools

Total elementary and secondary teachers

The total number of elementary and secondary teachers (figure I; reference figure 30 and table 32)

- increased 27 percent between 1993 and 2006, a period of 13 years; and
- is projected to increase an additional 16 percent between 2006 and 2018, a period of 12 years, in the middle alternative projections.

Figure I. Actual and middle alternative projected numbers for elementary and secondary teachers: Selected years, 1993 through 2018



NOTE: The private school number for 2006 is estimated using data from the Private School Universe Survey.
SOURCE: U.S. Dept. of Education, NCES, Common Core of Data surveys, various years; Private School Universe survey, various years; and Elementary and Secondary Teacher Model. (See reference table 32.)

Public school teachers

The number of teachers in public elementary and secondary schools (figure J; reference figure 30 and table 32)

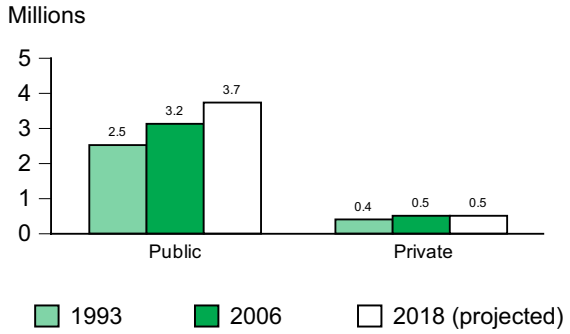
- increased 27 percent between 1993 and 2006; and
- is projected to increase an additional 17 percent between 2006 and 2018 in the middle alternative projections.

Private school teachers

The number of teachers in private elementary and secondary schools

- increased 25 percent between 1993 and 2006; and
- is projected to increase an additional 6 percent between 2006 and 2018 in the middle alternative projections.

Figure J. Actual and middle alternative projected numbers for elementary and secondary teachers, by control of school: Selected years, 1993 through 2018



NOTE: The private school number for 2006 is estimated using data from the Private School Universe Survey.
SOURCE: U.S. Dept. of Education, NCES, Common Core of Data surveys, various years; Private School Universe Survey, various years; and Elementary and Secondary Teacher Model. (See reference table 32.)

Pupil/Teacher Ratios

Total elementary and secondary teachers

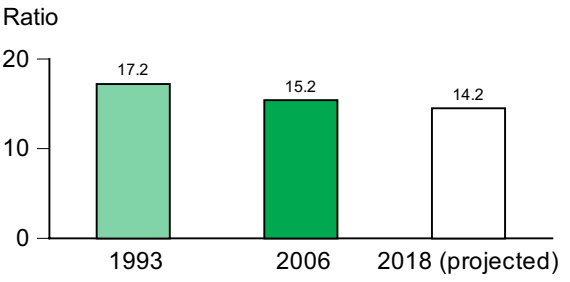
The pupil/teacher ratio in elementary and secondary schools (figure K; reference figure 31 and table 33)

- decreased from 17.2 to 15.2 between 1993 and 2006; and
- is projected to decrease further to 14.2 in 2018 in the middle alternative projections.

About pupil/teacher ratios

The overall elementary and secondary pupil/teacher ratio and pupil/teacher ratios for public and private schools were computed based on elementary and secondary enrollment and the number of classroom teachers by control of school.

Figure K. Actual and middle alternative projected numbers for the pupil/teacher ratio in elementary and secondary schools: Selected years, 1993 through 2018



NOTE: The private school number for 2006 is estimated using data from the Private School Universe Survey.
SOURCE: U.S. Dept. of Education, NCES, Common Core of Data surveys, various years; Private School Universe Survey, various years; and Elementary and Secondary Teacher Model. (See reference table 33.)

Public school teachers

The pupil/teacher ratio in public elementary and secondary schools (figure L; reference figure 31 and table 33)

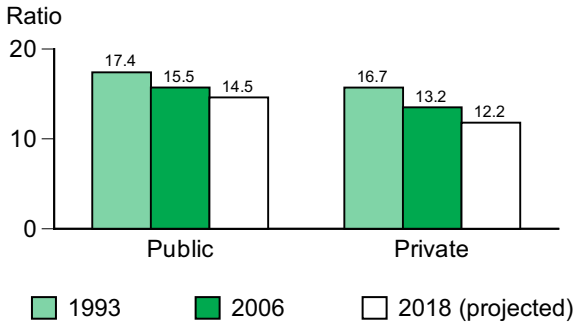
- decreased from 17.4 to 15.5 between 1993 and 2006; and
- is projected to decrease further to 14.5 in 2018 in the middle alternative projections.

Private school teachers

The pupil/teacher ratio in private elementary and secondary schools

- decreased from 16.7 to 13.2 between 1993 and 2006; and
- is projected to decrease further to 12.2 in 2018 in the middle alternative projections.

Figure L. Actual and middle alternative projected numbers for the pupil/teacher ratio in elementary and secondary schools, by control of school: Selected years, 1993 through 2018



NOTE: The private school number for 2006 is estimated using data from the Private School Universe Survey.
SOURCE: U.S. Dept. of Education, NCES, Common Core of Data surveys, various years; Private School Universe Survey, various years; and Elementary and Secondary Teacher Model. (See reference table 33.)

New Teacher Hires

Between 2006 and 2018, increases are expected in the annual numbers of new public school teacher hires and new private school teacher hires (reference table 32).

New teacher hires in public schools

The number of new teacher hires in public schools

- was estimated at 284,000 in 2006; and
- is projected to increase 26 percent to 357,000 in 2018.

New teacher hires in private schools

The number of new teacher hires in private schools

- was estimated at 82,000 in 2006; and
- is projected to increase 7 percent to 88,000 in 2018.

About new teacher hires

A teacher is considered to be a new teacher hire for a sector for a given year if the teacher teaches in that sector that year but had not taught in that sector in the previous year. A teacher who moves from teaching in one sector to the other sector is considered a new teacher hire, but a teacher who moves from one school to another school in the same sector is not considered a new teacher hire. It is important to note that these projections measure the total number of teacher hires, including those hired to replace teachers retiring or leaving the teaching profession permanently or temporarily. Hence, the new teacher hire projections should not be interpreted as predicting teacher shortages.

Accuracy of Projections

An analysis of projection errors from the past 18 editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for projections of classroom teachers in public elementary and secondary schools were 1.0 percent for 1 year out, 1.5 percent for 2 years out, 3.2 percent for 5 years out, and 6.1 percent for 10 years out. For more information on the MAPEs of different NCES projection series, see table A-2 in appendix A.

Section 6. Expenditures for Public Elementary and Secondary Education

Introduction

Current expenditures for public elementary and secondary education are projected to increase in constant dollars between school years 2005–06, the last year of actual data, and 2018–19.

Three alternative sets of projections

Middle, low, and high sets of projections were made for total current expenditures and current expenditures per pupil.

Assumptions underlying the projections

Each set of projections is based on alternative assumptions concerning economic growth and assistance by state governments to local governments. For more details, see appendix A.

Current Expenditures

Between 2005–06 and 2018–19, increases are expected in the current expenditures and current expenditures per pupil for public elementary and secondary education (figures M and N; reference figures 32 and 33 and table 34).

Current expenditures

Current expenditures in constant 2006–07 dollars increased 43 percent from 1993–94 to 2005–06, a period of 12 years.

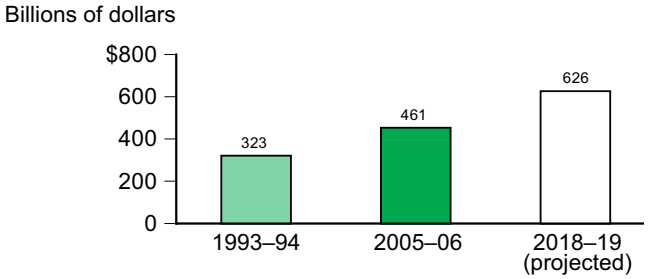
From 2005–06 to 2018–19, a period of 13 years, current expenditures in constant 2006–07 dollars are projected to increase

- 36 percent, to $626 billion, in the middle alternative projections;
- 31 percent, to $605 billion, in the low alternative projections; and
- 40 percent, to $645 billion, in the high alternative projections.

Other factors that may affect the projections

Many factors that may affect future school expenditures were not considered in the production of these projections. Such factors include policy initiatives, as well as potential changes in the distribution of elementary and secondary teachers as older teachers retire and are replaced by younger teachers.

Figure M. Actual and middle alternative projected numbers for current expenditures for public elementary and secondary education in 2006–07 dollars: Selected years, 1993–94 through 2018–19



NOTE: Data were placed in constant 2006–07 dollars using the Consumer Price Index for all urban consumers (BLS, U.S. Dept. of Labor).
SOURCE: U.S. Dept. of Education, NCES, Common Core of Data, "National Public Education Finance Survey," various years; National Elementary and Secondary Enrollment Model; and Elementary and Secondary Education Current Expenditures Model. (See reference table 34.)

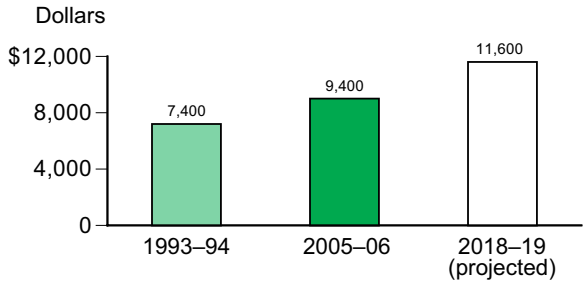
Current expenditures per pupil

Current expenditures per pupil in fall enrollment in constant 2006–07 dollars increased 26 percent from 1993–94 to 2005–06.

From 2005–06 to 2018–19, current expenditures in constant 2006–07 dollars per pupil in fall enrollment are projected to increase

- 24 percent, to $11,600, in the middle alternative projections;
- 19 percent, to $11,200, in the low alternative projections; and
- 27 percent, to $12,000, in the high alternative projections.

Figure N. Actual and middle alternative projected numbers for current expenditures per pupil in fall enrollment for public elementary and secondary education in 2006–07 dollars: Selected years, 1993–94 through 2018–19



NOTE: Data were placed in constant 2006-07 dollars using the Consumer Price Index for all urban consumers (BLS, U.S. Dept. of Labor).
SOURCE: U.S. Dept. of Education, NCES, Common Core of Data, "National Public Education Finance Survey," various years; National Elementary and Secondary Enrollment Model; and Elementary and Secondary Education Current Expenditures Model. (See reference table 34.)

Constant versus current dollars

Throughout this section, projections of current expenditures are presented in constant 2006–07 dollars. The reference tables, later in this report, present these data both in constant 2006–07 dollars and in current dollars. The projections were developed in constant dollars and then placed in current dollars using projections for the Consumer Price Index (CPI) (table B-6 in appendix B). Three alternative sets of projections for the CPI were used, one with each set of projections (low, middle, and high).

Accuracy of Projections

An analysis of projection errors from similar models used in the past 18 editions of *Projections of Education Statistics* that contained expenditure projections indicates that mean absolute percentage errors (MAPEs) for total current expenditures in constant dollars were 1.3 percent for 1 year out, 2.1 percent for 2 years out, 2.8 percent for 5 years out, and 4.5 percent for 10 years out. MAPEs for current expenditures per pupil in fall enrollment in current dollars were 1.3 percent for 1 year out, 2.0 percent for 2 years out, 3.1 percent for 5 years out, and 5.8 percent for 10 years out. See appendix A for further discussion of the accuracy of recent projections of current expenditures, and see table A-2 in appendix A for the mean absolute percentage errors (MAPEs) of these projections.

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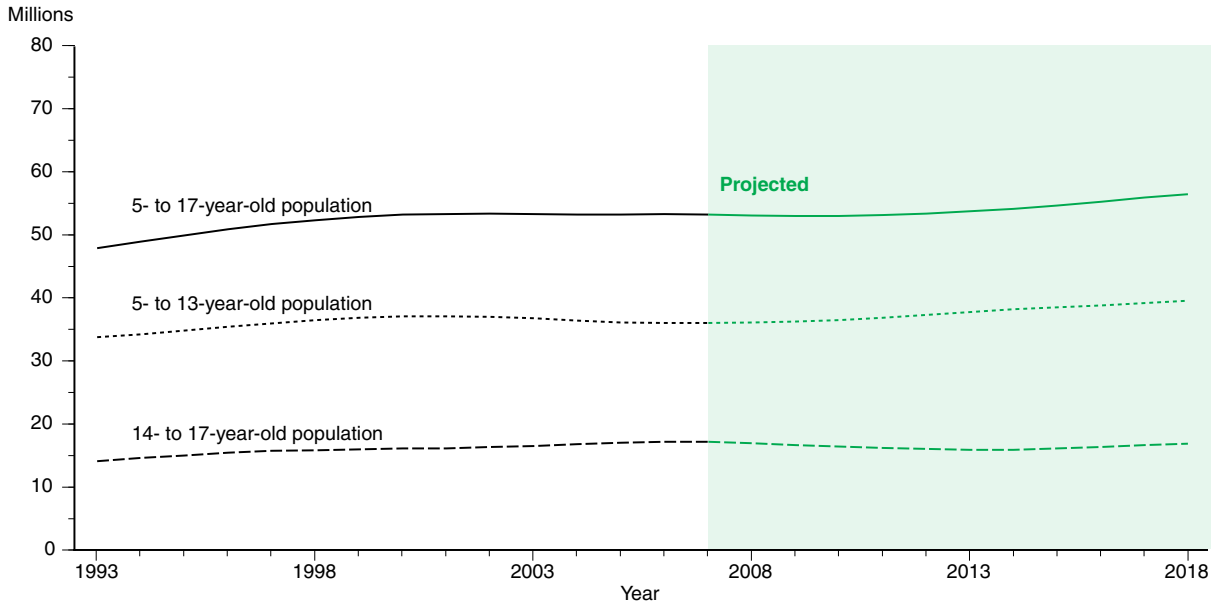
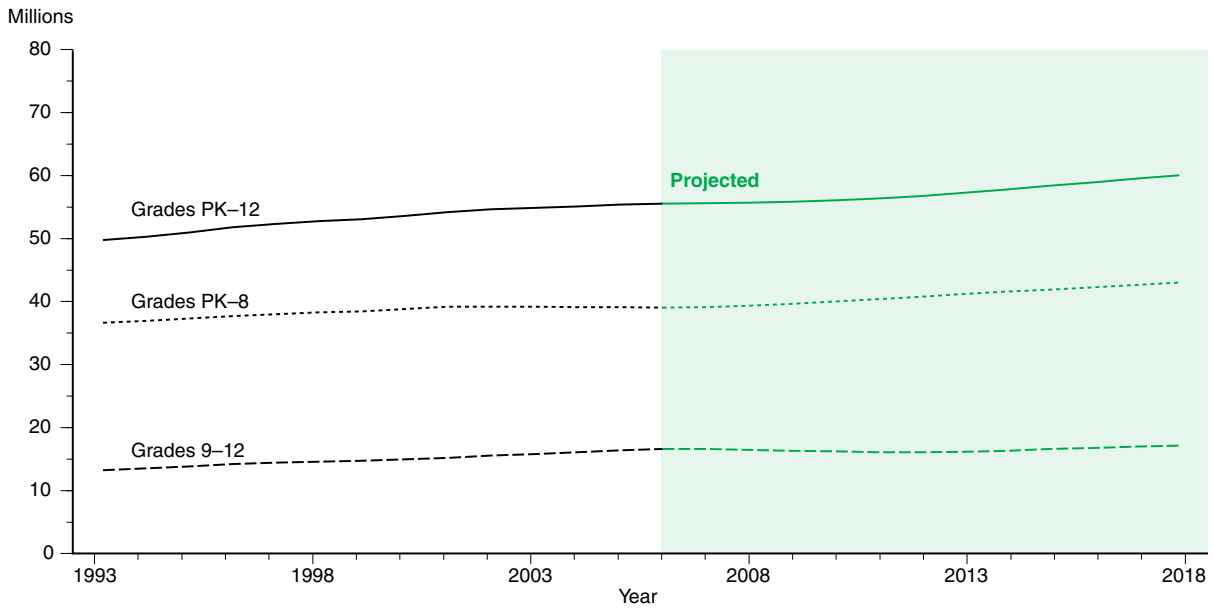
Reference Figures

Figure 1. Actual and projected numbers for school-age populations, by age range: 1993 through 2018



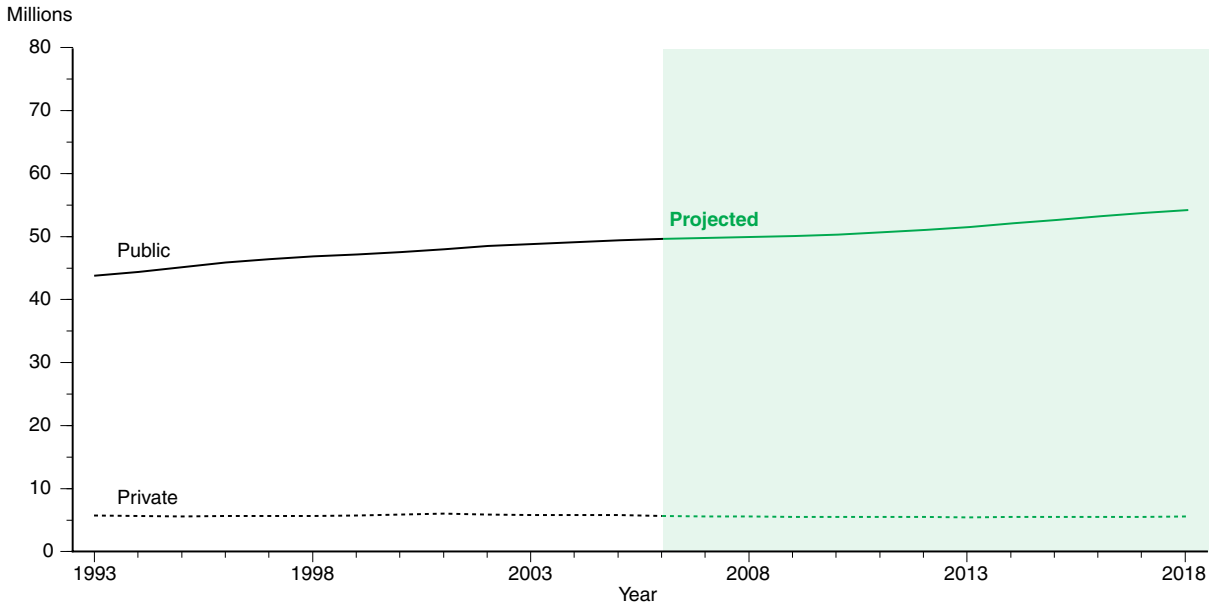
NOTE: Some data have been revised from previously published figures. Projections are from the U.S. Census Bureau's middle series.
SOURCE: U.S. Department of Commerce, Census Bureau, Population Estimates, retrieved October 27, 2008, from http://www.census.gov/popest/national/asrh/2006_nat_af.html; and Population Projections, retrieved October 29, 2008, from http://www.census.gov/ipc/www/usinterimproj/. (This figure was prepared March 2009.)

Figure 2. Actual and projected numbers for enrollment in elementary and secondary schools, by grade level: Fall 1993 through fall 2018



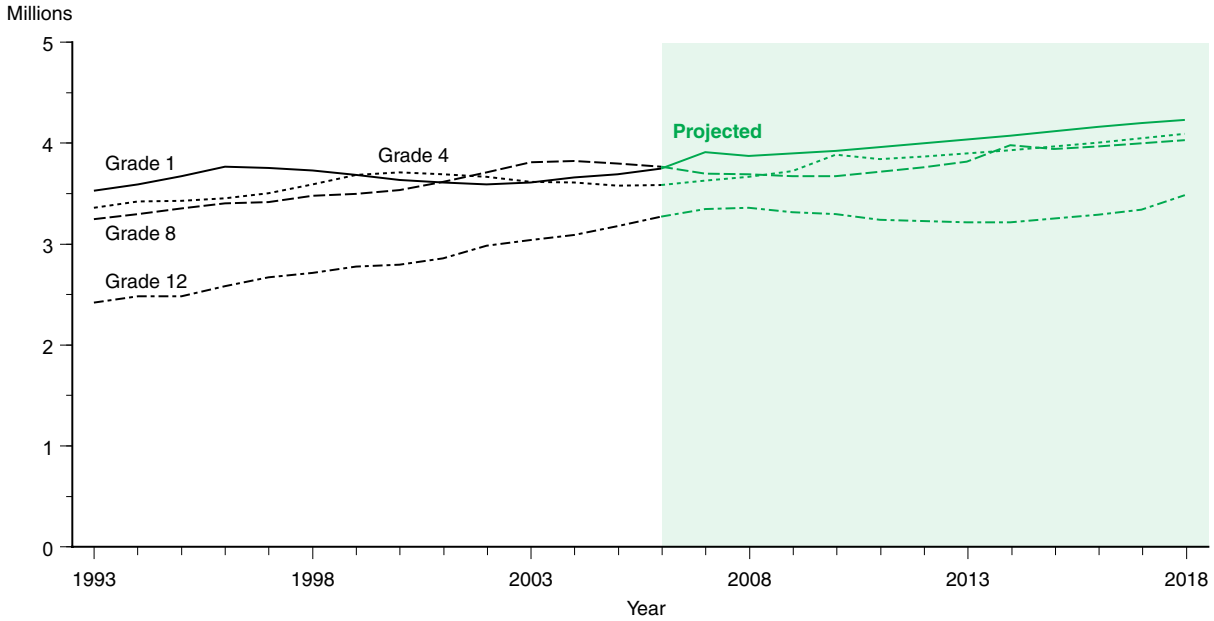
NOTE: Enrollment numbers for prekindergarten through 12th grade and prekindergarten through 8th grade include private nursery and prekindergarten enrollment in schools that offer kindergarten or higher grades. Since the biennial Private School Universe Survey (PSS) is collected in the fall of odd numbered years, private school numbers for alternate years are estimated based on data from the PSS. The private school number for 2007 is an actual number from the 2007–08 PSS. Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1993–94 through 2006–07; Private School Universe Survey (PSS), selected years 1994–95 through 2007–08; and National Elementary and Secondary Enrollment Model, 1972–2006. (This figure was prepared March 2009.)

Figure 3. Actual and projected numbers for enrollment in elementary and secondary schools, by control of school: Fall 1993 through fall 2018



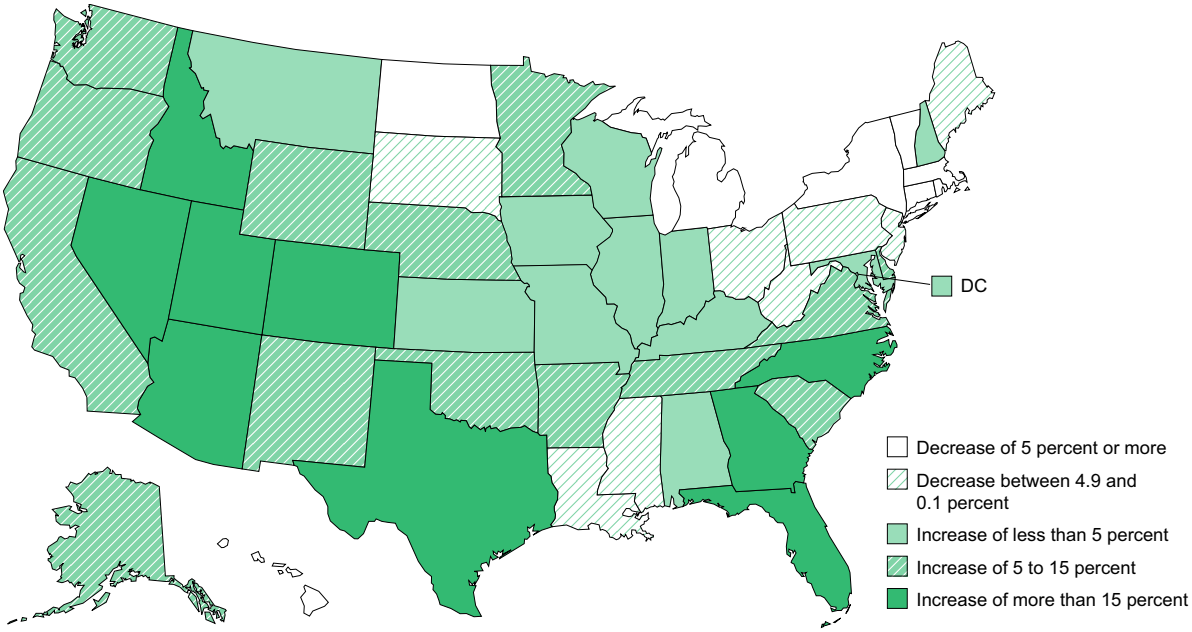
NOTE: Private school numbers include private nursery and prekindergarten enrollment in schools that offer kindergarten or higher grades. Since the biennial Private School Universe Survey (PSS) is collected in the fall of odd numbered years, private school numbers for alternate years are estimated based on data from the PSS. The private school number for 2007 is an actual number from the 2007–08 PSS. Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1993–94 through 2006–07; Private School Universe Survey (PSS), selected years 1994–95 through 2007–08; and National Elementary and Secondary Enrollment Model, 1972–2006. (This figure was prepared March 2009.)

Figure 4. Actual and projected numbers for enrollment in public elementary and secondary schools, by selected grades: Fall 1993 through fall 2018



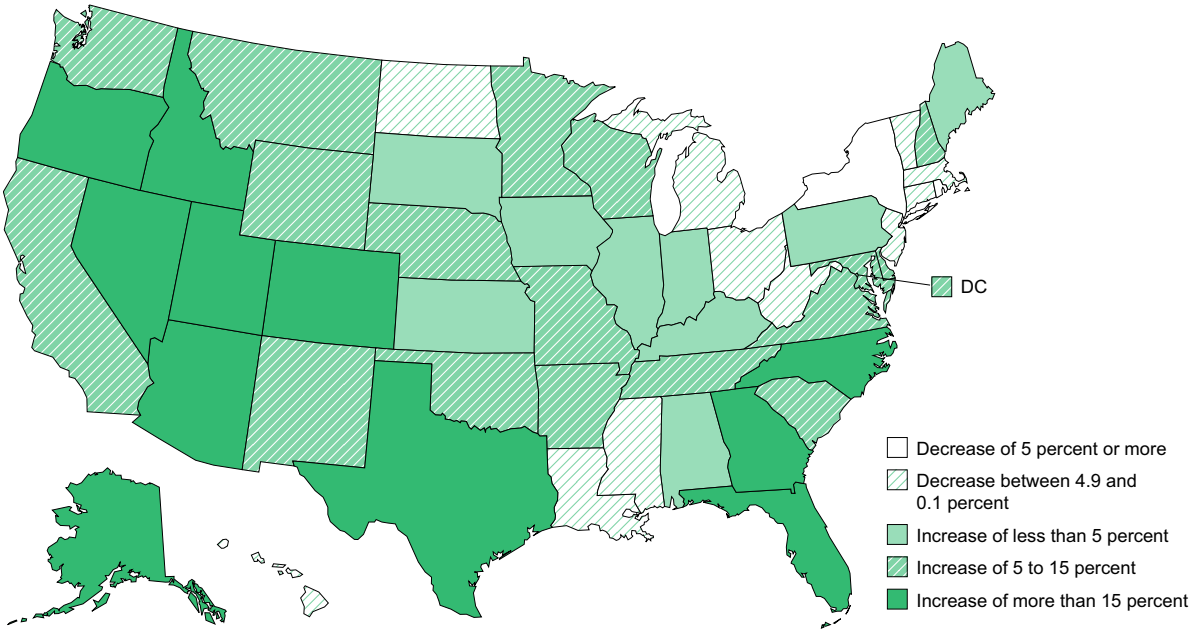
NOTE: Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1993–94 through 2006–07; and National Elementary and Secondary Enrollment Model, 1972–2006. (This figure was prepared March 2009.)

Figure 5. Projected percentage change in grades PK–12 enrollment in public schools, by state: Fall 2006 through fall 2018



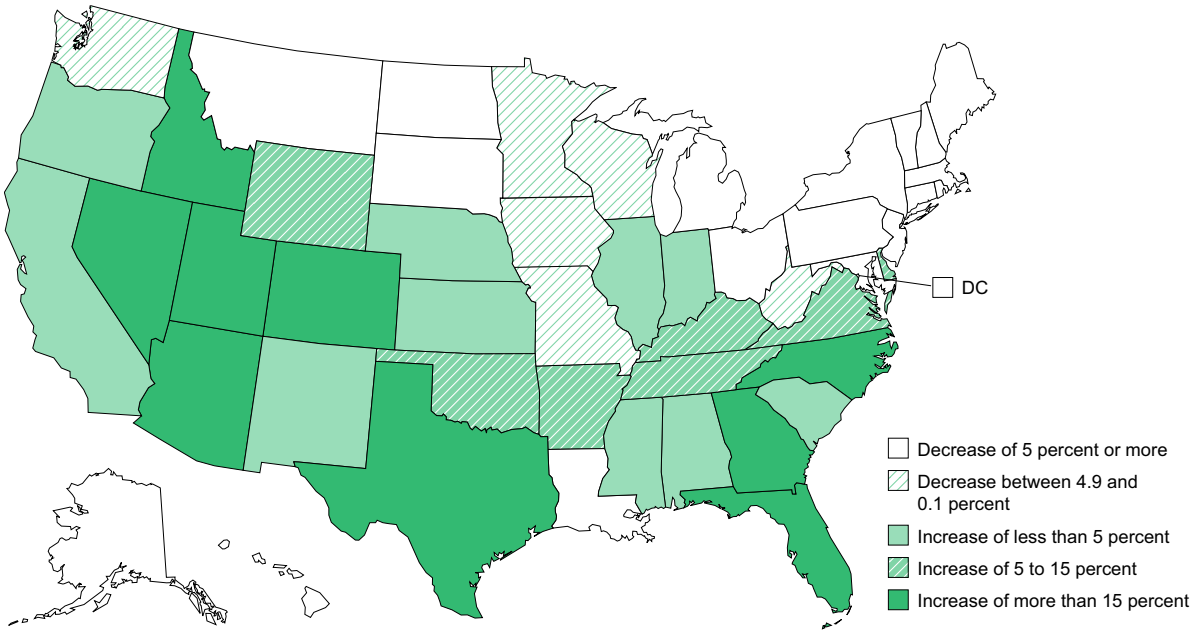
NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2006–07; and State Elementary and Secondary Enrollment Model, 1980–2006. (This figure was prepared March 2009.)

Figure 6. Projected percentage change in grades PK–8 enrollment in public schools, by state: Fall 2006 through fall 2018



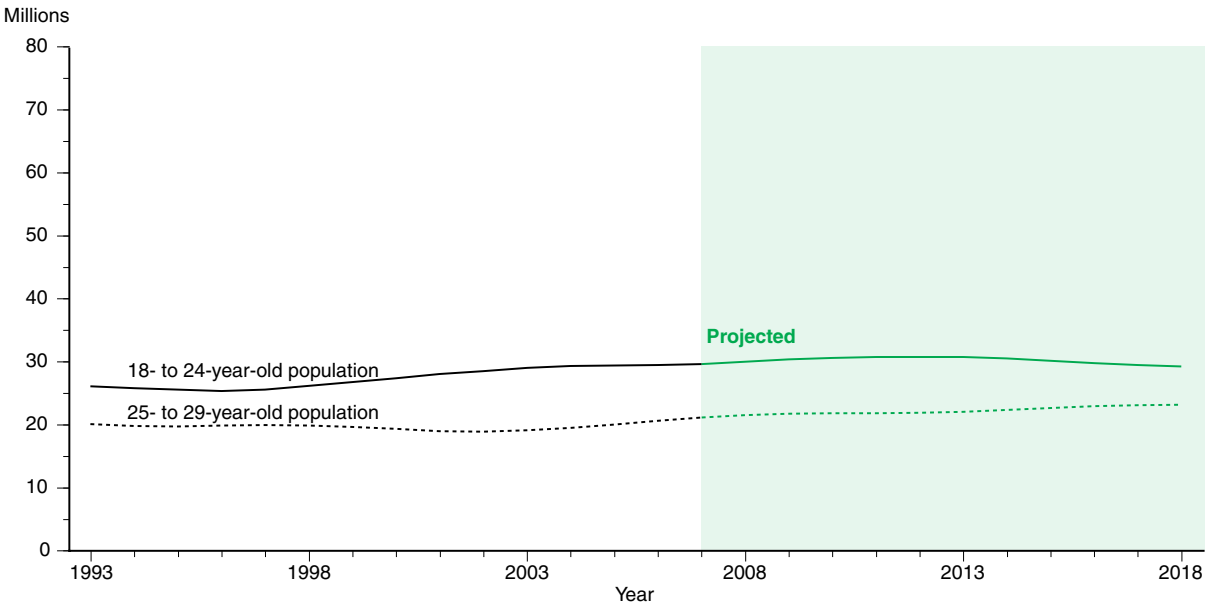
NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2006–07; and State Elementary and Secondary Enrollment Model, 1980–2006. (This figure was prepared March 2009.)

Figure 7. Projected percentage change in grades 9–12 enrollment in public schools, by state: Fall 2006 through fall 2018



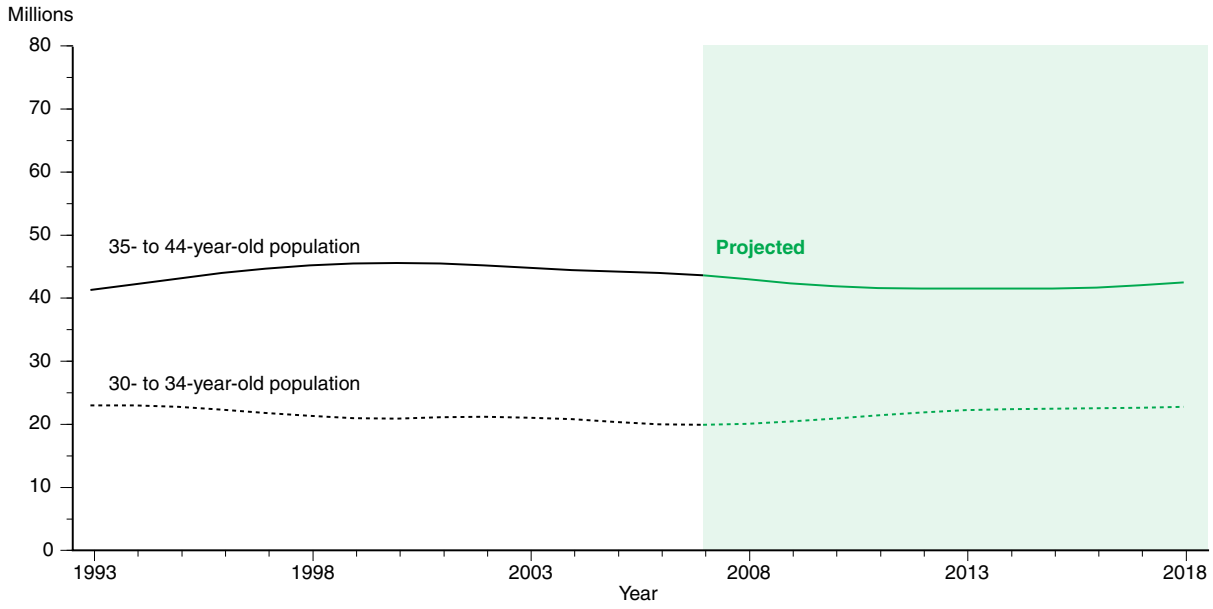
NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2006–07; and State Elementary and Secondary Enrollment Model, 1980–2006. (This figure was prepared March 2009.)

Figure 8. Actual and projected numbers for 18–24 year olds and 25–29 year olds: 1993 through 2018



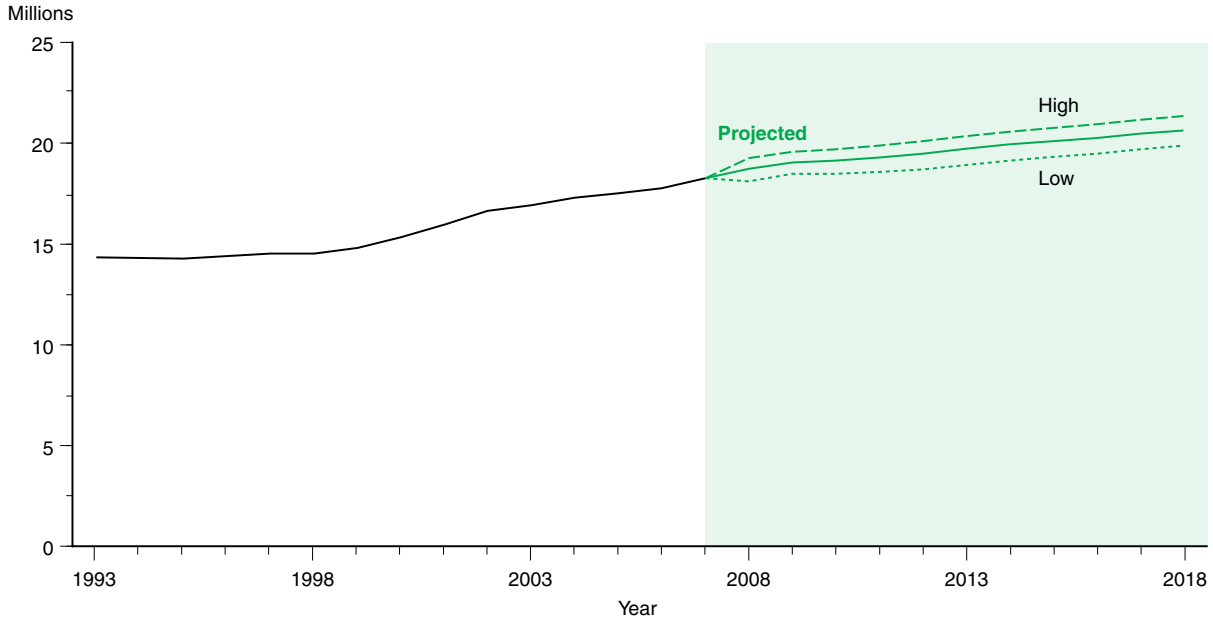
NOTE: Some data have been revised from previously published figures. Projections are from the U.S. Census Bureau's middle series.
SOURCE: U.S. Department of Commerce, Census Bureau, Population Estimates, retrieved October 27, 2008, from http://www.census.gov/popest/national/asrh/2006_nat_af.html; and Population Projections, retrieved October 29, 2008, from http://www.census.gov/ipc/www/usinterimproj/. (This figure was prepared March 2009.)

Figure 9. Actual and projected numbers for 30–34 year olds and 35–44 year olds: 1993 through 2018



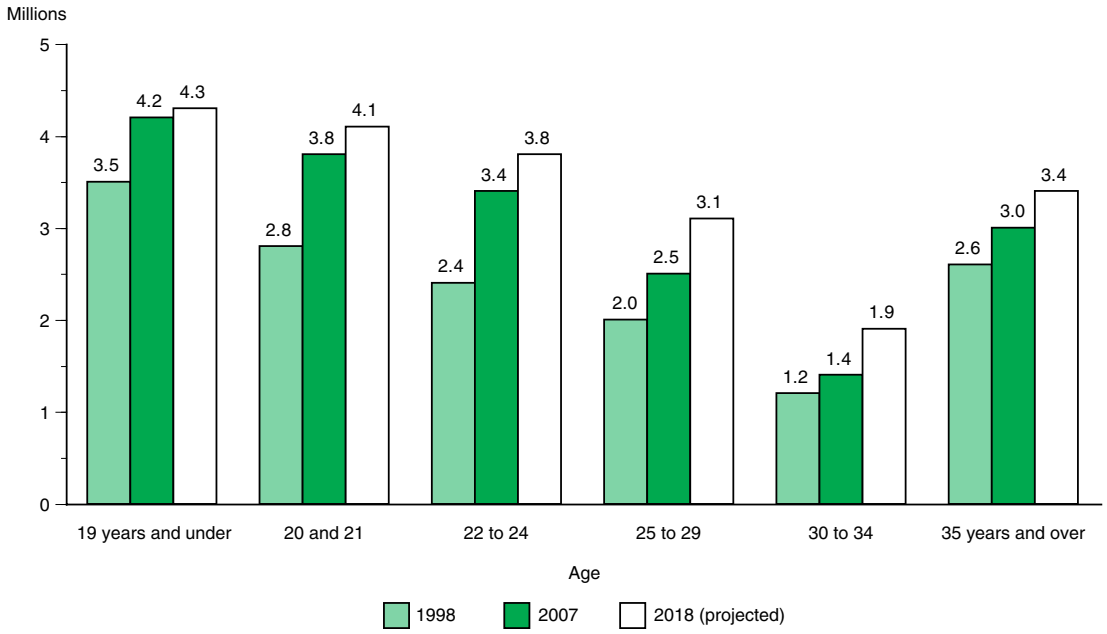
NOTE: Some data have been revised from previously published figures. Projections are from the U.S. Census Bureau's middle series.
SOURCE: U.S. Department of Commerce, Census Bureau, Population Estimates, retrieved October 27, 2008, from http://www.census.gov/popest/national/asrh/2006_nat_af.html; and Population Projections, retrieved October 29, 2008, from http://www.census.gov/ipc/www/usinterimproj/. (This figure was prepared March 2009.)

Figure 10. Actual and alternative projected numbers for enrollment in all degree-granting institutions: Fall 1993 through fall 2018



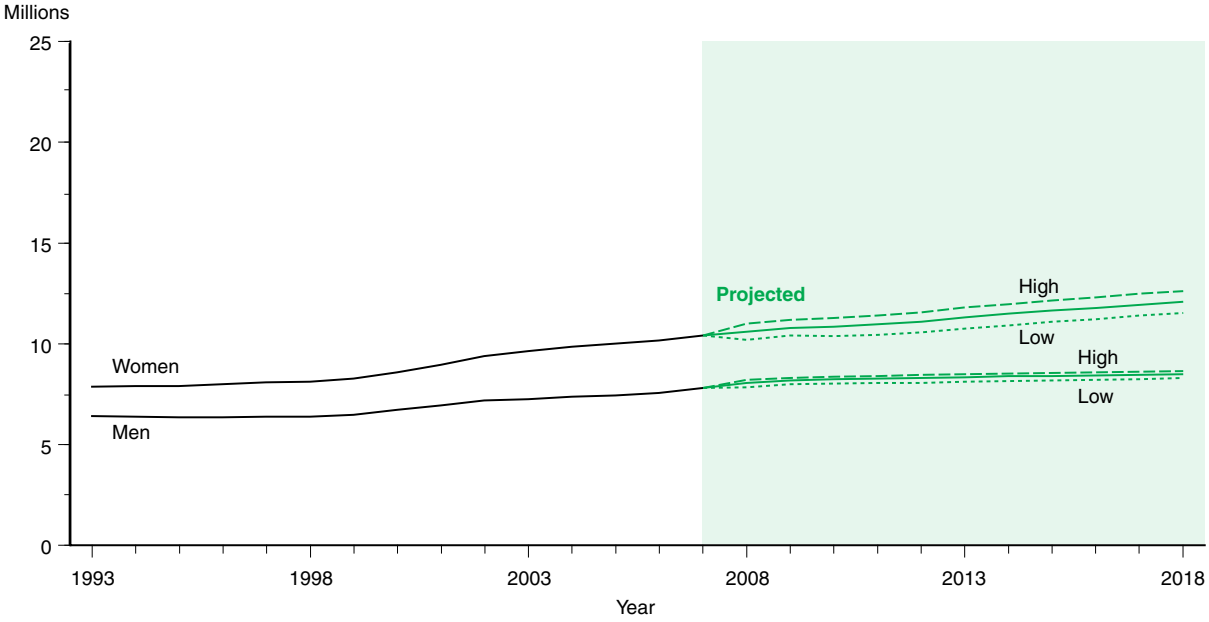
NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This figure was prepared March 2009.)

Figure 11. Actual and middle alternative projected numbers for enrollment in all degree-granting institutions, by age group: Fall 1998, 2007, and 2018



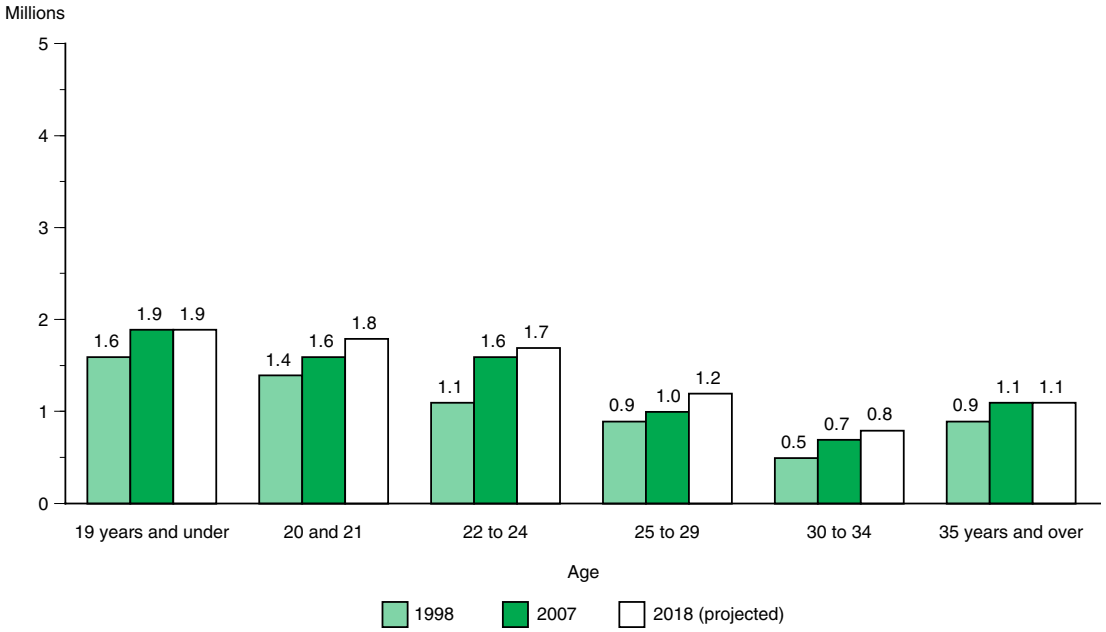
NOTE: Some data have been revised from previously published figures. Data by age are based on the distribution by age from the Census Bureau. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:98), and Spring 2008; Enrollment in Degree-Granting Institutions Model, 1973–2007; and U.S. Department of Commerce, Census Bureau, Current Population Reports, "Social and Economic Characteristics of Students," various years. (This figure was prepared March 2009.)

Figure 12. Actual and middle alternative projected numbers for enrollment in all degree-granting institutions, by sex: Fall 1993 through fall 2018



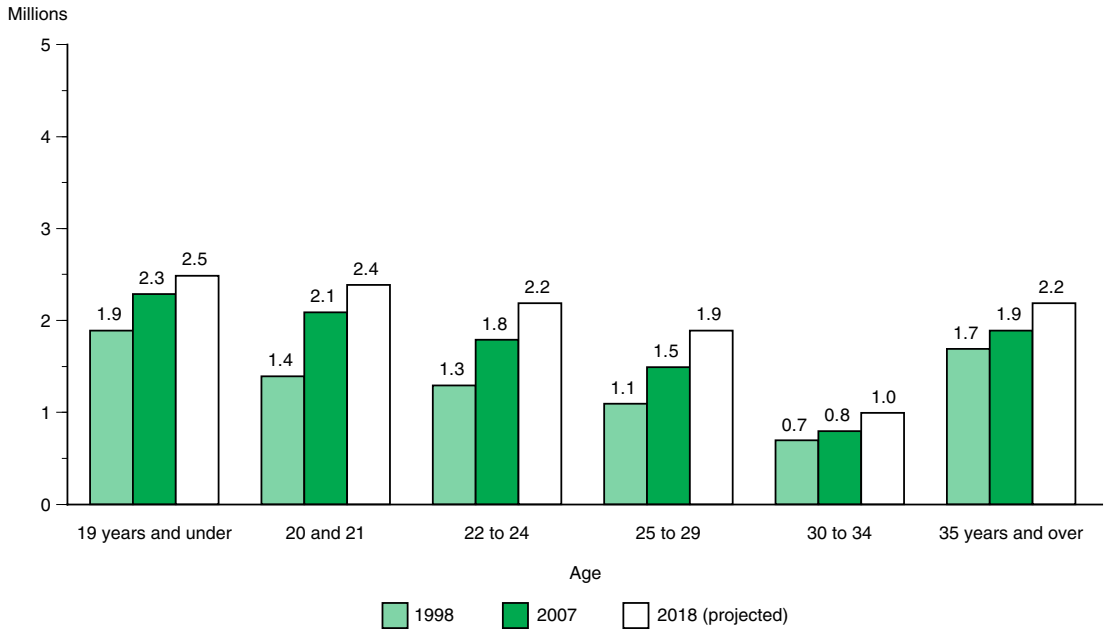
NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This figure was prepared March 2009.)

Figure 13. Actual and middle alternative projected numbers for enrollment of men in all degree-granting institutions, by age group: Fall 1998, 2007, and 2018



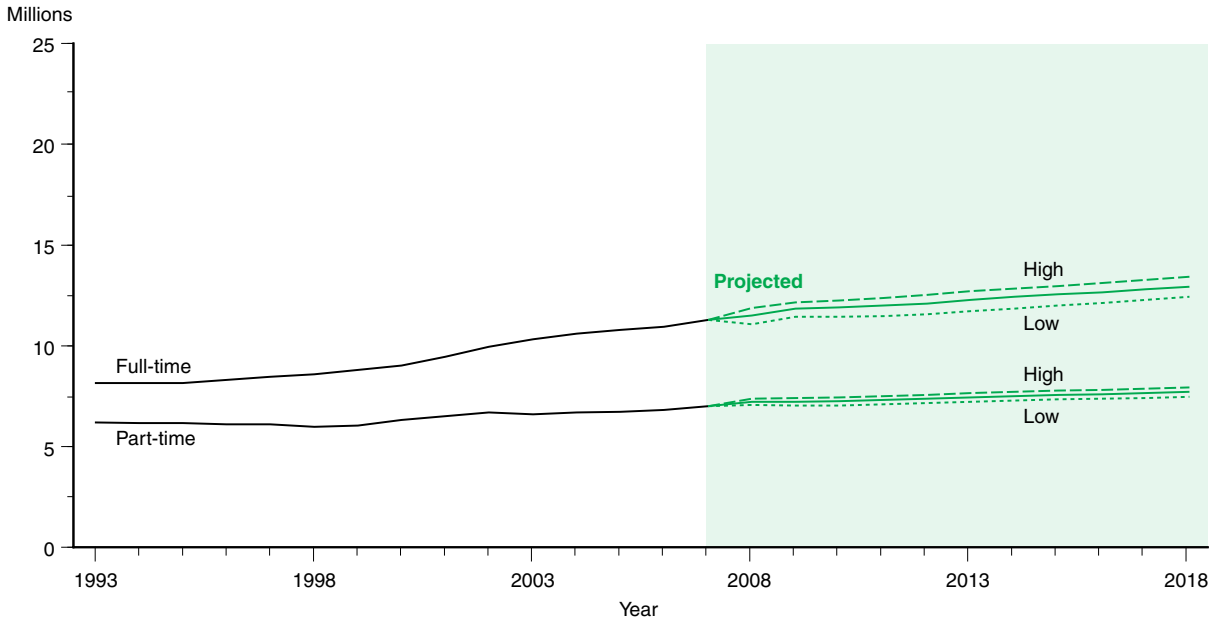
NOTE: Some data have been revised from previously published figures. Data by age are based on the distribution by age from the Census Bureau. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:98), and Spring 2008; Enrollment in Degree-Granting Institutions Model, 1973–2007; and U.S. Department of Commerce, Census Bureau, Current Population Reports, "Social and Economic Characteristics of Students," various years. (This figure was prepared March 2009.)

Figure 14. Actual and middle alternative projected numbers for enrollment of women in all degree-granting institutions, by age group: Fall 1998, 2007, and 2018



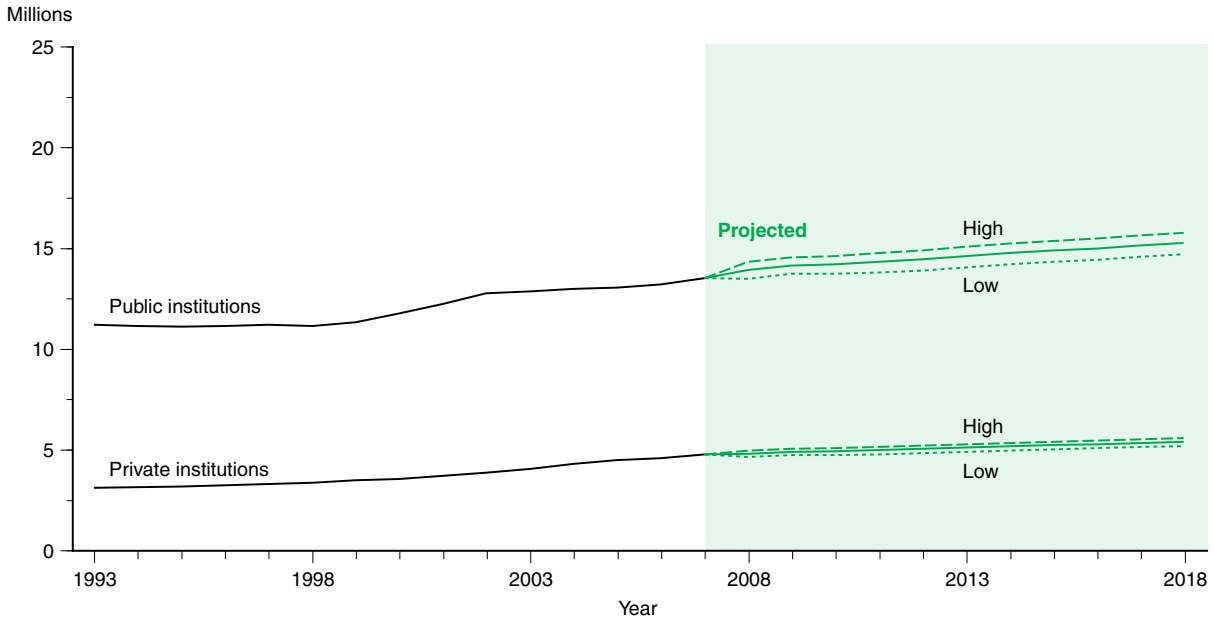
NOTE: Some data have been revised from previously published figures. Data by age are based on the distribution by age from the Census Bureau. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:98), and Spring 2008; Enrollment in Degree-Granting Institutions Model, 1973–2007; and U.S. Department of Commerce, Census Bureau, Current Population Reports, "Social and Economic Characteristics of Students," various years. (This figure was prepared March 2009.)

Figure 15. Actual and middle alternative projected numbers for enrollment in all degree-granting institutions, by attendance status: Fall 1993 through fall 2018



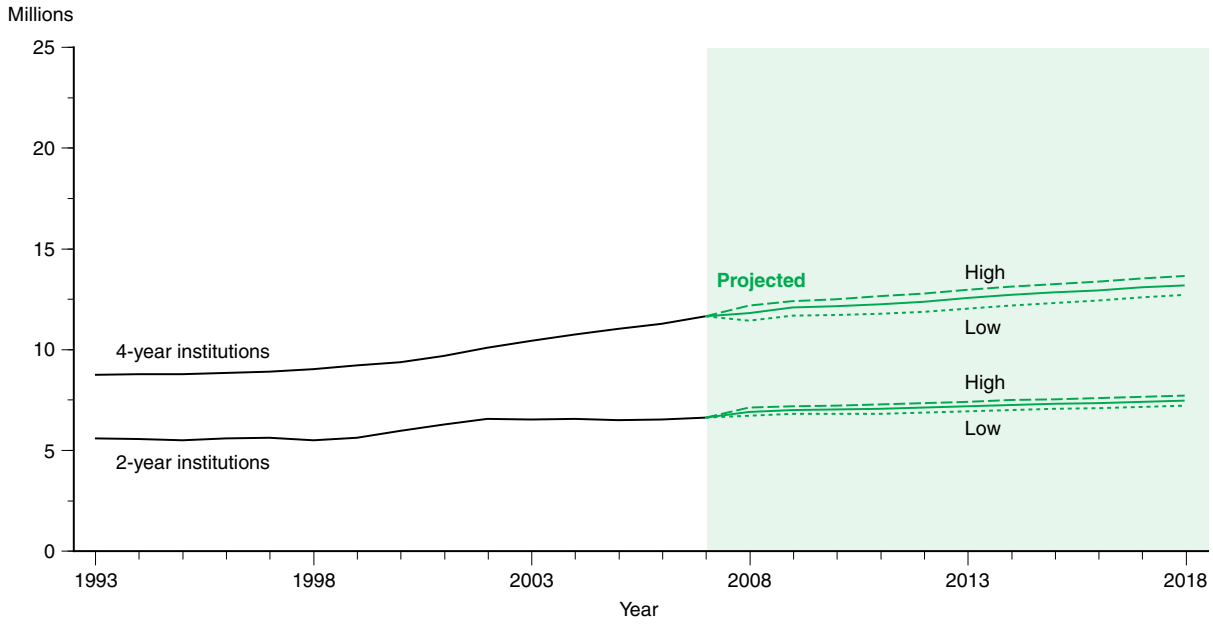
NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This figure was prepared March 2009.)

Figure 16. Actual and alternative projected numbers for enrollment in all degree-granting institutions, by control of institution: Fall 1993 through fall 2018



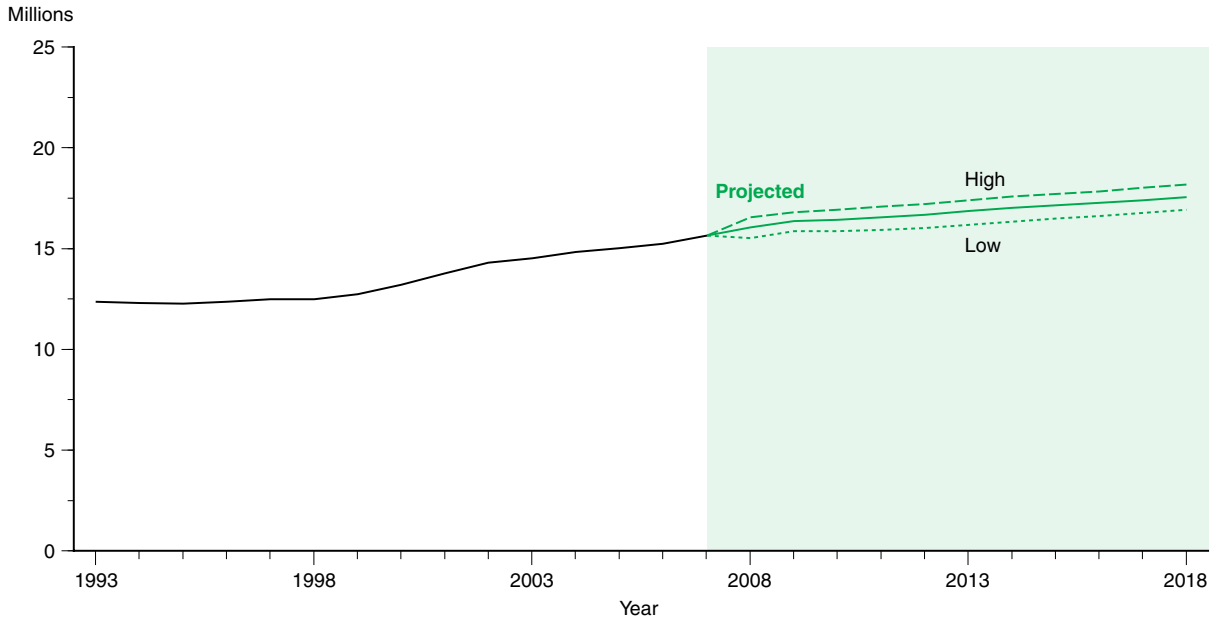
NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This figure was prepared March 2009.)

Figure 17. Actual and alternative projected numbers for enrollment in all degree-granting institutions, by type of institution: Fall 1993 through fall 2018



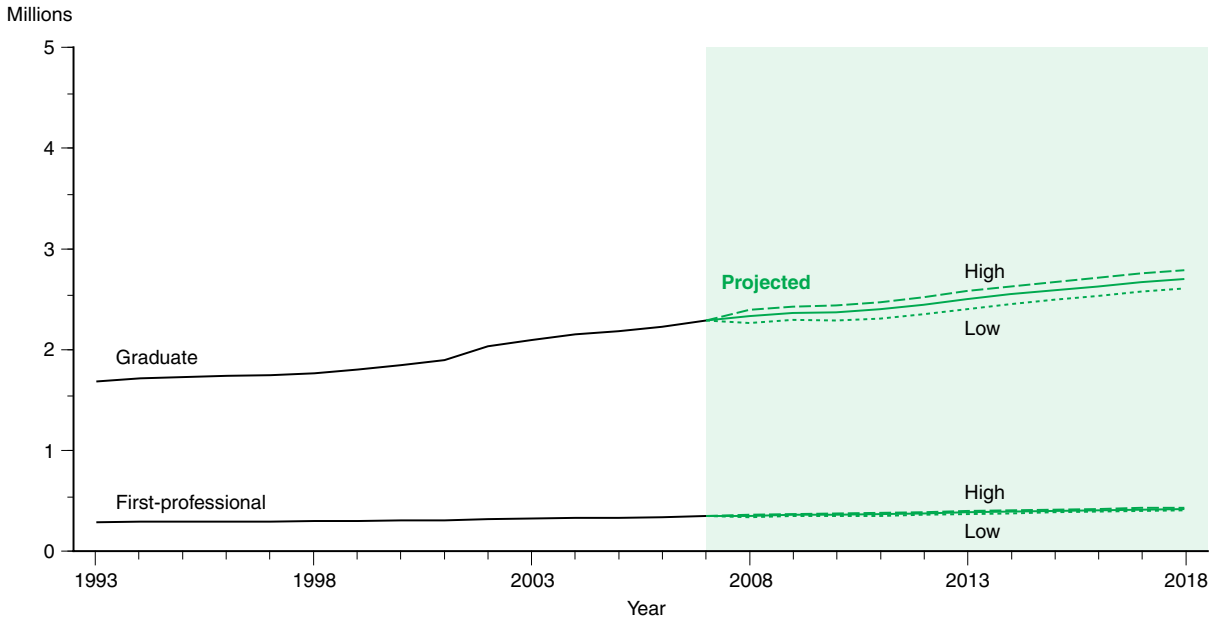
NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This figure was prepared March 2009.)

Figure 18. Actual and alternative projected numbers for undergraduate enrollment in all degree-granting institutions: Fall 1993 through fall 2018



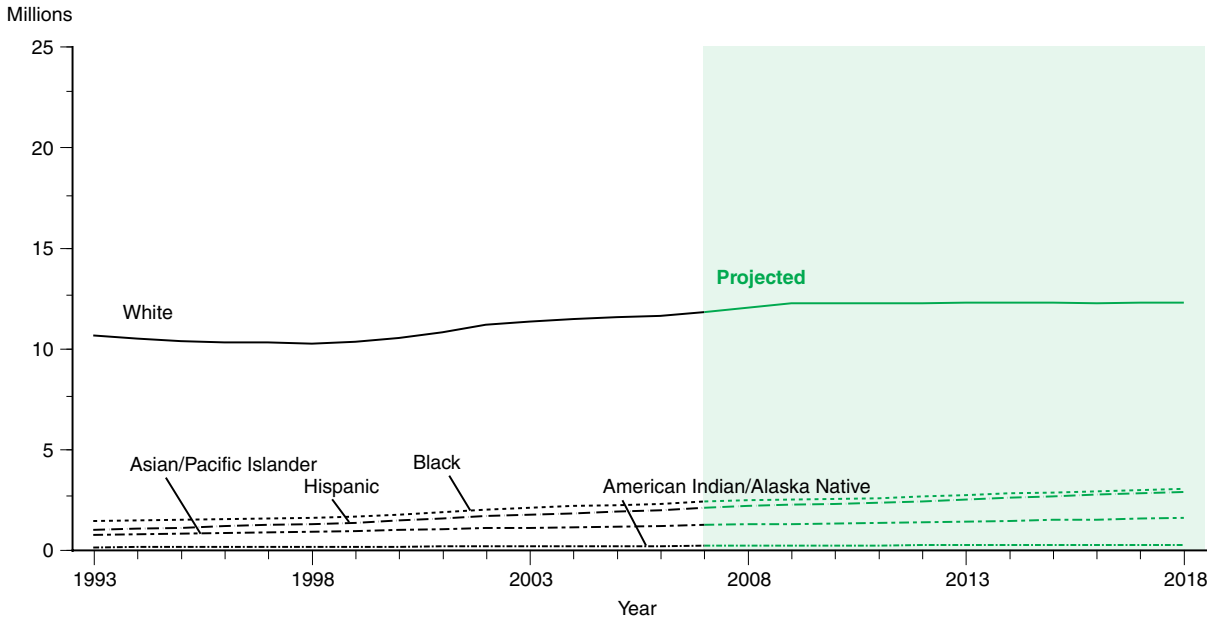
NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This figure was prepared March 2009.)

Figure 19. Actual and alternative projected numbers for postbaccalaureate enrollment in all degree-granting institutions: Fall 1993 through fall 2018



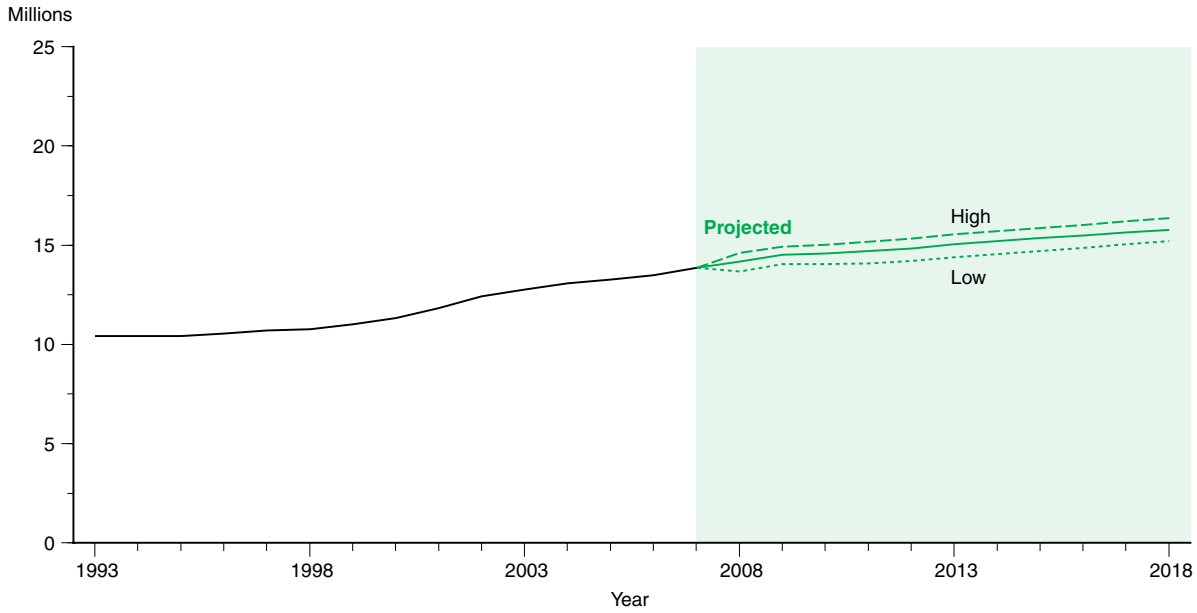
NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This figure was prepared March 2009.)

Figure 20. Actual and projected numbers for enrollment in all degree-granting institutions, by race/ethnicity: Fall 1993 through fall 2018



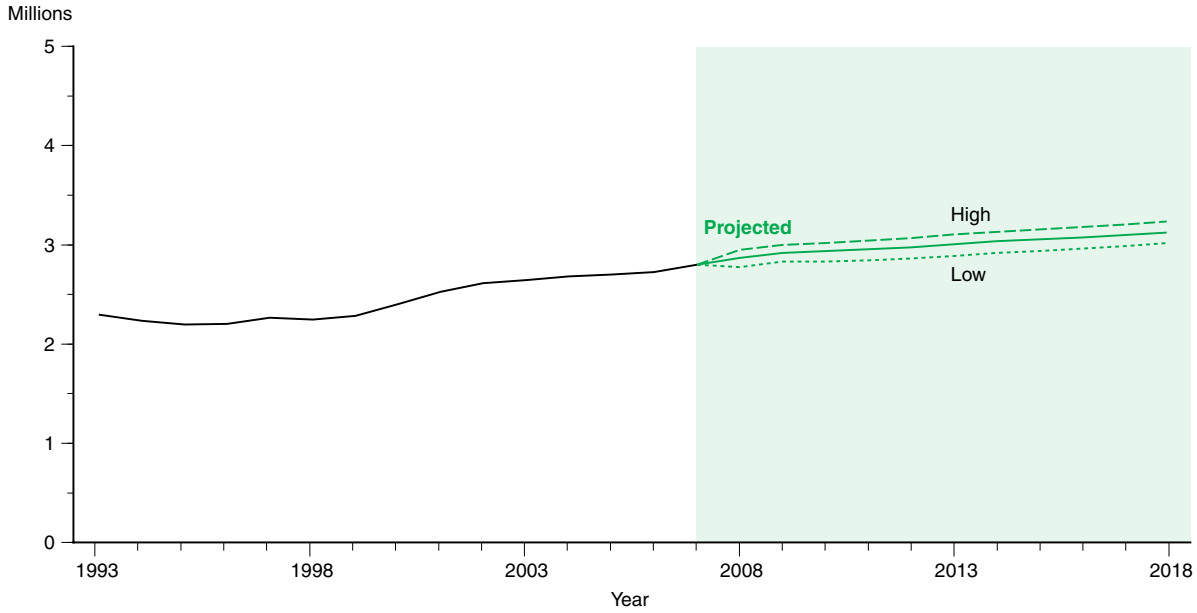
NOTE: Race categories exclude persons of Hispanic ethnicity. Enrollment data in the "racial/ethnicity unknown" category of the IPEDS "Fall Enrollment Survey" have been prorated to the other racial/ethnicity categories at the institutional level. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2007. (This figure was prepared March 2009.)

Figure 21. Actual and alternative projected numbers for full-time-equivalent enrollment in all degree-granting institutions: Fall 1993 through fall 2018



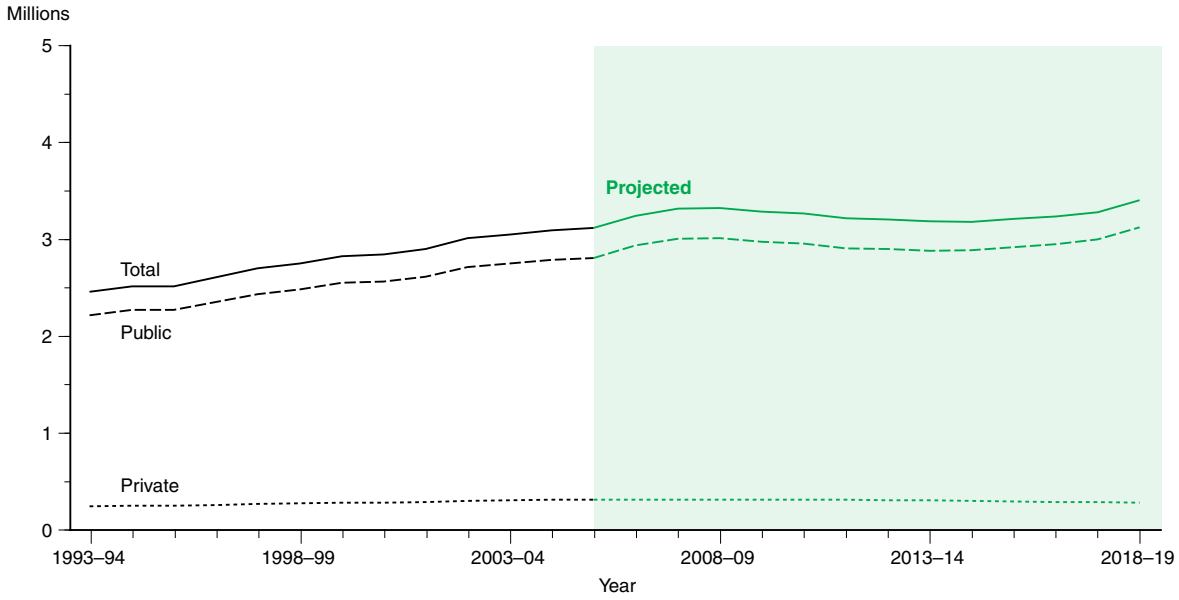
NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This figure was prepared March 2009.)

Figure 22. Actual and alternative projected numbers for first-time freshmen fall enrollment in all degree-granting institutions: Fall 1993 through fall 2018



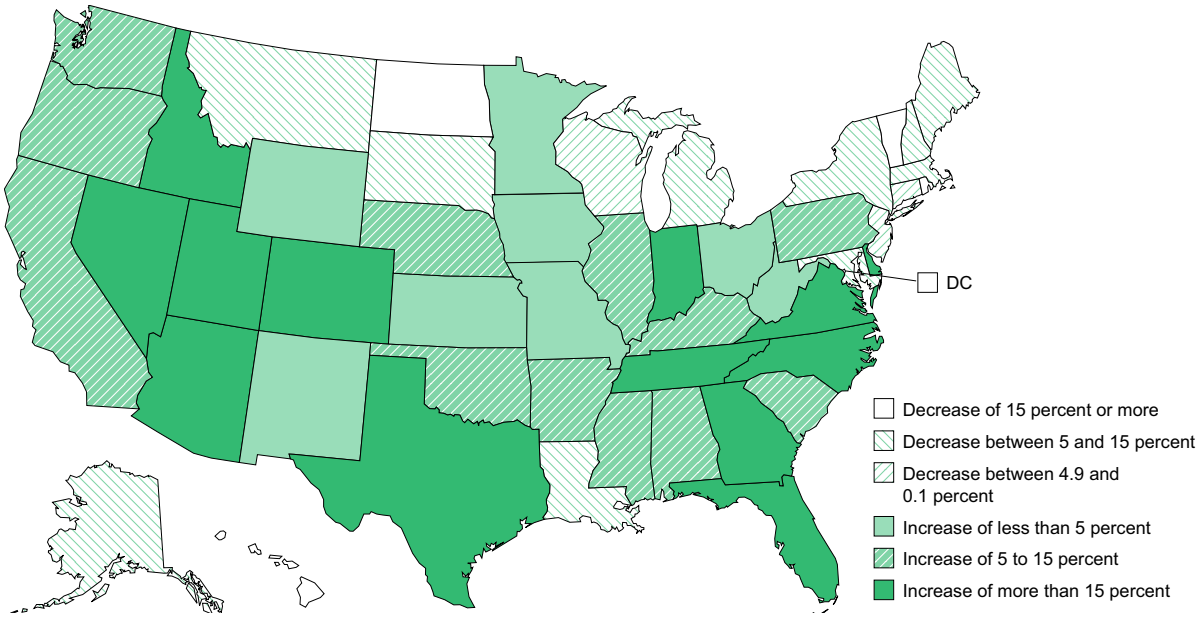
NOTE: Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A. Data for 1999 were imputed using alternative procedures.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; Enrollment in Degree-Granting Institutions Model, 1973–2007; and First-Time Freshmen Model, 1975-2007. (This figure was prepared March 2009.)

Figure 23. Actual and projected numbers for high school graduates, by control of school: 1993–94 through 2018–19



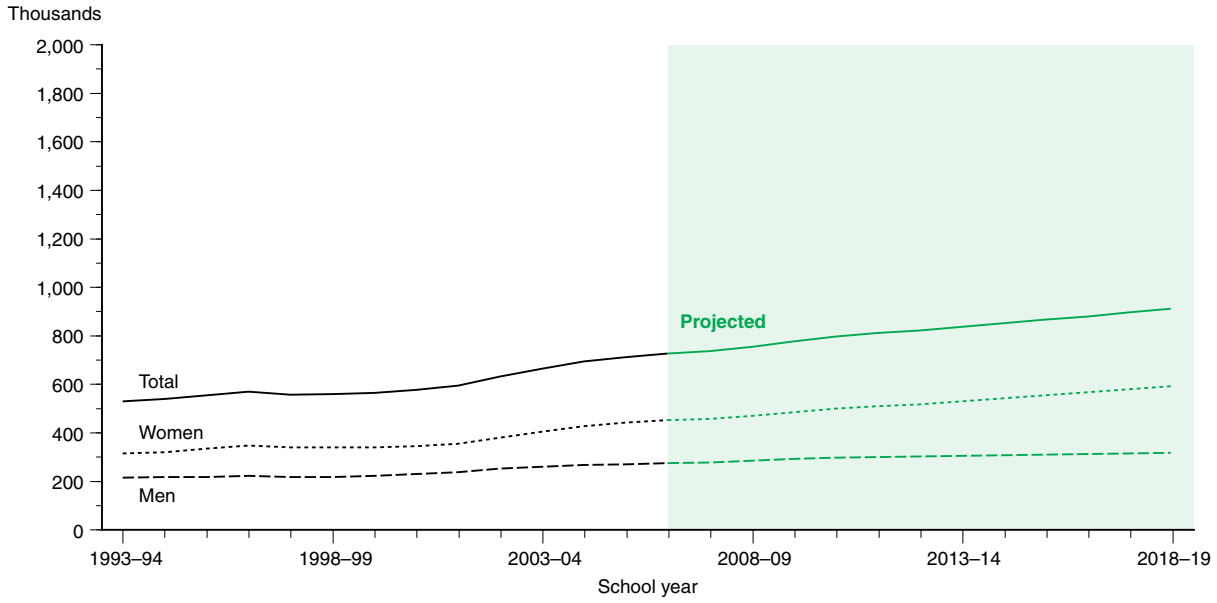
NOTE: Since the biennial Private School Universe Survey (PSS) is collected in the fall of odd numbered years, private school numbers for alternate years are estimated based on data from the PSS. The private school number for 2006–07 is an actual number from the 2007–08 PSS. Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1994–95 through 2006–07; Private School Universe Survey (PSS), selected years, 1994–95 through 2007–08; and National Elementary and Secondary High School Graduates Enrollment Model, 1972–73 through 2005–06. (This figure was prepared March 2009.)

Figure 24. Projected percentage change in the number of public high school graduates, by state: 2005–06 through 2018–19



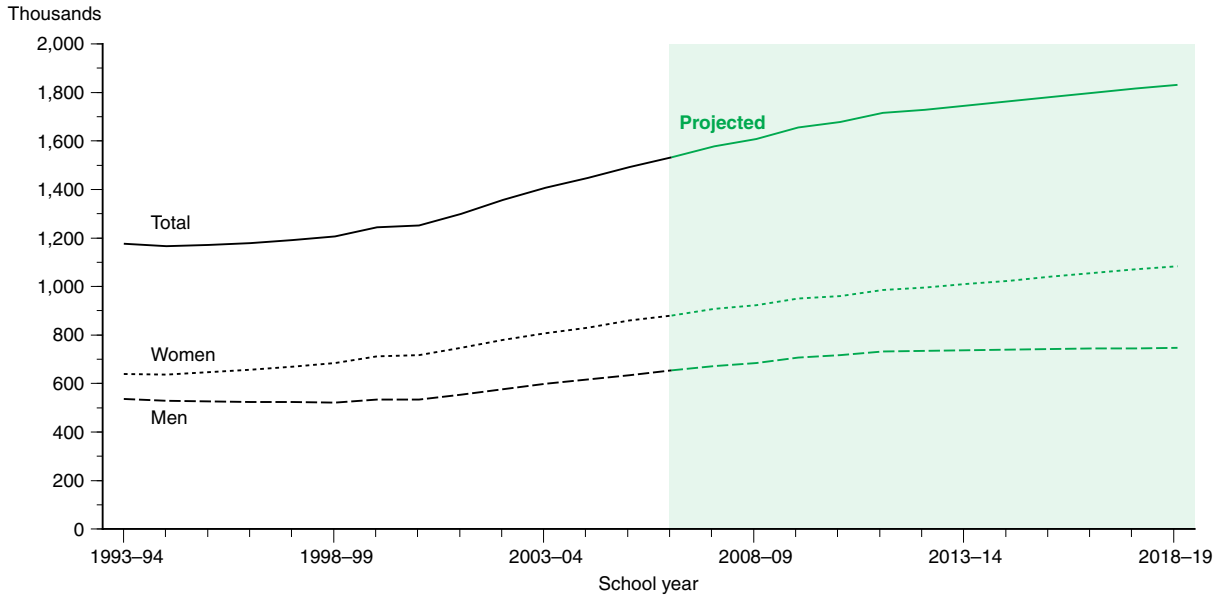
NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2006–07; and State Public High School Graduates Model, 1980–81 through 2005–06. (This figure was prepared March 2009.)

Figure 25. Actual and middle alternative projected numbers for associate's degrees, by sex of recipient: 1993–94 through 2018–19



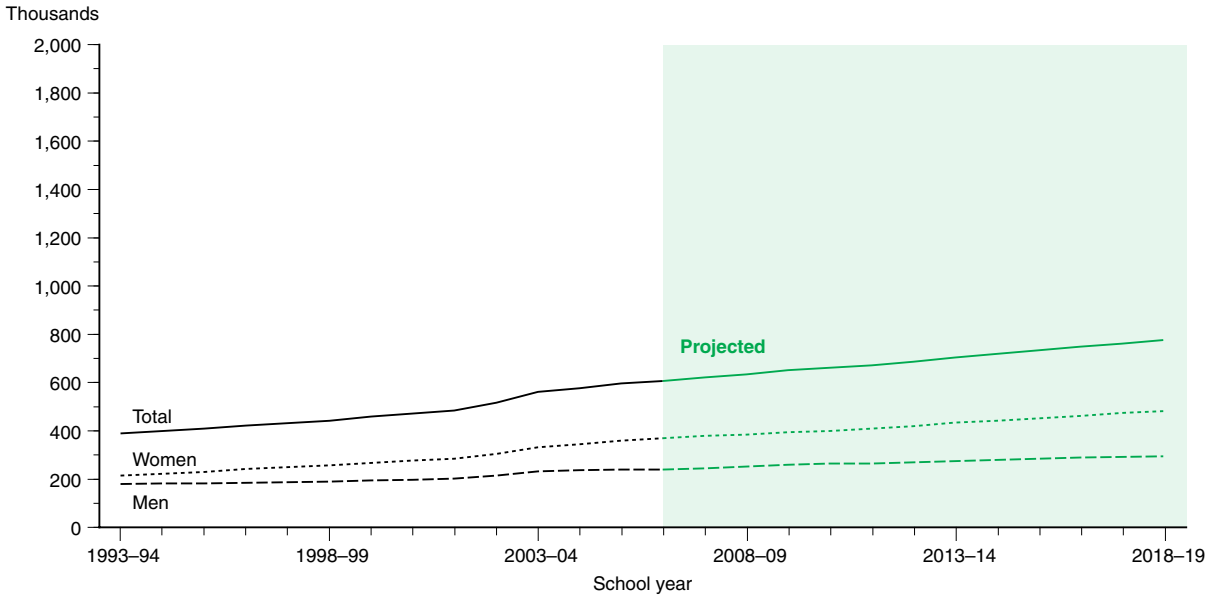
NOTE: Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:94–99), and Fall 2000 through Fall 2007; and Degrees Conferred Model, 1975–76 through 2006–07. (This figure was prepared March 2009.)

Figure 26. Actual and middle alternative projected numbers for bachelor's degrees, by sex of recipient: 1993–94 through 2018–19



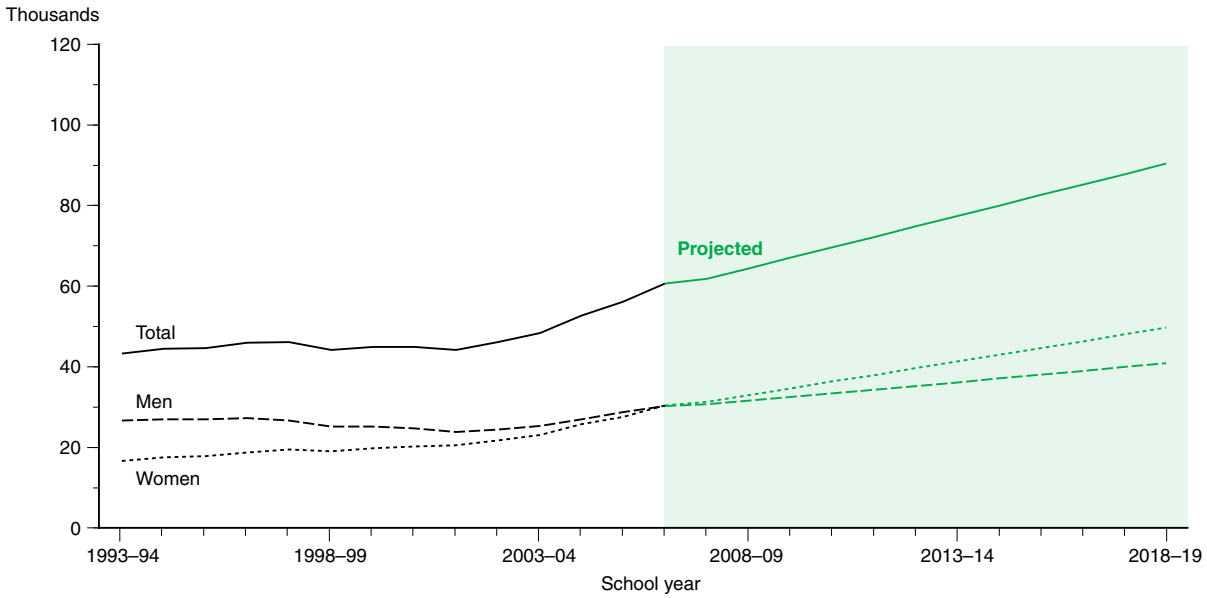
NOTE: Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:94–99), and Fall 2000 through Fall 2007; and Degrees Conferred Model, 1975–76 through 2006–07. (This figure was prepared March 2009.)

Figure 27. Actual and middle alternative projected numbers for master's degrees, by sex of recipient: 1993–94 through 2018–19



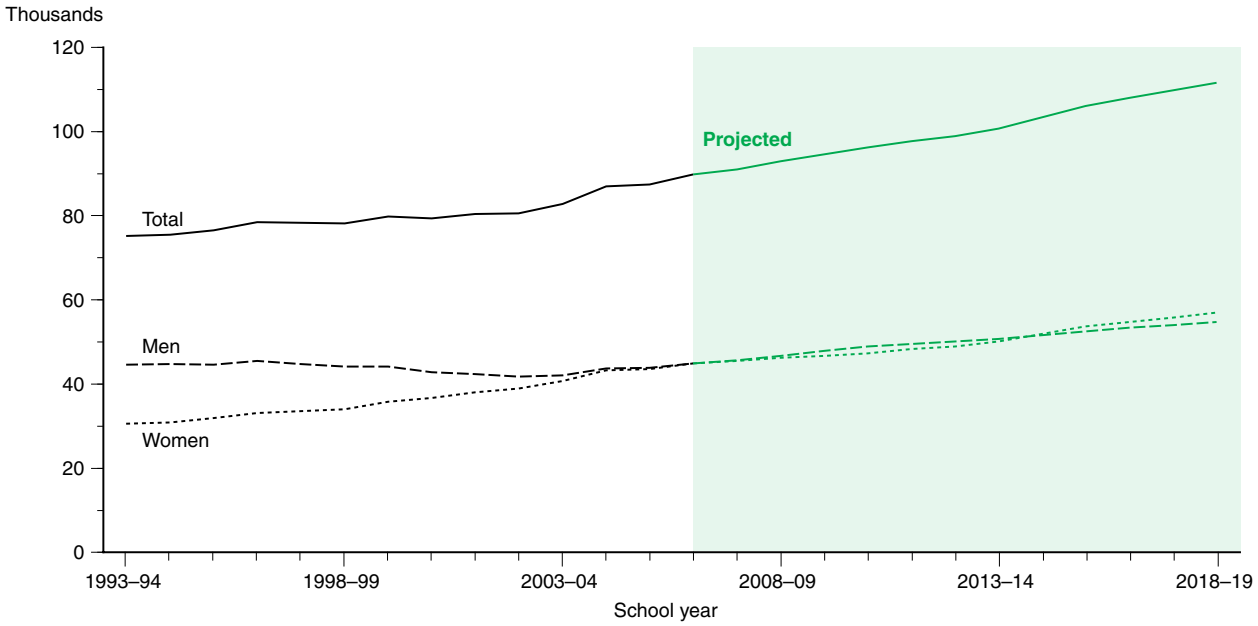
NOTE: Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:94–99), and Fall 2000 through Fall 2007; and Degrees Conferred Model, 1975–76 through 2006–07. (This figure was prepared March 2009.)

Figure 28. Actual and middle alternative projected numbers for doctor's degrees, by sex of recipient: 1993–94 through 2018–19



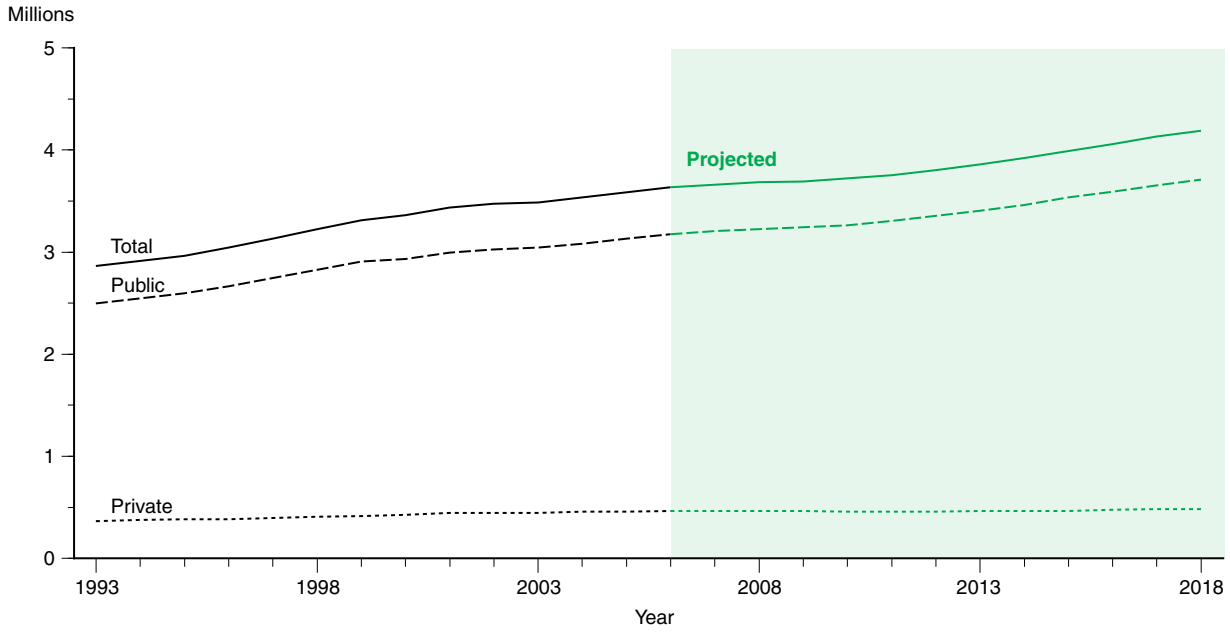
NOTE: Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:94–99), and Fall 2000 through Fall 2007; and Degrees Conferred Model, 1975–76 through 2006–07. (This figure was prepared March 2009.)

Figure 29. Actual and middle alternative projected numbers for first-professional degrees, by sex of recipient: 1993–94 through 2018–19



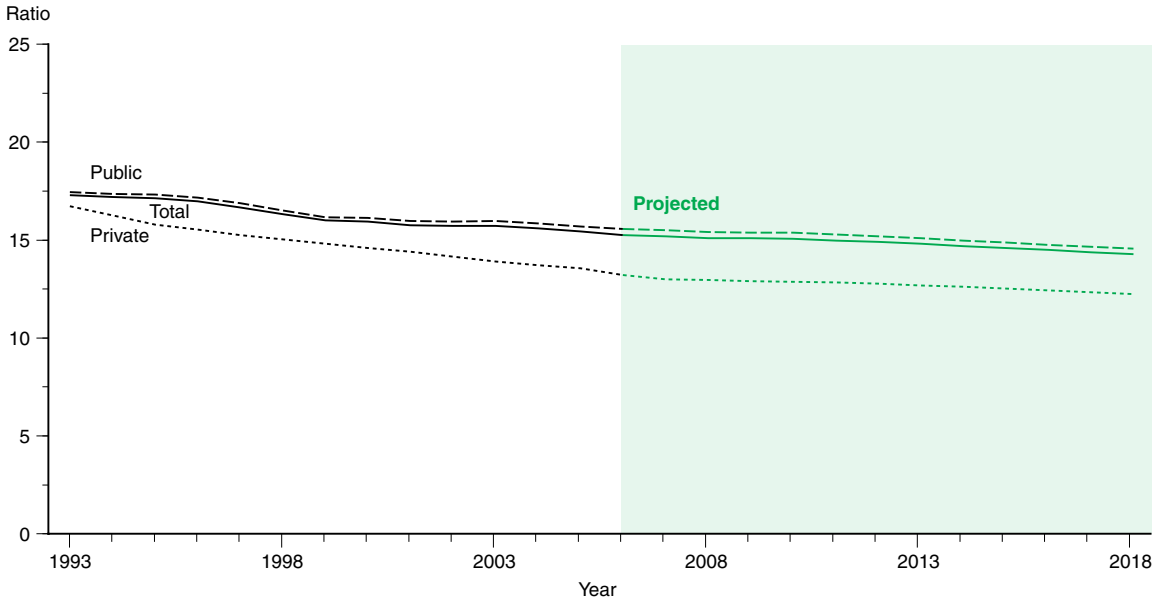
NOTE: Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:94–99), and Fall 2000 through Fall 2007; and Degrees Conferred Model, 1975–76 through 2006–07. (This figure was prepared March 2009.)

Figure 30. Actual and middle alternative projected numbers for elementary and secondary teachers, by control of school: Fall 1993 through fall 2018



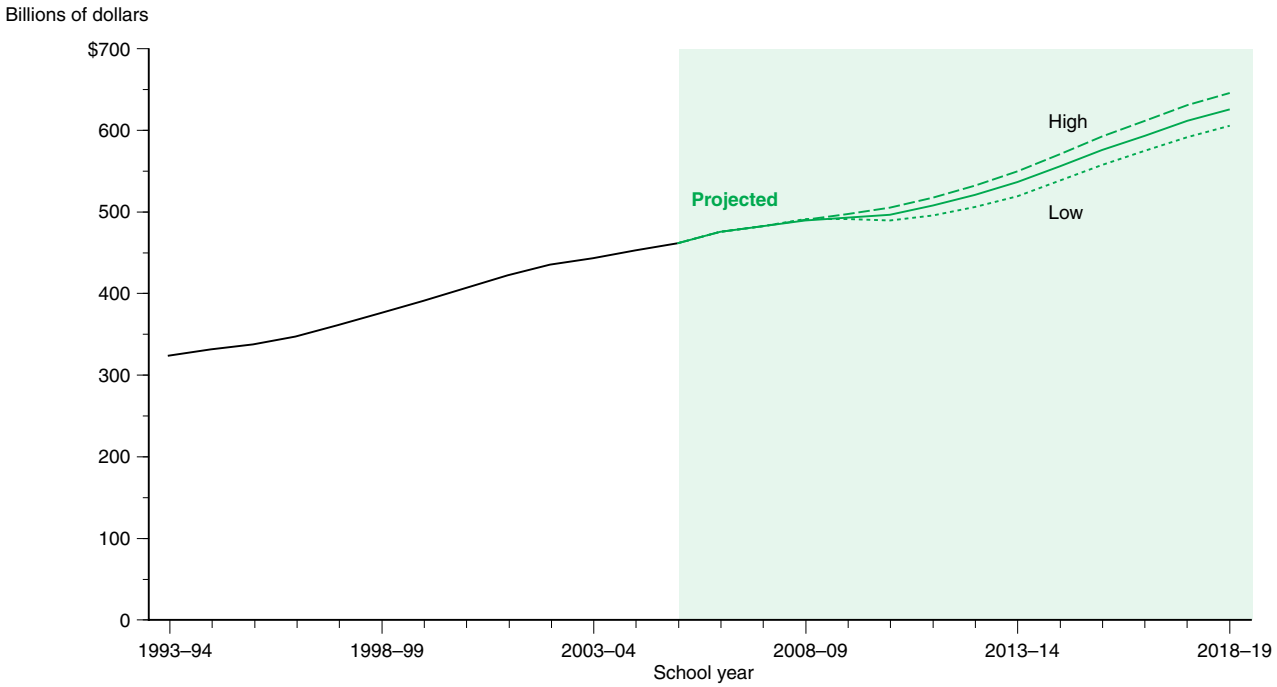
NOTE: Since the biennial Private School Universe Survey (PSS) is collected in the fall of odd numbered years, private school numbers for alternate years are estimated based on data from the PSS. The private school number for 2007 is an actual number from the 2007–08 PSS. Teachers reported in full-time equivalents. Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1993–94 through 2006–07; Private School Universe Survey (PSS), selected years, 1994–95 through 2007–08; Elementary and Secondary Teacher Model, 1973–2005. (This figure was prepared March 2009.)

Figure 31. Actual and middle alternative projected numbers for the pupil/teacher ratios in elementary and secondary schools, by control of school: Fall 1993 through fall 2018



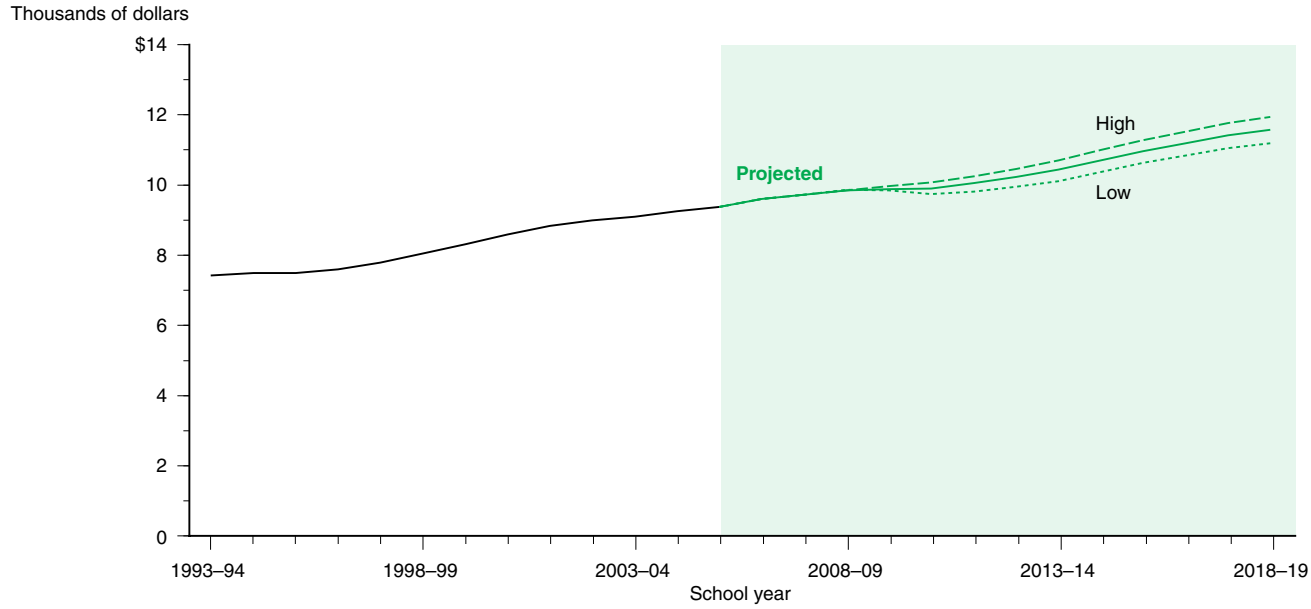
NOTE: Since the biennial Private School Universe Survey (PSS) is collected in the fall of odd numbered years, private school numbers for alternate years are estimated based on data from the PSS. The private school number for 2007 is an actual number from the 2007–08 PSS. The pupil/teacher ratios were derived from tables 1 and 32. Teachers reported in full-time equivalents. Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1993–94 through 2006–07; Private School Universe Survey (PSS), selected years, 1994–95 through 2007–08; National Elementary and Secondary Enrollment Model, 1972–2006; and Elementary and Secondary Teacher Model, 1973–2005. (This figure was prepared March 2009.)

Figure 32. Actual and alternative projected numbers for current expenditures for public elementary and secondary education (in constant 2006–07 dollars): 1993–94 through 2018–19



NOTE: Numbers were placed in constant dollars using the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor. Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey," 1993–94 through 2005–06; Elementary and Secondary Education Current Expenditures Model, 1969–70 through 2005–06. (This figure was prepared March 2009.)

Figure 33. Actual and alternative projected numbers for current expenditures per pupil in fall enrollment for public elementary and secondary education (in constant 2006–07 dollars): 1993–94 through 2018–19



NOTE: Numbers were placed in constant dollars using the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor. Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1993–94 through 2006–07; "National Public Education Financial Survey," 1993–94 through 2005–06; National Elementary and Secondary Enrollment Model, 1972–2006; and Elementary and Secondary Education Current Expenditures Model, 1969–70 through 2005–06. (This figure was prepared March 2009.)

Reference Tables

Table 1. Actual and projected numbers for enrollment in grades PK–12, PK–8, and 9–12 in elementary and secondary schools, by control of school: Fall 1993 through fall 2018

[In thousands]

	Total			Public			Private		
Year	PK–12[1]	PK–8[1]	9–12	PK–12	PK–8	9–12	PK–12[1]	PK–8[1]	9–12
Actual									
1993	49,533	36,454	13,079	43,465	31,504	11,961	6,068	4,950	1,118
1994 [2]	50,105	36,754	13,352	44,111	31,898	12,213	5,994	4,855	1,138
1995	50,758	37,096	13,662	44,840	32,341	12,500	5,918	4,755	1,163
1996 [2]	51,543	37,519	14,025	45,611	32,764	12,847	5,932	4,754	1,178
1997	52,071	37,832	14,239	46,127	33,073	13,054	5,944	4,759	1,185
1998 [2]	52,526	38,121	14,405	46,539	33,346	13,193	5,987	4,775	1,212
1999	52,876	38,278	14,598	46,857	33,488	13,369	6,018	4,789	1,229
2000 [2]	53,373	38,594	14,779	47,204	33,688	13,515	6,170	4,906	1,264
2001	53,992	38,961	15,031	47,672	33,938	13,734	6,320	5,023	1,296
2002 [2]	54,403	39,031	15,373	48,183	34,116	14,067	6,220	4,915	1,306
2003	54,639	38,990	15,649	48,540	34,202	14,338	6,099	4,788	1,311
2004 [2]	54,882	38,934	15,948	48,795	34,179	14,617	6,086	4,755	1,331
2005	55,186	38,929	16,257	49,113	34,205	14,908	6,073	4,724	1,349
2006 [2]	55,290	38,852	16,438	49,299	34,221	15,078	5,991	4,631	1,360
Projected									
2007 [3]	55,380	38,929	16,451	49,470	34,383	15,087	5,910	4,546	1,364
2008	55,500	39,179	16,322	49,623	34,667	14,955	5,878	4,512	1,366
2009	55,632	39,457	16,175	49,788	34,973	14,815	5,845	4,484	1,361
2010	55,850	39,799	16,051	50,034	35,335	14,698	5,817	4,464	1,353
2011	56,144	40,193	15,951	50,349	35,732	14,617	5,795	4,461	1,335
2012	56,545	40,592	15,952	50,767	36,126	14,641	5,778	4,466	1,312
2013	57,012	41,005	16,006	51,239	36,523	14,716	5,773	4,483	1,290
2014	57,544	41,412	16,132	51,769	36,903	14,866	5,775	4,509	1,265
2015	58,137	41,705	16,432	52,346	37,160	15,186	5,791	4,545	1,246
2016	58,706	42,082	16,624	52,892	37,496	15,396	5,814	4,586	1,228
2017	59,270	42,465	16,805	53,426	37,838	15,588	5,843	4,626	1,217
2018	59,813	42,845	16,968	53,933	38,179	15,754	5,879	4,666	1,214

[1] Includes private nursery and prekindergarten enrollment in schools that offer kindergarten or higher grades.
[2] Since the biennial Private School Universe Survey (PSS) is collected in the fall of odd numbered years, private school numbers for alternate years are estimated based on data from the PSS.
[3] The private school numbers are actual numbers from the 2007–08 PSS.
NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1993–94 through 2006–07; Private School Universe Survey (PSS), selected years 1993–94 through 2007–08; and National Elementary and Secondary Enrollment Model, 1972–2006. (This table was prepared March 2009.)

Table 2. Actual and projected numbers for enrollment in elementary and secondary schools, by organizational level and control of school: Fall 1993 through fall 2018

[In thousands]

	Total			Public			Private		
Year	PK–12[1]	Elementary[1]	Secondary	PK–12	Elementary	Secondary	PK–12[1]	Elementary[1]	Secondary
Actual									
1993	49,533	33,219	16,313	43,465	28,269	15,196	6,068	4,950	1,118
1994 [2]	50,105	33,140	16,965	44,111	28,285	15,827	5,994	4,855	1,138
1995	50,758	33,370	17,389	44,840	28,614	16,226	5,918	4,755	1,163
1996 [2]	51,543	33,496	18,048	45,611	28,741	16,870	5,932	4,754	1,178
1997	52,071	33,868	18,203	46,127	29,109	17,018	5,944	4,759	1,185
1998 [2]	52,526	34,032	18,493	46,539	29,257	17,281	5,987	4,775	1,212
1999	52,876	34,208	18,668	46,857	29,419	17,439	6,018	4,789	1,229
2000 [2]	53,373	34,410	18,963	47,204	29,504	17,700	6,170	4,906	1,264
2001	53,992	34,766	19,225	47,672	29,743	17,929	6,320	5,023	1,296
2002 [2]	54,403	34,739	19,665	48,183	29,824	18,359	6,220	4,915	1,306
2003	54,639	34,652	19,988	48,540	29,864	18,676	6,099	4,788	1,311
2004 [2]	54,882	34,628	20,254	48,795	29,873	18,923	6,086	4,755	1,331
2005	55,186	34,666	20,520	49,113	29,942	19,171	6,073	4,724	1,349
2006 [2]	55,290	34,637	20,653	49,299	30,006	19,293	5,991	4,631	1,360
Projected									
2007 [3]	55,380	34,745	20,635	49,470	30,199	19,270	5,910	4,546	1,364
2008	55,500	35,012	20,488	49,623	30,501	19,122	5,878	4,512	1,366
2009	55,632	35,300	20,333	49,788	30,816	18,972	5,845	4,484	1,361
2010	55,850	35,615	20,236	50,034	31,151	18,883	5,817	4,464	1,353
2011	56,144	35,961	20,183	50,349	31,500	18,849	5,795	4,461	1,335
2012	56,545	36,304	20,240	50,767	31,838	18,929	5,778	4,466	1,312
2013	57,012	36,592	20,420	51,239	32,109	19,130	5,773	4,483	1,290
2014	57,544	36,929	20,615	51,769	32,420	19,349	5,775	4,509	1,265
2015	58,137	37,231	20,906	52,346	32,686	19,660	5,791	4,545	1,246
2016	58,706	37,576	21,130	52,892	32,990	19,902	5,814	4,586	1,228
2017	59,270	37,922	21,347	53,426	33,296	20,130	5,843	4,626	1,217
2018	59,813	38,262	21,551	53,933	33,596	20,338	5,879	4,666	1,214

[1] Includes private nursery and prekindergarten enrollment in schools that offer kindergarten or higher grades.
[2] Since the biennial Private School Universe Survey (PSS) is collected in the fall of odd numbered years, private school numbers for alternate years are estimated based on data from the PSS.
[3] The private school numbers are actual numbers from the 2007–08 PSS.
NOTE: Some data have been revised from previously published figures. For private schools, it was assumed that numbers for elementary are the same as those in table 1 for grades PK–8, and numbers for secondary are the same as those in table 1 for grades 9–12. Designation of grades as elementary or secondary varies from school to school. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1993–94 through 2006–07; Private School Universe Survey (PSS), selected years 1993–94 through 2007–08; and National Elementary and Secondary Enrollment Model, 1972–2006. (This table was prepared March 2009.)

Table 3. Actual and projected numbers for enrollment in public elementary and secondary schools, by grade: Fall 1993 through fall 2018

[In thousands]

		Grade															
Year	Total	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	Elementary ungraded	Secondary ungraded
Actual																	
1993. . .	43,465	545	3,377	3,529	3,429	3,437	3,361	3,350	3,356	3,355	3,249	3,487	3,050	2,751	2,424	515	248
1994. . .	44,111	603	3,444	3,593	3,440	3,439	3,426	3,372	3,381	3,404	3,302	3,604	3,131	2,748	2,488	494	242
1995. . .	44,840	637	3,536	3,671	3,507	3,445	3,431	3,438	3,395	3,422	3,356	3,704	3,237	2,826	2,487	502	245
1996. . .	45,611	670	3,532	3,770	3,600	3,524	3,454	3,453	3,494	3,464	3,403	3,801	3,323	2,930	2,586	401	206
1997. . .	46,127	695	3,503	3,755	3,689	3,597	3,507	3,458	3,492	3,520	3,415	3,819	3,376	2,972	2,673	442	214
1998. . .	46,539	729	3,443	3,727	3,681	3,696	3,592	3,520	3,497	3,530	3,480	3,856	3,382	3,021	2,722	451	212
1999. . .	46,857	751	3,397	3,684	3,656	3,691	3,686	3,604	3,564	3,541	3,497	3,935	3,415	3,034	2,782	417	203
2000. . .	47,204	776	3,382	3,636	3,634	3,676	3,711	3,707	3,663	3,629	3,538	3,963	3,491	3,083	2,803	336	175
2001. . .	47,672	865	3,379	3,614	3,593	3,653	3,695	3,727	3,769	3,720	3,616	4,012	3,528	3,174	2,863	306	157
2002. . .	48,183	915	3,434	3,594	3,565	3,623	3,669	3,711	3,788	3,821	3,709	4,105	3,584	3,229	2,990	287	160
2003. . .	48,540	950	3,503	3,613	3,544	3,611	3,619	3,685	3,772	3,841	3,809	4,190	3,675	3,277	3,046	256	149
2004. . .	48,795	990	3,544	3,663	3,560	3,580	3,612	3,635	3,735	3,818	3,825	4,281	3,750	3,369	3,094	216	121
2005. . .	49,113	1,036	3,619	3,691	3,606	3,586	3,578	3,633	3,670	3,777	3,802	4,287	3,866	3,454	3,180	206	120
2006. . .	49,299	1,076	3,630	3,750	3,640	3,627	3,585	3,601	3,660	3,715	3,765	4,260	3,881	3,551	3,276	171	109
Projected																	
2007. . .	49,470	1,065	3,593	3,911	3,696	3,667	3,627	3,606	3,640	3,706	3,701	4,230	3,836	3,560	3,352	171	110
2008. . .	49,623	1,077	3,633	3,871	3,855	3,724	3,667	3,648	3,644	3,685	3,692	4,158	3,809	3,518	3,360	171	110
2009. . .	49,788	1,085	3,661	3,896	3,815	3,883	3,724	3,688	3,687	3,690	3,671	4,147	3,745	3,493	3,321	172	108
2010. . .	50,034	1,094	3,693	3,926	3,840	3,843	3,884	3,745	3,728	3,733	3,676	4,125	3,735	3,434	3,298	173	107
2011. . .	50,349	1,104	3,727	3,960	3,869	3,869	3,844	3,906	3,785	3,774	3,719	4,130	3,715	3,425	3,242	175	105
2012. . .	50,767	1,115	3,763	3,996	3,903	3,898	3,869	3,865	3,948	3,833	3,760	4,178	3,719	3,407	3,234	177	104
2013. . .	51,239	1,126	3,802	4,035	3,939	3,932	3,898	3,891	3,907	3,997	3,818	4,224	3,762	3,411	3,216	179	103
2014. . .	51,769	1,138	3,841	4,076	3,977	3,968	3,932	3,920	3,932	3,956	3,982	4,289	3,804	3,451	3,220	181	103
2015. . .	52,346	1,150	3,879	4,119	4,017	4,006	3,968	3,954	3,962	3,982	3,941	4,473	3,863	3,489	3,257	183	103
2016. . .	52,892	1,160	3,914	4,160	4,059	4,047	4,006	3,991	3,997	4,011	3,966	4,427	4,029	3,543	3,293	184	105
2017. . .	53,426	1,169	3,945	4,197	4,100	4,089	4,047	4,029	4,034	4,047	3,996	4,456	3,987	3,695	3,344	186	106
2018. . .	53,933	1,177	3,971	4,230	4,136	4,130	4,090	4,070	4,072	4,084	4,031	4,490	4,013	3,657	3,488	188	107

NOTE: Elementary ungraded includes students in grades prekindergarten through 8 who are in classes or programs to which students are assigned without standard grade designations. Secondary ungraded includes students in grades 9 through 12 who are in classes or programs to which students are assigned without standard grade designations. Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1993–94 through 2006–07; and National Elementary and Secondary Enrollment Model, 1972–2006. (This table was prepared November 2008.)

Table 4. Actual and projected numbers for enrollment in grades PK–12 in public elementary and secondary schools, by region and state: Fall 2000 through fall 2018

[In thousands]

	Actual							Projected		
Region and state	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
United States	**47,204**	**47,672**	**48,183**	**48,540**	**48,795**	**49,113**	**49,299**	**49,470**	**49,623**	**49,788**
Northeast	8,222	8,250	8,297	8,292	8,271	8,240	8,258	8,141	8,055	7,969
Connecticut	562	570	570	577	577	575	575	570	564	559
Maine	207	206	204	202	199	195	194	191	188	185
Massachusetts	975	973	983	980	976	972	969	958	949	941
New Hampshire	208	207	208	207	207	206	204	201	199	198
New Jersey	1,313	1,342	1,367	1,381	1,393	1,396	1,389	1,373	1,368	1,362
New York	2,882	2,872	2,888	2,865	2,836	2,816	2,810	2,748	2,707	2,669
Pennsylvania	1,814	1,822	1,817	1,821	1,828	1,831	1,871	1,860	1,844	1,824
Rhode Island	157	158	159	159	156	153	152	148	145	142
Vermont	102	101	100	99	98	97	95	93	91	89
Midwest	10,730	10,745	10,819	10,809	10,775	10,819	10,811	10,757	10,708	10,661
Illinois	2,049	2,071	2,084	2,101	2,098	2,112	2,118	2,119	2,119	2,117
Indiana	989	996	1,004	1,011	1,021	1,035	1,046	1,047	1,049	1,049
Iowa	495	486	482	481	478	483	483	482	481	480
Kansas	471	470	471	470	469	468	470	467	467	467
Michigan	1,721	1,731	1,785	1,758	1,751	1,742	1,715	1,689	1,662	1,635
Minnesota	854	851	847	843	839	839	841	836	832	830
Missouri	913	910	906	906	905	918	920	918	919	919
Nebraska	286	285	285	286	286	287	288	288	289	290
North Dakota	109	106	104	102	101	98	97	95	93	92
Ohio	1,835	1,831	1,838	1,845	1,840	1,840	1,836	1,825	1,814	1,802
South Dakota	129	128	130	126	123	122	121	120	120	119
Wisconsin	879	879	881	880	865	875	877	870	864	861
South	17,007	17,237	17,471	17,673	17,892	18,103	18,289	18,527	18,744	18,962
Alabama	740	737	739	731	730	742	744	748	748	748
Arkansas	450	450	451	455	463	474	476	479	483	487
Delaware	115	116	116	118	119	121	122	124	125	125
District of Columbia	69	75	76	78	77	77	73	70	69	70
Florida	2,435	2,500	2,540	2,588	2,639	2,675	2,672	2,707	2,736	2,771
Georgia	1,445	1,471	1,496	1,523	1,553	1,598	1,629	1,671	1,705	1,735
Kentucky	666	654	661	663	675	680	683	686	690	692
Louisiana	743	731	730	728	724	655	676	667	664	661
Maryland	853	861	867	869	866	860	852	844	835	828
Mississippi	498	494	493	494	495	495	495	495	496	496
North Carolina	1,294	1,315	1,336	1,360	1,386	1,416	1,444	1,471	1,496	1,520
Oklahoma	623	622	625	626	629	635	639	641	646	649
South Carolina	677	676	694	699	704	702	703	706	707	706
Tennessee	909	925	928	937	941	954	978	987	997	1,006
Texas	4,060	4,163	4,260	4,332	4,405	4,525	4,600	4,722	4,834	4,949
Virginia	1,145	1,163	1,177	1,192	1,205	1,214	1,220	1,228	1,233	1,238
West Virginia	286	283	282	281	280	281	282	281	281	281
West	11,244	11,440	11,596	11,766	11,857	11,951	11,942	12,045	12,116	12,197
Alaska	133	134	134	134	133	133	133	131	129	129
Arizona	878	922	938	1,012	1,043	1,094	1,065	1,093	1,126	1,161
California	6,141	6,248	6,354	6,414	6,442	6,437	6,407	6,432	6,431	6,435
Colorado	725	742	752	758	766	780	794	805	816	827
Hawaii	184	185	184	184	183	183	181	178	176	174
Idaho	245	247	249	252	256	262	267	273	278	283
Montana	155	152	150	148	147	145	144	144	142	142
Nevada	341	357	369	385	400	412	424	438	451	463
New Mexico	320	320	320	323	326	327	328	329	330	331
Oregon	546	551	554	551	553	552	563	564	564	565
Utah	481	485	489	496	504	508	524	544	559	573
Washington	1,005	1,009	1,015	1,021	1,020	1,032	1,027	1,028	1,026	1,026
Wyoming	90	88	88	87	85	84	85	86	86	87

See notes at end of table.

Table 4. Actual and projected numbers for enrollment in grades PK–12 in public elementary and secondary schools, by region and state: Fall 2000 through fall 2018—Continued

[In thousands]

	Projected—Continued								
Region and state	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
United States	**50,034**	**50,349**	**50,767**	**51,239**	**51,769**	**52,346**	**52,892**	**53,426**	**53,933**
Northeast	7,902	7,848	7,810	7,788	7,779	7,783	7,790	7,801	7,815
Connecticut	554	550	547	544	542	541	541	541	541
Maine	183	182	182	182	183	183	184	185	185
Massachusetts	933	926	921	916	913	911	909	909	909
New Hampshire	197	196	196	197	198	199	201	203	206
New Jersey	1,358	1,354	1,352	1,350	1,350	1,351	1,352	1,353	1,356
New York	2,638	2,610	2,588	2,573	2,563	2,559	2,556	2,556	2,556
Pennsylvania	1,812	1,806	1,803	1,806	1,811	1,819	1,827	1,834	1,840
Rhode Island	139	137	135	134	133	132	132	133	134
Vermont	88	87	86	86	86	87	87	88	88
Midwest	10,628	10,615	10,624	10,649	10,689	10,736	10,777	10,814	10,845
Illinois	2,115	2,116	2,117	2,121	2,128	2,138	2,148	2,158	2,167
Indiana	1,051	1,054	1,057	1,061	1,065	1,070	1,074	1,077	1,079
Iowa	480	480	482	484	486	488	489	490	489
Kansas	468	470	472	475	479	482	484	486	487
Michigan	1,615	1,599	1,589	1,582	1,579	1,578	1,578	1,578	1,579
Minnesota	829	831	835	842	850	859	868	878	887
Missouri	919	921	927	934	941	948	954	959	964
Nebraska	291	293	295	297	300	302	305	307	308
North Dakota	91	90	90	89	89	89	88	88	88
Ohio	1,791	1,783	1,779	1,778	1,779	1,782	1,782	1,782	1,780
South Dakota	119	118	118	119	119	120	120	120	121
Wisconsin	859	860	862	867	873	880	886	891	896
South	19,203	19,469	19,779	20,092	20,416	20,744	21,042	21,322	21,580
Alabama	748	749	750	752	755	756	756	756	754
Arkansas	490	495	500	505	509	512	516	518	520
Delaware	126	127	129	130	132	133	134	136	137
District of Columbia	70	70	70	71	71	73	73	74	75
Florida	2,818	2,868	2,930	2,988	3,052	3,117	3,184	3,249	3,313
Georgia	1,769	1,802	1,839	1,878	1,915	1,953	1,985	2,014	2,039
Kentucky	694	696	700	703	706	708	708	706	707
Louisiana	655	654	654	653	652	653	653	653	651
Maryland	823	820	821	824	830	838	848	860	872
Mississippi	495	494	494	495	495	496	495	493	491
North Carolina	1,545	1,573	1,602	1,634	1,666	1,697	1,725	1,751	1,775
Oklahoma	652	657	662	667	673	677	680	682	685
South Carolina	707	710	714	720	726	732	737	741	744
Tennessee	1,015	1,026	1,039	1,052	1,065	1,078	1,088	1,097	1,105
Texas	5,069	5,193	5,328	5,460	5,595	5,728	5,852	5,970	6,077
Virginia	1,245	1,254	1,266	1,280	1,295	1,313	1,329	1,345	1,361
West Virginia	280	280	280	280	280	279	278	277	275
West	12,300	12,417	12,554	12,710	12,886	13,083	13,284	13,488	13,693
Alaska	128	129	130	132	134	136	139	141	144
Arizona	1,201	1,238	1,276	1,315	1,354	1,396	1,436	1,476	1,515
California	6,449	6,470	6,499	6,542	6,602	6,679	6,766	6,862	6,958
Colorado	839	852	866	881	896	911	924	936	947
Hawaii	173	172	171	171	171	171	170	171	170
Idaho	289	295	302	309	315	322	328	333	337
Montana	142	142	143	144	145	146	147	148	149
Nevada	475	488	502	517	532	548	563	579	595
New Mexico	333	337	340	345	350	354	358	360	363
Oregon	568	572	578	585	592	600	608	616	625
Utah	588	603	618	631	643	655	664	672	679
Washington	1,027	1,031	1,039	1,048	1,061	1,074	1,087	1,101	1,116
Wyoming	88	89	90	91	92	93	94	94	94

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2000–01 through 2006–07; and State Public Elementary and Secondary Enrollment Model, 1980–2006. (This table was prepared December 2008.)

Table 5. Actual and projected percentage changes in PK–12 enrollment in public schools, by region and state: Selected years, fall 2000 through fall 2018

Region and state	Actual 2000–2006	Projected		
		2006–2012	2012–2018	2006–2018
United States	**4.4**	**3.0**	**6.2**	**9.4**
Northeast	0.4	-5.4	0.1	-5.4
Connecticut	2.3	-4.9	-1.0	-5.9
Maine	-6.3	-6.2	1.8	-4.5
Massachusetts	-0.7	-4.9	-1.3	-6.2
New Hampshire	-2.4	-3.7	5.0	1.1
New Jersey	5.7	-2.7	0.3	-2.4
New York	-2.5	-7.9	-1.2	-9.0
Pennsylvania	3.1	-3.6	2.0	-1.7
Rhode Island	-3.6	-11.0	-0.5	-11.5
Vermont	-6.5	-9.5	2.3	-7.4
Midwest	0.8	-1.7	2.1	0.3
Illinois	3.4	-0.1	2.4	2.3
Indiana	5.7	1.1	2.1	3.2
Iowa	-2.4	-0.2	1.5	1.3
Kansas	-0.2	0.6	3.2	3.8
Michigan	-0.3	-7.4	-0.6	-7.9
Minnesota	-1.6	-0.6	6.2	5.5
Missouri	0.8	0.8	4.0	4.7
Nebraska	0.5	2.6	4.3	7.0
North Dakota	-11.5	-7.4	-1.2	-8.5
Ohio	0.1	-3.1	#	-3.1
South Dakota	-5.8	-2.3	1.8	-0.5
Wisconsin	-0.3	-1.6	3.9	2.2
South	7.5	8.1	9.1	18.0
Alabama	0.5	0.9	0.5	1.4
Arkansas	5.9	4.9	4.0	9.1
Delaware	6.6	5.2	6.1	11.7
District of Columbia	5.7	-3.7	7.0	3.1
Florida	9.7	9.7	13.1	24.0
Georgia	12.7	12.9	10.9	25.2
Kentucky	2.6	2.5	1.1	3.6
Louisiana	-9.0	-3.2	-0.4	-3.6
Maryland	-0.2	-3.6	6.3	2.4
Mississippi	-0.6	-0.1	-0.7	-0.8
North Carolina	11.7	10.9	10.8	22.9
Oklahoma	2.6	3.5	3.4	7.1
South Carolina	3.8	1.6	4.1	5.8
Tennessee	7.6	6.2	6.3	12.9
Texas	13.3	15.8	14.0	32.1
Virginia	6.6	3.7	7.5	11.5
West Virginia	-1.5	-0.7	-1.7	-2.4
West	6.2	5.1	9.1	14.7
Alaska	-0.6	-2.0	10.7	8.5
Arizona	21.3	19.8	18.8	42.2
California	4.3	1.4	7.1	8.6
Colorado	9.6	9.1	9.3	19.3
Hawaii	-2.0	-5.2	-0.5	-5.7
Idaho	9.1	12.9	11.7	26.1
Montana	-6.8	-1.3	4.6	3.3
Nevada	24.5	18.4	18.5	40.2
New Mexico	2.5	3.7	6.5	10.5
Oregon	3.0	2.8	8.0	11.0
Utah	8.7	18.0	9.9	29.7
Washington	2.2	1.2	7.5	8.7
Wyoming	-5.3	5.5	4.8	10.6

Rounds to zero.

NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," selected years, 2000–01 through 2006–07; and State Public Elementary and Secondary Enrollment Model, 1980–2006. (This table was prepared December 2008.)

Table 6. Actual and projected numbers for enrollment in grades PK–8 in public elementary and secondary schools, by region and state: Fall 2000 through fall 2018

[In thousands]

	Actual							Projected		
Region and state	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
United States	**33,688**	**33,938**	**34,116**	**34,202**	**34,179**	**34,205**	**34,221**	**34,383**	**34,667**	**34,973**
Northeast	5,841	5,824	5,810	5,752	5,690	5,623	5,574	5,487	5,448	5,418
Connecticut	406	410	406	408	404	400	398	393	390	387
Maine	146	144	142	139	136	133	132	131	129	129
Massachusetts	703	699	701	692	682	675	671	664	660	656
New Hampshire	147	144	144	142	140	139	136	135	134	134
New Jersey	968	972	979	979	976	971	964	949	948	946
New York	2,029	2,017	2,017	1,979	1,943	1,909	1,888	1,846	1,825	1,808
Pennsylvania	1,258	1,255	1,242	1,236	1,235	1,228	1,220	1,209	1,204	1,203
Rhode Island	114	113	113	111	107	104	102	99	96	95
Vermont	70	69	68	67	66	65	64	62	61	60
Midwest	7,523	7,517	7,535	7,502	7,439	7,425	7,396	7,352	7,346	7,352
Illinois	1,474	1,484	1,488	1,493	1,484	1,480	1,478	1,476	1,475	1,476
Indiana	703	711	714	717	720	724	730	730	733	736
Iowa	334	330	326	327	324	326	326	326	327	329
Kansas	323	322	322	323	321	321	326	323	325	327
Michigan	1,222	1,223	1,254	1,229	1,212	1,191	1,163	1,143	1,129	1,118
Minnesota	578	573	568	564	558	558	558	557	557	560
Missouri	645	643	635	632	629	635	634	632	637	642
Nebraska	195	195	195	195	195	195	196	197	199	201
North Dakota	72	70	69	68	67	66	64	63	63	62
Ohio	1,294	1,287	1,284	1,278	1,267	1,261	1,253	1,241	1,238	1,235
South Dakota	88	87	89	86	84	84	83	83	83	83
Wisconsin	595	592	592	590	578	584	585	581	581	582
South	12,314	12,454	12,573	12,675	12,780	12,882	12,986	13,196	13,451	13,694
Alabama	539	536	533	525	522	529	529	532	534	536
Arkansas	318	318	319	322	328	336	337	339	344	349
Delaware	81	81	82	83	84	85	85	86	87	88
District of Columbia	54	58	59	59	57	56	52	50	49	51
Florida	1,760	1,797	1,809	1,832	1,858	1,873	1,867	1,901	1,950	1,990
Georgia	1,060	1,075	1,089	1,103	1,118	1,145	1,167	1,199	1,230	1,261
Kentucky	471	473	477	478	486	487	487	489	495	498
Louisiana	547	537	537	536	534	482	492	490	491	491
Maryland	609	611	610	606	597	589	579	573	570	569
Mississippi	364	362	360	361	361	358	356	356	357	358
North Carolina	945	956	964	974	986	1,003	1,027	1,050	1,073	1,098
Oklahoma	445	446	449	450	453	457	460	463	469	474
South Carolina	493	487	500	501	504	498	497	501	504	508
Tennessee	668	675	673	675	671	677	692	698	710	720
Texas	2,943	3,016	3,080	3,133	3,184	3,268	3,320	3,425	3,535	3,638
Virginia	816	826	832	837	840	841	842	847	856	865
West Virginia	201	200	200	199	198	197	198	197	198	199
West	8,010	8,143	8,198	8,273	8,270	8,274	8,266	8,348	8,422	8,509
Alaska	94	95	94	94	92	91	90	90	89	90
Arizona	641	672	660	704	722	740	758	783	810	838
California	4,408	4,479	4,526	4,540	4,508	4,466	4,410	4,421	4,423	4,435
Colorado	517	529	534	536	541	550	559	570	582	594
Hawaii	132	132	131	130	129	127	126	124	123	122
Idaho	170	171	173	175	178	183	187	192	197	201
Montana	105	103	101	100	99	98	97	97	97	98
Nevada	251	262	271	281	289	296	303	312	322	331
New Mexico	225	225	224	226	228	230	230	231	233	236
Oregon	379	382	382	378	377	380	381	383	386	389
Utah	333	338	343	349	355	358	371	389	402	413
Washington	694	696	697	699	695	699	695	697	699	702
Wyoming	60	59	60	60	57	57	58	59	60	61

See notes at end of table.

Table 6. Actual and projected numbers for enrollment in grades PK–8 in public elementary and secondary schools, by region and state: Fall 2000 through fall 2018—Continued

[In thousands]

Region and state	Projected—Continued								
	2010	2011	2012	2013	2014	2015	2016	2017	2018
United States	**35,335**	**35,732**	**36,126**	**36,523**	**36,903**	**37,160**	**37,496**	**37,838**	**38,179**
Northeast	5,399	5,389	5,382	5,380	5,382	5,382	5,395	5,413	5,435
Connecticut	384	382	379	378	377	377	378	380	382
Maine	129	129	129	129	130	130	131	132	133
Massachusetts	653	651	647	646	644	642	641	641	641
New Hampshire	134	135	135	137	138	140	142	143	145
New Jersey	945	945	945	944	944	946	947	949	952
New York	1,795	1,788	1,783	1,780	1,777	1,773	1,774	1,777	1,780
Pennsylvania	1,204	1,208	1,212	1,215	1,218	1,220	1,226	1,234	1,241
Rhode Island	93	92	92	92	93	93	94	95	96
Vermont	60	60	60	60	60	61	62	63	64
Midwest	7,371	7,398	7,424	7,451	7,474	7,483	7,512	7,545	7,576
Illinois	1,481	1,488	1,495	1,504	1,511	1,513	1,516	1,521	1,526
Indiana	738	741	744	746	747	746	748	751	753
Iowa	331	333	334	335	335	335	335	335	335
Kansas	330	333	335	336	337	338	340	341	342
Michigan	1,110	1,105	1,102	1,100	1,100	1,100	1,104	1,111	1,117
Minnesota	563	568	573	578	583	589	596	605	614
Missouri	648	654	658	663	667	669	673	676	678
Nebraska	204	206	208	210	211	212	212	212	212
North Dakota	62	62	61	61	62	62	62	62	62
Ohio	1,236	1,237	1,237	1,237	1,236	1,232	1,232	1,233	1,233
South Dakota	83	83	84	84	84	85	85	85	85
Wisconsin	585	589	593	596	600	603	608	613	618
South	13,951	14,204	14,447	14,675	14,884	15,014	15,172	15,317	15,462
Alabama	539	541	542	542	541	537	537	536	535
Arkansas	354	357	360	363	364	365	366	366	367
Delaware	89	90	91	92	93	93	94	95	95
District of Columbia	53	54	55	56	58	58	59	59	59
Florida	2,035	2,079	2,130	2,179	2,227	2,264	2,305	2,344	2,383
Georgia	1,291	1,321	1,347	1,372	1,394	1,403	1,416	1,429	1,444
Kentucky	502	506	506	504	506	504	504	502	501
Louisiana	489	493	494	495	495	494	495	492	490
Maryland	570	573	577	585	593	600	609	619	629
Mississippi	360	362	363	363	362	359	358	355	352
North Carolina	1,123	1,146	1,167	1,187	1,203	1,213	1,227	1,243	1,260
Oklahoma	480	485	488	490	492	494	495	495	495
South Carolina	513	518	522	526	529	529	531	533	535
Tennessee	731	741	749	755	761	763	769	774	780
Texas	3,746	3,850	3,953	4,053	4,144	4,207	4,271	4,329	4,385
Virginia	876	888	899	910	921	929	939	949	960
West Virginia	200	201	202	202	201	199	198	195	192
West	8,615	8,740	8,874	9,016	9,162	9,282	9,418	9,563	9,706
Alaska	90	92	93	94	96	98	101	104	106
Arizona	865	894	924	952	981	1,003	1,027	1,051	1,075
California	4,461	4,504	4,558	4,625	4,694	4,752	4,818	4,888	4,956
Colorado	605	617	628	638	646	650	655	661	667
Hawaii	122	122	122	122	122	123	124	124	124
Idaho	206	211	216	220	223	226	229	232	235
Montana	98	99	100	101	102	103	104	105	105
Nevada	341	352	362	372	382	392	402	412	424
New Mexico	240	243	247	249	252	254	257	259	260
Oregon	392	396	401	406	411	416	423	431	438
Utah	424	433	441	447	452	455	457	461	464
Washington	707	713	719	726	734	743	756	771	786
Wyoming	62	63	64	65	65	66	66	65	65

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2000–01 through 2006–07; and State Public Elementary and Secondary Enrollment Model, 1980–2006. (This table was prepared December 2008.)

Table 7. Actual and projected percentage changes in PK–8 enrollment in public schools, by region and state: Selected years, fall 2000 through fall 2018

Region and state	Actual 2000–2006	Projected		
		2006–2012	2012–2018	2006–2018
United States	**1.6**	**5.6**	**5.7**	**11.6**
Northeast	-4.6	-3.5	1.0	-2.5
Connecticut	-2.1	-4.7	0.7	-4.0
Maine	-9.2	-2.6	3.2	0.6
Massachusetts	-4.5	-3.5	-0.9	-4.4
New Hampshire	-7.4	-0.5	7.4	6.8
New Jersey	-0.4	-2.0	0.8	-1.2
New York	-7.0	-5.6	-0.1	-5.7
Pennsylvania	-3.0	-0.7	2.4	1.7
Rhode Island	-10.2	-10.2	4.9	-5.8
Vermont	-9.4	-6.3	6.5	-0.2
Midwest	-1.7	0.4	2.1	2.4
Illinois	0.3	1.2	2.0	3.2
Indiana	3.8	1.9	1.3	3.2
Iowa	-2.3	2.5	0.2	2.7
Kansas	0.9	2.6	2.2	4.8
Michigan	-4.9	-5.2	1.4	-3.9
Minnesota	-3.3	2.5	7.2	10.0
Missouri	-1.6	3.8	3.0	6.9
Nebraska	0.1	6.4	1.9	8.4
North Dakota	-11.1	-4.7	1.2	-3.6
Ohio	-3.2	-1.2	-0.3	-1.6
South Dakota	-5.4	0.6	2.2	2.8
Wisconsin	-1.7	1.4	4.3	5.7
South	5.5	11.3	7.0	19.1
Alabama	-1.9	2.6	-1.3	1.2
Arkansas	5.8	7.1	1.7	8.9
Delaware	5.2	7.0	4.8	12.2
District of Columbia	-2.4	5.1	6.8	12.3
Florida	6.1	14.1	11.9	27.7
Georgia	10.0	15.5	7.2	23.8
Kentucky	3.3	3.8	-1.0	2.7
Louisiana	-10.0	0.5	-0.9	-0.5
Maryland	-4.9	-0.3	9.0	8.6
Mississippi	-2.1	1.9	-3.2	-1.3
North Carolina	8.6	13.6	8.0	22.7
Oklahoma	3.3	6.0	1.6	7.7
South Carolina	0.8	5.1	2.5	7.7
Tennessee	3.6	8.3	4.0	12.7
Texas	12.8	19.1	10.9	32.1
Virginia	3.2	6.8	6.8	14.0
West Virginia	-1.8	2.1	-4.6	-2.7
West	3.2	7.4	9.4	17.4
Alaska	-4.5	3.2	14.3	18.0
Arizona	18.4	21.8	16.3	41.7
California	0.1	3.4	8.7	12.4
Colorado	8.2	12.3	6.2	19.3
Hawaii	-4.8	-3.3	1.8	-1.5
Idaho	9.7	15.4	9.0	25.8
Montana	-7.8	3.2	4.9	8.3
Nevada	20.8	19.5	17.2	40.0
New Mexico	2.3	7.2	5.4	13.0
Oregon	0.3	5.3	9.4	15.1
Utah	11.5	18.7	5.4	25.1
Washington	0.1	3.4	9.3	13.1
Wyoming	-3.6	10.8	1.2	12.2

NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," selected years, 2000–01 through 2006–07; and State Public Elementary and Secondary Enrollment Model, 1980–2006. (This table was prepared December 2008.)

Table 8. Actual and projected numbers for enrollment in grades 9–12 in public elementary and secondary schools, by region and state: Fall 2000 through fall 2018

[In thousands]

	Actual							Projected		
Region and state	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
United States	**13,515**	**13,734**	**14,067**	**14,338**	**14,617**	**14,908**	**15,078**	**15,087**	**14,955**	**14,815**
Northeast	2,381	2,427	2,486	2,540	2,582	2,617	2,684	2,654	2,607	2,551
Connecticut	156	160	164	169	173	175	177	177	175	172
Maine	61	62	63	63	63	62	62	60	58	56
Massachusetts	273	274	282	288	293	297	298	295	289	285
New Hampshire	61	62	64	65	67	67	67	66	65	64
New Jersey	346	370	389	402	417	425	425	424	420	416
New York	853	855	871	886	893	906	922	902	882	860
Pennsylvania	556	567	575	586	593	603	651	651	639	621
Rhode Island	44	45	47	48	49	50	50	49	48	47
Vermont	32	32	32	32	32	32	32	31	30	29
Midwest	3,207	3,228	3,284	3,307	3,337	3,393	3,415	3,405	3,362	3,309
Illinois	575	587	597	608	614	631	641	643	644	641
Indiana	286	285	290	294	301	311	316	318	316	313
Iowa	161	156	156	154	154	157	157	156	153	150
Kansas	147	148	149	148	148	147	143	144	142	140
Michigan	498	508	531	528	540	551	552	545	533	517
Minnesota	277	278	279	279	280	281	282	280	275	270
Missouri	268	267	272	274	277	283	286	286	282	277
Nebraska	91	90	90	90	91	92	92	92	90	88
North Dakota	37	36	35	34	33	33	32	32	31	30
Ohio	541	544	554	567	573	578	583	584	577	567
South Dakota	41	41	41	40	39	38	38	38	37	36
Wisconsin	285	288	290	290	287	291	292	290	284	278
South	4,693	4,783	4,898	4,997	5,112	5,221	5,303	5,331	5,293	5,268
Alabama	201	202	206	206	208	212	215	216	214	212
Arkansas	132	132	132	133	135	138	140	140	139	137
Delaware	34	34	34	35	35	36	37	38	38	38
District of Columbia	15	17	17	19	20	21	20	20	20	19
Florida	675	703	731	755	782	802	805	806	786	782
Georgia	385	395	407	419	435	453	463	473	475	475
Kentucky	194	181	184	185	189	192	196	197	195	193
Louisiana	197	194	194	191	191	172	184	178	173	170
Maryland	244	250	256	263	268	271	273	270	265	260
Mississippi	134	132	132	133	134	137	139	140	139	137
North Carolina	348	359	372	386	400	413	417	421	423	422
Oklahoma	178	176	176	176	177	178	179	178	177	175
South Carolina	184	189	194	198	199	204	206	205	203	198
Tennessee	241	250	254	261	270	277	286	289	287	285
Texas	1,117	1,147	1,180	1,199	1,221	1,257	1,280	1,297	1,299	1,311
Virginia	329	337	346	355	365	372	379	380	378	373
West Virginia	85	83	82	82	83	84	84	84	83	82
West	3,234	3,297	3,398	3,493	3,587	3,677	3,676	3,697	3,694	3,687
Alaska	39	39	40	40	41	42	42	41	40	39
Arizona	237	251	277	308	321	355	307	309	315	323
California	1,733	1,769	1,828	1,874	1,934	1,971	1,997	2,011	2,008	2,000
Colorado	208	213	217	221	225	230	235	235	235	234
Hawaii	52	53	53	54	54	55	55	54	53	52
Idaho	75	75	75	77	78	79	80	81	81	82
Montana	50	49	49	48	48	48	47	47	45	44
Nevada	90	94	99	105	111	116	121	126	129	132
New Mexico	95	95	96	97	98	97	98	98	97	95
Oregon	167	170	172	173	176	173	182	181	178	176
Utah	148	147	147	147	148	151	152	155	157	160
Washington	310	313	318	322	325	333	332	331	327	324
Wyoming	30	29	28	28	27	27	27	27	26	26

See notes at end of table.

Table 8. Actual and projected numbers for enrollment in grades 9–12 in public elementary and secondary schools, by region and state: Fall 2000 through fall 2018—Continued

[In thousands]

	Projected—Continued								
Region and state	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
United States	**14,698**	**14,617**	**14,641**	**14,716**	**14,866**	**15,186**	**15,396**	**15,588**	**15,754**
Northeast	2,504	2,459	2,428	2,407	2,397	2,401	2,395	2,388	2,380
Connecticut	171	168	167	167	166	165	163	161	159
Maine	55	54	53	53	53	53	53	52	52
Massachusetts	280	276	273	271	269	269	268	268	267
New Hampshire	62	61	61	60	59	59	59	60	60
New Jersey	412	408	407	406	407	405	405	404	404
New York	843	822	805	793	785	786	783	780	776
Pennsylvania	608	597	591	591	593	599	601	600	599
Rhode Island	46	44	43	41	40	39	38	38	38
Vermont	28	27	27	26	26	26	25	25	25
Midwest	3,257	3,217	3,200	3,198	3,214	3,253	3,265	3,269	3,269
Illinois	634	629	621	617	617	626	632	637	641
Indiana	314	313	314	315	318	324	326	326	326
Iowa	148	147	148	149	151	153	154	154	154
Kansas	138	137	138	139	141	144	144	145	145
Michigan	504	494	487	481	479	478	474	467	462
Minnesota	266	263	263	264	267	270	272	272	273
Missouri	271	267	269	271	274	279	281	284	286
Nebraska	87	87	87	87	89	91	93	94	95
North Dakota	29	29	28	28	27	27	26	26	26
Ohio	556	546	542	541	543	550	550	549	547
South Dakota	36	35	35	35	35	35	35	35	35
Wisconsin	274	271	270	271	273	277	278	279	278
South	5,252	5,264	5,332	5,417	5,532	5,730	5,871	6,006	6,118
Alabama	209	207	208	210	213	219	220	220	219
Arkansas	137	138	140	142	145	148	149	152	153
Delaware	37	37	38	38	39	40	41	41	41
District of Columbia	17	16	15	14	14	14	15	15	16
Florida	783	789	800	809	825	852	879	905	929
Georgia	478	481	493	506	522	550	569	585	595
Kentucky	192	191	194	199	199	204	204	204	207
Louisiana	166	161	160	158	157	159	159	161	162
Maryland	253	248	244	239	236	238	239	241	243
Mississippi	134	132	131	132	133	136	138	139	139
North Carolina	422	427	435	447	463	485	497	508	515
Oklahoma	172	172	174	177	180	183	185	187	189
South Carolina	194	192	192	194	197	203	206	207	208
Tennessee	284	285	290	297	305	314	319	323	325
Texas	1,324	1,344	1,375	1,407	1,451	1,521	1,581	1,641	1,692
Virginia	369	366	367	369	374	384	390	396	401
West Virginia	80	79	78	78	79	80	81	82	83
West	3,685	3,677	3,681	3,694	3,724	3,801	3,866	3,925	3,987
Alaska	38	37	37	37	38	38	38	37	38
Arizona	336	344	352	363	374	392	409	425	440
California	1,988	1,966	1,941	1,917	1,907	1,927	1,948	1,974	2,002
Colorado	234	235	238	243	250	261	269	276	280
Hawaii	51	50	49	49	49	48	47	46	46
Idaho	83	84	86	89	92	96	99	100	102
Montana	43	43	42	43	43	43	43	44	44
Nevada	134	136	140	145	149	156	162	166	171
New Mexico	94	93	94	96	98	99	101	102	103
Oregon	176	176	178	179	181	183	185	185	186
Utah	164	170	177	184	191	200	207	211	214
Washington	320	318	320	322	326	330	331	330	330
Wyoming	25	25	26	26	27	27	28	29	29

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2000–01 through 2006–07; and State Public Elementary and Secondary Enrollment Model, 1980–2006. (This table was prepared December 2008.)

Table 9. Actual and projected percentage changes in 9–12 enrollment in public schools, by region and state: Selected years, fall 2000 through fall 2018

Region and state	Actual 2000–2006	Projected		
		2006–2012	2012–2018	2006–2018
United States	**11.6**	**-2.9**	**7.6**	**4.5**
Northeast	12.7	-9.5	-2.0	-11.3
Connecticut	13.7	-5.5	-4.9	-10.1
Maine	0.5	-14.0	-1.7	-15.5
Massachusetts	9.3	-8.3	-2.2	-10.3
New Hampshire	9.8	-10.0	-0.3	-10.3
New Jersey	23.0	-4.3	-0.7	-5.0
New York	8.1	-12.6	-3.7	-15.8
Pennsylvania	17.0	-9.2	1.2	-8.1
Rhode Island	13.3	-12.8	-11.8	-23.1
Vermont	-0.2	-16.0	-7.0	-22.0
Midwest	6.5	-6.3	2.2	-4.3
Illinois	11.4	-3.0	3.2	0.1
Indiana	10.4	-0.7	3.9	3.1
Iowa	-2.7	-5.8	4.5	-1.6
Kansas	-2.8	-3.8	5.5	1.5
Michigan	10.8	-11.9	-5.1	-16.3
Minnesota	2.0	-6.9	3.8	-3.4
Missouri	6.8	-6.0	6.3	-0.1
Nebraska	1.2	-5.6	10.1	3.9
North Dakota	-12.2	-12.7	-6.4	-18.3
Ohio	7.8	-7.1	0.8	-6.3
South Dakota	-6.7	-8.5	0.9	-7.6
Wisconsin	2.6	-7.6	3.0	-4.8
South	13.0	0.5	14.7	15.4
Alabama	6.8	-3.3	5.4	1.9
Arkansas	6.0	-0.2	9.8	9.7
Delaware	10.0	1.1	9.4	10.5
District of Columbia	34.3	-26.3	7.8	-20.6
Florida	19.3	-0.6	16.2	15.5
Georgia	20.2	6.5	20.8	28.6
Kentucky	0.8	-0.8	6.4	5.6
Louisiana	-6.5	-13.1	1.2	-12.0
Maryland	11.8	-10.7	-0.1	-10.7
Mississippi	3.5	-5.4	6.0	0.3
North Carolina	19.9	4.2	18.3	23.3
Oklahoma	1.0	-2.8	8.4	5.4
South Carolina	11.9	-6.9	8.6	1.1
Tennessee	18.8	1.2	12.1	13.4
Texas	14.6	7.4	23.1	32.2
Virginia	15.1	-3.2	9.3	5.9
West Virginia	-0.9	-7.2	5.9	-1.8
West	13.7	0.1	8.3	8.5
Alaska	9.1	-13.1	1.8	-11.6
Arizona	29.4	14.8	25.1	43.6
California	15.2	-2.8	3.1	0.3
Colorado	13.0	1.4	17.6	19.2
Hawaii	5.1	-9.7	-6.1	-15.2
Idaho	7.6	7.1	18.5	26.9
Montana	-4.5	-10.5	4.0	-6.9
Nevada	34.9	15.6	21.8	40.8
New Mexico	2.8	-4.4	9.5	4.6
Oregon	9.0	-2.4	4.9	2.4
Utah	2.6	16.2	21.2	40.8
Washington	6.9	-3.6	3.2	-0.5
Wyoming	-8.7	-5.8	13.7	7.1

NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," selected years, 2000–01 through 2006–07; and State Public Elementary and Secondary Enrollment Model, 1980–2006. (This table was prepared December 2008.)

Table 10. Actual and alternative projected numbers for total enrollment in all degree-granting institutions, by sex, attendance status, and control of institution, and actual and alternative projected numbers for first-time freshmen fall enrollment in all degree-granting institutions, by sex: Fall 1993 through fall 2018

[In thousands]

	Total enrollment							First-time freshmen		
		Sex		Attendance status		Control			Sex	
Year	Total	Men	Women	Full-time	Part-time	Public	Private	Total	Men	Women
Actual										
1993	14,305	6,427	7,877	8,128	6,177	11,189	3,116	2,284	1,053	1,231
1994	14,279	6,372	7,907	8,138	6,141	11,134	3,145	2,223	1,023	1,200
1995	14,262	6,343	7,919	8,129	6,133	11,092	3,169	2,181	1,004	1,178
1996	14,368	6,353	8,015	8,303	6,065	11,121	3,247	2,193	1,006	1,187
1997	14,502	6,396	8,106	8,438	6,064	11,196	3,306	2,248	1,032	1,216
1998	14,507	6,369	8,138	8,563	5,944	11,138	3,369	2,234	1,025	1,209
1999	14,791	6,491	8,301	8,786	6,005	11,309	3,482	2,269	1,045	1,224
2000	15,312	6,722	8,591	9,010	6,303	11,753	3,560	2,388	1,106	1,283
2001	15,928	6,961	8,967	9,448	6,480	12,233	3,695	2,506	1,157	1,349
2002	16,612	7,202	9,410	9,946	6,665	12,752	3,860	2,600	1,191	1,409
2003	16,911	7,260	9,651	10,326	6,585	12,859	4,053	2,628	1,190	1,438
2004	17,272	7,387	9,885	10,610	6,662	12,980	4,292	2,667	1,206	1,462
2005	17,487	7,456	10,032	10,797	6,690	13,022	4,466	2,685	1,212	1,473
2006	17,759	7,575	10,184	10,957	6,802	13,180	4,579	2,714	1,227	1,486
2007	18,248	7,816	10,432	11,270	6,978	13,491	4,757	2,787	1,268	1,518
Middle alternative projections										
2008	18,699	8,071	10,628	11,496	7,203	13,904	4,794	2,854	1,306	1,548
2009	19,037	8,210	10,827	11,833	7,204	14,137	4,900	2,908	1,329	1,578
2010	19,126	8,252	10,874	11,899	7,227	14,200	4,926	2,922	1,336	1,586
2011	19,286	8,288	10,998	12,005	7,281	14,312	4,974	2,944	1,341	1,603
2012	19,462	8,319	11,143	12,111	7,351	14,435	5,027	2,965	1,344	1,621
2013	19,710	8,359	11,351	12,290	7,421	14,605	5,105	2,996	1,348	1,648
2014	19,928	8,402	11,526	12,435	7,492	14,758	5,170	3,025	1,353	1,671
2015	20,097	8,418	11,679	12,555	7,542	14,874	5,223	3,045	1,354	1,692
2016	20,254	8,433	11,821	12,669	7,585	14,981	5,273	3,065	1,354	1,711
2017	20,446	8,465	11,981	12,812	7,635	15,116	5,331	3,090	1,358	1,732
2018	20,620	8,505	12,115	12,932	7,688	15,241	5,379	3,114	1,363	1,751
Low alternative projections										
2008	18,092	7,867	10,225	11,063	7,029	13,463	4,629	2,762	1,273	1,489
2009	18,453	8,020	10,432	11,437	7,016	13,708	4,744	2,818	1,299	1,520
2010	18,461	8,050	10,411	11,438	7,023	13,715	4,746	2,821	1,303	1,518
2011	18,542	8,064	10,479	11,474	7,069	13,773	4,769	2,832	1,305	1,527
2012	18,689	8,086	10,604	11,560	7,129	13,875	4,815	2,849	1,307	1,542
2013	18,908	8,123	10,786	11,714	7,195	14,025	4,883	2,875	1,310	1,565
2014	19,124	8,170	10,954	11,860	7,265	14,177	4,948	2,904	1,316	1,588
2015	19,307	8,193	11,114	11,993	7,314	14,301	5,005	2,926	1,317	1,609
2016	19,477	8,215	11,262	12,123	7,354	14,418	5,060	2,948	1,319	1,629
2017	19,689	8,258	11,431	12,291	7,399	14,565	5,125	2,976	1,324	1,652
2018	19,882	8,307	11,575	12,435	7,447	14,702	5,180	3,003	1,331	1,672
High alternative projections										
2008	19,254	8,211	11,043	11,889	7,365	14,308	4,946	2,938	1,329	1,610
2009	19,562	8,331	11,231	12,172	7,389	14,523	5,039	2,987	1,349	1,638
2010	19,681	8,374	11,307	12,254	7,427	14,609	5,072	3,006	1,356	1,650
2011	19,875	8,420	11,454	12,391	7,484	14,744	5,131	3,033	1,363	1,670
2012	20,074	8,462	11,612	12,520	7,554	14,882	5,192	3,057	1,367	1,690
2013	20,338	8,505	11,833	12,707	7,630	15,064	5,273	3,090	1,372	1,718
2014	20,558	8,546	12,013	12,852	7,707	15,220	5,338	3,119	1,376	1,743
2015	20,743	8,564	12,179	12,984	7,759	15,347	5,397	3,142	1,377	1,765
2016	20,927	8,586	12,341	13,125	7,803	15,472	5,455	3,165	1,379	1,787
2017	21,148	8,626	12,523	13,296	7,852	15,626	5,523	3,195	1,384	1,811
2018	21,341	8,671	12,670	13,438	7,904	15,764	5,578	3,222	1,390	1,832

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; Enrollment in Degree-Granting Institutions Model, 1973–2007; and First-Time Freshmen Model, 1975–2007. (This table was prepared January 2009.)

Table 11. Actual and middle alternative projected numbers for total enrollment in all degree-granting institutions, by sex, age, and attendance status: Fall 1993 through fall 2018

[In thousands]

Sex, age, and attendance status	Actual												
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total enrollment	**14,305**	**14,279**	**14,262**	**14,368**	**14,502**	**14,507**	**14,791**	**15,312**	**15,928**	**16,612**	**16,911**	**17,272**	**17,487**
14 to 17 years old	127	138	148	231	171	119	143	145	133	202	150	200	199
18 and 19 years old	2,840	2,787	2,894	3,038	3,061	3,382	3,414	3,531	3,595	3,571	3,479	3,578	3,610
20 and 21 years old	2,674	2,724	2,705	2,659	2,875	2,811	2,989	3,045	3,408	3,366	3,472	3,651	3,778
22 to 24 years old	2,570	2,482	2,411	2,324	2,475	2,377	2,435	2,617	2,760	2,932	3,482	3,036	3,072
25 to 29 years old	2,002	1,985	2,120	2,128	1,999	1,991	1,870	1,960	2,014	2,102	2,107	2,386	2,384
30 to 34 years old	1,345	1,414	1,236	1,196	1,109	1,195	1,145	1,265	1,290	1,300	1,369	1,329	1,354
35 years old and over	2,747	2,750	2,747	2,791	2,814	2,632	2,796	2,749	2,727	3,139	2,853	3,092	3,090
Men	**6,427**	**6,372**	**6,343**	**6,353**	**6,396**	**6,369**	**6,491**	**6,722**	**6,961**	**7,202**	**7,260**	**7,387**	**7,456**
14 to 17 years old	54	62	61	92	56	45	72	63	54	82	60	78	78
18 and 19 years old	1,288	1,302	1,338	1,354	1,414	1,535	1,541	1,583	1,629	1,616	1,557	1,551	1,592
20 and 21 years old	1,284	1,264	1,282	1,228	1,374	1,374	1,392	1,382	1,591	1,562	1,491	1,743	1,778
22 to 24 years old	1,344	1,238	1,153	1,177	1,200	1,127	1,090	1,293	1,312	1,342	1,605	1,380	1,355
25 to 29 years old	903	936	962	991	972	908	874	862	905	890	930	1,045	978
30 to 34 years old	584	601	561	477	443	463	517	527	510	547	592	518	545
35 years old and over	970	969	986	1,033	938	917	1,005	1,012	961	1,164	1,025	1,073	1,130
Women	**7,877**	**7,907**	**7,919**	**8,015**	**8,106**	**8,138**	**8,301**	**8,591**	**8,967**	**9,410**	**9,651**	**9,885**	**10,032**
14 to 17 years old	73	75	87	139	115	74	72	82	79	121	91	122	121
18 and 19 years old	1,552	1,485	1,557	1,684	1,647	1,847	1,874	1,948	1,966	1,955	1,921	2,027	2,018
20 and 21 years old	1,391	1,461	1,424	1,430	1,501	1,437	1,597	1,663	1,817	1,804	1,981	1,908	2,000
22 to 24 years old	1,226	1,243	1,258	1,147	1,275	1,250	1,344	1,324	1,448	1,590	1,877	1,657	1,717
25 to 29 years old	1,098	1,049	1,159	1,137	1,027	1,083	995	1,099	1,110	1,212	1,177	1,341	1,406
30 to 34 years old	761	812	675	719	666	732	627	738	780	753	777	812	809
35 years old and over	1,777	1,781	1,760	1,758	1,877	1,715	1,791	1,736	1,767	1,976	1,828	2,018	1,960
Full-time, total	**8,128**	**8,138**	**8,129**	**8,303**	**8,438**	**8,563**	**8,786**	**9,010**	**9,448**	**9,946**	**10,326**	**10,610**	**10,797**
14 to 17 years old	92	118	123	166	123	93	129	125	122	161	120	165	131
18 and 19 years old	2,370	2,321	2,387	2,553	2,534	2,794	2,848	2,932	2,929	2,942	2,953	3,028	3,037
20 and 21 years old	2,148	2,178	2,109	2,117	2,275	2,271	2,362	2,401	2,662	2,759	2,766	2,911	3,030
22 to 24 years old	1,612	1,551	1,517	1,598	1,606	1,564	1,662	1,653	1,757	1,922	2,144	2,074	2,097
25 to 29 years old	839	869	908	911	897	890	854	878	883	1,013	1,072	1,131	1,136
30 to 34 years old	424	440	430	383	377	367	338	422	494	465	512	490	549
35 years old and over	643	660	653	575	626	584	593	599	602	684	758	812	818
Men	**3,891**	**3,855**	**3,807**	**3,851**	**3,890**	**3,934**	**4,026**	**4,111**	**4,300**	**4,501**	**4,638**	**4,739**	**4,803**
14 to 17 years old	37	51	54	72	48	39	63	51	43	65	50	63	36
18 and 19 years old	1,079	1,081	1,091	1,126	1,154	1,240	1,271	1,250	1,329	1,327	1,307	1,313	1,357
20 and 21 years old	1,003	1,029	999	969	1,074	1,129	1,125	1,106	1,249	1,275	1,218	1,385	1,460
22 to 24 years old	896	811	789	858	770	777	788	839	854	936	1,041	960	951
25 to 29 years old	443	457	454	444	475	424	416	415	397	467	503	509	439
30 to 34 years old	180	193	183	143	160	141	149	195	216	183	242	201	238
35 years old and over	253	232	238	240	210	184	213	256	212	247	277	310	321
Women	**4,237**	**4,283**	**4,321**	**4,452**	**4,548**	**4,630**	**4,761**	**4,899**	**5,148**	**5,445**	**5,688**	**5,871**	**5,994**
14 to 17 years old	55	67	69	95	75	54	66	74	78	96	71	103	94
18 and 19 years old	1,291	1,240	1,296	1,426	1,380	1,555	1,577	1,682	1,600	1,615	1,645	1,716	1,680
20 and 21 years old	1,145	1,149	1,111	1,148	1,201	1,142	1,237	1,296	1,413	1,484	1,548	1,526	1,569
22 to 24 years old	716	740	729	740	836	787	875	814	903	985	1,103	1,113	1,146
25 to 29 years old	396	412	455	467	422	466	437	463	486	546	569	622	697
30 to 34 years old	244	247	247	240	217	226	190	227	277	282	270	289	311
35 years old and over	390	428	415	336	416	400	380	343	390	437	482	502	497
Part-time, total	**6,177**	**6,141**	**6,133**	**6,065**	**6,064**	**5,944**	**6,005**	**6,303**	**6,480**	**6,665**	**6,585**	**6,662**	**6,690**
14 to 17 years old	35	19	25	65	48	26	14	20	11	41	30	35	68
18 and 19 years old	470	466	507	485	526	588	566	599	666	628	526	549	573
20 and 21 years old	526	546	596	542	600	540	627	644	746	607	706	741	748
22 to 24 years old	958	930	894	727	869	813	772	964	1,003	1,010	1,338	963	976
25 to 29 years old	1,163	1,116	1,212	1,217	1,101	1,101	1,016	1,083	1,132	1,088	1,035	1,255	1,248
30 to 34 years old	921	973	805	813	732	828	806	843	796	835	856	839	805
35 years old and over	2,104	2,091	2,093	2,216	2,188	2,048	2,203	2,150	2,126	2,456	2,094	2,280	2,272
Men	**2,537**	**2,517**	**2,535**	**2,502**	**2,506**	**2,436**	**2,465**	**2,611**	**2,661**	**2,701**	**2,622**	**2,648**	**2,653**
14 to 17 years old	17	11	7	20	9	5	8	11	11	17	10	15	41
18 and 19 years old	210	220	246	228	260	296	269	333	300	288	250	239	235
20 and 21 years old	281	235	283	260	300	245	267	276	342	287	274	358	318
22 to 24 years old	448	427	365	319	430	350	302	454	458	405	564	419	405
25 to 29 years old	460	479	508	547	497	485	458	447	508	423	427	536	539
30 to 34 years old	404	408	378	334	283	322	369	332	294	364	350	317	306
35 years old and over	717	737	748	793	728	733	791	757	749	917	748	764	809
Women	**3,640**	**3,624**	**3,598**	**3,563**	**3,559**	**3,508**	**3,540**	**3,692**	**3,820**	**3,964**	**3,963**	**4,014**	**4,038**
14 to 17 years old	18	8	18	45	39	21	6	9	1	24	20	19	27
18 and 19 years old	261	245	261	257	267	292	297	266	366	340	276	311	338
20 and 21 years old	245	311	313	282	300	295	360	368	404	320	433	382	430
22 to 24 years old	510	504	529	407	439	463	470	510	545	605	774	543	571
25 to 29 years old	702	637	704	670	605	617	558	636	624	666	608	720	709
30 to 34 years old	517	565	427	479	449	506	438	511	502	471	507	523	499
35 years old and over	1,386	1,354	1,345	1,423	1,460	1,315	1,411	1,393	1,377	1,539	1,346	1,516	1,464

See notes at end of table.

Table 11. Actual and middle alternative projected numbers for total enrollment in all degree-granting institutions, by sex, age, and attendance status: Fall 1993 through fall 2018—Continued

[In thousands]

Sex, age, and attendance status	Actual		Projected (middle alternative)										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total enrollment	**17,759**	**18,248**	**18,699**	**19,037**	**19,126**	**19,286**	**19,462**	**19,710**	**19,928**	**20,097**	**20,254**	**20,446**	**20,620**
14 to 17 years old	231	179	147	146	144	142	142	142	143	146	150	155	161
18 and 19 years old	3,769	3,978	4,062	4,162	4,122	4,078	4,042	4,032	4,051	4,052	4,056	4,104	4,175
20 and 21 years old	3,648	3,761	3,909	4,021	4,117	4,183	4,170	4,157	4,150	4,148	4,156	4,141	4,128
22 to 24 years old	3,193	3,362	3,377	3,438	3,469	3,535	3,648	3,750	3,810	3,832	3,830	3,831	3,820
25 to 29 years old	2,401	2,522	2,612	2,667	2,674	2,696	2,734	2,800	2,863	2,931	2,997	3,063	3,097
30 to 34 years old	1,409	1,428	1,485	1,525	1,559	1,611	1,662	1,716	1,754	1,781	1,805	1,829	1,856
35 years old and over	3,107	3,017	3,106	3,078	3,041	3,041	3,064	3,113	3,156	3,208	3,261	3,323	3,383
Men	**7,575**	**7,816**	**8,071**	**8,210**	**8,252**	**8,288**	**8,319**	**8,359**	**8,402**	**8,418**	**8,433**	**8,465**	**8,505**
14 to 17 years old	82	75	78	77	76	75	74	74	74	74	76	78	81
18 and 19 years old	1,705	1,805	1,809	1,851	1,831	1,805	1,783	1,768	1,765	1,754	1,746	1,759	1,784
20 and 21 years old	1,673	1,633	1,745	1,793	1,837	1,859	1,844	1,829	1,816	1,805	1,799	1,784	1,773
22 to 24 years old	1,470	1,551	1,566	1,588	1,601	1,625	1,668	1,699	1,713	1,707	1,693	1,683	1,669
25 to 29 years old	1,051	1,020	1,088	1,110	1,114	1,117	1,124	1,139	1,162	1,189	1,213	1,233	1,243
30 to 34 years old	557	659	680	697	712	731	749	766	780	789	796	803	811
35 years old and over	1,037	1,074	1,105	1,094	1,081	1,076	1,076	1,083	1,091	1,099	1,110	1,125	1,144
Women	**10,184**	**10,432**	**10,628**	**10,827**	**10,874**	**10,998**	**11,143**	**11,351**	**11,526**	**11,679**	**11,821**	**11,981**	**12,115**
14 to 17 years old	149	104	69	69	68	67	68	68	69	71	74	77	81
18 and 19 years old	2,064	2,173	2,253	2,311	2,291	2,273	2,260	2,264	2,286	2,298	2,310	2,345	2,391
20 and 21 years old	1,975	2,129	2,164	2,227	2,281	2,324	2,326	2,328	2,334	2,343	2,356	2,357	2,356
22 to 24 years old	1,724	1,811	1,811	1,850	1,867	1,910	1,980	2,051	2,097	2,124	2,137	2,149	2,151
25 to 29 years old	1,350	1,502	1,524	1,557	1,560	1,579	1,610	1,661	1,701	1,742	1,783	1,830	1,854
30 to 34 years old	852	770	805	829	847	880	913	949	974	992	1,009	1,026	1,044
35 years old and over	2,070	1,943	2,002	1,984	1,960	1,965	1,988	2,030	2,064	2,109	2,151	2,198	2,239
Full-time, total	**10,957**	**11,270**	**11,496**	**11,833**	**11,899**	**12,005**	**12,111**	**12,290**	**12,435**	**12,555**	**12,669**	**12,812**	**12,932**
14 to 17 years old	166	153	103	103	101	100	100	101	102	104	108	111	117
18 and 19 years old	3,155	3,379	3,452	3,548	3,514	3,479	3,453	3,454	3,483	3,493	3,507	3,558	3,625
20 and 21 years old	2,944	3,021	3,140	3,246	3,324	3,380	3,375	3,375	3,385	3,396	3,414	3,413	3,409
22 to 24 years old	2,093	2,133	2,131	2,187	2,207	2,254	2,334	2,412	2,460	2,490	2,505	2,521	2,524
25 to 29 years old	1,217	1,263	1,267	1,312	1,314	1,328	1,351	1,395	1,424	1,454	1,486	1,527	1,547
30 to 34 years old	605	549	570	596	608	630	653	682	700	711	724	735	747
35 years old and over	778	772	832	842	831	834	845	870	882	905	925	946	963
Men	**4,879**	**5,029**	**5,161**	**5,292**	**5,322**	**5,341**	**5,355**	**5,383**	**5,420**	**5,438**	**5,455**	**5,483**	**5,513**
14 to 17 years old	66	58	56	56	55	54	54	54	54	54	56	57	59
18 and 19 years old	1,409	1,532	1,535	1,574	1,558	1,536	1,518	1,509	1,509	1,503	1,498	1,512	1,535
20 and 21 years old	1,331	1,344	1,435	1,480	1,515	1,534	1,523	1,513	1,506	1,501	1,499	1,488	1,481
22 to 24 years old	1,003	1,007	1,015	1,035	1,044	1,060	1,090	1,114	1,127	1,128	1,123	1,120	1,114
25 to 29 years old	562	585	578	595	597	599	603	614	631	650	666	680	688
30 to 34 years old	232	228	243	253	258	265	272	280	288	293	298	303	307
35 years old and over	275	275	298	300	296	294	295	299	305	309	315	322	329
Women	**6,078**	**6,240**	**6,335**	**6,541**	**6,577**	**6,663**	**6,756**	**6,907**	**7,015**	**7,117**	**7,214**	**7,329**	**7,419**
14 to 17 years old	100	95	47	47	46	46	46	47	48	50	52	54	57
18 and 19 years old	1,746	1,847	1,917	1,974	1,956	1,943	1,935	1,946	1,973	1,991	2,009	2,046	2,090
20 and 21 years old	1,612	1,677	1,706	1,766	1,808	1,846	1,852	1,862	1,878	1,895	1,915	1,924	1,928
22 to 24 years old	1,090	1,127	1,116	1,152	1,163	1,194	1,244	1,298	1,333	1,363	1,383	1,401	1,410
25 to 29 years old	654	678	689	716	718	729	748	781	793	805	820	847	860
30 to 34 years old	372	320	327	343	350	365	381	402	412	418	425	432	440
35 years old and over	503	497	534	542	535	540	550	571	577	596	610	624	634
Part-time, total	**6,802**	**6,978**	**7,203**	**7,204**	**7,227**	**7,281**	**7,351**	**7,421**	**7,492**	**7,542**	**7,585**	**7,635**	**7,688**
14 to 17 years old	65	26	44	43	43	42	42	42	41	41	42	43	45
18 and 19 years old	614	600	610	614	608	599	589	578	569	558	549	546	550
20 and 21 years old	704	740	768	775	794	803	795	782	766	752	742	728	719
22 to 24 years old	1,100	1,229	1,247	1,251	1,262	1,281	1,315	1,339	1,350	1,341	1,324	1,310	1,296
25 to 29 years old	1,184	1,259	1,345	1,355	1,359	1,368	1,383	1,405	1,439	1,477	1,511	1,536	1,550
30 to 34 years old	805	880	915	930	951	981	1,008	1,033	1,054	1,069	1,081	1,094	1,109
35 years old and over	2,329	2,245	2,274	2,237	2,210	2,207	2,219	2,243	2,274	2,302	2,336	2,376	2,420
Men	**2,696**	**2,786**	**2,910**	**2,918**	**2,930**	**2,946**	**2,964**	**2,976**	**2,982**	**2,980**	**2,978**	**2,982**	**2,992**
14 to 17 years old	16	17	22	21	21	21	21	20	20	20	20	21	21
18 and 19 years old	297	273	274	276	273	269	264	260	256	251	248	247	249
20 and 21 years old	341	288	310	314	322	325	322	316	310	305	301	295	292
22 to 24 years old	466	544	552	553	558	565	578	586	586	579	570	563	555
25 to 29 years old	488	435	510	515	517	519	521	525	531	540	547	553	555
30 to 34 years old	325	430	436	444	454	466	477	486	492	495	498	500	504
35 years old and over	762	799	807	795	785	781	781	784	787	789	794	803	815
Women	**4,106**	**4,192**	**4,292**	**4,286**	**4,297**	**4,335**	**4,387**	**4,444**	**4,510**	**4,562**	**4,607**	**4,652**	**4,696**
14 to 17 years old	48	9	22	22	21	21	21	21	21	21	22	23	23
18 and 19 years old	318	327	336	338	335	330	325	318	313	307	301	299	301
20 and 21 years old	363	452	459	461	472	478	474	466	456	448	441	433	427
22 to 24 years old	634	685	695	698	704	716	736	753	764	762	754	747	740
25 to 29 years old	696	824	835	840	843	850	862	880	907	937	963	983	994
30 to 34 years old	480	449	478	486	497	514	531	547	562	574	584	594	605
35 years old and over	1,567	1,446	1,467	1,442	1,425	1,426	1,438	1,459	1,487	1,513	1,541	1,573	1,605

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data by age are based on the distribution by age from the Census Bureau. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.)

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; Enrollment in Degree-Granting Institutions Model, 1973–2007; and U.S. Department of Commerce, Census Bureau, Current Population Reports, "Social and Economic Characteristics of Students," various years. (This table was prepared January 2009.)

Table 12. Actual and low alternative projected numbers for total enrollment in all degree-granting institutions, by sex, age, and attendance status: Selected years, fall 1998 through fall 2018

[In thousands]

Sex, age, and attendance status	Actual			Projected (low alternative)	
	1998	2003	2007	2013	2018
Total enrollment	**14,507**	**16,911**	**18,248**	**18,908**	**19,882**
14 to 17 years old	119	150	179	137	157
18 and 19 years old	3,382	3,479	3,978	3,848	4,006
20 and 21 years old	2,811	3,472	3,761	3,985	3,973
22 to 24 years old	2,377	3,482	3,362	3,604	3,688
25 to 29 years old	1,991	2,107	2,522	2,690	2,996
30 to 34 years old	1,195	1,369	1,428	1,653	1,797
35 years old and over	2,632	2,853	3,017	2,991	3,265
Men	**6,369**	**7,260**	**7,816**	**8,123**	**8,307**
14 to 17 years old	45	60	75	72	79
18 and 19 years old	1,535	1,557	1,805	1,717	1,741
20 and 21 years old	1,374	1,491	1,633	1,780	1,732
22 to 24 years old	1,127	1,605	1,551	1,653	1,632
25 to 29 years old	908	930	1,020	1,106	1,217
30 to 34 years old	463	592	659	746	793
35 years old and over	917	1,025	1,074	1,049	1,113
Women	**8,138**	**9,651**	**10,432**	**10,786**	**11,575**
14 to 17 years old	74	91	104	65	78
18 and 19 years old	1,847	1,921	2,173	2,131	2,265
20 and 21 years old	1,437	1,981	2,129	2,205	2,241
22 to 24 years old	1,250	1,877	1,811	1,951	2,057
25 to 29 years old	1,083	1,177	1,502	1,584	1,779
30 to 34 years old	732	777	770	907	1,004
35 years old and over	1,715	1,828	1,943	1,942	2,152
Full-time, total	**8,563**	**10,326**	**11,270**	**11,714**	**12,435**
14 to 17 years old	93	120	153	97	113
18 and 19 years old	2,794	2,953	3,379	3,286	3,474
20 and 21 years old	2,271	2,766	3,021	3,224	3,277
22 to 24 years old	1,564	2,144	2,133	2,304	2,433
25 to 29 years old	890	1,072	1,263	1,329	1,493
30 to 34 years old	367	512	549	651	721
35 years old and over	584	758	772	823	923
Men	**3,934**	**4,638**	**5,029**	**5,238**	**5,410**
14 to 17 years old	39	50	58	52	58
18 and 19 years old	1,240	1,307	1,532	1,465	1,501
20 and 21 years old	1,129	1,218	1,344	1,473	1,451
22 to 24 years old	777	1,041	1,007	1,085	1,094
25 to 29 years old	424	503	585	598	678
30 to 34 years old	141	242	228	273	304
35 years old and over	184	277	275	291	324
Women	**4,630**	**5,688**	**6,240**	**6,475**	**7,024**
14 to 17 years old	54	71	95	45	55
18 and 19 years old	1,555	1,645	1,847	1,821	1,973
20 and 21 years old	1,142	1,548	1,677	1,751	1,826
22 to 24 years old	787	1,103	1,127	1,219	1,339
25 to 29 years old	466	569	678	731	815
30 to 34 years old	226	270	320	377	418
35 years old and over	400	482	497	532	599
Part-time, total	**5,944**	**6,585**	**6,978**	**7,195**	**7,447**
14 to 17 years old	26	30	26	40	44
18 and 19 years old	588	526	600	562	532
20 and 21 years old	540	706	740	761	696
22 to 24 years old	813	1,338	1,229	1,300	1,255
25 to 29 years old	1,101	1,035	1,259	1,361	1,503
30 to 34 years old	828	856	880	1,002	1,076
35 years old and over	2,048	2,094	2,245	2,168	2,342
Men	**2,436**	**2,622**	**2,786**	**2,884**	**2,896**
14 to 17 years old	5	10	17	20	21
18 and 19 years old	296	250	273	252	240
20 and 21 years old	245	274	288	306	281
22 to 24 years old	350	564	544	568	537
25 to 29 years old	485	427	435	508	538
30 to 34 years old	322	350	430	472	490
35 years old and over	733	748	799	758	789
Women	**3,508**	**3,963**	**4,192**	**4,310**	**4,551**
14 to 17 years old	21	20	9	21	23
18 and 19 years old	292	276	327	310	292
20 and 21 years old	295	433	452	454	415
22 to 24 years old	463	774	685	732	718
25 to 29 years old	617	608	824	853	964
30 to 34 years old	506	507	449	530	586
35 years old and over	1,315	1,346	1,446	1,410	1,553

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data by age are based on the distribution by age from the Census Bureau. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:98), Spring 2004 and Spring 2008; Enrollment in Degree-Granting Institutions Model, 1973–2007; and U.S. Department of Commerce, Census Bureau, Current Population Reports, "Social and Economic Characteristics of Students," various years. (This table was prepared January 2009.)

Table 13. Actual and high alternative projected numbers for total enrollment in all degree-granting institutions, by sex, age, and attendance status: Selected years, fall 1998 through fall 2018

[In thousands]

Sex, age, and attendance status	Actual			Projected (high alternative)	
	1998	2003	2007	2013	2018
Total enrollment	**14,507**	**16,911**	**18,248**	**20,338**	**21,341**
14 to 17 years old	119	150	179	146	166
18 and 19 years old	3,382	3,479	3,978	4,179	4,337
20 and 21 years old	2,811	3,472	3,761	4,292	4,278
22 to 24 years old	2,377	3,482	3,362	3,862	3,949
25 to 29 years old	1,991	2,107	2,522	2,884	3,198
30 to 34 years old	1,195	1,369	1,428	1,764	1,914
35 years old and over	2,632	2,853	3,017	3,212	3,499
Men	**6,369**	**7,260**	**7,816**	**8,505**	**8,671**
14 to 17 years old	45	60	75	75	82
18 and 19 years old	1,535	1,557	1,805	1,798	1,818
20 and 21 years old	1,374	1,491	1,633	1,857	1,805
22 to 24 years old	1,127	1,605	1,551	1,727	1,702
25 to 29 years old	908	930	1,020	1,159	1,267
30 to 34 years old	463	592	659	781	827
35 years old and over	917	1,025	1,074	1,108	1,171
Women	**8,138**	**9,651**	**10,432**	**11,833**	**12,670**
14 to 17 years old	74	91	104	71	84
18 and 19 years old	1,847	1,921	2,173	2,381	2,519
20 and 21 years old	1,437	1,981	2,129	2,435	2,474
22 to 24 years old	1,250	1,877	1,811	2,134	2,248
25 to 29 years old	1,083	1,177	1,502	1,725	1,932
30 to 34 years old	732	777	770	983	1,086
35 years old and over	1,715	1,828	1,943	2,104	2,328
Full-time, total	**8,563**	**10,326**	**11,270**	**12,707**	**13,438**
14 to 17 years old	93	120	153	104	120
18 and 19 years old	2,794	2,953	3,379	3,584	3,772
20 and 21 years old	2,271	2,766	3,021	3,488	3,540
22 to 24 years old	1,564	2,144	2,133	2,487	2,618
25 to 29 years old	890	1,072	1,263	1,440	1,606
30 to 34 years old	367	512	549	703	775
35 years old and over	584	758	772	903	1,006
Men	**3,934**	**4,638**	**5,029**	**5,450**	**5,601**
14 to 17 years old	39	50	58	54	60
18 and 19 years old	1,240	1,307	1,532	1,531	1,562
20 and 21 years old	1,129	1,218	1,344	1,532	1,505
22 to 24 years old	777	1,041	1,007	1,127	1,132
25 to 29 years old	424	503	585	621	697
30 to 34 years old	141	242	228	283	311
35 years old and over	184	277	275	303	334
Women	**4,630**	**5,688**	**6,240**	**7,257**	**7,836**
14 to 17 years old	54	71	95	49	60
18 and 19 years old	1,555	1,645	1,847	2,054	2,211
20 and 21 years old	1,142	1,548	1,677	1,956	2,035
22 to 24 years old	787	1,103	1,127	1,360	1,487
25 to 29 years old	466	569	678	819	909
30 to 34 years old	226	270	320	420	464
35 years old and over	400	482	497	600	672
Part-time, total	**5,944**	**6,585**	**6,978**	**7,630**	**7,904**
14 to 17 years old	26	30	26	43	46
18 and 19 years old	588	526	600	595	565
20 and 21 years old	540	706	740	804	739
22 to 24 years old	813	1,338	1,229	1,375	1,331
25 to 29 years old	1,101	1,035	1,259	1,445	1,592
30 to 34 years old	828	856	880	1,061	1,138
35 years old and over	2,048	2,094	2,245	2,309	2,493
Men	**2,436**	**2,622**	**2,786**	**3,054**	**3,070**
14 to 17 years old	5	10	17	21	22
18 and 19 years old	296	250	273	267	256
20 and 21 years old	245	274	288	324	300
22 to 24 years old	350	564	544	601	570
25 to 29 years old	485	427	435	538	569
30 to 34 years old	322	350	430	498	516
35 years old and over	733	748	799	805	837
Women	**3,508**	**3,963**	**4,192**	**4,576**	**4,834**
14 to 17 years old	21	20	9	22	24
18 and 19 years old	292	276	327	328	308
20 and 21 years old	295	433	452	479	439
22 to 24 years old	463	774	685	774	761
25 to 29 years old	617	608	824	906	1,023
30 to 34 years old	506	507	449	563	622
35 years old and over	1,315	1,346	1,446	1,504	1,656

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data by age are based on the distribution by age from the Census Bureau. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:98), Spring 2004 and Spring 2008; Enrollment in Degree-Granting Institutions Model, 1973–2007; and U.S. Department of Commerce, Census Bureau, Current Population Reports, "Social and Economic Characteristics of Students," various years. (This table was prepared January 2009.)

Table 14. Actual and alternative projected numbers for enrollment in all degree-granting institutions, by sex and attendance status: Fall 1993 through fall 2018

[In thousands]

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
Actual					
1993	14,305	3,891	2,537	4,237	3,640
1994	14,279	3,855	2,517	4,283	3,624
1995	14,262	3,807	2,535	4,321	3,598
1996	14,368	3,851	2,502	4,452	3,563
1997	14,502	3,890	2,506	4,548	3,559
1998	14,507	3,934	2,436	4,630	3,508
1999	14,791	4,026	2,465	4,761	3,540
2000	15,312	4,111	2,611	4,899	3,692
2001	15,928	4,300	2,661	5,148	3,820
2002	16,612	4,501	2,701	5,445	3,964
2003	16,911	4,638	2,622	5,688	3,963
2004	17,272	4,739	2,648	5,871	4,014
2005	17,487	4,803	2,653	5,994	4,038
2006	17,759	4,879	2,696	6,078	4,106
2007	18,248	5,029	2,786	6,240	4,192
Middle alternative projections					
2008	18,699	5,161	2,910	6,335	4,292
2009	19,037	5,292	2,918	6,541	4,286
2010	19,126	5,322	2,930	6,577	4,297
2011	19,286	5,341	2,946	6,663	4,335
2012	19,462	5,355	2,964	6,756	4,387
2013	19,710	5,383	2,976	6,907	4,444
2014	19,928	5,420	2,982	7,015	4,510
2015	20,097	5,438	2,980	7,117	4,562
2016	20,254	5,455	2,978	7,214	4,607
2017	20,446	5,483	2,982	7,329	4,652
2018	20,620	5,513	2,992	7,419	4,696
Low alternative projections					
2008	18,092	5,045	2,822	6,018	4,207
2009	18,453	5,193	2,828	6,244	4,188
2010	18,461	5,211	2,839	6,227	4,184
2011	18,542	5,208	2,856	6,266	4,213
2012	18,689	5,213	2,873	6,347	4,257
2013	18,908	5,238	2,884	6,475	4,310
2014	19,124	5,281	2,890	6,579	4,375
2015	19,307	5,306	2,887	6,687	4,427
2016	19,477	5,331	2,884	6,792	4,470
2017	19,689	5,371	2,887	6,920	4,511
2018	19,882	5,410	2,896	7,024	4,551
High alternative projections					
2008	19,254	5,228	2,984	6,661	4,382
2009	19,562	5,337	2,994	6,836	4,395
2010	19,681	5,366	3,008	6,889	4,419
2011	19,875	5,396	3,024	6,995	4,459
2012	20,074	5,420	3,042	7,100	4,513
2013	20,338	5,450	3,054	7,257	4,576
2014	20,558	5,484	3,061	7,367	4,646
2015	20,743	5,505	3,059	7,479	4,700
2016	20,927	5,529	3,057	7,596	4,746
2017	21,148	5,565	3,061	7,731	4,791
2018	21,341	5,601	3,070	7,836	4,834

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This table was prepared January 2009.)

Table 15. Actual and alternative projected numbers for enrollment in public 4-year degree-granting institutions, by sex and attendance status: Fall 1993 through fall 2018

[In thousands]

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
Actual					
1993	5,852	1,989	750	2,085	1,027
1994	5,825	1,966	738	2,100	1,022
1995	5,815	1,951	720	2,134	1,009
1996	5,806	1,943	703	2,163	997
1997	5,835	1,951	687	2,214	984
1998	5,892	1,959	685	2,260	988
1999	5,970	1,984	686	2,309	991
2000	6,055	2,009	683	2,363	1,001
2001	6,236	2,082	687	2,450	1,017
2002	6,482	2,167	706	2,557	1,052
2003	6,649	2,225	713	2,639	1,072
2004	6,737	2,260	717	2,684	1,076
2005	6,838	2,295	724	2,726	1,091
2006	6,955	2,339	740	2,765	1,111
2007	7,167	2,418	773	2,827	1,149
Middle alternative projections					
2008	7,314	2,474	800	2,890	1,149
2009	7,470	2,538	801	2,979	1,151
2010	7,512	2,555	805	2,999	1,154
2011	7,581	2,567	810	3,039	1,165
2012	7,652	2,574	816	3,082	1,181
2013	7,755	2,588	820	3,148	1,199
2014	7,846	2,606	823	3,198	1,219
2015	7,917	2,614	824	3,243	1,236
2016	7,983	2,621	825	3,287	1,250
2017	8,061	2,633	827	3,337	1,265
2018	8,128	2,645	830	3,376	1,278
Low alternative projections					
2008	7,066	2,419	776	2,745	1,127
2009	7,236	2,490	777	2,844	1,125
2010	7,244	2,502	780	2,839	1,124
2011	7,278	2,503	785	2,859	1,132
2012	7,337	2,506	791	2,895	1,145
2013	7,428	2,519	795	2,952	1,162
2014	7,518	2,539	798	2,999	1,182
2015	7,595	2,551	798	3,048	1,199
2016	7,668	2,562	799	3,095	1,213
2017	7,757	2,579	800	3,151	1,226
2018	7,834	2,596	803	3,196	1,238
High alternative projections					
2008	7,538	2,506	820	3,039	1,173
2009	7,676	2,559	822	3,114	1,181
2010	7,729	2,576	826	3,141	1,187
2011	7,813	2,593	831	3,191	1,199
2012	7,895	2,606	837	3,238	1,215
2013	8,004	2,620	842	3,308	1,234
2014	8,095	2,636	845	3,358	1,256
2015	8,173	2,646	846	3,408	1,273
2016	8,252	2,657	846	3,460	1,288
2017	8,343	2,672	848	3,520	1,303
2018	8,419	2,687	851	3,565	1,316

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This table was prepared January 2009.)

Table 16. Actual and alternative projected numbers for enrollment in public 2-year degree-granting institutions, by sex and attendance status: Fall 1993 through fall 2018

[In thousands]

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
Actual					
1993	5,337	859	1,386	1,030	2,063
1994	5,308	848	1,379	1,038	2,044
1995	5,278	819	1,417	1,022	2,020
1996	5,314	833	1,423	1,039	2,019
1997	5,361	842	1,444	1,049	2,026
1998	5,246	841	1,383	1,040	1,981
1999	5,339	868	1,404	1,063	2,005
2000	5,697	891	1,549	1,109	2,148
2001	5,997	962	1,596	1,194	2,245
2002	6,270	1,035	1,605	1,299	2,332
2003	6,209	1,060	1,515	1,346	2,288
2004	6,244	1,065	1,518	1,360	2,300
2005	6,184	1,055	1,514	1,332	2,283
2006	6,225	1,067	1,533	1,325	2,300
2007	6,324	1,099	1,568	1,343	2,314
Middle alternative projections					
2008	6,591	1,138	1,643	1,400	2,410
2009	6,667	1,166	1,649	1,444	2,407
2010	6,688	1,169	1,656	1,448	2,414
2011	6,731	1,169	1,664	1,463	2,434
2012	6,783	1,168	1,672	1,481	2,460
2013	6,850	1,172	1,677	1,513	2,488
2014	6,913	1,178	1,678	1,537	2,520
2015	6,957	1,181	1,674	1,559	2,544
2016	6,998	1,183	1,671	1,580	2,564
2017	7,055	1,191	1,671	1,607	2,586
2018	7,113	1,200	1,676	1,630	2,607
Low alternative projections					
2008	6,397	1,112	1,594	1,330	2,361
2009	6,472	1,144	1,598	1,379	2,352
2010	6,471	1,144	1,605	1,371	2,351
2011	6,495	1,140	1,613	1,376	2,367
2012	6,537	1,137	1,621	1,391	2,388
2013	6,597	1,140	1,625	1,418	2,414
2014	6,659	1,147	1,626	1,440	2,445
2015	6,706	1,151	1,622	1,464	2,469
2016	6,749	1,156	1,618	1,487	2,489
2017	6,808	1,166	1,618	1,517	2,508
2018	6,868	1,177	1,621	1,543	2,527
High alternative projections					
2008	6,769	1,153	1,685	1,471	2,460
2009	6,847	1,177	1,692	1,509	2,469
2010	6,880	1,179	1,701	1,517	2,483
2011	6,931	1,181	1,709	1,537	2,504
2012	6,987	1,183	1,716	1,557	2,531
2013	7,060	1,187	1,721	1,590	2,562
2014	7,125	1,193	1,722	1,614	2,596
2015	7,174	1,196	1,719	1,639	2,621
2016	7,221	1,200	1,715	1,664	2,641
2017	7,283	1,209	1,715	1,696	2,662
2018	7,344	1,220	1,719	1,722	2,683

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This table was prepared January 2009.)

Table 17. Actual and alternative projected numbers for enrollment in private 4-year degree-granting institutions, by sex and attendance status: Fall 1993 through fall 2018

[In thousands]

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
Actual					
1993	2,887	973	369	1,037	508
1994	2,924	978	367	1,063	516
1995	2,955	978	364	1,089	523
1996	2,998	991	356	1,133	518
1997	3,061	1,008	360	1,170	523
1998	3,126	1,038	353	1,220	514
1999	3,229	1,073	360	1,276	519
2000	3,308	1,107	365	1,315	522
2001	3,441	1,151	365	1,389	536
2002	3,601	1,199	377	1,468	557
2003	3,768	1,250	382	1,561	574
2004	3,990	1,313	400	1,670	607
2005	4,162	1,354	402	1,774	632
2006	4,285	1,381	411	1,830	664
2007	4,464	1,422	433	1,911	698
Middle alternative projections					
2008	4,485	1,447	454	1,883	702
2009	4,583	1,484	454	1,949	695
2010	4,608	1,494	456	1,962	697
2011	4,654	1,502	459	1,990	703
2012	4,705	1,508	462	2,021	713
2013	4,778	1,519	465	2,069	725
2014	4,839	1,531	468	2,102	738
2015	4,890	1,538	469	2,134	749
2016	4,936	1,545	470	2,163	758
2017	4,990	1,553	471	2,198	768
2018	5,034	1,561	474	2,224	777
Low alternative projections					
2008	4,331	1,415	440	1,788	688
2009	4,438	1,457	440	1,861	680
2010	4,441	1,463	442	1,857	678
2011	4,464	1,464	445	1,871	683
2012	4,507	1,469	448	1,899	692
2013	4,572	1,478	451	1,940	702
2014	4,632	1,492	453	1,972	715
2015	4,687	1,502	454	2,005	726
2016	4,738	1,510	455	2,037	736
2017	4,798	1,522	456	2,075	745
2018	4,849	1,532	459	2,106	752
High alternative projections					
2008	4,627	1,466	465	1,979	716
2009	4,712	1,496	466	2,037	713
2010	4,744	1,506	468	2,054	716
2011	4,800	1,517	471	2,089	724
2012	4,858	1,526	475	2,123	734
2013	4,935	1,538	478	2,173	746
2014	4,996	1,549	480	2,207	760
2015	5,051	1,557	481	2,242	772
2016	5,106	1,565	482	2,277	782
2017	5,169	1,576	484	2,318	791
2018	5,219	1,585	486	2,348	800

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This table was prepared January 2009.)

Table 18. Actual and alternative projected numbers for enrollment in private 2-year degree-granting institutions, by sex and attendance status: Fall 1993 through fall 2018

[In thousands]

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
Actual					
1993	229	70	31	85	43
1994	221	64	33	82	43
1995	215	60	33	77	45
1996	249	84	19	117	29
1997	245	89	14	115	26
1998	243	95	14	109	25
1999	253	101	15	112	25
2000	251	105	13	112	21
2001	254	105	12	114	22
2002	259	101	13	122	23
2003	285	103	13	142	28
2004	302	101	13	156	31
2005	304	99	12	161	32
2006	293	93	11	159	30
2007	294	91	12	159	31
Middle alternative projections					
2008	309	101	13	163	32
2009	317	104	13	168	32
2010	318	104	13	169	32
2011	320	104	13	170	32
2012	322	104	13	173	32
2013	327	104	13	176	33
2014	330	105	13	179	33
2015	334	105	13	182	34
2016	337	105	13	184	34
2017	341	106	13	187	34
2018	344	107	13	190	34
Low alternative projections					
2008	298	99	13	155	31
2009	306	102	13	161	31
2010	305	102	13	160	31
2011	306	101	13	160	31
2012	308	101	13	162	32
2013	311	101	13	165	32
2014	315	102	13	168	32
2015	318	102	13	171	33
2016	322	103	13	173	33
2017	326	104	13	177	33
2018	331	105	13	180	33
High alternative projections					
2008	320	103	13	171	32
2009	327	105	13	176	33
2010	328	105	14	177	33
2011	331	105	14	179	33
2012	334	105	14	181	33
2013	338	106	14	185	34
2014	342	106	14	188	34
2015	346	106	14	191	35
2016	349	107	14	194	35
2017	354	108	14	198	35
2018	358	108	14	201	35

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This table was prepared January 2009.)

Table 19. Actual and alternative projected numbers for undergraduate enrollment in all degree-granting institutions, by sex, attendance status, and control of institution: Fall 1993 through fall 2018

[In thousands]

		Sex		Attendance status		Control	
Year	Total	Men	Women	Full-time	Part-time	Public	Private
Actual							
1993	12,324	5,484	6,840	7,179	5,144	10,012	2,312
1994	12,263	5,422	6,840	7,169	5,094	9,945	2,317
1995	12,232	5,401	6,831	7,145	5,086	9,904	2,328
1996	12,327	5,421	6,906	7,299	5,028	9,935	2,392
1997	12,451	5,469	6,982	7,419	5,032	10,007	2,443
1998	12,437	5,446	6,991	7,539	4,898	9,950	2,487
1999	12,681	5,559	7,122	7,735	4,946	10,110	2,571
2000	13,155	5,778	7,377	7,923	5,232	10,539	2,616
2001	13,716	6,004	7,711	8,328	5,388	10,986	2,730
2002	14,257	6,192	8,065	8,734	5,523	11,433	2,824
2003	14,480	6,227	8,253	9,045	5,435	11,523	2,957
2004	14,781	6,340	8,441	9,284	5,496	11,651	3,130
2005	14,964	6,409	8,555	9,446	5,518	11,698	3,266
2006	15,184	6,514	8,671	9,571	5,613	11,847	3,337
2007	15,604	6,728	8,876	9,841	5,763	12,138	3,466
Middle alternative projections							
2008	16,005	6,931	9,074	10,058	5,947	12,525	3,480
2009	16,304	7,054	9,250	10,353	5,951	12,738	3,566
2010	16,384	7,091	9,293	10,411	5,973	12,797	3,587
2011	16,510	7,118	9,392	10,493	6,017	12,892	3,617
2012	16,633	7,134	9,499	10,564	6,069	12,988	3,644
2013	16,811	7,156	9,655	10,692	6,119	13,124	3,687
2014	16,975	7,181	9,794	10,807	6,169	13,249	3,726
2015	17,096	7,183	9,913	10,897	6,200	13,341	3,755
2016	17,209	7,186	10,024	10,984	6,225	13,426	3,783
2017	17,355	7,205	10,150	11,097	6,258	13,537	3,818
2018	17,495	7,235	10,260	11,200	6,295	13,645	3,850
Low alternative projections							
2008	15,481	6,756	8,724	9,678	5,803	12,125	3,356
2009	15,798	6,891	8,907	10,003	5,795	12,350	3,448
2010	15,811	6,917	8,894	10,006	5,805	12,359	3,452
2011	15,871	6,925	8,946	10,029	5,842	12,406	3,465
2012	15,970	6,934	9,036	10,083	5,888	12,484	3,487
2013	16,125	6,954	9,171	10,191	5,934	12,602	3,523
2014	16,288	6,983	9,305	10,306	5,982	12,727	3,562
2015	16,421	6,990	9,430	10,408	6,013	12,826	3,594
2016	16,545	6,999	9,546	10,509	6,036	12,919	3,626
2017	16,707	7,027	9,680	10,643	6,064	13,041	3,666
2018	16,862	7,064	9,798	10,765	6,097	13,159	3,703
High alternative projections							
2008	16,485	7,051	9,433	10,403	6,082	12,890	3,594
2009	16,759	7,159	9,600	10,654	6,105	13,089	3,670
2010	16,864	7,196	9,668	10,726	6,139	13,168	3,696
2011	17,017	7,231	9,786	10,833	6,184	13,283	3,734
2012	17,159	7,256	9,903	10,922	6,237	13,393	3,767
2013	17,351	7,281	10,070	11,059	6,292	13,539	3,812
2014	17,517	7,304	10,213	11,172	6,345	13,666	3,851
2015	17,651	7,308	10,343	11,273	6,378	13,767	3,884
2016	17,786	7,317	10,470	11,382	6,404	13,868	3,918
2017	17,955	7,342	10,613	11,520	6,435	13,995	3,960
2018	18,110	7,377	10,733	11,639	6,471	14,114	3,996

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This table was prepared January 2009.)

Table 20. Actual and alternative projected numbers for graduate enrollment in all degree-granting institutions, by sex, attendance status, and control of institution: Fall 1993 through fall 2018

[In thousands]

		Sex		Attendance status		Control	
Year	Total	Men	Women	Full-time	Part-time	Public	Private
Actual							
1993	1,688	771	917	688	1,000	1,064	625
1994	1,721	776	946	706	1,016	1,075	647
1995	1,732	767	965	717	1,015	1,074	659
1996	1,742	759	982	737	1,005	1,069	674
1997	1,753	758	996	752	1,001	1,070	683
1998	1,768	754	1,013	754	1,014	1,067	701
1999	1,807	766	1,041	781	1,026	1,077	730
2000	1,850	780	1,070	813	1,037	1,089	761
2001	1,904	796	1,108	843	1,061	1,119	784
2002	2,036	847	1,189	926	1,109	1,187	849
2003	2,102	866	1,235	985	1,117	1,201	901
2004	2,157	879	1,278	1,024	1,132	1,194	963
2005	2,186	877	1,309	1,047	1,139	1,186	1,001
2006	2,231	887	1,344	1,077	1,154	1,193	1,038
2007	2,294	910	1,383	1,112	1,181	1,211	1,083
Middle alternative projections							
2008	2,339	956	1,382	1,119	1,220	1,235	1,103
2009	2,369	968	1,401	1,152	1,217	1,250	1,119
2010	2,376	972	1,404	1,158	1,218	1,254	1,122
2011	2,405	980	1,425	1,176	1,229	1,269	1,136
2012	2,450	992	1,458	1,205	1,245	1,292	1,158
2013	2,509	1,006	1,502	1,244	1,265	1,322	1,187
2014	2,555	1,020	1,534	1,268	1,286	1,346	1,208
2015	2,596	1,031	1,564	1,291	1,304	1,368	1,228
2016	2,633	1,041	1,592	1,312	1,321	1,387	1,246
2017	2,674	1,051	1,622	1,335	1,338	1,408	1,265
2018	2,703	1,060	1,643	1,349	1,354	1,424	1,279
Low alternative projections							
2008	2,269	931	1,337	1,077	1,191	1,199	1,069
2009	2,302	945	1,356	1,115	1,186	1,215	1,086
2010	2,297	947	1,349	1,113	1,183	1,213	1,084
2011	2,315	953	1,362	1,123	1,192	1,222	1,093
2012	2,356	963	1,392	1,149	1,206	1,243	1,112
2013	2,410	977	1,432	1,185	1,225	1,271	1,139
2014	2,455	992	1,463	1,209	1,246	1,295	1,160
2015	2,498	1,004	1,494	1,234	1,264	1,317	1,181
2016	2,537	1,015	1,522	1,256	1,280	1,338	1,199
2017	2,580	1,027	1,553	1,283	1,297	1,360	1,220
2018	2,612	1,036	1,576	1,300	1,312	1,377	1,235
High alternative projections							
2008	2,404	974	1,430	1,157	1,247	1,269	1,135
2009	2,430	983	1,447	1,182	1,248	1,282	1,148
2010	2,442	987	1,454	1,190	1,251	1,288	1,154
2011	2,476	996	1,479	1,213	1,263	1,306	1,170
2012	2,524	1,010	1,514	1,244	1,280	1,330	1,194
2013	2,585	1,024	1,561	1,284	1,300	1,362	1,223
2014	2,632	1,038	1,593	1,309	1,323	1,386	1,245
2015	2,676	1,050	1,626	1,334	1,342	1,409	1,266
2016	2,717	1,060	1,656	1,358	1,359	1,431	1,286
2017	2,762	1,072	1,690	1,385	1,376	1,454	1,308
2018	2,794	1,081	1,713	1,402	1,392	1,471	1,323

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This table was prepared January 2009.)

Table 21. Actual and alternative projected numbers for first-professional enrollment in all degree-granting institutions, by sex, attendance status, and control of institution: Fall 1993 through fall 2018

[In thousands]

		Sex		Attendance status		Control	
Year	Total	Men	Women	Full-time	Part-time	Public	Private
Actual							
1993	292	173	120	260	33	114	179
1994	295	174	121	263	31	114	181
1995	298	174	124	266	31	115	183
1996	298	173	126	267	31	117	182
1997	298	170	129	267	31	118	180
1998	302	169	134	271	31	121	182
1999	303	165	138	271	33	123	180
2000	307	164	143	274	33	124	183
2001	309	161	148	277	32	128	181
2002	319	163	156	286	33	132	187
2003	329	166	163	296	33	134	195
2004	335	168	166	302	33	136	199
2005	337	170	167	303	34	138	199
2006	343	174	170	309	34	140	204
2007	351	178	173	317	34	143	208
Middle alternative projections							
2008	355	184	171	319	36	144	211
2009	364	188	176	328	36	148	216
2010	366	189	177	330	36	149	217
2011	371	190	181	335	36	151	220
2012	379	193	186	343	36	154	225
2013	390	197	194	353	37	159	231
2014	398	201	197	360	37	162	236
2015	405	203	201	367	38	165	240
2016	411	206	205	373	38	168	243
2017	418	208	209	379	39	170	247
2018	422	210	212	383	39	172	250
Low alternative projections							
2008	343	180	163	308	35	139	204
2009	353	184	169	319	35	143	210
2010	353	185	168	318	35	143	210
2011	356	186	170	321	35	145	211
2012	363	188	175	328	35	148	216
2013	373	192	182	338	36	152	222
2014	381	195	185	345	36	155	226
2015	388	199	190	352	37	158	230
2016	395	202	193	358	37	161	234
2017	403	205	198	365	38	164	239
2018	408	207	201	370	38	166	242
High alternative projections							
2008	366	186	179	329	37	148	217
2009	373	189	184	336	37	152	221
2010	375	190	185	338	37	153	223
2011	382	192	189	345	37	155	226
2012	391	196	195	353	37	159	231
2013	402	199	203	364	38	164	238
2014	409	203	207	371	39	167	242
2015	417	206	211	378	39	170	247
2016	424	209	215	384	39	173	251
2017	432	212	220	392	40	176	255
2018	437	213	223	397	40	179	258

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This table was prepared January 2009.)

Table 22. Actual and projected numbers for enrollment in all degree-granting institutions, by race/ethnicity: Fall 1993 through fall 2018

[In thousands]

Year	Total	Race/ethnicity					
		White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaska Native	Nonresident alien[1]
Actual							
1993	14,305	10,600	1,413	989	724	122	457
1994	14,279	10,427	1,449	1,046	774	127	456
1995	14,262	10,311	1,474	1,094	797	131	454
1996	14,368	10,264	1,506	1,166	828	138	466
1997	14,502	10,266	1,551	1,218	859	142	465
1998	14,507	10,179	1,583	1,257	900	144	444
1999	14,791	10,282	1,643	1,319	913	145	488
2000	15,312	10,462	1,730	1,462	978	151	529
2001	15,928	10,775	1,850	1,561	1,019	158	565
2002	16,612	11,140	1,979	1,662	1,074	166	591
2003	16,911	11,281	2,068	1,716	1,076	173	598
2004	17,272	11,423	2,165	1,810	1,109	176	590
2005	17,487	11,495	2,215	1,882	1,134	176	585
2006	17,759	11,572	2,280	1,964	1,165	181	596
2007	18,248	11,756	2,383	2,076	1,218	190	624
Projected							
2008	18,699	11,981	2,462	2,170	1,255	192	638
2009	19,037	12,196	2,482	2,219	1,266	216	658
2010	19,126	12,182	2,507	2,259	1,292	220	666
2011	19,286	12,182	2,561	2,324	1,324	223	671
2012	19,462	12,177	2,627	2,398	1,358	227	675
2013	19,710	12,210	2,708	2,484	1,397	230	681
2014	19,928	12,226	2,778	2,568	1,434	234	687
2015	20,097	12,212	2,838	2,646	1,469	238	694
2016	20,254	12,194	2,895	2,720	1,502	242	700
2017	20,446	12,211	2,951	2,794	1,536	246	708
2018	20,620	12,228	2,995	2,863	1,568	251	714

[1]The racial/ethnic backgrounds of nonresident aliens are not known.

NOTE: Race categories exclude persons of Hispanic ethnicity. Enrollment data in the "racial/ethnicity unknown" category of the IPEDS "Fall Enrollment Survey" have been prorated to the other racial/ethnicity categories at the institutional level. Detail may not sum to totals because of rounding. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2007. (This table was prepared January 2009.)

Table 23. Actual and alternative projected numbers for full-time-equivalent enrollment in all degree-granting institutions, by control and type of institution: Fall 1993 through fall 2018

[In thousands]

Year	Total	Public		Private	
		4-year	2-year	4-year	2-year
Actual					
1993	10,353	4,766	3,046	2,357	184
1994	10,349	4,750	3,035	2,389	176
1995	10,337	4,757	2,994	2,418	168
1996	10,482	4,767	3,028	2,467	219
1997	10,615	4,814	3,056	2,525	220
1998	10,699	4,869	3,011	2,599	220
1999	10,944	4,945	3,075	2,694	229
2000	11,267	5,026	3,241	2,770	231
2001	11,766	5,194	3,445	2,894	233
2002	12,331	5,406	3,655	3,033	237
2003	12,689	5,558	3,684	3,186	260
2004	13,001	5,641	3,707	3,377	276
2005	13,201	5,728	3,662	3,533	277
2006	13,403	5,825	3,679	3,631	268
2007	13,783	5,994	3,745	3,775	268
Middle alternative projections					
2008	14,087	6,124	3,898	3,782	282
2009	14,424	6,278	3,972	3,884	290
2010	14,498	6,317	3,984	3,907	291
2011	14,624	6,376	4,008	3,947	292
2012	14,756	6,434	4,037	3,990	295
2013	14,959	6,523	4,083	4,054	299
2014	15,131	6,599	4,124	4,106	302
2015	15,269	6,659	4,155	4,149	305
2016	15,398	6,716	4,185	4,189	308
2017	15,559	6,784	4,227	4,236	312
2018	15,699	6,841	4,268	4,274	316
Low alternative projections					
2008	13,591	5,905	3,770	3,645	271
2009	13,961	6,075	3,849	3,757	280
2010	13,964	6,083	3,843	3,759	279
2011	14,016	6,108	3,851	3,777	279
2012	14,124	6,156	3,874	3,814	281
2013	14,302	6,234	3,914	3,870	284
2014	14,473	6,309	3,954	3,922	288
2015	14,625	6,376	3,989	3,969	291
2016	14,769	6,440	4,021	4,013	294
2017	14,953	6,519	4,068	4,068	299
2018	15,115	6,587	4,113	4,112	303
High alternative projections					
2008	14,538	6,322	4,016	3,908	292
2009	14,830	6,454	4,083	3,995	299
2010	14,926	6,501	4,101	4,024	300
2011	15,083	6,574	4,132	4,073	303
2012	15,237	6,643	4,166	4,123	305
2013	15,453	6,737	4,215	4,190	310
2014	15,624	6,813	4,257	4,242	313
2015	15,776	6,880	4,291	4,289	316
2016	15,933	6,948	4,327	4,337	320
2017	16,122	7,030	4,375	4,393	325
2018	16,282	7,096	4,420	4,437	329

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:93–99), and Spring 2001 through Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This table was prepared January 2009.)

Table 24. Actual and projected numbers for high school graduates, by control of school: 1993–94 through 2018–19

School year	Total	Public	Private
Actual			
1993–94[1]	2,463,728	2,220,849	242,879
1994–95	2,519,084	2,273,541	245,543
1995–96[1]	2,518,064	2,273,109	244,955
1996–97	2,611,988	2,358,403	253,585
1997–98[1]	2,704,133	2,439,050	265,083
1998–99	2,758,655	2,485,630	273,025
1999–2000[1]	2,832,669	2,553,844	278,825
2000–01	2,847,729	2,568,956	278,773
2001–02[1]	2,906,302	2,621,534	284,768
2002–03	3,015,662	2,719,907	295,755
2003–04[1]	3,054,469	2,753,438	301,031
2004–05	3,102,429	2,795,180	307,249
2005–06[1]	3,122,200	2,814,951	307,249
Projected			
2006–07[2]	3,249,800	2,943,190	306,605
2007–08	3,321,520	3,010,890	310,630
2008–09	3,329,180	3,018,670	310,510
2009–10	3,294,590	2,983,380	311,210
2010–11	3,273,250	2,962,400	310,850
2011–12	3,224,660	2,912,370	312,290
2012–13	3,210,510	2,904,760	305,750
2013–14	3,193,460	2,888,890	304,570
2014–15	3,186,910	2,892,340	294,570
2015–16	3,217,390	2,926,140	291,250
2016–17	3,244,870	2,958,520	286,350
2017–18	3,285,840	3,004,160	281,680
2018–19	3,410,210	3,133,050	277,160

[1] Since the biennial Private School Universe Survey (PSS) is collected in the fall of odd numbered years, private school numbers for alternate years are estimated based on data from the PSS.
[2] The private school number is an actual number from the 2007–08 PSS.
NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1994–95 through 2006–07; Private School Universe Survey (PSS), selected years, 1993–94 through 2007–08; and National Elementary and Secondary High School Graduates Model, 1972–73 through 2005–06. (This table was prepared November 2008.)

Table 25. Actual and projected numbers for high school graduates of public schools, by region and state: 2000–01 through 2018–19

	Actual						Projected			
Region and state	**2000–01**	**2001–02**	**2002–03**	**2003–04**	**2004–05**	**2005–06**	**2006–07**	**2007–08**	**2008–09**	**2009–10**
United States	**2,568,956**	**2,621,534**	**2,719,907**	**2,753,438**	**2,795,180**	**2,814,951**	**2,943,190**	**3,010,890**	**3,018,670**	**2,983,380**
Northeast	457,638	461,479	477,236	485,670	503,528	521,015	547,160	563,940	560,540	544,080
Connecticut	30,388	32,327	33,665	34,573	35,515	36,222	37,370	38,400	37,740	37,430
Maine	12,654	12,593	12,947	13,278	13,077	12,950	13,400	13,210	12,850	12,610
Massachusetts	54,393	55,272	55,987	58,326	59,665	61,272	63,020	63,850	62,530	61,870
New Hampshire	12,294	12,452	13,210	13,309	13,775	13,988	14,370	14,590	14,070	14,190
New Jersey	76,130	77,664	81,391	83,826	86,502	90,049	93,540	95,110	94,910	93,750
New York	141,884	140,139	143,818	142,526	153,203	161,817	164,110	169,690	166,000	159,580
Pennsylvania	114,436	114,943	119,932	123,474	124,758	127,830	144,080	151,670	155,270	147,870
Rhode Island	8,603	9,006	9,318	9,258	9,881	10,108	10,230	10,340	10,350	10,060
Vermont	6,856	7,083	6,968	7,100	7,152	6,779	7,050	7,080	6,830	6,720
Midwest	644,770	651,640	673,241	680,178	676,786	684,049	701,820	716,720	715,800	707,300
Illinois	110,624	116,657	117,507	124,763	123,615	126,817	130,560	133,060	134,410	134,870
Indiana	56,172	56,722	57,895	56,008	55,444	57,920	61,040	62,960	63,770	62,030
Iowa	33,774	33,789	34,858	34,339	33,547	33,693	35,170	35,280	34,800	34,200
Kansas	29,360	29,541	29,963	30,155	30,355	29,818	29,230	29,990	29,530	29,440
Michigan	96,515	95,001	100,301	98,823	101,582	102,582	106,690	109,390	110,530	105,460
Minnesota	56,581	57,440	59,432	59,096	58,391	58,898	60,050	60,900	59,490	58,880
Missouri	54,138	54,487	56,925	57,983	57,841	58,417	59,610	60,460	60,550	62,170
Nebraska	19,658	19,910	20,161	20,309	19,940	19,764	19,900	20,740	20,470	20,090
North Dakota	8,445	8,114	8,169	7,888	7,555	7,192	7,240	7,150	7,030	6,840
Ohio	111,281	110,608	115,762	119,029	116,702	117,356	119,890	122,580	122,880	122,170
South Dakota	8,881	8,796	8,998	9,001	8,585	8,589	8,260	8,210	8,150	8,240
Wisconsin	59,341	60,575	63,270	62,784	63,229	63,003	64,200	66,020	64,200	62,920
South	866,693	890,643	930,458	946,808	949,136	962,327	1,003,350	1,027,560	1,039,000	1,033,030
Alabama	37,082	35,887	36,741	36,464	37,453	37,918	38,460	39,440	39,710	39,590
Arkansas	27,100	26,984	27,555	27,181	26,621	28,790	28,220	29,480	29,420	29,610
Delaware	6,614	6,482	6,817	6,951	6,934	7,275	7,110	7,480	7,770	7,830
District of Columbia	2,808	3,090	2,723	3,031	2,781	3,150	3,340	3,320	2,960	3,550
Florida	111,112	119,537	127,484	131,418	133,318	134,686	144,130	148,170	150,200	140,970
Georgia	62,499	65,983	66,888	68,550	70,834	73,498	76,330	79,740	81,280	81,410
Kentucky	36,957	36,337	37,654	37,787	38,399	38,449	39,250	40,650	41,480	40,780
Louisiana	38,314	37,905	37,608	37,019	36,009	33,275	34,780	34,130	34,020	36,040
Maryland	49,222	50,881	51,864	52,870	54,170	55,536	57,410	58,270	57,490	57,180
Mississippi	23,748	23,740	23,808	23,735	23,523	23,848	24,310	24,890	25,180	25,700
North Carolina	63,288	65,955	69,694	72,126	75,010	76,710	79,590	81,210	81,980	82,740
Oklahoma	37,458	36,852	36,694	36,799	36,227	36,497	36,730	37,340	37,020	37,860
South Carolina	30,026	31,302	32,480	33,235	33,439	34,970	35,940	35,140	37,230	35,930
Tennessee	40,642	40,894	44,111	46,096	47,967	50,880	51,750	54,220	54,850	54,500
Texas	215,316	225,167	238,109	244,165	239,717	240,485	253,530	259,500	262,470	264,900
Virginia	66,067	66,519	72,943	72,042	69,597	69,597	75,220	77,080	78,320	76,900
West Virginia	18,440	17,128	17,285	17,339	17,137	16,763	17,260	17,500	17,620	17,550
West	600,099	617,772	638,972	640,782	665,730	647,560	690,870	702,680	703,330	698,970
Alaska	6,812	6,945	7,297	7,236	6,909	7,361	7,980	7,980	7,790	7,520
Arizona	46,733	47,175	49,986	45,508	59,498	54,091	53,180	52,060	51,310	49,290
California	315,189	325,895	341,097	343,480	355,217	343,515	376,510	385,290	384,370	381,790
Colorado	39,241	40,760	42,379	44,777	44,532	44,424	47,600	48,040	48,350	48,150
Hawaii	10,102	10,452	10,013	10,324	10,813	10,922	10,560	11,000	11,050	10,650
Idaho	15,941	15,874	15,856	15,547	15,768	16,096	16,490	16,760	16,820	17,140
Montana	10,628	10,554	10,657	10,500	10,335	10,283	10,090	10,320	10,030	10,080
Nevada	15,127	16,270	16,378	15,201	15,740	16,455	16,990	18,230	19,530	20,830
New Mexico	18,199	18,094	16,923	17,892	17,353	17,822	17,750	17,750	18,230	17,980
Oregon	29,939	31,153	32,585	32,958	32,602	32,394	35,550	36,400	36,230	35,310
Utah	31,036	30,183	29,525	30,252	30,253	28,457	30,080	30,840	31,360	31,970
Washington	55,081	58,311	60,433	61,274	61,094	60,213	62,560	62,590	62,590	62,880
Wyoming	6,071	6,106	5,843	5,833	5,616	5,527	5,540	5,420	5,680	5,380

See notes at end of table.

Table 25. Actual and projected numbers for high school graduates of public schools, by region and state: 2000–01 through 2018–19—Continued

Region and state	Projected—Continued								
	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19
United States	**2,962,400**	**2,912,370**	**2,904,760**	**2,888,890**	**2,892,340**	**2,926,140**	**2,958,520**	**3,004,160**	**3,133,050**
Northeast	535,980	524,670	514,450	506,370	499,380	499,800	498,120	498,450	503,690
Connecticut	37,340	36,480	35,950	36,030	35,410	35,620	35,400	35,080	34,810
Maine	12,000	11,670	11,270	11,140	11,140	11,220	11,010	11,090	11,300
Massachusetts	60,350	59,450	58,830	57,600	57,060	57,430	56,430	56,370	57,460
New Hampshire	13,520	13,450	13,160	12,860	12,790	12,760	12,500	12,360	12,860
New Jersey	93,870	91,760	91,530	90,300	90,130	90,570	90,910	90,630	89,270
New York	158,530	154,580	150,280	147,260	143,700	142,030	140,740	141,290	143,200
Pennsylvania	144,250	141,330	138,230	136,370	134,620	135,680	137,790	138,260	141,110
Rhode Island	9,830	9,720	9,230	9,050	8,800	8,780	7,680	7,910	7,990
Vermont	6,300	6,220	5,980	5,760	5,740	5,720	5,650	5,460	5,700
Midwest	695,870	682,170	672,710	665,020	662,320	667,690	671,210	678,740	695,570
Illinois	132,500	134,580	132,050	129,380	128,620	128,150	128,380	129,400	135,480
Indiana	62,610	61,520	61,770	62,540	61,840	62,250	63,080	64,330	66,680
Iowa	33,670	32,910	32,320	32,530	32,740	33,330	33,740	34,250	34,860
Kansas	28,600	28,260	28,110	27,990	27,800	28,780	29,150	29,560	30,080
Michigan	103,270	99,830	97,850	95,560	94,560	94,030	93,480	93,570	94,230
Minnesota	57,950	56,700	56,000	55,270	55,850	56,080	56,950	57,820	58,920
Missouri	59,830	57,240	56,750	56,610	56,710	58,470	58,490	59,500	61,080
Nebraska	19,720	19,230	19,190	19,080	19,130	19,320	19,780	20,230	20,990
North Dakota	6,780	6,420	6,270	6,190	6,130	6,110	5,940	5,750	5,730
Ohio	120,820	116,950	115,260	112,800	112,400	113,760	114,030	114,970	117,670
South Dakota	8,020	7,780	7,560	7,560	7,530	7,490	7,570	7,630	7,620
Wisconsin	62,100	60,780	59,580	59,510	59,020	59,930	60,620	61,740	62,230
South	1,030,320	1,005,990	1,018,760	1,019,950	1,035,630	1,057,110	1,081,110	1,107,910	1,181,420
Alabama	39,580	38,450	37,930	37,570	38,090	38,690	39,440	40,070	42,000
Arkansas	28,470	28,510	28,330	28,880	29,590	29,890	30,580	31,000	31,970
Delaware	7,620	7,730	7,570	7,600	7,670	7,820	8,080	8,230	8,520
District of Columbia	3,220	3,050	2,650	2,570	2,380	2,330	2,220	2,250	2,540
Florida	145,170	135,720	144,090	142,700	147,270	145,500	150,040	153,860	165,230
Georgia	83,570	81,850	81,740	83,710	84,960	89,080	90,920	94,480	103,860
Kentucky	40,490	39,530	39,680	39,440	39,650	42,230	43,120	40,380	43,520
Louisiana	31,110	30,940	31,460	31,890	28,740	29,610	29,930	30,370	30,410
Maryland	55,460	54,170	52,820	51,840	50,850	50,450	49,100	49,580	51,710
Mississippi	25,310	24,460	24,370	23,630	23,510	23,760	24,340	24,820	25,670
North Carolina	82,510	83,120	82,010	82,910	85,500	88,720	91,350	94,890	102,180
Oklahoma	36,300	36,020	35,630	35,490	36,340	37,550	38,120	38,110	38,750
South Carolina	35,520	34,380	33,790	33,220	33,480	34,080	34,920	35,580	37,390
Tennessee	54,070	53,160	53,640	53,460	54,560	56,530	58,640	59,570	62,050
Texas	268,250	262,950	271,830	274,800	283,150	288,830	297,560	309,860	336,650
Virginia	76,750	75,330	74,600	74,120	73,880	75,750	76,560	78,210	81,800
West Virginia	16,930	16,650	16,630	16,110	16,030	16,270	16,220	16,670	17,190
West	700,220	699,540	698,840	697,540	695,010	701,550	708,090	719,060	752,380
Alaska	7,180	7,090	6,870	6,750	6,810	6,750	7,020	7,070	6,950
Arizona	54,170	55,430	56,400	58,430	59,370	61,140	63,780	65,420	71,650
California	382,300	382,750	379,320	373,670	367,130	364,090	361,190	365,410	381,160
Colorado	48,110	47,460	47,610	48,230	48,770	50,400	51,790	53,600	57,670
Hawaii	10,420	10,320	9,980	9,940	9,650	9,660	9,630	9,860	8,890
Idaho	17,050	17,070	17,220	17,980	18,110	18,750	19,850	20,090	21,500
Montana	9,490	9,360	9,110	9,120	8,940	9,150	9,220	9,210	9,400
Nevada	20,480	20,710	21,400	21,710	22,110	23,070	24,110	24,540	26,180
New Mexico	17,730	17,450	16,800	16,920	17,190	17,600	18,190	18,340	18,640
Oregon	34,650	34,290	34,670	35,070	34,830	35,680	35,880	36,190	37,250
Utah	31,540	32,310	34,170	34,980	36,300	38,400	39,770	41,110	43,550
Washington	61,840	60,140	60,330	59,590	60,640	61,450	62,180	62,670	63,790
Wyoming	5,270	5,160	4,960	5,170	5,190	5,410	5,470	5,550	5,760

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02 through 2006–07; and State Public High School Graduates Model, 1980–81 through 2005–06. (This table was prepared December 2008.)

Table 26. Actual and projected percentage changes in public high school graduates, by region and state: Selected years, 2000–01 through 2018–19

Region and state	Actual 2000–01 to 2005–06	Projected		
		2005–06 to 2012–13	2012–13 to 2018–19	2005–06 to 2018–19
United States	**9.6**	**3.2**	**7.9**	**11.3**
Northeast	13.8	-1.3	-2.1	-3.3
Connecticut	19.2	-0.8	-3.2	-3.9
Maine	2.3	-13.0	0.3	-12.7
Massachusetts	12.6	-4.0	-2.3	-6.2
New Hampshire	13.8	-6.0	-2.2	-8.1
New Jersey	18.3	1.6	-2.5	-0.9
New York	14.0	-7.1	-4.7	-11.5
Pennsylvania	11.7	8.1	2.1	10.4
Rhode Island	17.5	-8.7	-13.5	-21.0
Vermont	-1.1	-11.7	-4.7	-15.9
Midwest	6.1	-1.7	3.4	1.7
Illinois	14.6	4.1	2.6	6.8
Indiana	3.1	6.6	8.0	15.1
Iowa	-0.2	-4.1	7.9	3.5
Kansas	1.6	-5.7	7.0	0.9
Michigan	6.3	-4.6	-3.7	-8.1
Minnesota	4.1	-4.9	5.2	#
Missouri	7.9	-2.9	7.6	4.6
Nebraska	0.5	-2.9	9.3	6.2
North Dakota	-14.8	-12.8	-8.7	-20.4
Ohio	5.5	-1.8	2.1	0.3
South Dakota	-3.3	-12.0	0.9	-11.2
Wisconsin	6.2	-5.4	4.5	-1.2
South	11.0	5.9	16.0	22.8
Alabama	2.3	#	10.8	10.8
Arkansas	6.2	-1.6	12.8	11.0
Delaware	10.0	4.1	12.5	17.1
District of Columbia	12.2	-16.0	-4.0	-19.4
Florida	21.2	7.0	14.7	22.7
Georgia	17.6	11.2	14.7	41.3
Kentucky	4.0	3.2	9.7	13.2
Louisiana	-13.2	-5.5	-3.4	-8.6
Maryland	12.8	-4.9	-2.1	-6.9
Mississippi	0.4	2.2	5.3	7.6
North Carolina	21.2	6.9	24.6	33.2
Oklahoma	-2.6	-2.4	8.7	6.2
South Carolina	16.5	-3.4	10.7	6.9
Tennessee	25.2	5.4	15.7	21.9
Texas	11.7	13.0	23.8	40.0
Virginia	5.3	7.2	9.7	17.5
West Virginia	-9.1	-0.8	3.4	2.6
West	7.9	7.9	7.7	16.2
Alaska	8.1	-6.7	1.2	-5.5
Arizona	15.7	4.3	27.0	32.5
California	9.0	10.4	0.5	11.0
Colorado	13.2	7.2	21.1	29.8
Hawaii	8.1	-8.6	-10.9	-18.6
Idaho	1.0	7.0	24.8	33.6
Montana	-3.2	-11.5	3.3	-8.6
Nevada	8.8	30.1	22.3	59.1
New Mexico	-2.1	-5.7	11.0	4.6
Oregon	8.2	7.0	7.4	15.0
Utah	-8.3	20.1	27.5	53.0
Washington	9.3	0.2	5.7	5.9
Wyoming	-9.0	-10.2	16.0	4.2

Rounds to zero.

NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001–02 and 2006–07; and State Public High School Graduates Model, 1980–81 through 2005–06. (This table was prepared December 2008.)

Table 27. Actual and alternative projected numbers for associate's degrees, by sex of recipient: 1993–94 through 2018–19

Year	Total	Men	Women
Actual			
1993–94	530,632	215,261	315,371
1994–95	539,691	218,352	321,339
1995–96	555,216	219,514	335,702
1996–97	571,226	223,948	347,278
1997–98	558,555	217,613	340,942
1998–99	559,954	218,417	341,537
1999–2000	564,933	224,721	340,212
2000–01	578,865	231,645	347,220
2001–02	595,133	238,109	357,024
2002–03	634,016	253,451	380,565
2003–04	665,301	260,033	405,268
2004–05	696,660	267,536	429,124
2005–06	713,066	270,095	442,971
2006–07	728,114	275,187	452,927
Middle alternative projections			
2007–08	738,000	279,000	459,000
2008–09	755,000	286,000	470,000
2009–10	778,000	293,000	486,000
2010–11	798,000	298,000	500,000
2011–12	813,000	302,000	511,000
2012–13	823,000	304,000	519,000
2013–14	837,000	306,000	531,000
2014–15	852,000	309,000	543,000
2015–16	867,000	311,000	556,000
2016–17	881,000	314,000	568,000
2017–18	897,000	316,000	580,000
2018–19	913,000	319,000	593,000
Low alternative projections			
2007–08	738,000	279,000	459,000
2008–09	745,000	283,000	462,000
2009–10	762,000	290,000	471,000
2010–11	771,000	294,000	478,000
2011–12	784,000	297,000	487,000
2012–13	791,000	299,000	492,000
2013–14	802,000	301,000	501,000
2014–15	815,000	303,000	512,000
2015–16	830,000	306,000	524,000
2016–17	845,000	309,000	536,000
2017–18	861,000	312,000	549,000
2018–19	878,000	315,000	563,000
High alternative projections			
2007–08	738,000	279,000	459,000
2008–09	764,000	287,000	477,000
2009–10	794,000	294,000	500,000
2010–11	822,000	300,000	522,000
2011–12	838,000	304,000	533,000
2012–13	849,000	306,000	543,000
2013–14	864,000	309,000	555,000
2014–15	879,000	311,000	568,000
2015–16	895,000	314,000	582,000
2016–17	911,000	316,000	595,000
2017–18	928,000	319,000	609,000
2018–19	945,000	323,000	623,000

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:94–99), and Fall 2000 through Fall 2007; and Degrees Conferred Model, 1975–76 through 2006–07. (This table was prepared February 2009.)

Table 28. Actual and alternative projected numbers for bachelor's degrees, by sex of recipient: 1993–94 through 2018–19

Year	Total	Men	Women
Actual			
1993–94	1,169,275	532,422	636,853
1994–95	1,160,134	526,131	634,003
1995–96	1,164,792	522,454	642,338
1996–97	1,172,879	520,515	652,364
1997–98	1,184,406	519,956	664,450
1998–99	1,200,303	518,746	681,557
1999–2000	1,237,875	530,367	707,508
2000–01	1,244,171	531,840	712,331
2001–02	1,291,900	549,816	742,084
2002–03	1,348,811	573,258	775,553
2003–04	1,399,542	595,425	804,117
2004–05	1,439,264	613,000	826,264
2005–06	1,485,242	630,600	854,642
2006–07	1,524,092	649,570	874,522
Middle alternative projections			
2007–08	1,570,000	668,000	903,000
2008–09	1,599,000	681,000	918,000
2009–10	1,648,000	702,000	946,000
2010–11	1,669,000	713,000	956,000
2011–12	1,706,000	727,000	979,000
2012–13	1,719,000	731,000	989,000
2013–14	1,737,000	734,000	1,004,000
2014–15	1,753,000	735,000	1,017,000
2015–16	1,772,000	737,000	1,034,000
2016–17	1,790,000	740,000	1,050,000
2017–18	1,806,000	741,000	1,065,000
2018–19	1,821,000	743,000	1,078,000
Low alternative projections			
2007–08	1,570,000	668,000	903,000
2008–09	1,577,000	676,000	902,000
2009–10	1,628,000	698,000	931,000
2010–11	1,609,000	697,000	911,000
2011–12	1,646,000	712,000	934,000
2012–13	1,653,000	714,000	939,000
2013–14	1,664,000	715,000	949,000
2014–15	1,677,000	716,000	961,000
2015–16	1,695,000	718,000	977,000
2016–17	1,714,000	721,000	992,000
2017–18	1,732,000	724,000	1,008,000
2018–19	1,750,000	727,000	1,023,000
High alternative projections			
2007–08	1,570,000	668,000	903,000
2008–09	1,618,000	684,000	934,000
2009–10	1,665,000	704,000	961,000
2010–11	1,721,000	722,000	999,000
2011–12	1,755,000	734,000	1,021,000
2012–13	1,770,000	738,000	1,032,000
2013–14	1,791,000	742,000	1,050,000
2014–15	1,809,000	744,000	1,064,000
2015–16	1,829,000	747,000	1,082,000
2016–17	1,848,000	750,000	1,098,000
2017–18	1,867,000	752,000	1,115,000
2018–19	1,885,000	754,000	1,131,000

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:94–99), and Fall 2000 through Fall 2007; and Degrees Conferred Model, 1975–76 through 2006–07. (This table was prepared February 2009.)

Table 29. Actual and alternative projected numbers for master's degrees, by sex of recipient: 1993–94 through 2018–19

Year	Total	Men	Women
Actual			
1993–94	387,070	176,085	210,985
1994–95	397,629	178,598	219,031
1995–96	406,301	179,081	227,220
1996–97	419,401	180,947	238,454
1997–98	430,164	184,375	245,789
1998–99	439,986	186,148	253,838
1999–2000	457,056	191,792	265,264
2000–01	468,476	194,351	274,125
2001–02	482,118	199,120	282,998
2002–03	513,339	211,664	301,675
2003–04	558,940	229,545	329,395
2004–05	574,618	233,590	341,028
2005–06	594,065	237,896	356,169
2006–07	604,607	238,189	366,418
Middle alternative projections			
2007–08	620,000	243,000	377,000
2008–09	631,000	250,000	381,000
2009–10	648,000	257,000	391,000
2010–11	659,000	261,000	398,000
2011–12	670,000	263,000	407,000
2012–13	684,000	266,000	418,000
2013–14	702,000	271,000	431,000
2014–15	717,000	277,000	440,000
2015–16	732,000	282,000	450,000
2016–17	746,000	286,000	460,000
2017–18	760,000	290,000	471,000
2018–19	773,000	293,000	480,000
Low alternative projections			
2007–08	620,000	243,000	377,000
2008–09	621,000	247,000	373,000
2009–10	636,000	251,000	385,000
2010–11	645,000	256,000	389,000
2011–12	654,000	257,000	397,000
2012–13	666,000	259,000	408,000
2013–14	683,000	263,000	420,000
2014–15	698,000	269,000	429,000
2015–16	714,000	275,000	439,000
2016–17	729,000	279,000	449,000
2017–18	744,000	284,000	460,000
2018–19	758,000	288,000	470,000
High alternative projections			
2007–08	620,000	243,000	377,000
2008–09	640,000	252,000	388,000
2009–10	658,000	260,000	398,000
2010–11	668,000	263,000	405,000
2011–12	680,000	265,000	415,000
2012–13	695,000	269,000	426,000
2013–14	713,000	274,000	439,000
2014–15	729,000	280,000	449,000
2015–16	744,000	285,000	459,000
2016–17	759,000	290,000	469,000
2017–18	775,000	294,000	481,000
2018–19	788,000	298,000	490,000

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:94–99), and Fall 2000 through Fall 2007; and Degrees Conferred Model, 1975–76 through 2006–07. (This table was prepared February 2009.)

Table 30. Actual and alternative projected numbers for doctor's degrees, by sex of recipient: 1993–94 through 2018–19

Year	Total	Men	Women
Actual			
1993–94	43,185	26,552	16,633
1994–95	44,446	26,916	17,530
1995–96	44,652	26,841	17,811
1996–97	45,876	27,146	18,730
1997–98	46,010	26,664	19,346
1998–99	44,077	25,146	18,931
1999–2000	44,808	25,028	19,780
2000–01	44,904	24,728	20,176
2001–02	44,160	23,708	20,452
2002–03	46,042	24,351	21,691
2003–04	48,378	25,323	23,055
2004–05	52,631	26,973	25,658
2005–06	56,067	28,634	27,433
2006–07	60,616	30,251	30,365
Middle alternative projections			
2007–08	61,800	30,600	31,300
2008–09	64,400	31,500	32,900
2009–10	67,000	32,400	34,600
2010–11	69,600	33,400	36,300
2011–12	72,200	34,300	37,900
2012–13	74,800	35,200	39,600
2013–14	77,400	36,100	41,300
2014–15	80,000	37,100	42,900
2015–16	82,600	38,000	44,600
2016–17	85,200	38,900	46,300
2017–18	87,800	39,900	48,000
2018–19	90,400	40,800	49,600
Low alternative projections			
2007–08	61,800	30,600	31,300
2008–09	61,700	30,100	31,500
2009–10	65,000	31,400	33,600
2010–11	66,000	31,600	34,400
2011–12	69,200	32,900	36,400
2012–13	73,100	34,400	38,700
2013–14	73,000	34,100	38,900
2014–15	75,500	35,000	40,500
2015–16	77,900	35,900	42,100
2016–17	80,400	36,700	43,700
2017–18	82,900	37,600	45,200
2018–19	85,300	38,500	46,800
High alternative projections			
2007–08	61,800	30,600	31,300
2008–09	67,200	32,800	34,300
2009–10	69,000	33,400	35,600
2010–11	73,200	35,100	38,100
2011–12	75,200	35,700	39,500
2012–13	76,500	36,000	40,500
2013–14	81,800	38,200	43,600
2014–15	84,600	39,200	45,400
2015–16	87,300	40,200	47,100
2016–17	90,100	41,200	48,900
2017–18	92,800	42,100	50,700
2018–19	95,600	43,100	52,400

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:94–99), and Fall 2000 through Fall 2007; and Degrees Conferred Model, 1975–76 through 2006–07. (This table was prepared February 2009.)

Table 31. Actual and alternative projected numbers for first-professional degrees, by sex of recipient: 1993–94 through 2018–19

Year	Total	Men	Women
Actual			
1993–94	75,418	44,707	30,711
1994–95	75,800	44,853	30,947
1995–96	76,734	44,748	31,986
1996–97	78,730	45,564	33,166
1997–98	78,598	44,911	33,687
1998–99	78,439	44,339	34,100
1999–2000	80,057	44,239	35,818
2000–01	79,707	42,862	36,845
2001–02	80,698	42,507	38,191
2002–03	80,897	41,887	39,010
2003–04	83,041	42,169	40,872
2004–05	87,289	43,849	43,440
2005–06	87,655	44,038	43,617
2006–07	90,064	45,057	45,007
Middle alternative projections			
2007–08	91,300	45,800	45,600
2008–09	93,300	46,800	46,400
2009–10	94,900	48,000	46,900
2010–11	96,500	49,100	47,400
2011–12	98,100	49,700	48,400
2012–13	99,200	50,200	49,100
2013–14	101,100	50,800	50,300
2014–15	103,800	51,700	52,100
2015–16	106,400	52,600	53,800
2016–17	108,400	53,500	54,900
2017–18	110,200	54,200	56,000
2018–19	112,000	54,900	57,100
Low alternative projections			
2007–08	91,300	45,800	45,600
2008–09	93,300	46,800	46,400
2009–10	93,400	47,400	45,900
2010–11	93,700	48,300	45,400
2011–12	95,200	48,900	46,300
2012–13	95,700	49,200	46,500
2013–14	97,200	49,700	47,500
2014–15	99,700	50,500	49,100
2015–16	102,100	51,500	50,600
2016–17	104,200	52,400	51,700
2017–18	106,100	53,300	52,900
2018–19	108,100	54,100	54,100
High alternative projections			
2007–08	91,300	45,800	45,600
2008–09	93,300	46,800	46,400
2009–10	96,200	48,300	47,800
2010–11	98,900	49,500	49,400
2011–12	100,300	50,000	50,300
2012–13	101,600	50,500	51,200
2013–14	103,800	51,200	52,600
2014–15	106,600	52,200	54,400
2015–16	109,200	53,100	56,100
2016–17	111,300	54,000	57,300
2017–18	113,300	54,800	58,500
2018–19	115,400	55,500	59,800

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:94–99), and Fall 2000 through Fall 2007; and Degrees Conferred Model, 1975–76 through 2006–07. (This table was prepared February 2009.)

Table 32. Actual and alternative projected numbers for elementary and secondary teachers and elementary and secondary new teacher hires, by control of school: Fall 1993 through fall 2018

[In thousands]

Year	Number of teachers, by control			Number of new teacher hires, by control		
	Total	Public	Private	Total	Public	Private
Actual						
1993	2,874	2,504	364	—	—	—
1994[1]	2,925	2,552	370	—	—	—
1995	2,974	2,598	376	—	—	—
1996[1]	3,051	2,667	384	—	—	—
1997	3,138	2,746	391	—	—	—
1998[1]	3,230	2,830	400	—	—	—
1999	3,319	2,911	408	305	222	83
2000[1]	3,366	2,941	424	—	—	—
2001	3,440	3,000	441	—	—	—
2002[1]	3,476	3,034	442	—	—	—
2003	3,490	3,049	441	303	236	67
2004[2]	3,536	3,091	445	377	296	81
2005[3]	3,593	3,143	450	364	285	79
2006[2]	3,637	3,180	456	365	284	82
Middle alternative projections						
2007[4]	3,665	3,205	456	356	279	77
2008	3,689	3,233	456	365	289	76
2009	3,705	3,249	456	359	283	76
2010	3,725	3,271	454	370	295	75
2011	3,763	3,310	453	389	314	75
2012	3,812	3,358	454	406	329	77
2013	3,867	3,410	457	414	336	79
2014	3,933	3,473	460	429	349	80
2015	4,001	3,536	465	435	352	83
2016	4,069	3,599	470	440	356	84
2017	4,141	3,665	476	448	362	86
2018	4,205	3,722	483	445	357	88
Low alternative projections						
2007[4]	3,665	3,205	456	356	279	77
2008	3,691	3,235	456	366	290	76
2009	3,699	3,243	456	352	276	76
2010	3,706	3,253	453	357	282	74
2011	3,736	3,285	451	380	307	74
2012	3,780	3,329	451	399	323	76
2013	3,831	3,378	453	408	330	78
2014	3,896	3,440	456	425	346	79
2015	3,964	3,504	460	433	350	82
2016	4,033	3,567	466	437	353	83
2017	4,103	3,632	472	443	358	85
2018	4,166	3,688	478	440	354	87
High alternative projections						
2007[4]	3,665	3,205	456	356	279	77
2008	3,690	3,235	456	366	290	76
2009	3,717	3,261	456	370	294	76
2010	3,747	3,292	456	381	304	77
2011	3,789	3,332	456	395	318	77
2012	3,839	3,382	458	410	331	78
2013	3,897	3,437	460	420	341	80
2014	3,966	3,502	464	435	354	81
2015	4,037	3,568	469	441	357	84
2016	4,108	3,634	474	446	361	85
2017	4,182	3,701	480	453	367	87
2018	4,247	3,759	487	450	361	89

—Not available.

[1]Since the biennial Private School Universe Survey (PSS) is collected in the fall of odd numbered years, private school numbers for alternate years are estimated based on data from the PSS.

[2]Since the biennial Private School Universe Survey (PSS) is collected in the fall of odd numbered years, counts of private school teachers for alternate years are estimated based on data from the PSS. Public and private new teacher hire numbers are estimated using the New Teacher Hires Model.

[3]Public and private new teacher hire numbers are estimated using the New Teacher Hires Model.

[4]The private school teacher number is an actual number from the 2007–08 PSS.

NOTE: Number of teachers reported in full-time equivalents. Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1993–94 through 2006–07; Private School Universe Survey (PSS), selected years, 1993–94 through 2007–08; Elementary and Secondary Teacher Model, 1973–2005; and New Teacher Hires Model, 1988–2004. (This table was prepared December 2008.)

Table 33. Actual and alternative projected numbers for the pupil/teacher ratios in elementary and secondary schools, by control of school: Fall 1993 through fall 2018

Year	Total	Public	Private
Actual			
1993	17.2	17.4	16.7
1994[1]	17.1	17.3	16.2
1995	17.1	17.3	15.7
1996[1]	16.9	17.1	15.5
1997	16.6	16.8	15.2
1998[1]	16.3	16.4	15.0
1999	15.9	16.1	14.7
2000[1]	15.9	16.0	14.5
2001	15.7	15.9	14.3
2002[1]	15.7	15.9	14.1
2003	15.7	15.9	13.8
2004[1]	15.5	15.8	13.7
2005	15.4	15.6	13.5
2006[1]	15.2	15.5	13.2
Middle alternative projections			
2007[2]	15.1	15.4	13.0
2008	15.0	15.3	12.9
2009	15.0	15.3	12.8
2010	15.0	15.3	12.8
2011	14.9	15.2	12.8
2012	14.8	15.1	12.7
2013	14.7	15.0	12.6
2014	14.6	14.9	12.6
2015	14.5	14.8	12.5
2016	14.4	14.7	12.4
2017	14.3	14.6	12.3
2018	14.2	14.5	12.2
Low alternative projections			
2007[2]	15.1	15.4	13.0
2008	15.0	15.3	12.9
2009	15.0	15.3	12.8
2010	14.9	15.2	12.8
2011	14.8	15.1	12.7
2012	14.7	15.0	12.6
2013	14.6	14.9	12.5
2014	14.5	14.8	12.5
2015	14.4	14.7	12.4
2016	14.3	14.6	12.3
2017	14.2	14.4	12.2
2018	14.1	14.3	12.1
High alternative projections			
2007[2]	15.1	15.4	13.0
2008	15.0	15.3	12.9
2009	15.0	15.4	12.8
2010	15.1	15.4	12.8
2011	15.0	15.3	12.9
2012	15.0	15.2	12.8
2013	14.9	15.2	12.7
2014	14.8	15.0	12.7
2015	14.7	14.9	12.6
2016	14.6	14.8	12.5
2017	14.4	14.7	12.4
2018	14.4	14.6	12.3

[1]Since the biennial Private School Universe Survey (PSS) is collected in the fall of odd numbered years, private school numbers for alternate years are estimated based on data from the PSS.
[2]The private school number is an actual number from the 2007–08 PSS.
NOTE: The pupil/teacher ratios were derived from tables 1 and 32. Teachers reported in full-time equivalents. Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1993–94 through 2006–07; Private School Universe Survey (PSS), selected years, 1993–94 through 2007–08; National Elementary and Secondary Enrollment Model, 1972–2006; and Elementary and Secondary Teacher Model, 1973–2005. (This table was prepared March 2009.)

Table 34. Actual and alternative projected numbers for current expenditures and current expenditures per pupil in fall enrollment for public elementary and secondary education: 1993–94 through 2018–19

School year	Fall enrollment (in thousands)	Current expenditures: Constant 2006–07 dollars[1] Total (in billions)	Current expenditures: Constant 2006–07 dollars[1] Per pupil in fall enrollment	Current expenditures: Current dollars Total (in billions)	Current expenditures: Current dollars Per pupil in fall enrollment
Actual					
1993–94	43,465	$323.1	$7,435	$231.5	$5,327
1994–95	44,111	330.9	7,502	243.9	5,529
1995–96	44,840	337.0	7,515	255.1	5,689
1996–97	45,611	347.0	7,608	270.2	5,923
1997–98	46,127	360.2	7,810	285.5	6,189
1998–99	46,539	375.7	8,072	302.9	6,508
1999–2000	46,857	390.5	8,333	323.9	6,912
2000–01	47,204	406.1	8,604	348.4	7,380
2001–02	47,672	422.0	8,852	368.4	7,727
2002–03	48,183	434.4	9,016	387.6	8,044
2003–04	48,540	442.4	9,114	403.4	8,310
2004–05	48,795	452.6	9,275	425.0	8,711
2005–06	49,113	461.2	9,390	449.6	9,154
Middle alternative projections					
2006–07	49,299	474.6	9,626	474.6	9,626
2007–08	49,470	482.4	9,751	500.3	10,113
2008–09	49,623	489.3	9,861	515.5	10,388
2009–10	49,788	492.7	9,897	520.3	10,451
2010–11	50,034	496.1	9,915	539.9	10,792
2011–12	50,349	507.0	10,070	566.2	11,245
2012–13	50,767	520.5	10,253	–	–
2013–14	51,239	535.9	10,460	–	–
2014–15	51,769	555.5	10,730	–	–
2015–16	52,346	575.2	10,989	–	–
2016–17	52,892	593.1	11,213	–	–
2017–18	53,426	611.0	11,437	–	–
2018–19	53,933	625.6	11,599	–	–
Low alternative projections					
2006–07	49,299	474.6	9,626	474.6	9,626
2007–08	49,470	482.4	9,751	500.3	10,113
2008–09	49,623	490.5	9,885	513.6	10,349
2009–10	49,788	491.2	9,867	510.6	10,256
2010–11	50,034	488.6	9,766	526.5	10,522
2011–12	50,349	495.2	9,836	555.5	11,033
2012–13	50,767	505.9	9,964	–	–
2013–14	51,239	519.1	10,131	–	–
2014–15	51,769	537.8	10,388	–	–
2015–16	52,346	557.3	10,646	–	–
2016–17	52,892	574.5	10,862	–	–
2017–18	53,426	591.3	11,068	–	–
2018–19	53,933	604.9	11,216	–	–
High alternative projections					
2006–07	49,299	474.6	9,626	474.6	9,626
2007–08	49,470	482.4	9,751	500.3	10,113
2008–09	49,623	489.5	9,864	517.6	10,432
2009–10	49,788	497.3	9,988	532.6	10,698
2010–11	50,034	504.7	10,088	557.1	11,134
2011–12	50,349	517.1	10,271	582.9	11,577
2012–13	50,767	531.7	10,473	–	–
2013–14	51,239	549.3	10,721	–	–
2014–15	51,769	570.4	11,018	–	–
2015–16	52,346	591.7	11,303	–	–
2016–17	52,892	611.1	11,554	–	–
2017–18	53,426	630.3	11,797	–	–
2018–19	53,933	645.4	11,967	–	–

–Not available.

[1]Based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A. The fall enrollment number for 2006–07 is an actual number.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1993–94 through 2006–07; "National Public Education Financial Survey," 1993–94 through 2005–06; National Elementary and Secondary Enrollment Model, 1972–2006; and Elementary and Secondary Education Current Expenditures Model, 1969–70 through 2005–06. (This table was prepared December 2008.)

Table 35. Actual and alternative projected numbers for current expenditures and current expenditures per pupil in average daily attendance (ADA) for public elementary and secondary education: 1993–94 through 2018–19

School year	ADA (in thousands)	Current expenditures: Constant 2006–07 dollars[1] Total (in billions)	Current expenditures: Constant 2006–07 dollars[1] Per pupil in ADA	Current expenditures: Current dollars Total (in billions)	Current expenditures: Current dollars Per pupil in ADA
Actual					
1993–94	40,146	$323.1	$8,049	$231.5	$5,767
1994–95	40,721	330.9	8,127	243.9	5,989
1995–96	41,502	337.0	8,120	255.1	6,147
1996–97	42,262	347.0	8,211	270.2	6,393
1997–98	42,766	360.2	8,423	285.5	6,676
1998–99	43,187	375.7	8,699	302.9	7,013
1999–2000	43,807	390.5	8,914	323.9	7,394
2000–01	44,076	406.1	9,214	348.4	7,904
2001–02	44,605	422.0	9,461	368.4	8,259
2002–03	45,017	434.4	9,650	387.6	8,610
2003–04	45,326	442.4	9,761	403.4	8,900
2004–05	45,625	452.6	9,919	425.0	9,316
2005–06	45,932	461.2	10,040	449.6	9,788
Middle alternative projections					
2006–07	45,968	474.6	10,324	474.6	10,324
2007–08	46,127	482.4	10,457	500.3	10,846
2008–09	46,270	489.3	10,575	515.5	11,141
2009–10	46,424	492.7	10,614	520.3	11,208
2010–11	46,653	496.1	10,634	539.9	11,574
2011–12	46,947	507.0	10,799	566.2	12,060
2012–13	47,337	520.5	10,996	–	–
2013–14	47,777	535.9	11,218	–	–
2014–15	48,271	555.5	11,507	–	–
2015–16	48,809	575.2	11,786	–	–
2016–17	49,318	593.1	12,025	–	–
2017–18	49,816	611.0	12,266	–	–
2018–19	50,289	625.6	12,439	–	–
Low alternative projections					
2006–07	45,968	474.6	10,324	474.6	10,324
2007–08	46,127	482.4	10,457	500.3	10,846
2008–09	46,270	490.5	10,601	513.6	11,099
2009–10	46,424	491.2	10,582	510.6	10,999
2010–11	46,653	488.6	10,473	526.5	11,285
2011–12	46,947	495.2	10,549	555.5	11,833
2012–13	47,337	505.9	10,687	–	–
2013–14	47,777	519.1	10,866	–	–
2014–15	48,271	537.8	11,141	–	–
2015–16	48,809	557.3	11,417	–	–
2016–17	49,318	574.5	11,649	–	–
2017–18	49,816	591.3	11,870	–	–
2018–19	50,289	604.9	12,029	–	–
High alternative projections					
2006–07	45,968	474.6	10,324	474.6	10,324
2007–08	46,127	482.4	10,457	500.3	10,846
2008–09	46,270	489.5	10,579	517.6	11,188
2009–10	46,424	497.3	10,712	532.6	11,473
2010–11	46,653	504.7	10,819	557.1	11,941
2011–12	46,947	517.1	11,015	582.9	12,416
2012–13	47,337	531.7	11,232	–	–
2013–14	47,777	549.3	11,498	–	–
2014–15	48,271	570.4	11,817	–	–
2015–16	48,809	591.7	12,122	–	–
2016–17	49,318	611.1	12,391	–	–
2017–18	49,816	630.3	12,652	–	–
2018–19	50,289	645.4	12,835	–	–

–Not available.

[1]Based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in Table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey," 1993–94 through 2005–06; National Elementary and Secondary Average Daily Attendance Model, 1993–94 through 2005–06; and Elementary and Secondary Education Current Expenditures Model, 1969–70 through 2005–06. (This table was prepared December 2008.)

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Technical Appendixes

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Appendix A
Projection Methodology

Since its inception in 1964, the *Projection of Education Statistics* series has been providing projections of key education statistics to policy makers, educators, researchers, the press, and the general public. This edition, the *Projections of Education Statistics to 2018*, is the thirty-seventh in the series. It provides projections of enrollment, graduates, teachers, and expenditures.

The general methodological procedure for *Projections of Education Statistics to 2018* was to express the variable to be projected as a percent of a "base" variable. These percents were then projected and applied to projections of the "base" variable. For example, the number of 18-year-old college students was expressed as a percent of the 18-year-old population for each year from 1972 through 2007. This enrollment rate was then projected through the year 2018 and applied to projections of the 18-year-old population from the U.S. Census Bureau.

Enrollment projections are based primarily on population projections. Projections of high school graduates and earned degrees conferred are based primarily on enrollment projections.

Exponential smoothing and multiple linear regression are the two major projection techniques used in this publication. Single exponential smoothing is used when the historical data have a basically horizontal pattern. On the other hand, double exponential smoothing is used when the time series is expected to change linearly with time. In general, exponential smoothing places more weight on recent observations than on earlier ones. The weights for observations decrease exponentially as one moves further into the past. As a result, the older data have less influence on these projections. The rate at which the weights of older observations decrease is determined by the smoothing constant selected.

$$P = \alpha X_t + \alpha(1-\alpha)X_{t-1} + \alpha(1-\alpha)^2 X_{t-2} + \alpha(1-\alpha)^3 X_{t-3} + \ldots\ldots$$

where:

P = projected value

α = smoothing constant ($0 < \alpha < 1$)

X_t = observation for time t

This equation illustrates that the projection is a weighted average based on exponentially decreasing weights. For higher smoothing constants, weights for earlier observations decrease more rapidly than for lower smoothing constants.

The farther apart the observations are spaced in time, the more likely it is that there are changes in the underlying social, political, and economic structure. Since the observations for most variables in this report are collected on an annual basis, major shifts in the underlying process are more likely in the time span of just a few observations than if the observations were available on a monthly or weekly basis. As a result, the underlying process for annual models tends to be less stable from one observation to the next. Another reason for using high smoothing constants for some time series is that most of the observations are fairly accurate, because most observations are population values rather than sample estimates.

Multiple linear regression also is used in making projections of college enrollment and earned degrees conferred. This technique is used when it is believed that a strong relationship exists between the variable being projected (the dependent variable) and independent variables. However, this technique is used only when accurate data and reliable projections of the independent variables are available.

The equations in this appendix should be viewed as forecasting rather than structural equations, as the limitations of time and available data precluded the building of large-scale, structural models. The particular equations shown were selected on the basis of their statistical properties, such as coefficients of determination (R^2s), the t-statistics of the coefficients, the Durbin-Watson statistic, the Breusch-Godfrey Serial Correlation LM test statistic, and residual plots.

The functional form primarily used is the multiplicative model. When used with two independent variables, this model takes the form:

$$Y = aX_1^{b_1} X_2^{b_2}$$

This equation can easily be transformed into the linear form by taking the natural log (ln) of both sides of the equation:

$$\ln Y = \ln(a) + b_1 \ln X_1 + b_2 \ln X_2$$

The multiplicative model has a number of advantages. Research has found that it is a reasonable way to represent human behavior. Constant elasticities are assumed, which means that a 1 percent change in X will lead to a given percent change in Y. This percent change is equal to b_1. And the multiplicative model lends itself easily to "a priori" analysis because the researcher does not have to worry about units of measurement when specifying relationships. In fact, the multiplicative model is considered the standard in economic analyses. For additional information, see Makridakis, Wheelwright, and Hyndman (1998).

Assumptions

All projections are based on underlying assumptions, and it is important that users of projections understand these assumptions to determine the acceptability of projected time series for their purposes. Descriptions of the primary assumptions upon which the projections of time series are based are presented in table A-1.

For some projections, middle, low, and high alternatives are shown. These alternatives reveal the level of uncertainty involved in making projections, and they also point out the sensitivity of projections to the assumptions on which they are based.

Many of the projections in this publication are demographically based on U.S. Census Bureau middle series projections of the population by age. The population projections developed by the U.S. Census Bureau are based on the 2000 census and the middle series assumptions for the fertility rate, internal migration, net immigration, and mortality rate.

The future fertility rate assumption along with corresponding projections of females, determine projections of the number of births, a key assumption in making population projections. This assumption plays a major role in determining population projections for the age groups enrolled in nursery school, kindergarten, and elementary grades. The effects of the fertility rate assumption are more pronounced toward the end of the projection period, while the immigration assumptions affect all years.

For enrollments in secondary grades and college, the fertility assumption is of no consequence, since all the population cohorts for these enrollment ranges have already been born. For projections of enrollments in elementary schools, only middle series population projections were considered. Projections of high school graduates are based on projections of the percent of grade 12 enrollment that graduated from high school. Projections of associate's, bachelor's, master's, doctor's, and first-professional degrees are based on projections of college-age populations and college enrollment, by sex, attendance status, level enrolled by student, and type of institution.

The key economic factors of the higher education enrollment projections are household income, which represents ability to pay, and an age-specific unemployment rate, which acts as a proxy for opportunity costs faced by students. Age-specific unemployment rates are likely to increase during a weak or pessimistic economy, with the result that the estimated opportunity costs will be lower. This will have a positive impact on higher education enrollment, as students face less attractive alternatives. This will be apparent in the short term, resulting in a potential reversal in the expected pattern across the alternative economic scenarios. As a result, the high alternative projections can be lower than the low alternative projections in the short term. However, in the long term, the effect of the per capita income variable dominates the effects of the unemployment rate. This results in a pattern where the high alternative projections are greater than the low alternative projections.

The projections of elementary and secondary teachers are based on education revenue receipts from state sources and enrollments. The projections of expenditures of public elementary and secondary schools are based on enrollments and projections of disposable income per capita and various revenue measures of state and local governments. Projections of disposable income per capita and unemployment rates were from the "U.S. Quarterly Model: November 2008: Long-Term-Projections" of the economic consulting firm IHS Global Insight. (See supplemental table B-6 for the projections of disposable income per capita.)

Limitations of Projections

Projections of time series usually differ from the final reported data due to errors from many sources. This is because of the inherent nature of the statistical universe from which the basic data are obtained and the properties of projection methodologies, which depend on the validity of many assumptions. Therefore, alternative projections are shown for most statistical series to denote the uncertainty involved in making projections. These alternatives are not statistical confidence limits. The mean absolute percentage error is one way to express the forecast accuracy of past projections. This measure expresses the average value of the absolute value of errors over past projections in percentage terms. For example, the mean absolute percentage errors of public school enrollment in grades PK–12 for lead times of 1, 2, 5, and 10 years were 0.3, 0.6, 1.3, and 2.3 percent, respectively. For more information on mean absolute percentage errors, see table A-2.

Table A-1. Summary of forecast assumptions to 2018

Variable	Middle alternative	Low alternative	High alternative
Demographic assumptions			
Population	Projections are consistent with the Census Bureau middle series estimates[1]	Same as middle alternative	Same as middle alternative
18- to 24-year-old population	Census Bureau middle series projection: average annual growth rate of -0.3%	Same as middle alternative	Same as middle alternative
25- to 29-year-old population	Census Bureau middle series projection: average annual growth rate of 0.7%	Same as middle alternative	Same as middle alternative
30- to 34-year-old population	Census Bureau middle series projection: average annual growth rate of 1.3%	Same as middle alternative	Same as middle alternative
35- to 44-year-old population	Census Bureau middle series projection: average annual growth rate of -0.1%	Same as middle alternative	Same as middle alternative
Economic assumptions			
Disposable income per capita in constant dollars	Annual percent changes range between 0.1% and 2.9% with an annual growth rate of 1.7%	Annual percent changes range between -1.3% and 2.8% with an annual growth rate of 1.4%	Annual percent changes range between 1.2% and 3.1% with an annual growth rate of 2.0%
Education revenue receipts from state sources per capita in constant dollars	Annual percent changes range between 0.0% and 3.6% with an annual growth rate of 2.3%	Annual percent changes range between -1.7% and 3.6% with an annual growth rate of 1.8%	Annual percent changes range between 1.1% and 3.9% with an annual growth rate of 2.7%
Inflation rate	Inflation rate ranges between 0.2% and 3.7%	Inflation rate ranges between -0.7% and 3.7%	Inflation rate ranges between 1.3% and 3.7%
Unemployment rate (men)			
Ages 18 and 19	Remains between 17.2% and 26.0%	Remains between 21.2% and 28.4%	Remains between 15.2% and 23.2%
Ages 20 to 24	Remains between 9.8% and 15.5%	Remains between 12.3% and 17.2%	Remains between 8.6% and 13.6%
Age 25 and over	Remains between 3.9% and 6.5%	Remains between 5.0% and 7.3%	Remains between 3.4% and 5.6%
Unemployment rate (women)			
Ages 18 and 19	Remains between 12.9% and 18.5%	Remains between 15.0% and 19.9%	Remains between 11.5% and 16.8%
Ages 20 to 24	Remains between 7.7% and 11.4%	Remains between 9.1% and 12.4%	Remains between 6.8% and 10.3%
Age 25 and over	Remains between 3.9% and 5.8%	Remains between 4.6% and 6.4%	Remains between 3.4% and 5.2%

[1]As the Census projections were not updated to reflect 2008 Census Bureau population estimates, the Census Bureau age-specific population projections for each year were adjusted by multiplying the ratio of the total Census Bureau estimate for 2008 to the total Census Bureau projection for 2008.
NOTE: For the economic assumptions and the unemployment rate variables, the names of the three scenarios, middle, low, and high, indicate the long-run trends of the economy over the forecast period.
SOURCE: U.S. Department of Commerce, Census Bureau, Population Estimates, retrieved October 27, 2008, from http://www.census.gov/popest/national/asrh/2006_nat_af.html; and Population Projections, retrieved October 29, 2008, from http://www.census.gov/ipc/www/usinterimproj/; and IHS Global Insight, "U.S. Quarterly Model: November 2008." (This table was prepared February 2009.)

Table A-2. Mean absolute percentage errors (MAPEs), by lead time for selected statistics in all public elementary and secondary schools and degree-granting institutions: 2008

	Lead time (years)									
Statistic	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Public elementary and secondary schools										
Prekindergarten–12 enrollment	0.3	0.6	0.8	1.1	1.3	1.5	1.7	1.8	2.0	2.3
Prekindergarten–8 enrollment	0.4	0.6	0.9	1.2	1.4	1.7	2.0	2.3	2.7	3.1
9–12 enrollment	0.4	0.7	1.0	1.2	1.4	1.6	2.0	2.2	2.2	2.2
High school graduates	1.0	0.9	1.6	1.8	1.8	2.2	2.8	3.6	3.9	3.8
Elementary and secondary teachers[1]	1.0	1.5	1.8	2.5	3.2	3.3	3.9	4.4	5.5	6.1
Total current expenditures[2]	1.3	2.1	2.2	2.3	2.8	3.6	4.2	4.4	4.5	4.5
Current expenditures per pupil in fall enrollment[2]	1.3	2.0	2.1	2.3	3.1	4.0	4.6	5.2	5.8	5.8
Degree-granting institutions										
Total enrollment	1.3	2.2	2.7	3.3	4.6	6.4	8.0	9.2	9.8	10.4
Men	1.5	2.7	3.2	3.8	5.2	6.7	8.1	9.4	9.6	10.3
Women	1.4	2.2	3.0	3.2	4.2	6.2	7.9	9.0	10.0	10.4
4-year institutions	1.4	2.2	3.0	3.8	5.3	6.9	8.8	10.0	11.2	12.4
2-year institutions	2.1	3.5	4.0	4.3	4.8	5.6	6.6	7.7	7.5	6.9
Associate's degrees	2.1	3.3	3.6	5.1	6.0	7.2	9.3	11.4	13.8	15.6
Bachelor's degrees	0.9	1.9	2.9	4.1	6.0	7.7	9.1	10.2	12.0	13.5
Master's degrees	1.5	3.5	6.4	9.2	12.4	15.0	17.9	20.0	22.6	25.0
Doctor's degrees	3.4	5.5	5.4	6.6	6.1	7.2	8.4	8.2	10.3	11.9
First-professional degrees	1.3	1.7	1.7	2.7	5.1	6.0	8.3	10.0	11.4	13.8

[1]Data for teachers expressed in full-time equivalents.
[2]In constant dollars based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.
NOTE: Mean absolute percentage error is the average value over past projections of the absolute values of errors expressed in percentage terms. MAPEs for PK-12 enrollments were calculated using the last 25 editions of *Projections of Education Statistics*. MAPEs for high school graduates were calculated from the past 17 editions of *Projections of Education Statistics*. MAPEs for teachers were calculated from the past 18 editions containing teachers projections and MAPEs for current expenditures were calculated using projections from the last 18 editions containing current expenditure projections. MAPEs for degree-granting institution enrollments and earned degrees were calculated using the last 11 and 12 editions, respectively. Calculations were made using unrounded numbers. Some data have been revised from previously published numbers.
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics*, various issues. (This table was prepared December 2008.)

Enrollment

National

Enrollment projections are based on projected enrollment rates, by age and sex, where the enrollment rate for a given population for a certain level of education is the number of people in that population enrolled at that level of education divided by the total number of people in that population. These enrollment rates were projected by taking into account the most recent trends, as well as the effects of economic conditions and demographic changes. The projected enrollment rates were then used in the Education Forecasting Model (EDMOD), which projects age-specific rates by sex and student levels.

Enrollment data for degree-granting institutions presented in this report are derived from both NCES aggregate enrollment counts and the U.S. Census Bureau age-specific enrollment counts. Specifically, the most detailed level of enrollment data (by age, sex, enrollment status, control of institution, type of institution, and level enrolled) were iteratively changed using proportions that are based on more highly aggregated NCES enrollment numbers to ensure that the sum across these most detailed level of enrollment data equal the more highly aggregated NCES enrollment numbers that do not include age.

The first stage of EDMOD is an age-specific enrollment model in which these enrollment rates are projected and applied to age-specific population projections from the U.S. Census Bureau. This stage includes all ages for students enrolled in grades K–12 and for students enrolled in colleges and universities. This stage, which is used separately for each sex, consists of the following categories: (1) nursery and kindergarten; (2) elementary grades 1–8; (3) secondary grades 9–12; (4) full-time college enrollment; and (5) part-time college enrollment.

At the postsecondary level, projections of full-time and part-time college enrollments were considered only for ages 16 and over. College enrollment is negligible for younger teens. Full-time and part-time enrollments are modeled separately, with each model run by sex. Within an enrollment category, where applicable, college enrollment rates were projected by individual ages 16 through 24 and for the age groups 25 to 29, 30 to 34, and 35 years and over. Three alternative projections were made using various economic assumptions. Table A-3 shows enrollment rates for 2007 and middle alternative projected enrollment rates for 2013 and 2018. Table A-4 shows the estimated equations used to project the enrollments for men by attendance status. Table A-5 shows the estimated equations used to project enrollment rates for women by attendance status. The particular equations shown were selected on the basis of their statistical properties, such as coefficients of determination (R^2s), the t-statistics of the coefficients, the Durbin-Watson statistic, the Breusch-Godfrey Serial Correlation LM test statistic, and residual plots.

Enrollment in Public Elementary and Secondary Schools, by Grade Group and Organizational Level

The second stage of EDMOD projects enrollment in public elementary and secondary schools by grade group and by organizational level. Public enrollments by age were based on enrollment rate projections for grade classifications of nursery and kindergarten, grade 1, elementary ungraded and special, and secondary ungraded and special. Grade progression rate projections were used for grades 2 through 12. Table A-6 shows the public school enrollment rates, and table A-7 shows the public school grade progression rates for 2006 and projections for 2007 through 2018. The projected rates in tables A-6 and A-7 were used to compute the projections of enrollments in elementary and secondary schools, by grade, shown in table 3.

College Enrollment, by Sex, Attendance Status, and Level Enrolled, and by Type and Control of Institution

The third stage of EDMOD projects enrollments in degree-granting institutions, by age group, sex, attendance status, and level enrolled by student, and by type and control of institution. These projections for 2008 through 2018 are shown in tables A-8 and A-9, along with actual values for 2007. For all projections, it was assumed that there was no enrollment in 2-year institutions at the postbaccalaureate level (graduate and first-professional).

The projected rates in tables A-8 and A-9 were then adjusted to agree with the projected age-specific enrollment rates in the first stage of EDMOD. The adjusted rates were then applied to the projected enrollments by age group, sex, and attendance status from the first stage of EDMOD to obtain projections by age group, sex, attendance status, level enrolled, and type of institution.

For each enrollment category—sex, attendance status, level enrolled, and type of institution—public enrollment was projected as a percent of total enrollment. Projections for 2008 through 2018 are shown in table A-10, along with actual percents for 2007. The projected rates were then applied to the projected enrollments in each enrollment category to obtain projections by control of institution.

For each category by sex, enrollment level, and type and control of institution, graduate enrollment was projected as a percent of postbaccalaureate enrollment. Actual rates for 2007 and projections for 2008 through 2018 are shown in table A-11. The projected rates in table A-11 were then applied to projections of postbaccalaureate enrollment to obtain graduate and first-professional enrollment projections by sex, attendance status, and type and control of institution.

Full-Time-Equivalent Enrollment, by Type and Control of Institution and by Level Enrolled

The fourth stage of EDMOD projects full-time-equivalent enrollment, by type and control of institution and by level enrolled. The full-time-equivalent enrollment measures enrollment as if students were enrolled full time for one academic year, and equals the sum of full-time enrollment and full-time-equivalent of part-time enrollment. The full-time-equivalent of part-time enrollment was estimated as a percentage of part-time enrollment. In EDMOD, the full-time-equivalent of part-time enrollment was calculated using different percentages for enrollment category by level enrolled and by type and control of institution. Actual percents for 2007 and projections for 2008 and 2018 are shown in table A-12.

These projected percents were applied to part-time projections of enrollment by level enrolled and by type and control of institution from the third stage of EDMOD. These equivalent of part-time projections were added to projections of full-time enrollment (from the previous stage) to obtain projections of full-time-equivalent enrollment.

College Enrollment, by Sex, Attendance Status, Age Group, and Race/Ethnicity

The fifth stage of EDMOD projects enrollments in degree-granting institutions by age, sex, attendance status, and race/ethnicity. The race/ethnicity groups projected include the following: White; Black; Hispanic; Asian or Pacific Islander; American Indian/Alaska Native; and Non-resident alien. (See Glossary for definition of race/ethnicity categories.) Enrollment projections are based on projected enrollment rates by age, sex, attendance status, and race/ethnicity where the enrollment rate for a given population for a certain level of education is the number of people in that population enrolled at that level of education divided by the total number of people in that population. With the exception of American Indian/Alaska Native and Non-resident alien, all race/ethnicity groups were projected by taking into account the most recent trends, as well as the effects of economic conditions and demographic changes. Due to the nature of the historical data, American Indian/Alaska Native enrollments were projected using single exponential smoothing and Non-resident alien enrollments were projected using patterns in recent historical growth.

Enrollments by sex, race/ethnicity and age from the U.S. Census Bureau were adjusted to NCES totals by sex and race/ethnicity to compute rates for 1981 through 2007. As with the first stage of EDMOD, the fifth stage consists of age-specific enrollment models for each sex-race/ethnicity group in which enrollment rates are projected and applied to age-specific population projections by sex and race/ethnicity from the U.S. Census Bureau. The final set of projected rates by age, sex, attendance status, and race/ethnicity were controlled to the stage one enrollment rates by age, sex, and attendance status to ensure consistency across stages. Specifically, the most detailed levels of enrollment data (by age, sex, enrollment status, and race/ethnicity) were iteratively changed using proportions that are based on more highly aggregated NCES enrollment numbers to ensure that the sums across these most detailed levels of enrollment data equal the more highly aggregated NCES enrollment numbers that do not include age.

Stage five consists of 16 individual pooled time series models—one for each attendance status - sex - race/ethnicity combination—that are each pooled across age. As with the stage one postsecondary level projections, projections of full-time and part-time college enrollments by race/ethnicity were considered only for ages 16 and over. Within each model, college enrollment rates were projected by individual ages 16 through 24 and for the age groups 25 to 29, 30 to 34, and 35 years and over. Tables A-14 through A-21 show the estimated equations used to project the enrollments for each racial/ethnic and sex category.

Accuracy of Projections

An analysis of projection errors from the past 25 editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for lead times of 1, 2, 5, and 10 years out for projections of public school

enrollment in grades PK–12 were 0.3, 0.6, 1.3, and 2.3 percent, respectively. For the 1-year-out prediction, this means that one would expect the projection to be within 0.3 percent of the actual value, on the average. For projections of public school enrollment in grades PK–8, the MAPEs for lead times of 1, 2, 5, and 10 years out were 0.4, 0.6, 1.4, and 3.1 percent, respectively, while those for projections of public school enrollment in grades 9–12 were 0.4, 0.7, 1.4, and 2.2 percent for the same lead times.

For projections of total enrollment in degree-granting institutions, an analysis of projection errors based on the past 10 editions of *Projections of Education Statistics* indicates that the MAPEs for lead times of 1, 2, 5, and 10 years were 1.3, 2.2, 4.6, and 10.4 percent, respectively. For the 1-year-out prediction, this means that one would expect the projection to be within 1.3 percent of the actual value, on the average. For more information on MAPEs, see table A-2, page 88.

Basic Methodology

The notation and equations that follow describe the basic models used to project public elementary and secondary enrollment (the grade progression method).[1]

Public Elementary and Secondary Enrollment

Let:

i = Subscript denoting age

j = Subscript denoting grade

t = Subscript denoting time

N_t = Enrollment at the nursery level

K_t = Enrollment at the kindergarten level

G_{jt} = Enrollment in grade j

G_{1t} = Enrollment in grade 1

E_t = Enrollment in elementary special and ungraded programs

S_t = Enrollment in secondary special and ungraded programs

P_{it} = Population age i

RN_t = Enrollment rate for nursery

RK_t = Enrollment rate for kindergarten

RG_{1t} = Enrollment rate for grade 1

RE_t = Enrollment rate for elementary special and ungraded programs

RS_t = Enrollment rate for secondary special and ungraded programs

EG_t = Total enrollment in elementary grades (K–8)

SG_t = Total enrollment in secondary grades (9–12)

R_{jt} = Progression rate for grade j: the proportion that enrollment in grade j in year t is of enrollment in grade j - 1 in year t-1.

Then:

$$EG_t = N_t + K_t + \sum_{j=1}^{8} G_{jt}$$

$$SG_t = S_t + \sum_{j=9}^{12} G_{jt}$$

where:

$$N_t = RN_t\left(P_{5t}\right)$$

$$K_t = RK_t\left(P_{5t}\right)$$

$$G_{jt} = R_{jt}\left(G_{j-1,t-1}\right)$$

[1]In the previous three editions of this report, there was an inconsistency between the methodological description and the actual methodology used to produce the projections of enrollment at the nursery and kindergarten levels. Historically, the nursery enrollment counts had been underreported by states. Due to this problem, a single parameter was used for the enrollment rate at the nursery and kindergarten levels. Some years ago there was an improvement in the source data. Hence, beginning with the *Projections of Education Statistics to 2015*, there was a change in the methodology from a single parameter to two parameters (nursery and kindergarten separate); however, the methodology section had not reflected this change. No changes have been detected in the projections due to this change in methodology.

$$E_t = RE_t\left(\sum_{i=5}^{13} P_{it}\right)$$

$$G_{1t} = RG_{it}\left(P_{6t}\right)$$

$$S_t = RS_t\left(\sum_{i=14}^{17} P_{it}\right)$$

Enrollment in Degree-Granting Institutions

For degree-granting institutions, projections were computed separately by sex and attendance status of student. The notation and equations are:

Let:

i = Subscript denoting age except:

i = 25: ages 25–29

i = 26: ages 30–34

i = 27: ages 35 and over for enrollment (35–44 for population)

t = Subscript denoting year

j = Subscript denoting sex

k = Subscript denoting attendance status

E_{ijkt} = Enrollment of students age i by sex and attendance status

P_{ijt} = Population age i by sex

R_{ijkt} = Enrollment rate for students age i by sex and attendance status

T_{ijkt} = Total enrollment for particular subset of students: full-time men, full-time women, part-time men, part-time women

Then:

$$T_{ijkt} = \sum_{i=16}^{27} E_{ijkt}$$

where:

$$E_{ijkt} = R_{ijkt}\left(P_{ijt}\right)$$

Enrollment in Degree-Granting Institutions by Race/Ethnicity

Projections for degree-granting institutions by sex and attendance status of student were further disaggregated by race/ethnicity. The notation and equations are:

Let:

i = Subscript denoting age except:

i = 25: ages 25–29

i = 26: ages 30–34

i = 27: ages 35 and over for enrollment (35–44 for population)

t = Subscript denoting year

j = Subscript denoting sex

k = Subscript denoting attendance status

l = Subscript denoting race/ethnicity

E_{ijklt} = Enrollment of students age i by sex, attendance status, and race/ethnicity

P_{ijlt} = Population age i by sex and race/ethnicity

R_{ijklt} = Enrollment rate for students age i by sex, attendance status, and race/ethnicity

T_{ijklt} = Total enrollment for a particular subset of students by race/ethnicity: full-time men, full-time women, part-time men, part-time women

Then:

$$T_{ijklt} = \sum_{i=16}^{27} E_{ijklt}$$

where:

$$E_{iiklt} = R_{iiklt}\left(P_{iilt}\right)$$

First-time Freshmen Enrollment in Degree-Granting Institutions

Projections of first-time freshman enrollment in degree-granting institutions were derived in the following manner. From 1975 to 2007, the ratio of first-time freshman enrollment to undergraduate enrollment was calculated for males and females. These ratios were projected using single exponential smoothing with a smoothing constant of $\alpha = 0.4$, yielding a constant value over the projection period. This constant value was then applied to projections of undergraduate enrollment by sex to yield projections of first-time freshman enrollment. This method assumes that the future pattern in the trend of first-time freshman enrollment will be the same as that for undergraduate enrollment.

Private School Enrollment

This edition is the seventh report that projected trends in elementary and secondary enrollment by grade level in private schools using the grade progression rate method.

Private school enrollment data from the biennial NCES Private School Universe Survey (PSS), which is collected in the fall of odd numbered years, were used to develop these projections. Private school enrollment data for alternate years without a PSS collection were estimated using data from the PSS. In addition, population estimates for 1989 to 2007 and population projections for 2008 to 2018 from the U.S. Census Bureau were used to develop the projections.

Prekindergarten, kindergarten, and first-grade enrollments are based on projected enrollment rates of 5- and 6-year-olds. These projected enrollment rates are applied to population projections of 5- and 6-year-olds developed by the U.S. Census Bureau.

Enrollments in grades 2 through 12 are based on projected grade progression rates. The grade progression rate method starts with 6-year-olds entering first grade and then follows their progress through private elementary and secondary schools. The method requires calculating the ratio of the number of children in one year who "survive" the year and enroll in the next grade the following year. These projected rates are then applied to the current enrollment by grade to yield grade-by-grade projections for future years.

Enrollment rates of 5- and 6-year-olds and grade progression rates are projected using single exponential smoothing. Elementary ungraded and secondary ungraded are projected to remain constant at their 2006 levels. To obtain projections of total enrollment, projections of enrollments for the individual grades (prekindergarten through 12) and ungraded were summed.

The grade progression rate method assumes that past trends in factors affecting private school enrollments will continue over the projection period. This assumption implies that all factors influencing enrollments will display future patterns consistent with past patterns. This method implicitly includes the net effect of such factors as migration, dropouts, deaths, nonpromotion, and transfers to and from public schools.

Mean absolute percentage errors (MAPEs) of the projection accuracy of private school enrollment were not developed because this projection method has been developed only recently and there is not yet enough historical information to evaluate long-term model performance. As additional data become available, MAPEs can then be calculated.

State Level

This edition contains projected trends in public elementary and secondary enrollment by grade level from 2007 to the year 2018 for each of the 50 states and the District of Columbia.

Public school enrollment data from the NCES Common Core of Data survey for 1980 to 2006 were used to develop these projections. This survey does not collect enrollment data for private schools.

Population estimates for 1980 to 2007 and population projections for 2008 to 2018 from the U.S. Census Bureau were used to develop the enrollment projections. The set of population projections used in this year's *Projections of Education Statistics to 2018* are the Census Bureau's set of interim state-level population projections (April 2005). This set of state-level projections corresponds to the Census Bureau's interim national population projections, which were released earlier in May 2004.

Table A-13 describes the number of years, projection methods, and smoothing constants used to project enrollments in public schools. Also included in table A-13 is the procedure for choosing the different smoothing constants for the time-series models. All jurisdictions were projected using the same single exponential smoothing parameter.

As with the national enrollment projections, projections of enrollment in public elementary and secondary schools by state primarily used the grade progression rate method. As with the national projections, prekindergarten, kindergarten, and first-grade enrollments are based on projected enrollment rates of 5- and 6-year-olds. These projected enrollment rates are applied to population projections of 5- and 6-year-olds developed by the U.S. Census Bureau.

Enrollments in grades 2 through 12 are based on projected grade progression rates in each state. These projected rates are then applied to the current enrollment by grade to yield grade-by-grade projections for future years. Enrollment rates of 5- and 6-year-olds and grade progression rates are projected using single exponential smoothing. Elementary ungraded and secondary ungraded are projected to remain constant at their 2006 levels. To obtain projections of total enrollment, projections of enrollments for the individual grades (prekindergarten through 12) and ungraded were summed.

The grade progression rate method assumes that past trends in factors affecting public school enrollments will continue over the projection period. This assumption implies that all factors influencing enrollments will display future patterns consistent with past patterns. Therefore, this method has limitations when applied to states with unanticipated changes in migration rates. This method implicitly includes the net effect of such factors as migration, dropouts, deaths, nonpromotion, and transfers to and from private schools.

Adjustment to National Projections

The projections of state enrollments were adjusted to sum to the national projections of public school PK–12, PK–8, and 9–12 enrollments shown in table 1. This was done through the use of ratio adjustments in which all the states' enrollment projections for each grade level were multiplied by the ratio of the national enrollment projection for that grade level to the sum of the state enrollment projections for that grade level. For details on the methods used to develop the national projections for this statistic, see the section on national enrollment projections in this appendix.

Regional Projections

For each region, the enrollment projections equaled the sum of enrollment projections within its region.

Table A-3. Actual and middle alternative projected numbers for college enrollment rates, by sex, attendance status, and age: Fall 2007, 2013, and 2018

Sex, attendance status, and age	Actual 2007	Projected	
		2013	2018
Men			
Full-time			
16 years old	0.2	0.3	0.3
17 years old	2.1	2.1	2.2
18 years old	28.4	30.5	32.1
19 years old	42.0	39.8	41.5
20 years old	32.4	34.9	36.5
21 years old	29.3	32.2	33.7
22 years old	19.4	22.1	23.3
23 years old	13.9	14.1	15.0
24 years old	12.3	11.0	11.7
25 to 29 years old	5.4	5.4	5.8
30 to 34 years old	2.3	2.5	2.7
35 to 44 years old	1.3	1.4	1.5
Part-time			
16 years old	#	0.1	0.1
17 years old	0.7	0.9	0.9
18 years old	6.5	5.6	5.5
19 years old	6.1	6.5	6.4
20 years old	8.3	7.5	7.4
21 years old	5.0	6.5	6.5
22 years old	9.5	9.6	9.6
23 years old	7.6	7.7	7.7
24 years old	7.5	7.6	7.7
25 to 29 years old	4.0	4.6	4.6
30 to 34 years old	4.3	4.3	4.4
35 to 44 years old	3.7	3.8	3.8
Women			
Full-time			
16 years old	0.5	0.5	0.5
17 years old	3.8	1.7	2.1
18 years old	44.3	44.7	49.6
19 years old	45.3	51.1	55.8
20 years old	43.9	47.1	51.7
21 years old	38.5	41.1	45.7
22 years old	22.5	25.5	29.3
23 years old	18.1	19.1	22.2
24 years old	14.5	14.5	16.3
25 to 29 years old	6.6	7.3	7.6
30 to 34 years old	3.3	3.7	4.0
35 to 44 years old	2.3	2.8	3.0
Part-time			
16 years old	0.2	0.2	0.2
17 years old	0.2	0.8	0.8
18 years old	5.3	5.5	5.4
19 years old	10.6	10.1	9.8
20 years old	12.9	11.9	11.6
21 years old	9.3	10.1	10.0
22 years old	10.7	10.9	11.1
23 years old	11.9	11.9	12.3
24 years old	11.0	11.5	12.1
25 to 29 years old	8.0	8.2	8.8
30 to 34 years old	4.7	5.1	5.5
35 to 44 years old	6.7	7.1	7.7

Rounds to zero.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Spring 2008; Enrollment in Degree-Granting Institutions Model, 1980–2007; and U.S. Department of Commerce, Census Bureau, Current Population Reports, "Social and Economic Characteristics of Students," 2007. (This table was prepared November 2008.)

Table A-4. Estimated equations and model statistics for full-time and part-time college enrollment rates of men

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Intercept term for 17-year-olds	-5.92	0.268	-22.12	0.99	2.2*
Intercept term for 18-year-olds	-3.24	0.208	-15.56		
Intercept term for 19-year-olds	-2.98	0.177	-16.83		
Intercept term for 20-year-olds	-3.14	0.179	-17.60		
Intercept term for 21-year-olds	-3.26	0.181	-17.99		
Intercept term for 22-year-olds	-3.76	0.181	-20.82		
Intercept term for 23-year-olds	-4.18	0.178	-23.47		
Intercept term for 24-year-olds	-4.47	0.188	-23.82		
Intercept term for 25- to 29-year-olds	-5.27	0.201	-26.25		
Intercept term for 30- to 34-year-olds	-6.22	0.198	-31.41		
Intercept term for 35- to 44-year-olds	-6.84	0.192	-35.69		
Log of three-period weighted average of per capita disposable income in 2000 dollars, using the present period and the previous two periods	0.45	0.033	13.38		
Log unemployment rate for women	0.10	0.038	2.70		
Autocorrelation coefficient for 17-year-olds	0.73	0.090	8.14		
Autocorrelation coefficient for 18-year-olds	0.82	0.069	11.89		
Autocorrelation coefficient for 19-year-olds	0.30	0.147	2.03		
Autocorrelation coefficient for 20-year-olds	0.37	0.120	3.07		
Autocorrelation coefficient for 21-year-olds	0.49	0.130	3.74		
Autocorrelation coefficient for 22-year-olds	0.40	0.141	2.82		
Autocorrelation coefficient for 23-year-olds	0.10	0.132	0.79		
Autocorrelation coefficient for 24-year-olds	0.64	0.102	6.24		
Autocorrelation coefficient for 25- to 29-year-olds	0.78	0.073	10.67		
Autocorrelation coefficient for 30- to 34-year-olds	0.65	0.099	6.56		
Autocorrelation coefficient for 35- to 44-year-olds	0.42	0.100	4.19		
Part-time					
Intercept term for 17-year-olds	-6.52	0.785	-8.30	0.89	1.7*
Intercept term for 18-year-olds	-3.01	0.116	-25.85		
Intercept term for 19-year-olds	-2.74	0.126	-21.68		
Intercept term for 20-year-olds	-2.64	0.117	-22.51		
Intercept term for 21-year-olds	-2.76	0.118	-23.45		
Intercept term for 22-year-olds	-2.63	0.118	-22.30		
Intercept term for 23-year-olds	-2.90	0.115	-25.17		
Intercept term for 24-year-olds	-3.11	0.120	-25.81		
Intercept term for 25- to 29-year-olds	-3.19	0.115	-27.80		
Intercept term for 30- to 34-year-olds	-3.58	0.116	-30.87		
Intercept term for 35- to 44-year-olds	-3.66	0.112	-32.66		
Log of three-period weighted average of per capita disposable income in 2000 dollars, using the present period and the previous two periods	0.06	0.020	3.07		

* p<.05.

R^2 = Coefficient of determination.

D.W. statistic = Durbin-Watson statistic, a test for autocorrelation among regression residuals. For more details see Johnson, J., and Dinardo, J. (1996). *Econometric Methods*. New York: McGraw-Hill.

NOTE: The regression method used to estimate the full-time equation was the pooled seemingly unrelated regression method with a first-order autocorrelation correction. The regression method used to estimate the part-time equation was the pooled seemingly unrelated regression method. The time period used to estimate the full-time equation is from 1973 to 2007 and the number of observations is 385. The time period used to estimate the part-time equation is from 1975 to 2007 and the number of observations is 363. For additional information, see Intriligator, M.D. (1978). *Econometric Models, Techniques, & Applications*. New Jersey: Prentice-Hall, Inc., pp. 165-173.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model, 1973–2007. (This table was prepared February 2009.)

Table A-5. Estimated equations and model statistics for full-time and part-time college enrollment rates of women

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Intercept term for 17-year-olds	-11.15	3.706	-3.01	0.99	2.39*
Intercept term for 18-year-olds	-6.98	0.279	-25.03		
Intercept term for 19-year-olds	-6.79	0.210	-32.37		
Intercept term for 20-year-olds	-6.96	0.204	-34.13		
Intercept term for 21-year-olds	-7.18	0.203	-35.35		
Intercept term for 22-year-olds	-7.92	0.222	-35.63		
Intercept term for 23-year-olds	-8.34	0.213	-39.09		
Intercept term for 24-year-olds	-8.62	0.205	-42.04		
Intercept term for 25- to 29-year-olds	-9.34	0.208	-44.94		
Intercept term for 30- to 34-year-olds	-10.05	0.205	-48.98		
Intercept term for 35- to 44-year-olds	-10.30	0.202	-50.93		
Log of three-period weighted average of per capita disposable income in 2000 dollars, using the present period and the previous two periods	1.22	0.047	26.05		
Log unemployment rate for women	0.23	0.061	3.73		
Autocorrelation coefficient for 17-year-olds	0.97	0.051	19.24		
Autocorrelation coefficient for 18-year-olds	0.87	0.067	12.95		
Autocorrelation coefficient for 19-year-olds	0.39	0.134	2.90		
Autocorrelation coefficient for 20-year-olds	0.39	0.137	2.87		
Autocorrelation coefficient for 21-year-olds	0.35	0.128	2.73		
Autocorrelation coefficient for 22-year-olds	0.73	0.075	9.67		
Autocorrelation coefficient for 23-year-olds	0.65	0.091	7.15		
Autocorrelation coefficient for 24-year-olds	0.36	0.110	3.24		
Autocorrelation coefficient for 25- to 29-year-olds	0.65	0.084	7.67		
Autocorrelation coefficient for 30- to 34-year-olds	0.45	0.127	3.55		
Autocorrelation coefficient for 35- to 44-year-olds	0.07	0.120	0.56		
Part-time					
Intercept term for 17-year-olds	-7.37	0.480	-15.35	0.90	2.34*
Intercept term for 18-year-olds	-4.57	0.290	-15.75		
Intercept term for 19-year-olds	-4.04	0.533	-7.57		
Intercept term for 20-year-olds	-4.26	0.321	-13.28		
Intercept term for 21-year-olds	-4.40	0.326	-13.51		
Intercept term for 22-year-olds	-4.36	0.288	-15.12		
Intercept term for 23-year-olds	-4.61	0.297	-15.53		
Intercept term for 24-year-olds	-4.72	0.324	-14.57		
Intercept term for 25- to 29-year-olds	-4.93	0.286	-17.24		
Intercept term for 30- to 34-year-olds	-5.18	0.300	-17.30		
Intercept term for 35- to 44-year-olds	-4.94	0.288	-17.17		
Log of three-period weighted average of per capita disposable income in 2000 dollars, using the present period and the previous two periods	0.40	0.051	7.97		
Autocorrelation coefficient for 17-year-olds	0.42	0.124	3.40		
Autocorrelation coefficient for 18-year-olds	0.43	0.168	2.54		
Autocorrelation coefficient for 19-year-olds	0.90	0.073	12.29		
Autocorrelation coefficient for 20-year-olds	0.66	0.128	5.18		
Autocorrelation coefficient for 21-year-olds	0.76	0.080	9.61		
Autocorrelation coefficient for 22-year-olds	0.36	0.147	2.47		
Autocorrelation coefficient for 23-year-olds	0.54	0.126	4.29		
Autocorrelation coefficient for 24-year-olds	0.78	0.097	7.99		
Autocorrelation coefficient for 25- to 29-year-olds	0.51	0.123	4.16		
Autocorrelation coefficient for 30- to 34-year-olds	0.82	0.080	10.24		
Autocorrelation coefficient for 35- to 44-year-olds	0.62	0.085	7.25		

* $p<.05$.

R^2 = Coefficient of determination.

D.W. statistic = Durbin-Watson statistic, a test for autocorrelation among regression residuals. For more details see Johnson, J., and Dinardo, J. (1996). *Econometric Methods*. New York: McGraw-Hill.

NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method with a first-order autocorrelation correction. The time period used to estimate the equations is from 1973 to 2007. The number of observations is 385. For additional information, see Intriligator, M.D. (1978). *Econometric Models, Techniques, & Applications*. New Jersey: Prentice-Hall, Inc., pp. 165-173.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model, 1980–2007. (This table was prepared February 2009.)

Table A-6. Actual and projected numbers for national enrollment rates in public schools, by grade level: Fall 2006, and 2007 through 2018

Grade level	Actual 2006	Projected 2007 through 2018
Prekindergarten	26.4	26.4
Kindergarten	89.1	89.1
Grade 1	95.7	95.7
Elementary ungraded	0.5	0.5
Secondary ungraded	0.5	0.5

NOTE: The base age for each grade level is as follows: kindergarten, 5 years old; grade 1, 6 years old; elementary ungraded, 5- to 13-years-olds; and secondary ungraded, 14- to 17-years-olds. Projected values for 2007 through 2018 were held constant at the actual values for 2006.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2006–07; and National Elementary and Secondary Enrollment Model, 1972–2006. (This table was prepared November 2008.)

Table A-7. Actual and projected numbers for national public school grade progression rates: Fall 2006, and 2007 through 2018

Grade	Actual 2006	Projected 2007 through 2018
1 to 2	98.6	98.6
2 to 3	100.6	100.7
3 to 4	100.0	100.0
4 to 5	100.7	100.6
5 to 6	100.7	101.1
6 to 7	101.2	101.3
7 to 8	99.7	99.6
8 to 9	112.0	112.3
9 to 10	90.5	90.1
10 to 11	91.8	91.7
11 to 12	94.8	94.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2006–07; and National Elementary and Secondary Enrollment Model, 1972–2006. (This table was prepared November 2008.)

Table A-8. Actual and projected numbers for the percentage distribution of full-time students at degree-granting institutions, by sex and age group: Fall 2007, and 2008 through 2018

	Men		Women	
Age and institution type	Actual 2007	Projected 2008 through 2018	Actual 2007	Projected 2008 through 2018
18 and 19 years old				
Undergraduate, 4-year institutions	65.9	65.3	68.7	68.4
Undergraduate, 2-year institutions	33.7	34.4	31.1	31.3
Postbaccalaureate, 4-year institutions	0.4	0.3	0.2	0.3
20 and 21 years old				
Undergraduate, 4-year institutions	80.2	78.1	79.4	79.1
Undergraduate, 2-year institutions	18.3	20.0	19.0	19.0
Postbaccalaureate, 4-year institutions	1.5	1.9	1.6	2.0
22 to 24 years old				
Undergraduate, 4-year institutions	61.4	64.9	60.2	60.3
Undergraduate, 2-year institutions	18.6	16.8	17.3	17.2
Postbaccalaureate, 4-year institutions	20.0	18.3	22.5	22.5
25 to 29 years old				
Undergraduate, 4-year institutions	47.5	43.6	40.8	40.7
Undergraduate, 2-year institutions	17.3	17.8	22.1	23.5
Postbaccalaureate, 4-year institutions	35.3	38.7	37.0	35.8
30 to 34 years old				
Undergraduate, 4-year institutions	35.2	34.9	40.0	38.9
Undergraduate, 2-year institutions	24.3	21.3	28.8	31.7
Postbaccalaureate, 4-year institutions	40.5	43.8	31.3	29.4
35 years and over				
Undergraduate, 4-year institutions	39.4	40.3	41.7	40.9
Undergraduate, 2-year institutions	23.2	25.9	26.8	30.4
Postbaccalaureate, 4-year institutions	37.5	33.8	31.5	28.7

NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Spring 2008; Enrollment in Degree-Granting Institutions Model, 1973–2007; and U.S. Department of Commerce, Census Bureau, Current Population Reports, "Social and Economic Characteristics of Students," 2007. (This table was prepared November 2008.)

Table A-9. Actual and projected numbers for the percentage distribution of part-time students at degree-granting institutions, by sex and age group: Fall 2007, and 2008 through 2018

	Men		Women	
Institution type and age	**Actual 2007**	**Projected 2008 through 2018**	**Actual 2007**	**Projected 2008 through 2018**
18 and 19 years old				
Undergraduate, 4-year institutions	20.9	20.8	26.3	22.4
Undergraduate, 2-year institutions	79.2	79.2	73.6	77.4
Postbaccalaureate, 4-year institutions	#	#	0.1	0.2
20 and 21 years old				
Undergraduate, 4-year institutions	38.0	31.3	29.7	32.2
Undergraduate, 2-year institutions	61.3	68.1	70.2	67.1
Postbaccalaureate, 4-year institutions	0.8	0.6	0.1	0.6
22 to 24 years old				
Undergraduate, 4-year institutions	30.0	32.5	26.0	27.6
Undergraduate, 2-year institutions	64.6	59.5	58.2	59.1
Postbaccalaureate, 4-year institutions	5.4	8.0	15.8	13.4
25 to 29 years old				
Undergraduate, 4-year institutions	23.1	26.1	26.2	24.2
Undergraduate, 2-year institutions	53.1	52.7	50.9	52.7
Postbaccalaureate, 4-year institutions	23.7	21.1	22.9	23.2
30 to 34 years old				
Undergraduate, 4-year institutions	19.8	22.1	25.0	24.0
Undergraduate, 2-year institutions	55.6	50.5	50.9	51.8
Postbaccalaureate, 4-year institutions	24.6	27.4	24.1	24.2
35 years and over				
Undergraduate, 4-year institutions	28.9	24.6	24.7	23.8
Undergraduate, 2-year institutions	44.2	48.7	50.9	51.7
Postbaccalaureate, 4-year institutions	26.9	26.8	24.4	24.5

Rounds to zero.
NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Spring 2008; Enrollment in Degree-Granting Institutions Model, 1973–2007; and U.S. Department of Commerce, Census Bureau, Current Population Reports, "Social and Economic Characteristics of Students," 2007. (This table was prepared January 2009.)

Table A-10. Actual and projected numbers for enrollment in public degree-granting institutions as a percent of total enrollment, by sex, attendance status, level enrolled, and type of institution: Fall 2007, and 2008 through 2018

	Men		Women	
Enrollment category	Actual 2007	Projected 2008 through 2018	Actual 2007	Projected 2008 through 2018
Full-time, undergraduate, 4-year institutions	65.6	65.8	62.1	63.0
Part-time, undergraduate, 4-year institutions	70.6	70.5	67.2	67.5
Full-time, undergraduate, 2-year institutions	92.3	91.8	89.4	89.6
Part-time, undergraduate, 2-year institutions	99.2	99.2	98.7	98.7
Full-time, postbaccalaureate, 4-year institutions	49.6	49.6	47.5	47.5
Part-time, postbaccalaureate, 4-year institutions	53.3	53.3	55.1	55.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This table was prepared January 2009.)

Table A-11. Actual and projected numbers for graduate enrollment in degree-granting institutions as a percent of total postbaccalaureate enrollment, by sex, attendance status, and control of institution: Fall 2007, and 2008 through 2018

	Men		Women	
Enrollment category	Actual 2007	Projected 2008 through 2018	Actual 2007	Projected 2008 through 2018
Full-time, 4-year, public	79.2	79.2	81.2	81.2
Part-time, 4-year, public	98.7	98.7	99.2	99.2
Full-time, 4-year, private	70.5	70.5	79.4	79.4
Part-time, 4-year, private	92.7	92.7	96.4	96.4

NOTE: Projected values for 2008 through 2018 were held constant at the actual values for 2007.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This table was prepared January 2009.)

Table A-12. Actual and projected numbers for full-time-equivalent enrollment of part-time students in degree-granting institutions as a percent of part-time enrollment, by type and control of institution, and level enrolled: Fall 2007, and 2008 through 2018

Enrollment category	Actual 2007	Projected 2008 through 2018
Public, 4-year, undergraduate	40.4	40.4
Public, 2-year, undergraduate	33.6	33.6
Private, 4-year, undergraduate	39.3	39.3
Private, 2-year, undergraduate	39.7	39.7
Public, 4-year, graduate	36.2	36.2
Private, 4-year, graduate	38.2	38.2
Public, 4-year, first-professional	60.0	59.9
Private, 4-year, first-professional	54.6	54.6

NOTE: Projected values for 2008 through 2018 were held constant at the actual values for 2007.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Spring 2008; and Enrollment in Degree-Granting Institutions Model, 1973–2007. (This table was prepared January 2009.)

Table A-13. Number of years, projection methods, and smoothing constants used to project state-level public school enrollments and high school graduates

Projected state variable	Number of years (1972–2006)	Projection method	Smoothing constant	Basis for smoothing constant
Grade progression rates	34	Single exponential smoothing	0.4	Empirical research
Graduates divided by grade 12 enrollment	34	Single exponential smoothing	0.4	Empirical research

SOURCE: U.S. Department of Education, National Center for Education Statistics, State Public Elementary and Secondary Enrollment Model, 1972–2006; and State Public High School Graduates Model, 1972–73 through 2005–06. (This table was prepared November 2008.)

Table A-14. Estimated equations and model statistics for full-time and part-time college enrollment rates of White men

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Intercept term for 17-year-olds	-7.99	0.163	-48.93	0.99	1.67*
Intercept term for 18-year-olds	-5.02	0.134	-37.55		
Intercept term for 19-year-olds	-4.78	0.130	-36.65		
Intercept term for 20-year-olds	-5.00	0.131	-38.28		
Intercept term for 21-year-olds	-5.13	0.131	-39.25		
Intercept term for 22-year-olds	-5.64	0.133	-42.48		
Intercept term for 23-year-olds	-6.15	0.131	-46.98		
Intercept term for 24-year-olds	-6.52	0.132	-49.20		
Intercept term for 25- to 29-year-olds	-7.43	0.131	-56.74		
Intercept term for 30- to 34-year-olds	-8.48	0.134	-63.14		
Intercept term for 35- to 44-year-olds	-9.10	0.137	-66.40		
Log of White per capita disposable income in current dollars	0.23	0.007	33.78		
Part-time					
Intercept term for 17-year-olds	-6.07	0.870	-6.97	0.99	1.74*
Intercept term for 18-year-olds	-1.67	0.125	-13.38		
Intercept term for 19-year-olds	-1.38	0.135	-10.20		
Intercept term for 20-year-olds	-1.31	0.122	-10.77		
Intercept term for 21-year-olds	-1.44	0.125	-11.49		
Intercept term for 22-year-olds	-1.37	0.125	-10.88		
Intercept term for 23-year-olds	-1.62	0.120	-13.53		
Intercept term for 24-year-olds	-1.82	0.123	-14.81		
Intercept term for 25- to 29-year-olds	-1.93	0.118	-16.29		
Intercept term for 30- to 34-year-olds	-2.36	0.121	-19.54		
Intercept term for 35- to 44-year-olds	-2.41	0.116	-20.88		
Log of real total private compensation employment cost index	1.15	0.150	7.66		

* p<.05.

R^2 = Coefficient of determination.

D.W. statistic = Durbin-Watson statistic, a test for autocorrelation among regression residuals. For more details see Johnson, J., and Dinardo, J. (1996). *Econometric Methods*. New York: McGraw-Hill.

NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1980 to 2007. The number of observations is 308. For additional information, see Intriligator, M.D. (1978). *Econometric Models, Techniques, & Applications*. New Jersey: Prentice-Hall, Inc., pp. 165-173. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2007. (This table was prepared February 2009.)

Table A-15. Estimated equations and model statistics for full-time and part-time college enrollment rates of White women

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Intercept term for 17-year-olds	-12.67	0.265	-47.90	0.99	1.84*
Intercept term for 18-year-olds	-9.76	0.245	-39.85		
Intercept term for 19-year-olds	-9.64	0.243	-39.60		
Intercept term for 20-year-olds	-9.90	0.244	-40.62		
Intercept term for 21-year-olds	-10.16	0.244	-41.68		
Intercept term for 22-year-olds	-10.95	0.246	-44.47		
Intercept term for 23-year-olds	-11.44	0.245	-46.69		
Intercept term for 24-year-olds	-11.74	0.244	-48.10		
Intercept term for 25- to 29-year-olds	-12.65	0.244	-51.85		
Intercept term for 30- to 34-year-olds	-13.35	0.244	-54.68		
Intercept term for 35- to 44-year-olds	-13.54	0.244	-55.52		
Log of White per capita disposable income in current dollars	0.49	0.013	39.19		
Part-time					
Intercept term for 17-year-olds	-8.77	0.415	-21.15	0.77	1.79*
Intercept term for 18-year-olds	-4.85	0.258	-18.79		
Intercept term for 19-year-olds	-4.53	0.262	-17.26		
Intercept term for 20-year-olds	-4.49	0.259	-17.31		
Intercept term for 21-year-olds	-4.70	0.259	-18.13		
Intercept term for 22-year-olds	-4.63	0.257	-18.06		
Intercept term for 23-year-olds	-4.91	0.257	-19.10		
Intercept term for 24-year-olds	-5.07	0.258	-19.64		
Intercept term for 25- to 29-year-olds	-5.20	0.254	-20.46		
Intercept term for 30- to 34-year-olds	-5.53	0.256	-21.60		
Intercept term for 35- to 44-year-olds	-5.22	0.254	-20.52		
Log of White per capita disposable income in current dollars	0.14	0.013	10.35		

* p<.05.

R^2 = Coefficient of determination.

D.W. statistic = Durbin-Watson statistic, a test for autocorrelation among regression residuals. For more details see Johnson, J., and Dinardo, J. (1996). *Econometric Methods*. New York: McGraw-Hill.

NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1980 to 2007. The number of observations is 308. For additional information, see Intriligator, M.D. (1978). *Econometric Models, Techniques, & Applications*. New Jersey: Prentice-Hall, Inc., pp. 165-173. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2007. (This table was prepared February 2009.)

Table A-16. Estimated equations and model statistics for full-time and part-time college enrollment rates of Black men

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Intercept term for 17-year-olds	-9.54	0.430	-22.17	0.97	1.93*
Intercept term for 18-year-olds	-7.33	0.423	-17.32		
Intercept term for 19-year-olds	-7.07	0.423	-16.74		
Intercept term for 20-year-olds	-7.18	0.423	-16.97		
Intercept term for 21-year-olds	-7.44	0.423	-17.56		
Intercept term for 22-year-olds	-7.64	0.425	-17.98		
Intercept term for 23-year-olds	-8.09	0.429	-18.85		
Intercept term for 24-year-olds	-8.31	0.425	-19.56		
Intercept term for 25- to 29-year-olds	-9.13	0.426	-21.46		
Intercept term for 30- to 34-year-olds	-9.95	0.432	-23.05		
Intercept term for 35- to 44-year-olds	-10.32	0.428	-24.12		
Log of Black per capita disposable income in current dollars	0.31	0.023	13.51		
Part-time					
Intercept term for 17-year-olds	-11.37	0.918	-12.39	0.55	1.97*
Intercept term for 18-year-olds	-9.12	0.431	-21.18		
Intercept term for 19-year-olds	-8.40	0.414	-20.31		
Intercept term for 20-year-olds	-8.28	0.409	-20.22		
Intercept term for 21-year-olds	-8.28	0.399	-20.72		
Intercept term for 22-year-olds	-8.15	0.415	-19.61		
Intercept term for 23-year-olds	-8.59	0.418	-20.57		
Intercept term for 24-year-olds	-8.63	0.410	-21.03		
Intercept term for 25- to 29-year-olds	-8.65	0.399	-21.66		
Intercept term for 30- to 34-year-olds	-8.84	0.397	-22.26		
Intercept term for 35- to 44-year-olds	-8.92	0.394	-22.62		
Log of Black per capita disposable income in current dollars	0.29	0.021	13.54		

* $p<.05$.

R^2 = Coefficient of determination.

D.W. statistic = Durbin-Watson statistic, a test for autocorrelation among regression residuals. For more details see Johnson, J., and Dinardo, J. (1996). *Econometric Methods*. New York: McGraw-Hill.

NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1980 to 2007. The number of observations is 308. For additional information, see Intriligator, M.D. (1978). *Econometric Models, Techniques, & Applications*. New Jersey: Prentice-Hall, Inc., pp. 165-173. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2007. (This table was prepared February 2009.)

Table A-17. Estimated equations and model statistics for full-time and part-time college enrollment rates of Black women

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Intercept term for 17-year-olds	-14.12	0.623	-22.67	0.97	1.86*
Intercept term for 18-year-olds	-12.03	0.616	-19.52		
Intercept term for 19-year-olds	-11.81	0.616	-19.18		
Intercept term for 20-year-olds	-12.10	0.616	-19.63		
Intercept term for 21-year-olds	-12.21	0.616	-19.84		
Intercept term for 22-year-olds	-12.75	0.616	-20.69		
Intercept term for 23-year-olds	-12.95	0.617	-20.99		
Intercept term for 24-year-olds	-13.21	0.617	-21.41		
Intercept term for 25- to 29-year-olds	-14.12	0.618	-22.85		
Intercept term for 30- to 34-year-olds	-14.59	0.616	-23.69		
Intercept term for 35- to 44-year-olds	-14.97	0.616	-24.28		
Log of Black per capita disposable income in current dollars	0.60	0.033	17.89		
Part-time					
Intercept term for 17-year-olds	-13.76	0.705	-19.53	0.50	1.80*
Intercept term for 18-year-olds	-11.50	0.615	-18.70		
Intercept term for 19-year-olds	-11.26	0.613	-18.37		
Intercept term for 20-year-olds	-11.18	0.613	-18.25		
Intercept term for 21-year-olds	-11.22	0.613	-18.29		
Intercept term for 22-year-olds	-10.97	0.614	-17.87		
Intercept term for 23-year-olds	-11.15	0.614	-18.18		
Intercept term for 24-year-olds	-11.49	0.615	-18.68		
Intercept term for 25- to 29-year-olds	-11.49	0.607	-18.94		
Intercept term for 30- to 34-year-olds	-11.61	0.607	-19.11		
Intercept term for 35- to 44-year-olds	-11.48	0.606	-18.93		
Log of Black per capita disposable income in current dollars	0.47	0.033	14.29		

* p<.05.

R^2 = Coefficient of determination.

D.W. statistic = Durbin-Watson statistic, a test for autocorrelation among regression residuals. For more details see Johnson, J., and Dinardo, J. (1996). *Econometric Methods*. New York: McGraw-Hill.

NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1980 to 2007. The number of observations is 308. For additional information, see Intriligator, M.D. (1978). *Econometric Models, Techniques, & Applications*. New Jersey: Prentice-Hall, Inc., pp. 165-173. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2007. (This table was prepared February 2009.)

Table A-18. Estimated equations and model statistics for full-time and part-time college enrollment rates of Hispanic men

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Intercept term for 17-year-olds	-10.14	0.539	-18.83	0.94	1.95*
Intercept term for 18-year-olds	-8.18	0.530	-15.43		
Intercept term for 19-year-olds	-7.96	0.530	-15.02		
Intercept term for 20-year-olds	-8.19	0.530	-15.46		
Intercept term for 21-year-olds	-8.38	0.533	-15.71		
Intercept term for 22-year-olds	-8.88	0.533	-16.67		
Intercept term for 23-year-olds	-9.12	0.533	-17.12		
Intercept term for 24-year-olds	-9.22	0.532	-17.34		
Intercept term for 25- to 29-year-olds	-10.11	0.533	-18.95		
Intercept term for 30- to 34-year-olds	-10.88	0.533	-20.40		
Intercept term for 35- to 44-year-olds	-11.43	0.539	-21.22		
Log of Hispanic per capita disposable income in current dollars	0.34	0.029	11.71		
Part-time					
Intercept term for 17-year-olds	-10.86	0.949	-11.45	0.62	1.89*
Intercept term for 18-year-olds	-7.97	0.463	-17.21		
Intercept term for 19-year-olds	-7.85	0.470	-16.71		
Intercept term for 20-year-olds	-7.66	0.461	-16.60		
Intercept term for 21-year-olds	-7.73	0.463	-16.70		
Intercept term for 22-year-olds	-7.84	0.462	-16.97		
Intercept term for 23-year-olds	-8.07	0.474	-17.05		
Intercept term for 24-year-olds	-8.26	0.466	-17.73		
Intercept term for 25- to 29-year-olds	-8.42	0.453	-18.59		
Intercept term for 30- to 34-year-olds	-8.85	0.455	-19.43		
Intercept term for 35- to 44-year-olds	-8.88	0.453	-19.61		
Log of Hispanic per capita disposable income in current dollars	0.27	0.025	11.05		

* p<.05.

R^2 = Coefficient of determination.

D.W. statistic = Durbin-Watson statistic, a test for autocorrelation among regression residuals. For more details see Johnson, J., and Dinardo, J. (1996). *Econometric Methods*. New York: McGraw-Hill.

NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1980 to 2007. The number of observations is 308. For additional information, see Intriligator, M.D. (1978). *Econometric Models, Techniques, & Applications*. New Jersey: Prentice-Hall, Inc., pp. 165-173.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2007. (This table was prepared February 2009.)

Table A-19. Estimated equations and model statistics for full-time and part-time college enrollment rates of Hispanic women

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Intercept term for 17-year-olds	-16.64	0.469	-35.49	0.95	1.94*
Intercept term for 18-year-olds	-14.18	0.445	-31.85		
Intercept term for 19-year-olds	-14.08	0.442	-31.83		
Intercept term for 20-year-olds	-14.42	0.444	-32.48		
Intercept term for 21-year-olds	-14.54	0.444	-32.77		
Intercept term for 22-year-olds	-15.20	0.448	-33.94		
Intercept term for 23-year-olds	-15.40	0.445	-34.58		
Intercept term for 24-year-olds	-15.78	0.452	-34.94		
Intercept term for 25- to 29-year-olds	-16.51	0.443	-37.29		
Intercept term for 30- to 34-year-olds	-17.17	0.447	-38.40		
Intercept term for 35- to 44-year-olds	-17.50	0.451	-38.80		
Log of Hispanic per capita disposable income in current dollars	0.70	0.024	29.04		
Part-time					
Intercept term for 17-year-olds	-14.86	0.513	-28.98	0.75	1.97*
Intercept term for 18-year-olds	-12.66	0.397	-31.91		
Intercept term for 19-year-olds	-12.43	0.390	-31.89		
Intercept term for 20-year-olds	-12.60	0.398	-31.64		
Intercept term for 21-year-olds	-12.50	0.397	-31.49		
Intercept term for 22-year-olds	-12.67	0.397	-31.94		
Intercept term for 23-year-olds	-12.69	0.393	-32.31		
Intercept term for 24-year-olds	-13.10	0.401	-32.65		
Intercept term for 25- to 29-year-olds	-13.20	0.384	-34.42		
Intercept term for 30- to 34-year-olds	-13.56	0.384	-35.29		
Intercept term for 35- to 44-year-olds	-13.43	0.382	-35.12		
Log of Hispanic per capita disposable income in current dollars	0.55	0.021	26.62		

* $p<.05$.

R^2 = Coefficient of determination.

D.W. statistic = Durbin-Watson statistic, a test for autocorrelation among regression residuals. For more details see Johnson, J., and Dinardo, J. (1996). *Econometric Methods*. New York: McGraw-Hill.

NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1980 to 2007. The number of observations is 308. For additional information, see Intriligator, M.D. (1978). *Econometric Models, Techniques, & Applications*. New Jersey: Prentice-Hall, Inc., pp. 165-173.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2007. (This table was prepared February 2009.)

Table A-20. Estimated equations and model statistics for full-time and part-time college enrollment rates of Asian/Pacific Islander men

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Intercept term for 17-year-olds	-8.55	0.445	-14.87	0.90	1.93*
Intercept term for 18-year-olds	-5.65	0.424	-10.11		
Intercept term for 19-year-olds	-5.42	0.428	-9.69		
Intercept term for 20-year-olds	-5.58	0.424	-9.94		
Intercept term for 21-year-olds	-5.57	0.426	-9.87		
Intercept term for 22-year-olds	-5.80	0.434	-10.48		
Intercept term for 23-year-olds	-6.16	0.427	-10.88		
Intercept term for 24-year-olds	-6.47	0.430	-11.46		
Intercept term for 25- to 29-year-olds	-7.35	0.425	-13.19		
Intercept term for 30- to 34-year-olds	-8.34	0.427	-14.98		
Intercept term for 35- to 44-year-olds	-9.17	0.430	-16.47		
Log of Asian/Pacific Islander per capita disposable income in current dollars	0.27	0.022	12.57		
Part-time					
Intercept term for 17-year-olds	-6.81	1.520	-4.48	0.66	2.07*
Intercept term for 18-year-olds	-4.19	0.926	-4.53		
Intercept term for 19-year-olds	-3.42	0.922	-3.71		
Intercept term for 20-year-olds	-3.55	0.928	-3.83		
Intercept term for 21-year-olds	-3.69	0.929	-3.97		
Intercept term for 22-year-olds	-3.37	0.954	-3.53		
Intercept term for 23-year-olds	-3.67	0.924	-3.97		
Intercept term for 24-year-olds	-4.09	0.922	-4.44		
Intercept term for 25- to 29-year-olds	-4.34	0.912	-4.75		
Intercept term for 30- to 34-year-olds	-4.82	0.911	-5.29		
Intercept term for 35- to 44-year-olds	-5.23	0.912	-5.74		
Log of Asian/Pacific Islander per capita disposable income in current dollars	0.10	0.047	2.15		

* p<.05.

R^2 = Coefficient of determination.

D.W. statistic = Durbin-Watson statistic, a test for autocorrelation among regression residuals. For more details see Johnson, J., and Dinardo, J. (1996). *Econometric Methods*. New York: McGraw-Hill.

NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1989 to 2007. The number of observations is 209. For additional information, see Intriligator, M.D. (1978). *Econometric Models, Techniques, & Applications*. New Jersey: Prentice-Hall, Inc., pp. 165-173. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2007. (This table was prepared February 2009.)

Table A-21. Estimated equations and model statistics for full-time and part-time college enrollment rates of Asian/Pacific Islander women

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Intercept term for 17-year-olds	-13.39	0.542	-24.69	0.97	1.95*
Intercept term for 18-year-olds	-11.10	0.531	-20.89		
Intercept term for 19-year-olds	-10.42	0.541	-19.27		
Intercept term for 20-year-olds	-10.82	0.538	-20.12		
Intercept term for 21-year-olds	-10.92	0.533	-20.48		
Intercept term for 22-year-olds	-11.47	0.537	-21.37		
Intercept term for 23-year-olds	-11.82	0.533	-22.16		
Intercept term for 24-year-olds	-12.31	0.548	-22.45		
Intercept term for 25- to 29-year-olds	-13.23	0.529	-24.99		
Intercept term for 30- to 34-year-olds	-14.55	0.535	-27.19		
Intercept term for 35- to 44-year-olds	-15.04	0.542	-27.76		
Log of Asian/Pacific Islander per capita disposable income in current dollars	0.57	0.027	20.78		
Part-time					
Intercept term for 17-year-olds	-16.95	0.754	-22.50	0.86	1.97*
Intercept term for 18-year-olds	-15.03	0.608	-24.71		
Intercept term for 19-year-olds	-14.24	0.636	-22.40		
Intercept term for 20-year-olds	-14.69	0.615	-23.87		
Intercept term for 21-year-olds	-14.31	0.615	-23.27		
Intercept term for 22-year-olds	-14.29	0.603	-23.69		
Intercept term for 23-year-olds	-14.81	0.603	-24.58		
Intercept term for 24-year-olds	-15.20	0.620	-24.51		
Intercept term for 25- to 29-year-olds	-15.53	0.595	-26.07		
Intercept term for 30- to 34-year-olds	-16.23	0.598	-27.14		
Intercept term for 35- to 44-year-olds	-16.10	0.597	-26.95		
Log of Asian/Pacific Islander per capita disposable income in current dollars	0.68	0.031	22.43		

* p<.05.

R^2 = Coefficient of determination.

D.W. statistic = Durbin-Watson statistic, a test for autocorrelation among regression residuals. For more details see Johnson, J., and Dinardo, J. (1996). *Econometric Methods*. New York: McGraw-Hill.

NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1989 to 2007. The number of observations is 209. For additional information, see Intriligator, M.D. (1978). *Econometric Models, Techniques, & Applications*. New Jersey: Prentice-Hall, Inc., pp. 165-173. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2007. (This table was prepared February 2009.)

High School Graduates

National

Projections of public high school graduates were developed in the following manner. The number of public high school graduates was expressed as a percent of grade 12 enrollment in public schools for 1972–73 to 2005–06. This percent was projected using single exponential smoothing and applied to projections of grade 12 enrollment to yield projections of high school graduates in public schools. (This percent does not make any specific assumptions regarding the dropout rate. The effect of the 12th- grade dropout proportion is reflected implicitly in the graduate proportion.) The grade 12 enrollment was projected based on grade progression rates. This percent was assumed to remain constant at levels consistent with the most recent rates. This method assumes that past trends in factors affecting graduation ratios, such as dropouts, migration, and public or private transfers, will continue over the projection period. In addition to student behaviors, the projected number of graduates could be affected by changes in graduation requirements, but this is not considered in the projections in this report.

Projections of private high school graduates were calculated using the same methodology as public high school graduates, using data from biennial NCES Private School Universe Survey (PSS) from 1988–89 to 2005–06. Since the PSS is collected in the fall of odd numbered years, data for even numbered years without a PSS collection were estimated using data from the PSS.

Accuracy of Projections

An analysis of projections from models used in the past 18 editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for projections of public high school graduates were 1.0 percent for 1 year ahead, 0.9 percent for 2 years ahead, 1.8 percent for 5 years ahead, and 3.8 percent for 10 years ahead. For the 1-year-ahead prediction, this means that one would expect the projection to be within 1.0 percent of the actual value, on the average. For more information on the mean absolute percentage errors, see table A-2, page 88.

State Level

This edition contains projections of high school graduates from public schools by state from 2006–07 to 2018–19. Public school graduate data from the Common Core of Data survey for 1980–81 to 2005–06 were used to develop these projections. This survey does not collect graduate data for private schools at the state level.

Projections of public high school graduates by state were developed in the following manner. For each state, the number of public high school graduates was expressed as a percent of grade 12 enrollment in public schools for 1980–81 to 2005–06. This percent was projected using single exponential smoothing and applied to projections of grade 12 enrollment to yield projections of high school graduates in public schools. All jurisdictions were projected using the same single exponential smoothing parameter of 0.4. Projections of grade 12 enrollment were developed based on the grade progression rates discussed in appendix A, Enrollment. The projected rates were assumed to remain constant at levels consistent with the most recent rates. This method assumes that past trends in factors affecting public high school graduates will continue over the projection period.

Adjustment to National Projections

The projections of state high school graduates were adjusted to sum to the national projections of public high school projections shown in table 24. This was done through the use of ratio adjustments in which all the states' high school graduate projections were multiplied by the ratio of the national high school graduate projection to the sum of the state high school projections.

Regional Projections

For each region, the projections of high school graduates equaled the sum of the high school projections of the states within the region.

Degrees Conferred

Projections of associate's, bachelor's, master's, and first-professional degrees for men and women were based on demographic models that relate degree awards to college enrollment by level enrolled and attendance status. Table A-22 describes the estimated equations used to calculate projections. The equations shown were selected on the basis of their statistical properties, such as coefficients of determination (R^2s), the t-statistics of the coefficients, the Durbin-Watson statistic, the Breusch-Godfrey Serial Correlation LM test statistic, and residual plots.

The equations used to produce the degrees conferred projections for the previous edition of this report (*Projections of Education Statistics to 2017*) all used a similar form in which the log of the ratio of the number of degrees to the population of the relevant age group was regressed on the log of the ratio of enrollment in the relevant level to the population of the relevant age group. In the equations for associate's, bachelor's, master's, and first-professional degrees, the number of degrees is expressed as either a first-difference or a percentage change. This value is regressed on the enrollment in the relevant level, again expressed as either a first-difference or a percentage change. The projections of the of doctor's degrees for men and women were produced using double exponential smoothing.

Associate's Degrees

Associate's degree projections for men and women were based on 2 years full-time undergraduate enrollment in 2-year institutions by sex. Men's projections were based on current and lagged 2 years full-time enrollment, and women's projections were based on the current full-time enrollment and enrollment lagged 1 and 2 years. Results of the regression analysis used to project associate's degrees are shown in table A-22.

Bachelor's Degrees

Bachelor's degree projections for men and women were based on current and lagged 2 years full-time undergraduate enrollment in 4-year institutions by sex. Results of the regression analysis used to project bachelor's degrees are shown in table A-22.

Master's Degrees

Master's degree projections for men and women were based on full-time graduate enrollment by sex. Men's projections were based on current and previous year enrollment, and women's projections were based on current enrollment. Results of the regression analysis used to project master's degrees are shown in table A-22.

Doctor's Degrees

Doctor's degree projections for men and women were obtained by double exponential smoothing of the historical data with a smoothing parameter of 0.4.

First-Professional Degrees

First-professional degree projections were based on total full-time first-professional enrollment lagged 1 and 2 years by sex. Results of the regression analysis used to project first-professional degree are shown in table A-22.

Accuracy of Projections

An analysis of projection errors from similar models used in the past twelve editions of *Projections of Education Statistics* indicates that mean absolute percentage errors (MAPEs) for associate's degrees were 2.1 percent for 1 year out, 3.3 percent for 2 years out, 6.0 percent for 5 years out, and 15.6 percent for 10 years out. For the 1-year-out prediction, this means that one would expect the projection to be within 2.1 percent of the actual value, on average. MAPEs for bachelor's degree projections were 0.9 percent for 1 year out, 1.9 percent for 2 years out, 6.0 percent for 5 years out, and 13.5 percent for 10 years out. MAPEs for master's degrees were 1.5, 3.5, 12.4, and 25.0 percent, respectively. For doctor's degrees, the MAPEs were 3.4, 5.5, 6.1, and 11.9 percent, respectively. For first-professional degrees, the MAPEs were 1.3, 1.7, 5.1, and 13.8 percent, respectively. For more information on the MAPEs, see table A-2.

Table A-22. Estimated equations and model statistics for degrees conferred, by degree type and sex

Dependent variable	Equation[1]	R^2	Breusch-Godfrey Serial Correlation LM test statistic[2]	Time period
Associate's degrees, men	DASSOCM = 1,839 + 94DUGFT2M + 68DUGFT2ML2 (17.3) (16.6)	0.60	0.56*	1975–76 to 2006–07
Associate's degrees, women	DLOGASSOCW = # + 0.9DLOGUGFT2WS3 + .6MA(1) (15.6) (8.8)	0.83	2.66*	1970–71 to 2006–07
Bachelor's degrees, men	DBACHM = 73.0 + 70DUGFT4M + 149DUGFT4ML2 (24.0) (22.2)	0.68	0.46*	1970–71 to 2006–07
Bachelor's degrees, women	DBACHW = 1940 + 80DUGFT4W + 134DUGFT4WL2 (30.4) (31.0)	0.59	2.01*	1970–71 to 2006–07
Master's degrees, men	PCHMASTM = # + 0.5PCHGFTM + 0.6PCHGFTML1 (3.4) (4.1)	0.66	1.77*	1970–71 to 2006–07
Master's degrees, women	PCHMASTW = # + 0.4PCHGFTW + 0.6AR(1) (22.2) (3.8)	0.60	1.01*	1970–71 to 2006–07
First-professional degrees, men	DFPROM = 89 + 161DFPFTML1 + 89DFPFTML2 (5.0) (2.9)	0.61	3.18*	1971–72 to 2006–07
First-professional degrees, women	DFPROW = 120 + 123DFPFTWL1 + 155DFPFTWL2 (2.6) (3.6)	0.51	3.17*	1971–72 to 2006–07

Rounds to zero.
* p<.05.
[1]AR(1) indicates that the model was estimated to account for first-order autocorrelation and MA(1) indicates that the model was estimated to incorporate moving average of the residual into model fit. For a general discussion of the problem of autocorrelation, and the method used to forecast in the presence of autocorrelation, see Judge, G., Hill, W., Griffiths, R., Lutkepohl, H., and Lee, T. (1985). *The Theory and Practice of Econometrics*. New York: John Wiley and Sons, pp. 315-318.
[2]For an explanation of the Breusch-Godfrey Serial Correlation LM test statistic, see Greene, W. (2000). *Econometric Analysis*. New Jersey: Prentice-Hall.
Where:
DASSOCM = First difference of associate's degrees awarded to men.
DLOGASSOCW = First difference of the log of associate's degrees awarded to women.
DBACHM = First difference of bachelor's degrees awarded to men.
DBACHW = First difference of bachelor's degrees awarded to women.
PCHMASTM = Percentage change in master's degrees awarded to men.
PCHMASTW = Percentage change in master's degrees awarded to women.
DFPROM = First difference of first-professional degrees awarded to men.
DFPROW = First difference of first-professional degrees awarded to women.
DUGFT2M = First difference of full-time male undergraduate enrollment in 2-year institutions.
DUGFT2ML2 = First difference of full-time male undergraduate enrollment in 2-year institutions, lagged two periods.
DLOGUGFT2WS3= First difference of the sum of the full-time female undergraduate enrollment in 2-year institutions over the present year and the previous 2 years.
DUGFT4M = First difference of full-time male undergraduate enrollment in 4-year institutions.
DUGFT4ML2 = First difference of full-time male undergraduate enrollment in 4-year institutions, lagged two periods.
DUGFT4W = First difference of full-time female undergraduate enrollment in 4-year institutions.
DUGFT4WL2 = First difference of full-time female undergraduate enrollment in 4-year institutions, lagged two periods.
PCHGFTM = Percentage change in full-time male graduate enrollment.
PCHGFTML1 = Percentage change in full-time male graduate enrollment lagged one year.
PCHGFTW = Percentage change in full-time female graduate enrollment.
DFPFTML1 = First difference of full-time male first professional enrollment lagged one year.
DFPFTML2 = First difference of full-time male first professional enrollment lagged two years.
DFPFTWL1 = First difference of full-time female first professional enrollment lagged one year.
DFPFTWL2 = First difference of full-time female first professional enrollment lagged two years.
NOTE: R^2 is the coefficient of determination. Numbers in parentheses are t-statistics. There are no equations for doctor's degrees for men and women as projections of those items were obtained using double exponential smoothing.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Degrees Conferred Model, 1970–71 through 2006–07. (This table was prepared December 2008.)

Elementary and Secondary Teachers

Public Elementary and Secondary Teachers

The number of public elementary and secondary teachers was projected separately for the elementary and secondary levels. The number of public elementary teachers was projected using the public elementary student/teacher ratio. The ratio was modeled as a function of education revenue from state sources per student, and the level of elementary and secondary teacher wages relative to the overall economy-level wages. The number of public elementary teachers was obtained by applying the projected public elementary student/teacher ratio to the previously projected enrollment in public elementary schools. The number of public secondary teachers was projected using the public secondary student/teacher ratio. The ratio was modeled as a function of local education revenue from state sources per student and public secondary enrollment relative to the 11- to 18-year-old population. The number of public secondary teachers was obtained by applying the projected public secondary student/teacher ratio to the previously projected enrollment in public secondary schools.

The models were estimated using the AR(1) model for correcting for autocorrelation, and all variables are in log form. Local education revenue from state sources were in constant 2000 dollars.

The multiple regression technique will yield good forecasting results only if the relationships that existed among the variables in the past continue throughout the projection period.

The public elementary teacher model is:

$$\ln(RELENRTCH_t) = b_0 + b_1 \ln(RSALARY_t) + b_2 \ln(RSGRNTELENR_t)$$

where:

ln indicates the natural log;

$RELENRTCH_t$ is the public elementary student/teacher ratio in year t;

$RSALARY_t$ is the average teacher wage relative to the overall economy-level wage in year t; and

$RSGRNTELENR_t$ is the level of education revenue from state sources deflated by the consumer prices chained-price index in constant 2000 dollars per public elementary student in year t.

Each variable affects the public elementary student/teacher ratio in the expected way. As the average teacher wage relative to the overall economy-level wage increases, schools economize on teachers by increasing the student/teacher ratio as teachers are now more expensive to hire. As the level of real grants per elementary student increases, the class size decreases. The more money being devoted to education, the more teachers are hired, thus decreasing the student/teacher ratio.

The public secondary teacher model is:

$$\ln(RSCENRTCH_t) = b_0 + b_1 \ln(RSGRNTSCENR_t) + b_2 \ln(RSCENRPU_t)$$

where:

ln indicates the natural log;

$RSCENRTCH_t$ is the public secondary student/teacher ratio in year t;

$RSGRNTSCENR_t$ is the level of education revenue from state sources deflated by the consumer prices chained-price index in constant 2000 dollars per public secondary student in year t; and

$RSCENRPU_t$ is the number of students enrolled in public secondary schools relative to the secondary school-age population in year t.

Each variable affects the public secondary student/teacher ratio in the expected way. As the level of real grants per secondary student increases, the student/teacher ratio decreases. The more money being devoted to education, the more teachers are hired, thus decreasing the student/teacher ratio. As enrollment rates (number of enrolled students relative to the school-age population) increase, the ratio also increases: increases in the enrollment rate are not matched by increases in the number of teachers.

Table A-23 summarizes the results for the elementary and secondary public teacher models. Enrollment for this equation is by organizational level, not by grade level. Thus, secondary enrollment is not the same as grade 9–12 enrollment because some jurisdictions count some grade 7 and 8 enrollment as secondary.

Private Elementary and Secondary Teachers

Projections of private elementary and secondary teachers for this edition were derived using a different method than that used for the *Projections of Education Statistics to 2017*. In this edition, the projection of the private school pupil/teacher ratio for 2008 was calculated by multiplying the ratio for 2007 by the percentage change from 2007 to 2008 in the public school pupil/teacher ratio. The same method was then used to calculate the projections of the private school pupil/teacher ratio for 2009 through 2018. The projected pupil/teacher ratios were applied to the projected private school enrollments to produce projections of private school teachers from 2008 through 2018. This method assumes that the future pattern in the trend of private school pupil/teacher ratio will be the same as that for public school pupil/teacher ratio. The reader is cautioned that a number of factors could alter the assumption of constant ratios over the projection period.

The total number of public school teachers, enrollment by organizational level, and education revenue from state sources used in these projections were from the Common Core of Data (CCD) survey conducted by NCES. The proportion of public school teachers by organizational level was taken from the National Education Association and then applied to the total number of teachers from the CCD to produce the number of teachers by organizational level.

Data for private school teachers are from the biennial NCES Private School Universe Survey (PSS). Since the PSS is collected in the fall of odd numbered years, data for years without a PSS collection were estimated using data from the PSS.

New Teacher Hires

Projections of new teacher hires were produced using the Teacher Hires Model. The model was estimated separately for public and private school teachers. The model produces projections of the number of teachers who were not teaching in the previous year, but who will be hired in a given year. Teachers who move from teaching in one sector to the other sector are considered new teacher hires. If a teacher moves from teaching in one public school to a different public school, that teacher would not be counted as a teacher hire for the purposes of this model. On the other hand, if a teacher moves from a public school to a private school, that teacher would be counted as a private school teacher hire since the teacher is moving between sectors.

In order to produce the projections of the number of new teacher hires, data were drawn from a number of sources: the 2003–04 Schools and Staffing Survey (SASS); 2004–05 Teacher Follow-Up Survey (TFS); the Common Core of Data (CCD); the Private School Universe Survey (PSS); and the projections of the numbers of public and private elementary and secondary school teachers. The teacher numbers coming from SASS and the TFS are for full-time and part-time teachers, while those for the other surveys are for full-time-equivalent (FTE) teachers.

The following is a general summary of the Teacher Hires Model used to produce the projections for new teacher hires in public schools. A similar process was used for the projections of new teacher hires in private schools. A more thorough presentation can be found in section II of Hussar (1999). As already noted, this model measures the demand for teacher hires. Due to difficulties in defining and measuring the pool of potential teachers, there were no attempts to measure the supply of new teacher candidates.

In step 1 of the Teacher Hires Model, the age distributions of the headcounts of public school teachers from the 2003–04 SASS are applied to the national number of FTE teachers in 2003 from the CCD.

In step 2, the age-specific continuation rates from the 2004–05 TFS are applied to the 2003 FTE count of teachers by age, the results being an estimate of the number of FTE teachers who remained teaching in 2004 by individual age. Summing these remaining teachers over all ages produces the estimate of those who remained teaching in 2004. Subtracting the remaining teachers from the total FTE teacher count for 2003 produces an estimate of the number of new FTE teacher hires needed to replace those leaving teaching.

In step 3, the total number of FTE teachers in 2003 is subtracted from the number of FTE teachers for 2004 from the CCD to produce an estimate of the number of new FTE teacher hires that are needed due to the overall increase in the teaching workforce.

In step 4, the number of new FTE teachers needed to replace those leaving teaching from step 2 are added to the estimated net change in the number of FTE teachers from step 3, to get an estimate of the total number of new FTE teacher hires needed in 2004.

In step 5, the age distribution for newly hired full-time and part-time teachers from the 2003–04 SASS is applied to the estimate of total number of new FTE teacher hires needed in 2004 to produce an estimate of the number of new FTE teacher hires by age.

In step 6, for each individual age, the estimate of the number of remaining FTE teachers from step 2 is added to the estimate of the number of newly hired FTE teachers from step 5 to produce estimates of the total number of FTE teachers by age in 2004.

Steps 2 through 6 are then repeated for each year from 2005 through 2018, so that the Teacher Hires Model can produce projections for the number of new teacher hires. Projections of the age-specific continuation rates for public school teachers ages 28 through 66 and private school teacher ages 23 through 65 were used in step 2. These projections were produced using exponential smoothing with a smoothing constant of 0.4. For all other ages, the continuation rates from the 2004–05 TFS were used in step 2. Projections of the numbers of FTE teachers were used in step 3 for those years in which there were no CCD teacher numbers (2007 through 2018). Three alternative sets of projections of new teacher hires were produced, one set for each of the alternative sets of FTE teacher projections.

A number of assumptions are made in order to make these projections. They include that: (1) the age distribution of FTE teachers in 2003 is similar to that of full-time and part-time teachers in that year (Step 1); (2) the age-specific continuation rates for FTE teachers for each year from 2004 through 2018 are similar to either the projections produced using exponential smoothing or the values from the 2004–05 TFS depending on the age of the teachers (Step 2); (3) the age distribution for newly hired FTE teachers from 2004 through 2018 is similar to that of newly hired full-time and part-time teachers in the 2003–04 SASS (Step 3); (4) the actual numbers of FTE teachers for each year from 2006 through 2018 are similar to projections of FTE teachers on table 32; and (5) no economic or political changes further affect the size of the teaching force.

Table A-24 shows the age distributions for full-time and part-time teachers; table A-25 shows age distributions of new teacher hires; and table A-26 shows actual and projected continuation rates of teachers.

Accuracy of Projections

An analysis of projection errors from the past 18 editions of *Projections of Education Statistics* indicated that the mean absolute percentage errors (MAPEs) for projections of classroom teachers in public elementary and secondary schools were 1.0 percent for 1 year out, 1.5 percent for 2 years out, 3.2 percent for 5 years out, and 6.1 percent for 10 years out. For the 2-year-ahead prediction, this means that one would expect the projection to be within 1.5 percent of the actual value, on average. For more information on the MAPEs, see table A-2.

Table A-23. Estimated equations and model statistics for public elementary and secondary teachers

Dependent variable	Equation[1]	R^2	Breusch-Godfrey Serial Correlation LM test statistic[2]	Time period
Elementary	ln(RELENRTCH) = 3.8 + .1 ln(RSALARY) - .2 ln(RSGRNTELENR) + .4AR(1) (4.8) (-10.5) (2.10)	0.99	.03*	1973 to 2005
Secondary	ln(RSCENRTCH) = 4.1 - .2 ln(RSGRNTSCENR) + .5 ln(RSCENRPU) + .7AR(1) (-14.9) (4.5) (4.14)	0.99	.06*	1973 to 2005

* p<.05.

[1]AR(1) indicates that the model was estimated using least squares with the AR(1) process for correcting for first-order autocorrelation. For a general discussion of the problem of autocorrelation, and the method used to forecast in the presence of autocorrelation, see Judge, G., Hill, W., Griffiths, R., Lutkepohl, H., and Lee, T. (1985). *The Theory and Practice of Econometrics*. New York: John Wiley and Sons, pp. 315-318.

[2]For an explanation of the Breusch-Godfrey Serial Correlation LM test statistic, see Greene, W. (2000). *Econometric Analysis*. New Jersey: Prentice-Hall.

Where:

RELENRTCH = Log of the ratio of public elementary school enrollment to classroom teachers (i.e., student/teacher ratio).
RSCENRTCH = Log of the ratio of public secondary school enrollment to classroom teachers (i.e., student/teacher ratio).
RSALARY = Log of the average annual teacher salary relative to the overall economy wage in 2000 dollars.
RSGRNTELENR = Log of the ratio of education revenue receipts from state sources per capita to public elementary school enrollment in 2000 dollars.
RSGRNTSCENR = Log of the ratio of education revenue receipts from state sources per capita to public secondary school enrollment in 2000 dollars.
RSCENRPU = Log of the ratio of enrollment in public secondary schools to the 11- to 18-year-old population.
NOTE: R^2 indicates the coefficient of determination. Numbers in parentheses are t-statistics.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Elementary and Secondary Teacher Model, 1973–2005. (This table was prepared February 2009.)

Table A-24. Percentage distribution of full-time and part-time school teachers, by age, control of school, and teaching status: 2003–04

Control of school and teaching status	Percent of total	Age distribution							
		Total	Less than 25 years	25–29 years	30–39 years	40–49 years	50–59 years	60–64 years	65 years or more
Public-actual									
2003–04	**100**	**100**	**4**	**13**	**25**	**26**	**29**	**3**	**1**
Full-time	91	100	4	13	25	26	29	3	1
Part-time	9	100	5	11	24	28	27	4	2
Private-actual									
2003–04	**100**	**100**	**6**	**13**	**22**	**25**	**26**	**5**	**3**
Full-time	78	100	6	14	22	24	26	5	2
Part-time	22	100	6	8	22	30	24	5	5

NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Teacher Questionnaire," 2003–04 and "Private School Teacher Questionnaire," 2003–04; and unpublished tabulations. (This table was prepared February 2009.)

Table A-25. Percentage distribution of full-time and part-time newly hired teachers, by age and control of school: Selected years, 1987–88 through 2003–04

Control of school and school year	Age distribution							
	Total	Less than 25 years	25–29 years	30–39 years	40–49 years	50–59 years	60–64 years	65 years or more
Public								
1987–88	100	18	24	33	21	4	#	#
1990–91	100	17	24	31	21	6	1	#
1993–94	100	16	29	25	25	5	1	#
1999–2000	100	24	23	22	19	11	1	1
2003–04	100	24	19	25	16	13	1	1
Private								
1987–88	100	17	23	32	18	5	3	2
1990–91	100	16	26	29	21	6	1	1
1993–94	100	19	24	25	23	7	1	1
1999–2000	100	19	17	24	22	14	3	1
2003–04	100	17	16	23	23	15	4	2

Rounds to zero.
NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Teacher Questionnaire," 1987–88 through 2003–04 and "Private School Teacher Questionnaire," 1987–88 through 2003–04; and unpublished tabulations. (This table was prepared February 2009.)

Table A-26. Actual and projected continuation rates of full-time and part-time school teachers, by age and control of school: Various years, 1987–88 to 1988–89 through 2017–18 to 2018–19

Control of school and school year	Total	Continuation rates, by age						
		Less than 25 years	25–29 years	30–39 years	40–49 years	50–59 years	60–64 years	65 years or more
Public actual								
1987–88 to 1988–89	94.4	95.9	91.0	94.2	97.4	94.3	76.6	83.3
1990–91 to 1991–92	94.9	90.9	91.0	95.8	98.0	93.3	73.2	59.1
1993–94 to 1994–95	93.4	96.2	90.0	93.3	96.1	93.7	69.5	65.9
1999–2000 to 2000–01	92.4	95.8	89.3	93.2	94.5	92.9	76.8	77.6
2003–04 to 2004–05	91.4	94.9	90.1	92.6	94.5	90.8	77.2	70.3
Public projected								
2004–05 to 2005–06	92.3	95.8	91.0	93.2	95.1	92.0	74.6	67.4
2005–06 to 2006–07	92.2	95.8	91.0	93.3	95.1	91.8	74.3	70.2
2006–07 to 2007–08	92.0	95.8	91.0	93.3	95.0	91.7	74.3	69.0
2007–08 to 2008–09	91.9	95.8	91.0	93.3	95.0	91.7	75.0	66.3
2008–09 to 2009–10	91.7	95.8	91.0	93.3	95.0	91.6	74.6	65.2
2009–10 to 2010–11	91.6	95.8	91.0	93.3	95.0	91.6	74.0	65.2
2010–11 to 2011–12	91.6	95.8	91.0	93.3	95.0	91.5	73.8	65.9
2011–12 to 2012–13	91.5	95.8	91.0	93.3	95.0	91.5	73.8	64.0
2012–13 to 2013–14	91.6	95.8	91.0	93.2	95.0	91.6	74.0	63.5
2013–14 to 2014–15	91.6	95.8	91.0	93.2	95.0	91.6	73.6	64.3
2014–15 to 2015–16	91.7	95.8	91.0	93.2	95.0	91.6	73.6	65.5
2015–16 to 2016–17	91.7	95.8	91.0	93.2	95.0	91.6	73.5	66.4
2016–17 to 2017–18	91.8	95.8	91.0	93.2	95.0	91.7	73.8	66.0
2017–18 to 2018–19	91.8	95.8	91.0	93.2	95.0	91.7	73.8	66.1
Private actual								
1987–88 to 1988–89	87.3	81.2	82.7	87.6	89.4	88.6	84.1	92.1
1990–91 to 1991–92	87.7	76.2	82.2	86.3	92.3	90.4	82.2	79.3
1993–94 to 1994–95	88.1	80.0	86.9	85.1	91.3	91.8	86.9	58.1
1999–2000 to 2000–01	83.0	61.7	72.2	80.2	86.1	92.3	78.8	75.2
2003–04 to 2004–05	83.3	75.4	71.7	82.2	86.8	89.2	80.1	79.5
Private projected								
2004–05 to 2005–06	83.2	72.7	73.6	81.3	86.9	89.6	79.6	75.7
2005–06 to 2006–07	83.1	72.5	73.5	81.1	86.8	89.5	79.1	75.1
2006–07 to 2007–08	83.3	72.5	73.5	81.3	87.0	89.5	79.7	76.0
2007–08 to 2008–09	83.3	72.4	73.5	81.4	86.8	89.4	79.7	75.3
2008–09 to 2009–10	83.2	72.4	73.5	81.4	86.9	89.5	79.6	75.7
2009–10 to 2010–11	83.1	72.4	73.5	81.4	86.8	89.4	79.3	72.8
2010–11 to 2011–12	83.1	72.4	73.5	81.3	86.8	89.4	79.0	74.8
2011–12 to 2012–13	83.0	72.4	73.5	81.4	86.9	89.4	79.2	73.0
2012–13 to 2013–14	83.1	72.4	73.5	81.3	86.9	89.4	79.3	74.1
2013–14 to 2014–15	83.0	72.4	73.5	81.3	86.9	89.4	79.1	72.9
2014–15 to 2015–16	83.0	72.4	73.5	81.3	86.8	89.4	79.2	72.4
2015–16 to 2016–17	83.0	72.4	73.5	81.3	86.9	89.4	79.2	73.2
2016–17 to 2017–18	83.0	72.4	73.5	81.3	86.9	89.4	79.2	73.7
2017–18 to 2018–19	83.0	72.4	73.5	81.3	86.9	89.4	79.3	73.3

NOTE: The continuation rate for teachers for each of the two sectors (public schools and private schools) is the percentage of teachers in that sector who continued teaching in the same sector from the first year to the next.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teacher Follow up Survey (TFS), "Public School Teacher Questionnaire," 1988–89 through 2004–05 and "Private School Teacher Questionnaire," 1988–89 through 2004–05; and unpublished tabulations. (This tables was prepared February 2009.)

Expenditures for Public Elementary and Secondary Education

Elementary and Secondary Education Current Expenditure Model

The elementary and secondary education current expenditure model is based on the theoretical and empirical literature on the demand for local public services such as education.[2]

The model that is the basis for the elementary and secondary education current expenditure model has been called the median voter model. In brief, the theory states that spending for each public good in the community (in this case, spending for education) reflects the preferences of the "median voter" in the community. This individual is identified as the voter in the community with the median income and median property value. The amount of spending in the community reflects the price of education facing the voter with the median income, as well as his income and tastes. There are competing models in which the level of spending reflects the choices of others in the community, such as the "bureaucrats."

In a median voter model, the demand for education expenditures is typically linked to four different types of variables: (1) measures of the income of the median voter; (2) measures of intergovernmental aid for education going indirectly to the median voter; (3) measures of the price to the median voter of providing one more dollar of education expenditures per pupil; and (4) any other variables that may affect one's tastes for education.

The elementary and secondary education current expenditure model contains variables reflecting the first two types of variables. The model is:

$$\ln(CUREXP_t) = b_0 + b_1\ln(PCI_t) + b_2\ln(SGRNT_t)$$

where:

ln indicates the natural log;

$CUREXP_t$ equals current expenditures of public elementary and secondary schools per pupil in fall enrollment in constant 1982–84 dollars in year t;

PCI_t equals disposable income per capita in constant 2000 dollars in year t; and

$SGRNT_t$ equals local governments' education revenue from state sources, per capita, in constant 1982–84 dollars in year t. The model used to project this variable is discussed below.

The model was estimated using least squares with the AR(1) process for correcting for autocorrelation. The model was estimated using data from 1973–74 to 2005–06.

There are potential problems with using a model for local government education expenditures for the nation as a whole. Two such problems concern the variable SGRNT. First, the amount of money that local governments receive for education from state governments varies by state. Second, the formulas used to apportion state monies for education among local governments vary by state.

Beginning in 1988–89, there was a major change in the survey form used to collect data on current expenditures (the National Public Education Financial Survey). This new survey form produces a more complete measure of current expenditures; therefore, the values for current expenditures are not completely comparable to the previously collected numbers. Data for a majority of states were also collected for 1986–87 and 1987–88 that were comparable to data from the new survey form. A comparison of these data with those from the old survey form suggests that the use of the new survey form may have increased the national figure for current expenditures by approximately 1.4 percent over what it would have been if the survey form had not been changed. When the model was estimated, all values for current expenditures before 1988–89 were increased by 1.4 percent.

The results for the model are shown in table A-27. Each variable affects current expenditures in the direction that would be expected. With high levels of income (PCI) or revenue from state sources (SGRNT), the level of

[2]For a discussion of the theory together with a review of some of the older literature, see Inman (1979). More recent empirical work includes: Gamkhar and Oates (1996), and Mitias and Turnbull (2001).

spending increases.

From the cross-sectional studies of the demand for education expenditures, we have an estimate of how sensitive current expenditures are to changes in PCI. We can compare the results from this model with those from the cross-sectional studies. For this model, an increase in PCI of 1 percent, with SGRNT held constant, would result in an increase of current expenditures per pupil in fall enrollment of approximately .6 percent. With PCI held constant, an increase of 1 percent in SGRNT would result in an increase in current expenditures per pupil in fall enrollment of approximately .2 percent. Both numbers are well within the range of what has been found in cross-sectional studies.

The results from this model are not completely comparable with those in editions prior to the *Projections of Education Statistics to 2014*. First, in those earlier editions, the sample period used to estimate the model began with either 1959–60 or 1967–68 rather than 1969–70. This change was made due to superior model diagnostics. Second, in some earlier editions the model contained an additional variable, as a proxy for the price facing the median voter, the ratio of enrollment to the population. This price variable has been excluded due to its lack of statistical significance as measured by its t-statistic. Third, in editions prior to *Projections of Education Statistics to 2011* and *Projections of Education Statistics to 2013,*[3] average daily attendance rather than fall enrollment, was used as the measure of enrollment. This change was made because the definitions of fall enrollment are more consistent from state to state than those of average daily attendance.

There have been other changes to the model used in earlier editions. As with the current expenditure projections in the most recent editions, the population number for each school year is the U.S. Census Bureau's July 1 population number for the upcoming school year. In earlier editions, the school year population numbers were from an economic consulting firm. These changes were made to be consistent with population projections used in producing other projections of education statistics. Also, there have been changes in the definition of disposable income.

Projections for total current expenditures were made by multiplying the projections for current expenditures per pupil in fall enrollment by projections for fall enrollment.

[3]There were no projections of either current expenditures or teacher salaries in *Projections of Education Statistics to 2012*.

The projections for total current expenditures were also divided by projections for average daily attendance to produce projections of current expenditures per pupil in average daily attendance to provide projections that are consistent with those from earlier years. Projections were developed in 1982–84 dollars and then placed in 2006–07 dollars using the Consumer Price Index. Current-dollar projections were produced by multiplying the constant-dollar projections by projections for the Consumer Price Index. The Consumer Price Index and the other economic variables used in calculating the projections presented in this report were placed in school year terms rather than calendar year terms.

Three alternative sets of projections for current expenditures are presented: the middle alternative projections, the low alternative projections, and the high alternative projections. The alternative sets of projections differ because of varying assumptions about the growth paths for disposable income and revenue from state sources.

The alternative sets of projections for the economic variables, including disposable income, were from the "U.S. Quarterly Model: November 2008: Long-Term-Projections" of the economic consulting firm IHS Global Insight (supplemental table B-6).

IHS Global Insight's November 2008 trend scenario was used as a base for the middle alternative projections of the economic variables. IHS Global Insight's trend scenario depicts a mean of possible paths that the economy could take over the forecast period, barring major shocks. The economy, in this scenario, evolves smoothly, without major fluctuations.

IHS Global Insight's November 2008 pessimistic scenario was used for the low alternative projections, and IHS Global Insight's November 2008 optimistic scenario was used for the high alternative projections.

In the middle alternative projections, disposable income per capita rises each year from 2007–08 to 2018–19 at rates between 0.1 percent and 2.9 percent. In the low alternative projections, disposable income per capita ranges between -1.3 percent and 2.8 percent, and in the high alternative projections, disposable income per capita rises at rates between 1.2 percent and 3.1 percent.

The alternative projections for revenue from state sources, which form a component of the current expenditures model, were produced using the following model:

$$\ln(SGRNT_t) = b_0 + b_1\ln(PCI_t) + b_2\ln(ENRPOP_t)$$

where:

ln indicates the natural log;

$SGRNT_t$ equals local governments' education revenue from state sources, per capita, in constant 1982–84 dollars in year t;

PCI_t equals disposable income per capita in constant 2000 dollars in year t; and

$ENRPOP_t$ equals the ratio of fall enrollment to the population in year t.

The model was estimated using least squares with the AR(1) process for correcting for autocorrelation. The model was estimated using the period from 1973–74 to 2005–06. These models are shown in table A-27.

The values of the coefficients in this model follow expectations. As the enrollment increases relative to the population (higher ENRPOP), so does the amount of aid going to education. Finally, other things being equal, as the value of disposable income per capita in real dollar values (higher PCI) increases, the level of local governments' education revenue from state sources per capita also increases.

This year's edition of the *Projections of Education Statistics* uses the same revenue from state sources model as the last four year's editions. The model used in *Projections of Education Statistics 2012* and *Projections of Education Statistics 2013* included a term for personal taxes and non-tax receipts (PERTAX1) and an inflation rate term (RCPIANN) and was estimated over a different time period (the sample period began in 1967–68 rather than 1973–74). The current model specification yielded superior model diagnostics than the model used in the *Projections of Education Statistics 2012* and *Projections of Education Statistics 2013*. The forecasts in the six most recent editions of the *Projections of Education Statistics* were based on fall enrollment. In the earlier editions, the models used average daily attendance. Also, the sample period used to produce the forecast began in 1959–60. As with the current expenditures model, the change to fall enrollment was done because the definition of fall enrollment is more consistent across states, and the change in sample period was done because of superior model diagnostics.

Three alternative sets of projections for SGRNT were produced using this model. Each is based on a different set of projections for revenue from state sources per capita. The middle set of projections was produced using the values from the middle set of alternative projections. The low set of projections was produced using the values from the low set of alternative projections, and the high set of projections was produced using the values from the high set of alternative projections. In the middle alternative projections, revenue from state sources per capita changes each year from 2007–08 to 2018–19 at rates between 0.05 percent and 3.6 percent. In the low alternative projections, revenue from state sources per capita ranges between -1.7 percent and 3.6 percent, and in the high alternative projections, revenue from state sources per capita changes at rates between -1.1 percent and 3.9 percent.

Accuracy of Projections

Eighteen of the last 19 editions of *Projections of Education Statistics* contained projections of current expenditures. The actual values of current expenditures can be compared with the projected values in the previous editions to examine the accuracy of the model.

In most of the earlier editions of *Projections of Education Statistics*, average daily attendance rather than fall enrollment was used as the measure of enrollment in the calculation of the current expenditure per pupil projection. However, projections of current expenditures per fall enrollment were presented in most of these earlier editions, and projections of fall enrollment were presented in all of these earlier editions. As a result, the projected values of both current expenditures per pupil in fall enrollment and current expenditures per pupil in average daily attendance can be compared to their respective actual values.

Similar sets of independent variables have been used in the production of the current expenditure projections presented in the last 16 editions of *Projections of Education Statistics*, including this one. The one major change is that in all the earlier editions except the three previous editions of the *Projections of Education Statistics*, the set of variables included the ratio of the number of students to the population.

Several commonly used statistics can be used to evaluate projections. The values for one of these, the mean absolute percentage error (MAPE), are presented in table A-2. MAPEs of expenditure projections are presented for total current expenditures and current expenditures per pupil in fall enrollment.

An analysis of projection errors from similar models used in the past eighteen editions of *Projections of Education Statistics* that contained expenditure projections indicates that MAPEs for total current expenditures in constant dollars were 1.3 percent for 1 year out, 2.1 percent for 2 years out, 2.8 percent for 5 years out, and 4.5 percent for 10 years out. For the 1-year-out prediction, this means that one would expect the projection to be within 1.3 percent of the actual value, on average. MAPEs for current expenditure per pupil in fall enrollment in constant dollars were 1.3 percent for 1 year out, 2.0 percent for 2 years out, 3.1 percent for 5 years out, and 5.8 percent for 10 years out. For more information on the MAPEs, see table A-2.

Sources of Past and Projected Data

Data from several different sources were used to produce the projections in this report. In some instances, the time series used were made by either combining numbers from various sources or manipulating the available numbers. The sources and the methods of manipulation are described here.

The time series used for current expenditures was compiled from several different sources. For the school years ending in even numbers from 1969–70 to 1975–76, the numbers for current expenditures were taken from various issues of *Statistics of State School Systems*, published by NCES. For the school years ending in odd numbers during the 1970s, up to and including 1976–77, the numbers were taken from various issues of *Revenues and Expenditures for Public Elementary and Secondary Education*, published by NCES. For the school years from 1977–78 until 2005–06, the data were from the NCES Common Core of Data survey and unpublished data.

For 1974–75 and 1976–77, expenditures for summer schools were subtracted from the published figures for current expenditures. The value for 1972–73 was the sum of current expenditures at the local level, expenditures for administration by state boards of education and state departments of education, and expenditures for administration by intermediate administrative units.

Note that although the data from the different sources are similar, they are not entirely consistent. Also, the NCES data beginning with 1980–81 are not entirely consistent with the earlier NCES numbers, due to differing treatments of items such as expenditures for administration by state governments and expenditures for community services.

An alternative source for current expenditures would have been the U.S. Census Bureau's F-33, which offers statistics at the district level. This level of geographic detail was not needed, however.

For most years, the sources for the past values of average daily attendance were identical to the sources for current expenditures.

Projections for average daily attendance for the period from 2006–07 to 2018–19 were made by multiplying the projections for enrollment by the average value of the ratios of average daily attendance to the enrollment from 1992–93 to 2005–06; this average value was approximately .93.

The values for fall enrollment from 1979–80 to 2006–07 were taken from the NCES Common Core of Data survey. The projections for fall enrollment are those presented in chapter 1 of this publication.

For 1969–70 to 2005–06, the sources for revenue from state sources were the two NCES publications *Statistics of State School Systems* and *Revenues and Expenditures for Public Elementary and Secondary Education*, and the NCES Common Core of Data survey. The methods for producing the alternative projections for revenue from state sources are outlined above.

The projected values for disposable income, personal taxes and non-tax receipts to state and local governments, and indirect business taxes and tax accruals to state and local governments were developed using projections developed by IHS Global Insight's U.S. Quarterly Model. Projected values of the Consumer Price Index for all urban consumers, which was used for adjusting current expenditures, revenue from state sources, and the state revenue variables, were also developed using the U.S. Quarterly Model.

The U.S. Census Bureau supplied both the historical and projected values for the population.

The values of all the variables from IHS Global Insight were placed in school-year terms. The school-year numbers were calculated by taking the average of the last two quarters of one year and the first two quarters of the next year.

There are other price indexes, such as the implicit price deflator for state and local government purchases, which could have been used instead of the Consumer Price Index. These alternatives would have produced somewhat different projections.

Table A-27. Estimated equations and model statistics for current expenditures per pupil in fall enrollment, and education revenue from state sources per capita

Dependent variable									Equation[1]	R^2	Breusch-Godfrey Serial Correlation LM test statistic[2]	Time period
Current expenditures per pupil	ln(CUREXP)	=	1.0	+	0.6ln(PCI) (3.5)	+	0.2ln(SGRANT) (2.3)	+	0.9AR(1)	0.99	1.04*	1973–74 to 2005–06
Education revenue from state sources per capita	ln(SGRNT)	=	1.0	+	1.2ln(PCI) (19.7)	+	0.8ln(ENRPOP) (5.3)	+	0.4AR(1)	0.99	1.71*	1973–74 to 2005–06

* p<.05.

[1]AR(1) indicates that the models were estimated using least squares with the AR(1) process for correcting for first-order autocorrelation. For a general discussion of the problem of autocorrelation, and the method used to forecast when correcting for autocorrelation, see Judge, G., Hill, W., Griffiths, R., Lutkepohl, H., and Lee, T. (1985). *The Theory and Practice of Econometrics*. New York: John Wiley and Sons, pp. 315-318.

[2]For an explanation of the Breusch-Godfrey Serial Correlation LM test statistic, see Greene, W. (2000). *Econometric Analysis*. New Jersey: Prentice-Hall.

Where:

CUREXP = Current expenditures of public elementary and secondary schools per pupil in fall enrollment in constant 1982–84 dollars.

SGRANT = Local governments' education revenue from state sources, per capita, in constant 1982–84 dollars.

PCI = Disposable income per capita in constant 2000 chained dollars.

ENRPOP = Ratio of fall enrollment to the population.

NOTE: R^2 indicates the coefficient of determination. Numbers in parentheses are t-statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Elementary and Secondary Education Current Expenditures Model, 1973–74 through 2005–06; and Revenue Receipts from State Sources Model, 1973–74 through 2005–06. (This table was prepared February 2009.)

Appendix B
Supplementary Tables

Table B-1. Annual number of births: 1946 through 2007

Calendar year	Number of births, in thousands	Calendar year	Number of births, in thousands
1946	3,426	1977	3,327
1947	3,834	1978	3,333
1948	3,655	1979	3,494
1949	3,667	1980	3,612
1950	3,645	1981	3,629
1951	3,845	1982	3,681
1952	3,933	1983	3,639
1953	3,989	1984	3,669
1954	4,102	1985	3,761
1955	4,128	1986	3,757
1956	4,244	1987	3,809
1957	4,332	1988	3,910
1958	4,279	1989	4,041
1959	4,313	1990	4,158
1960	4,307	1991	4,111
1961	4,317	1992	4,065
1962	4,213	1993	4,000
1963	4,142	1994	3,953
1964	4,070	1995	3,900
1965	3,801	1996	3,891
1966	3,642	1997	3,881
1967	3,555	1998	3,942
1968	3,535	1999	3,959
1969	3,626	2000	4,059
1970	3,739	2001	4,026
1971	3,556	2002	4,022
1972	3,258	2003	4,090
1973	3,137	2004	4,112
1974	3,160	2005	4,138
1975	3,144	2006	4,266
1976	3,168	2007	4,317

NOTE: Some data have been revised from previously published figures.
SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), *Annual Summary of Births, Marriages, Divorces, and Deaths: United States*, various years, *National Vital Statistics Reports*. (This table was prepared June 2009.)

Table B-2. Actual and projected numbers for preprimary school-age populations: 1993 through 2018

[In thousands]

Year (July 1)	3- to 5-year-olds	3-year-olds	4-year-olds	5-year-olds
Actual				
1993	11,692	3,989	3,898	3,805
1994	12,001	4,023	4,066	3,912
1995	12,188	4,004	4,103	4,081
1996	12,141	3,936	4,086	4,119
1997	12,019	3,894	4,021	4,104
1998	11,880	3,862	3,979	4,040
1999	11,768	3,827	3,946	3,996
2000	11,700	3,824	3,905	3,971
2001	11,577	3,815	3,839	3,923
2002	11,507	3,822	3,830	3,856
2003	11,560	3,881	3,834	3,845
2004	11,788	4,048	3,892	3,848
2005	11,971	4,005	4,060	3,906
2006	12,142	4,051	4,017	4,074
2007	12,206	4,111	4,063	4,032
Projected				
2008	12,321	4,120	4,123	4,077
2009	12,427	4,159	4,160	4,109
2010	12,542	4,199	4,199	4,145
2011	12,664	4,242	4,239	4,183
2012	12,791	4,286	4,282	4,223
2013	12,922	4,329	4,327	4,266
2014	13,048	4,368	4,370	4,311
2015	13,165	4,402	4,409	4,354
2016	13,268	4,431	4,444	4,393
2017	13,358	4,457	4,474	4,427
2018	13,436	4,480	4,500	4,457

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Projections are from the U.S. Census Bureau's middle series.
SOURCE: U.S. Department of Commerce, Census Bureau, Population Estimates, retrieved October 27, 2008, from http://www.census.gov/popest/national/asrh/2006_nat_af.html; and Population Projections, retrieved October 29, 2008, from http://www.census.gov/ipc/www/usinterimproj/. (This table was prepared November 2008.)

Table B-3. Actual and projected numbers for school-age populations, ages 5, 6, 5 to 13, and 14 to 17: 1993 through 2018

[In thousands]

Year (July 1)	5-year-olds	6-year-olds	5- to 13-year-olds	14- to 17-year-olds
Actual				
1993	3,805	3,743	33,761	14,096
1994	3,912	3,814	34,217	14,637
1995	4,081	3,919	34,825	15,013
1996	4,119	4,088	35,375	15,443
1997	4,104	4,127	35,915	15,769
1998	4,040	4,112	36,454	15,829
1999	3,996	4,045	36,804	16,007
2000	3,971	4,008	37,052	16,122
2001	3,923	3,990	37,080	16,184
2002	3,856	3,941	36,972	16,353
2003	3,845	3,872	36,752	16,497
2004	3,848	3,859	36,345	16,813
2005	3,906	3,863	36,064	17,068
2006	4,074	3,921	36,009	17,207
2007	4,032	4,089	35,971	17,207
Projected				
2008	4,077	4,047	36,050	16,959
2009	4,109	4,073	36,223	16,702
2010	4,145	4,104	36,476	16,468
2011	4,183	4,140	36,842	16,222
2012	4,223	4,178	37,267	16,039
2013	4,266	4,218	37,710	15,929
2014	4,311	4,261	38,146	15,918
2015	4,354	4,306	38,457	16,149
2016	4,393	4,349	38,805	16,401
2017	4,427	4,388	39,161	16,652
2018	4,457	4,422	39,516	16,883

NOTE: Some data have been revised from previously published figures. Projections are from the U.S. Census Bureau's middle series.
SOURCE: U.S. Department of Commerce, Census Bureau, Population Estimates, retrieved October 27, 2008, from http://www.census.gov/popest/national/asrh/2006_nat_af.html; and Population Projections, retrieved October 29, 2008, from http://www.census.gov/ipc/www/usinterimproj/. (This table was prepared November 2008.)

Table B-4. Actual and projected numbers for college-age populations, ages 18, 18 to 24, 25 to 29, 30 to 34, and 35 to 44: 1993 through 2018

[In thousands]

Year (July 1)	18-year-olds	18- to 24-year-olds	25- to 29-year-olds	30- to 34-year-olds	35- to 44-year-olds
Actual					
1993	3,455	26,102	20,146	22,646	40,975
1994	3,428	25,821	19,809	22,648	41,877
1995	3,601	25,585	19,742	22,425	42,765
1996	3,650	25,376	19,927	21,996	43,605
1997	3,780	25,574	19,960	21,494	44,282
1998	3,984	26,155	19,863	20,999	44,802
1999	3,993	26,780	19,632	20,647	45,130
2000	4,075	27,387	19,353	20,577	45,232
2001	4,071	28,054	18,985	20,768	45,173
2002	4,027	28,537	18,956	20,849	44,835
2003	4,124	29,006	19,151	20,745	44,433
2004	4,120	29,303	19,544	20,468	44,111
2005	4,117	29,373	20,039	20,074	43,864
2006	4,179	29,468	20,665	19,665	43,636
2007	4,260	29,657	21,155	19,593	43,244
Projected					
2008	4,436	30,026	21,561	19,772	42,697
2009	4,420	30,387	21,765	20,118	42,026
2010	4,347	30,610	21,832	20,560	41,518
2011	4,284	30,740	21,868	21,106	41,236
2012	4,203	30,791	21,944	21,550	41,135
2013	4,159	30,728	22,091	21,897	41,141
2014	4,113	30,537	22,344	22,098	41,176
2015	4,039	30,142	22,666	22,167	41,188
2016	4,022	29,749	22,940	22,209	41,339
2017	4,050	29,457	23,140	22,289	41,671
2018	4,103	29,280	23,205	22,442	42,168

NOTE: Some data have been revised from previously published figures. Projections are from the U.S. Census Bureau's middle series.
SOURCE: U.S. Department of Commerce, Census Bureau, Population Estimates, retrieved October 27, 2008, from http://www.census.gov/popest/national/asrh/2006_nat_af.html; and Population Projections, retrieved October 29, 2008, from http://www.census.gov/ipc/www/usinterimproj/. (This table was prepared November 2008.)

Table B-5. Actual and projected numbers for fall enrollment in public elementary and secondary schools, change in fall enrollment from previous year, population, and fall enrollment as a ratio of the population: School years 1993–94 through 2018–19

School year	Fall enrollment (in thousands)	Change in fall enrollment from previous year (in thousands)	Population (in millions)	Fall enrollment as a ratio of the population
Actual				
1993–94	43,465	642	260.3	0.167
1994–95	44,111	647	263.4	0.167
1995–96	44,840	729	266.6	0.168
1996–97	45,611	771	269.7	0.169
1997–98	46,127	516	272.9	0.169
1998–99	46,539	412	276.1	0.169
1999–2000	46,857	319	279.3	0.168
2000–01	47,204	346	282.4	0.167
2001–02	47,672	468	285.3	0.167
2002–03	48,183	511	288.2	0.167
2003–04	48,540	357	290.9	0.167
2004–05	48,795	255	293.6	0.166
2005–06	49,113	318	296.3	0.166
2006–07	49,299	186	299.2	0.165
Projected				
2007–08	49,470	171	302.0	0.164
2008–09	49,623	153	304.9	0.163
2009–10	49,788	165	307.6	0.162
2010–11	50,034	246	310.3	0.161
2011–12	50,349	315	312.9	0.161
2012–13	50,767	418	315.6	0.161
2013–14	51,239	472	318.3	0.161
2014–15	51,769	530	321.0	0.161
2015–16	52,346	577	323.7	0.162
2016–17	52,892	546	326.4	0.162
2017–18	53,426	534	329.1	0.162
2018–19	53,933	507	331.8	0.163

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures. Population projections are from the U.S. Census Bureau's middle series.

SOURCE: U.S. Department of Commerce, Census Bureau, Population Estimates, retrieved October 27, 2008, from http://www.census.gov/popest/national/asrh/2006_nat_af.html; and Population Projections, retrieved October 29, 2008 from http://www.census.gov/ipc/www/usinterimproj/. U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1993–94 through 2006–07; and Elementary and Secondary Enrollment Model, 1972–2006. (This table was prepared December 2008.)

Table B-6. Actual and alternative projected numbers for macroeconomic measures of the economy: School years 1993–94 through 2018–19

School year	Disposable income per capita in constant 2006–07 dollars[1]	Education revenue receipts from state sources per capita in constant 2006–07 dollars[2]	Consumer Price Index
Actual			
1993–94	$25,229	$630	0.716
1994–95	25,752	658	0.737
1995–96	26,033	677	0.757
1996–97	26,574	697	0.779
1997–98	27,538	729	0.793
1998–99	28,476	761	0.806
1999–2000	29,159	797	0.829
2000–01	29,829	824	0.858
2001–02	30,427	829	0.873
2002–03	30,588	833	0.892
2003–04	31,409	819	0.912
2004–05	31,949	829	0.939
2005–06	32,310	838	0.975
Middle alternative projections			
2006–07[3]	33,115	846	1.000
2007–08[3]	33,548	861	1.037
2008–09	33,954	872	1.053
2009–10	34,074	874	1.056
2010–11	34,122	873	1.088
2011–12	34,713	890	1.117
2012–13	35,413	912	1.143
2013–14	36,202	937	1.171
2014–15	37,245	971	1.195
2015–16	38,241	1,004	1.218
2016–17	39,098	1,033	1.244
2017–18	39,965	1,062	1.269
2018–19	40,583	1,083	1.289
Low alternative projections			
2006–07[3]	33,115	846	1.000
2007–08[3]	33,548	861	1.037
2008–09	34,051	875	1.047
2009–10	33,952	870	1.039
2010–11	33,521	855	1.077
2011–12	33,776	861	1.122
2012–13	34,251	876	1.159
2013–14	34,879	896	1.196
2014–15	35,862	928	1.229
2015–16	36,848	961	1.261
2016–17	37,673	988	1.296
2017–18	38,464	1,015	1.332
2018–19	39,023	1,033	1.361
High alternative projections			
2006–07[3]	33,115	846	1.000
2007–08[3]	33,548	861	1.037
2008–09	33,966	873	1.057
2009–10	34,442	885	1.071
2010–11	34,816	895	1.104
2011–12	35,526	915	1.127
2012–13	36,302	939	1.145
2013–14	37,261	970	1.163
2014–15	38,417	1,007	1.181
2015–16	39,519	1,044	1.198
2016–17	40,492	1,077	1.219
2017–18	41,440	1,109	1.238
2018–19	42,094	1,131	1.254

[1]Based on the price deflator for personal consumption expenditures, Bureau of Labor Statistics, U.S. Department of Labor.
[2]Based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.
[3]Disposable income per capita and consumer price index numbers are actual numbers.
NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey," 1990–91 through 2005–06; Revenue Receipts From State Sources Model, 1971–72 through 2005–06; and IHS Global Insight, "U.S. Quarterly Model: November 2008 Long-Term-Projections." (This table was prepared December 2008.)

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Appendix C
Data Sources

Sources and Comparability of Data

The information in this report was obtained from many sources, including federal and state agencies, private research organizations, and professional associations. The data were collected by many methods, including surveys of a universe (such as all colleges) or of a sample, and compilations of administrative records. Care should be used when comparing data from different sources. Differences in procedures, such as timing, phrasing of questions, and interviewer training, mean that the results from the different sources are not strictly comparable. More extensive documentation of one survey's procedures than of another's does not imply more problems with the data, only that more information is available on the survey.

Accuracy of Data

The accuracy of any statistic is determined by the joint effects of "sampling" and "nonsampling" errors. Estimates based on a sample will differ from the figures that would have been obtained if a complete census had been taken using the same survey instruments, instructions, and procedures. Besides sampling errors, both of the surveys, universe and sample, are subject to errors of design, reporting, and processing, and errors due to nonresponse. To the extent possible, these nonsampling errors are kept to a minimum by methods built into the survey procedures. In general, however, the effects of nonsampling errors are more difficult to gauge than those produced by sampling variability.

Sampling Errors

The standard error is the primary measure of sampling variability. It provides a specific range—with a stated confidence—within which a given estimate would lie if a complete census had been conducted. The chances that a complete census would differ from the sample by less than the standard error are about 68 out of 100. The chances that the difference would be less than 1.65 times the standard error are about 90 out of 100.

The chances that the difference would be less than 1.96 times the standard error are about 95 out of 100. The chances that it would be less than 2.58 times as large are about 99 out of 100.

The standard error can help assess how valid a comparison between two estimates might be. The standard error of a difference between two sample estimates that are uncorrelated is approximately equal to the square root of the sum of the squared standard errors of the estimates. The standard error (se) of the difference between sample estimate "a" and sample estimate "b" is

$$se_{a-b} = (se_a^2 + se_b^2)^{1/2}$$

Note that most of the standard errors in the original documents are approximations. That is, to derive estimates of standard errors that would be applicable to a wide variety of items and could be prepared at a moderate cost, a number of approximations were required. As a result, most of the standard errors presented provide a general order of magnitude rather than the exact standard error for any specific item.

Nonsampling Errors

Both universe and sample surveys are subject to nonsampling errors. Nonsampling errors are of two kinds—random and nonrandom. Random nonsampling errors may arise when respondents or interviewers interpret questions differently, when respondents must estimate values, or when coders, keyers, and other processors handle answers differently. Nonrandom nonsampling errors result from total nonresponse (no usable data obtained for a sampled unit), partial or item nonresponse (only a portion of a response may be usable), inability or unwillingness on the part of respondents to provide information, difficulty interpreting questions, mistakes in recording or keying data, errors of collection or processing, and overcoverage or undercoverage of the target universe. Random nonresponse errors usually, but not always, result in an understatement of sampling errors and thus an overstatement of the precision of survey estimates. Because estimating the magnitude of nonsampling errors would require special experiments or access to independent data, these magnitudes are seldom available.

To compensate for suspected nonrandom errors, adjustments of the sample estimates are often made. For example, adjustments are frequently made for nonresponse, both total and partial. Imputations are usually made separately within various groups of sample members that have similar survey characteristics. Imputation for item nonresponse is usually made by substituting for a missing item the response to that item of a respondent having characteristics similar to those of the respondent.

Although the magnitude of nonsampling errors in the data used in *Projections of Education Statistics* is frequently unknown, idiosyncrasies that have been identified are noted on the appropriate tables.

Federal Agency Sources

National Center for Education Statistics (NCES)

Common Core of Data

NCES uses the Common Core of Data (CCD) to acquire and maintain statistical data from each of the 50 states, the District of Columbia, the Bureau of Indian Education, Department of Defense Dependents' Schools (overseas), and the outlying areas. Information about staff and students is collected annually at the school, local education agency (LEA) or school district, and state levels. Information about revenues and expenditures is also collected at the state and LEA levels.

Data are collected for a particular school year via an on-line reporting system open to state education agencies during the school year. Beginning with the 2006–07 school year, nonfiscal CCD data are collected through the Department of Education's Education Data Exchange Network (EDEN). Since the CCD is a universe collection, CCD data are not subject to sampling errors. However, nonsampling errors could come from two sources: nonresponse and inaccurate reporting. Almost all of the states submit the five CCD survey instruments each year, but submissions are sometimes incomplete.

Misreporting can occur when 58 education agencies compile and submit data for approximately 97,000 public schools and over 17,000 local education agencies. Typically, this results from varying interpretations of NCES definitions and differing record-keeping systems. NCES attempts to minimize these errors by working closely with the state education agencies through the National Forum on Education Statistics.

The state education agencies report data to NCES from data collected and edited in their regular reporting cycles. NCES encourages the agencies to incorporate into their own survey systems the NCES items they do not already collect so that these items will also be available for the subsequent CCD survey. Over time, this has meant fewer missing data cells in each state's response, reducing the need to impute data.

NCES subjects data from the state education agencies to a comprehensive edit. Where data are determined to be inconsistent, missing, or out of range, NCES contacts the agencies for verification. NCES-prepared state summary forms are returned to the agencies for verification. Each year, states are also given an opportunity to revise their state-level aggregates from the previous survey cycle.

Further information on the nonfiscal CCD may be obtained from

John Sietsema
Elementary/Secondary and Libraries Studies Division
Elementary/Secondary Cooperative System and
Institutional Studies Program
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
john.sietsema@ed.gov
http://nces.ed.gov/ccd/

Further information on the fiscal CCD data may be obtained from

Frank H. Johnson
Elementary/Secondary and Libraries Studies Division
Elementary/Secondary Cooperative System and
Institutional Studies Program
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
frank.johnson@ed.gov
http://nces.ed.gov/ccd/

Private School Universe Survey

The purposes of Private School Universe Survey (PSS) data collection activities are (1) to build an accurate and complete list of private schools to serve as a sampling frame for NCES sample surveys of private schools; and (2) to report data on the total number of private schools, teachers, and students in the survey universe. Beginning in 1989, the PSS has been conducted every 2 years, and data for the 1989–90, 1991–92, 1993–94, 1995–96, 1997–98, 1999–2000, 2001–02, 2003–04, and 2005–06 school years have been released.

The PSS produces data similar to that of the CCD for public schools and can be used for public-private comparisons. The data are useful for a variety of policy and research-relevant issues, such as the number of religiously affiliated schools, the number of private high school graduates, the length of the school year for various private schools, and the number of private school students and teachers.

The target population for this universe survey is all private schools in the United States that meet the NCES criteria of a school (i.e., a private school is an institution that provides instruction for any of grades K through 12, has one or more teachers to give instruction, is not administered by a public agency, and is not operated in a private home). The survey universe is composed of schools identified from a variety of sources. The main source is a list frame, initially developed for the 1989–90 PSS. The list is updated regularly, matching it with lists provided by nationwide private school associations, state departments of education, and other national guides and sources that list private schools. The other source is an area frame search in approximately 124 geographic areas, conducted by the U.S. Census Bureau.

Further information on the PSS may be obtained from

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Integrated Postsecondary Education Data System

The Integrated Postsecondary Education Data System (IPEDS) surveys approximately 6,800 postsecondary institutions, including universities and colleges, as well as institutions offering technical and vocational education beyond the high school level. IPEDS, which began in 1986, replaced the Higher Education General Information Survey (HEGIS).

IPEDS consists of eight interrelated components that obtain information on who provides postsecondary education (institutions), who participates in it and completes it (students), what programs are offered and what programs are completed, and both the human and financial resources involved in the provision of institutionally-based postsecondary education. Until 2000 these components included institutional characteristics, fall enrollment, completions, salaries, finance, and fall staff. Beginning in 2000, data were collected in the fall for institutional characteristics and completions; in the winter for employees by assigned position (EAP), salaries, and fall staff; and in the spring for enrollment, student financial aid, finances, and graduation rates. With the winter 2005–06 survey the employees by assigned position, fall staff, and salaries components were merged into the human resources component. In 2007–08, the enrollment component was broken into two separate components: 12-month enrollment (collected in the fall) and fall enrollment (collected in the spring).

The degree-granting institutions portion of IPEDS is a census of colleges awarding associate's or higher degrees, that are eligible to participate in Title IV financial aid programs. Prior to 1993, data from technical and vocational institutions were collected through a sample survey. Beginning in 1993, all data were gathered in a census of all postsecondary Title IV institutions. The IPEDS tabulations developed for this edition of *Projections of Education Statistics* are based on lists of all institutions and are not subject to sampling errors.

The definition of institutions generally thought of as offering college and university education has changed as of 1996. The old standard for higher education institutions included those institutions that had courses leading to an associate's degree or higher, or that had courses accepted for credit toward those degrees. Higher education institutions were accredited by an agency or association that was recognized by the U.S. Department of Education, or were recognized directly by the Secretary of Education. The current category includes institutions that award associate or higher level degrees and that are eligible to participate in Title IV federal financial aid programs. The largest impact has been on private 2-year college enrollment. The impact on enrollment in public 2-year colleges was larger for some states than others. Overall, total enrollment for all institutions was about one-half of a percent higher for degree-granting institutions than for higher education institutions.

Prior to the establishment of IPEDS in 1986, HEGIS acquired and maintained statistical data on the characteristics and operations of institutions of higher education. Implemented in 1966, HEGIS was an annual universe survey of institutions accredited at the college level by an agency recognized by the Secretary of the U.S. Department of Education. These institutions were listed in the NCES publication *Education Directory, Colleges and Universities*.

HEGIS surveys collected information concerning institutional characteristics, faculty salaries, finances, enrollment, and degrees. Since these surveys were distributed to all higher education institutions, the data presented are not subject to sampling error. However, they are subject to nonsampling error, the sources of which varied with the survey instrument. Information concerning the nonsampling error of the HEGIS enrollment and degrees surveys can be obtained from the HEGIS Post Survey Validation Study conducted in 1979.

Further information on IPEDS may be obtained from

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Fall (Institutional Characteristics) This survey collects the basic information necessary to classify institutions, including control, level, and types of programs offered, as well as information on tuition, fees, and room and board charges. Beginning in 2000, the survey collected institutional pricing data from institutions with first-time, full-time, degree/certificate-seeking undergraduate students. Unduplicated full-year enrollment headcounts and instructional activity are now collected in a separate component (12-month Enrollment), part of the fall collection. The overall response rate was 100 percent for Title IV degree-granting institutions in reporting fall 2007 data.

Further information may be obtained from

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Winter/Spring (Fall Enrollment) This survey has been part of the HEGIS and IPEDS series since 1966. The enrollment survey response rate is nearly 100 percent. Beginning in 2000, the data collection method became web-based, replacing the paper survey forms that had been used in past years, resulting in higher responses rates. In 2007–08, the overall response rate for all degree-granting institutions was 100 percent, except for 99.9 percent for private not-for-profit 4-year institutions. Imputation methods and the response bias analysis for the 2007–08 survey are discussed in Knapp, Kelly-Reid, and Ginder (2009).

Public institutions made the majority of changes to enrollment data during the 2004 revision period (Jackson et al. 2005). The majority of changes were made to unduplicated headcount data, with the net differences between the original data and the revised data at about 1 percent. Part-time students in general and enrollment in private not-for-profit institutions were often underestimated. The fewest changes by institutions were to Classification of Instructional Programs (CIP) code data.

Further information about the Winter/Spring (Fall Enrollment) survey may be obtained from

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Fall (Completions) This survey was part of the HEGIS series throughout its existence. However, the degree classification taxonomy was revised in 1970–71, 1982–83, 1991–92, and 2002–03. Collection of degree data has been maintained through IPEDS.

The nonresponse rate does not appear to be a significant source of nonsampling error for this survey. The response rate over the years has been high, with the degree-granting institutions response rate for the 2007 survey at 100 percent. Because of the high response rate for degree-granting institutions, nonsampling error caused by imputation is also minimal. Imputation methods and the response bias analysis for the fall 2007 survey are discussed in Knapp, Kelly-Reid, and Ginder (2008).

Most Title IV institutions supplying revised data on completions in 2003–04 were able to supply missing data for the prior year (Jackson et al. 2005). The size of the differences between imputed data for the prior year and the revised actual data supplied by the institution indicated that the imputed values produced by NCES were acceptable.

Further information on the IPEDS Completions surveys may be obtained from

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Census Bureau

Current Population Survey

Prior to July 2001, estimates of school enrollment rates, as well as social and economic characteristics of students, were based on data collected in the Census Bureau's monthly household survey of about 50,000 dwelling units. Beginning in July 2001, this sample was expanded to 60,000 dwelling units. The monthly Current Population Survey (CPS) sample consists of 754 areas comprising 2,007 geographic areas, independent cities, and minor civil divisions throughout the 50 states and the District of Columbia. The samples are initially selected based on the decennial census files and are periodically updated to reflect new housing construction.

The monthly CPS deals primarily with labor force data for the civilian noninstitutional population (i.e., excluding military personnel and their families living on post and inmates of institutions). In addition, in October of each year, supplemental questions are asked about highest grade completed, level and grade of current enrollment, attendance status, number and type of courses, degree or certificate objective, and type of organization offering instruction for each member of the household. In March of each year, supplemental questions on income are asked. The responses to these questions are combined with answers to two questions on educational attainment: highest grade of school ever attended and whether that grade was completed.

The estimation procedure employed for monthly CPS data involves inflating weighted sample results to independent estimates of characteristics of the civilian noninstitutional population in the United States by age, sex, and race. These independent estimates are based on statistics from decennial censuses; statistics on births, deaths, immigration, and emigration; and statistics on the population in the armed services. Generalized standard error tables are provided in the *Current Population Reports* or methods for deriving standard errors can be found within the CPS technical documentation at http://www.census.gov/apsd/techdoc/cps/cps-main.html. The CPS data are subject to both nonsampling and sampling errors.

Caution should also be used when comparing data between Census years. With the release of the January 2003 CPS data, population controls that reflect the results of Census 2000 were used in the monthly CPS estimation process. The new controls increased the size of the civilian noninstitutional population by about 3.5 million in May 2002. This adjustment usually occurs 3 to 4 years after the census, and, in some instances, historical data will be revised. Data from January 2000 through December 2002 were revised to reflect these new controls. Over and above these revisions, the U.S. Census Bureau introduced another upward adjustment to the controls as part of its annual update of population estimates for 2003. The prior change in population controls occurred in March 1993, where data after this date were based on the 1990 census-based population controls and data before this date were based on 1980 or earlier census-based population controls. This change in population controls between 1980-based and 1990-based had relatively little impact on summary measures, such as means, medians, and percentage distributions. It does, however, have a significant impact on levels. For example, use of 1990-based population controls resulted in about a 1 percent increase in the civilian noninstitutional population and in the number of families and households. Thus, estimates of levels for data collected in 1994 and later years differed from those for earlier years by more than what could be attributed to actual changes in the population. These differences could be disproportionately greater for certain subpopulation groups than for the total population.

In addition to the changes in population controls, two other relevant changes were introduced into the CPS with the release of the January 2003 data. First, the questions on race and Hispanic origin in the CPS were modified to comply with the new standards for maintaining, collecting, and presenting federal data on race and ethnicity for federal statistical agencies. A major change under those standards is that respondents may select more than one race when answering the survey. Respondents continued to be asked a separate question to determine if they are Hispanic, which is considered an ethnicity rather than a race. The ethnicity question was reworded to ask directly whether the respondent was Hispanic. Persons who report they are Hispanic also are classified separately in the race (or races) they consider themselves to be. Second, improvements were introduced to both the second stage and composite

weighting procedures. These changes adapt the weighting procedures to the new race/ethnic classification system and enhance the stability over time of national and state/substate labor force estimates for demographic groups. These two changes, in addition to the change in population controls discussed above, benchmark the CPS data to the results of Census 2000, improve the estimation procedures, and ensure that the data series produced from the survey reflect the evolving composition of the U.S. population.

Further information on CPS may be obtained from

Education and Social Stratification Branch
Population Division
Census Bureau
U.S. Department of Commerce
Washington, DC 20233
http://www.census.gov/cps

School Enrollment Each October, the Current Population Survey (CPS) includes supplemental questions on the enrollment status of the population 3 years old and over, in addition to the monthly basic survey on labor force participation. Prior to 2001, the October supplement consisted of approximately 47,000 interviewed households. Beginning with the October 2001 supplement, the sample was expanded by 9,000 to a total of approximately 56,000 interviewed households. The main sources of non-sampling variability in the responses to the supplement are those inherent in the survey instrument. The question of current enrollment may not be answered accurately for various reasons. Some respondents may not know current grade information for every student in the household, a problem especially prevalent for households with members in college or in nursery school. Confusion over college credits or hours taken by a student may make it difficult to determine the year in which the student is enrolled. Problems may occur with the definition of nursery school (a group or class organized to provide educational experiences for children), where respondents' interpretations of "educational experiences" vary.

The October 2006 basic CPS household-level response rate was 91.9 percent and the school enrollment supplement person-level response rate was 96.1 percent. Since these rates are determined at different levels they cannot be combined to derive an overall response rate.

Further information on CPS methodology may be obtained from

http://www.census.gov/cps

Further information on CPS "School Enrollment" may be obtained from

Education and Social Stratification Branch
Census Bureau
U.S. Department of Commerce
Washington, DC 20233
http://www.census.gov/population/www/socdemo/school.html

State Population Projections These state population projections were prepared using a cohort-component method by which each component of population change—births, deaths, state-to-state migration flows, international in-migration, and international out-migration—was projected separately for each birth cohort by sex, race, and Hispanic origin. The basic framework was the same as in past Census Bureau projections.

Detailed components necessary to create the projections were obtained from vital statistics, administrative records, census data, and national projections.

The cohort-component method is based on the traditional demographic accounting system:

$$P_1 = P_0 + B - D + DIM - DOM + IIM - IOM$$

where:

P_1 = population at the end of the period

P_0 = population at the beginning of the period

B = births during the period

D = deaths during the period

DIM = domestic in-migration during the period

DOM = domestic out-migration during the period

IIM = international in-migration during the period

IOM = international out-migration during the period

To generate population projections with this model, the Census Bureau created separate datasets for each of these components. In general, the assumptions concerning the future levels of fertility, mortality, and international migration are consistent with the assumptions developed for the national population projections of the Census Bureau.

Once the data for each component were developed, it was a relatively straightforward process to apply the cohort-component method and produce the projections. For each projection year, the base population for each state was disaggregated into eight race and Hispanic categories (non-Hispanic White; non-Hispanic Black; non-Hispanic American Indian, Eskimo, and Aleut; non-Hispanic Asian and Pacific Islander; Hispanic White; Hispanic Black; Hispanic American Indian, Eskimo, and Aleut; and Hispanic Asian and Pacific Islander), by sex, and single year of age (ages 0 to 85+). The next step was to survive each age-sex-race-ethnic group forward 1 year using the pertinent survival rate. The internal redistribution of the population was accomplished by applying the appropriate state-to-state migration rates to the survived population in each state. The projected out-migrants were subtracted from the state of origin and added to the state of destination (as in-migrants). Next, the appropriate number of immigrants from abroad was added to each group. The population under age 1 was created by applying the appropriate age-race-ethnic-specific birth rates to females of childbearing age. The number of births by sex and race/ethnicity were survived forward and exposed to the appropriate migration rate to yield the population under age 1. The final results of the projection process were adjusted to be consistent with the national population projections by single years of age, sex, race, and Hispanic origin. The entire process was then repeated for each year of the projection.

More information on Census Bureau projections may be obtained from

Population Division
Census Bureau
U.S. Department of Commerce
Washington, DC 20233
http://www.census.gov

Other Sources

IHS Global Insight

IHS Global Insight provides an information system that includes databases of economic and financial information; simulation and planning models; regular publications and special studies; data retrieval and management systems; and access to experts on economic, financial, industrial, and market activities. One service is the IHS Global Insight Model of the U.S. Economy, which contains annual projections of U.S. economic and financial conditions, including forecasts for the federal government, incomes, population, prices and wages, and state and local governments, over a long-term (10- to 25-year) forecast period.

Additional information is available from

IHS Global Insight
1000 Winter Street Suite 4300N
Waltham, MA 02451-124
http://www.ihsglobalinsight.com/

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Appendix D
List of Abbreviations

ADA	average daily attendance
BLS	Bureau of Labor Statistics
CCD	Common Core of Data
CIP	Classification of Instructional Programs
CPI	Consumer Price Index
CPS	Current Population Survey
EAP	employees by assigned position
EDEN	education data exchange network
EDMOD	Education Forecasting Model
FTE	full-time-equivalent
HEGIS	Higher Education General Information Survey
IPEDS	Integrated Postsecondary Education Data System
LEA	local education agency
MAPE	mean absolute percentage error
NCES	National Center for Education Statistics

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Appendix E
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Appendix F
Glossary

American Indian or Alaska Native: A person having origins in any of the original peoples of North America and who maintains cultural identification through tribal affiliation or community recognition.

Asian/Pacific Islander: A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, and Pacific Islands. This includes people from China, Japan, Korea, the Philippine Islands, American Samoa, India, and Vietnam.

Associate's degree: An award that normally requires at least 2 but less than 4 years of full-time equivalent college work.

Autocorrelation: Correlation of the error terms from different observations of the same variable. Also called *serial correlation.*

Average daily attendance (ADA): The aggregate attendance of a school during a reporting period (normally a school year) divided by the number of days school is in session during this period. Only days on which the pupils are under the guidance and direction of teachers should be considered days in session.

Average daily membership (ADM): The aggregate membership of a school during a reporting period (normally a school year) divided by the number of days school is in session during this period. Only days on which the pupils are under the guidance and direction of teachers should be considered as days in session. The ADM for groups of schools having varying lengths of terms is the average of the ADMs obtained for the individual schools.

Bachelor's degree: An award (baccalaureate or equivalent degree, as determined by the Secretary, U.S. Department of Education) that normally requires at least 4 but not more than 5 years of full-time equivalent college-level work. This includes all bachelor's degrees conferred in a 5-year cooperative (work-study) program. A cooperative plan provides for alternate class attendance and employment in business, industry, or government; thus, it allows students to combine actual work experience with their college studies. Also includes bachelor's degrees in which the normal 4 years of work are completed in 3 years.

Black: A person having origins in any of the black racial groups of Africa (except those of Hispanic origin).

Breusch-Godfrey serial correlation LM test: A statistic testing the independence of errors in least-squares regression against alternatives of first-order and higher degrees of serial correlation. The test belongs to a class of asymptotic tests known as the Lagrange multiplier (LM) tests.

Classroom teacher: A staff member assigned the professional activities of instructing pupils in self-contained classes or courses, or in classroom situations. Usually expressed in full-time-equivalents.

Cohort: A group of individuals that have a statistical factor in common (e.g., year of birth).

College: A postsecondary school that offers a general or liberal arts education, usually leading to an associate's, bachelor's, master's, doctor's, or first-professional degree. Junior colleges and community colleges are included in this term.

Constant dollars: Dollar amounts that have been adjusted by means of price and cost indexes to eliminate inflationary factors and allow direct comparison across years.

Consumer Price Index (CPI): This price index measures the average change in the cost of a fixed-market basket of goods and services purchased by consumers.

Current dollars: Dollar amounts that have not been adjusted to compensate for inflation.

Current expenditures (elementary/secondary): The expenditures for operating local public schools and school districts, excluding capital outlay, interest on school debt, and programs outside of public elementary and secondary education. These expenditures include such items as salaries for school personnel, fixed charges, student transportation, school books and materials, and energy costs.

Current expenditures per pupil in average daily attendance: Current expenditures for the regular school term divided by the ADA of full-time pupils (or full-time-equivalency of pupils) during the term. See also *Current expenditures* and *Average daily attendance*.

Current Population Survey: See appendix C, Data Sources.

Degree-granting institutions: Postsecondary institutions that are eligible for Title IV federal financial aid programs and that grant an associate's or higher degree. For an institution to be eligible to participate in Title IV financial aid programs it must offer a program of at least 300 clock hours in length, have accreditation recognized by the U.S. Department of Education, have been in business for at least 2 years, and have signed a participation agreement with the Department.

Degrees of freedom: The number of free or linearly independent sample observations used in the calculation of a statistic. In a time series regression with t time periods and k independent variables including a constant term, there would be t minus k degrees of freedom.

Dependent variable: A mathematical variable whose value is determined by that of one or more other variables in a function. In regression analysis, when a random variable, y, is expressed as a function of variables x_1, x_2,..., plus a stochastic term, then y is known as the "dependent variable."

Disposable income: Current income received by persons less their contributions for social insurance, personal tax, and nontax payments. It is the income available to persons for spending and saving. Nontax payments include passport fees, fines and penalties, donations, and tuitions and fees paid to schools and hospitals operated mainly by the government. See also *Personal income*.

Doctor's degree: The highest award a student can earn for graduate study. The doctor's degree classification includes such degrees as Doctor of Education, Doctor of Juridical Science, Doctor of Public Health, and the Doctor of Philosophy degree in any field such as agronomy, food technology, education, engineering, public administration, ophthalmology, or radiology.

Double exponential smoothing: A method that takes a single smoothed average component of demand and smoothes it a second time to allow for estimation of a trend effect.

Durbin-Watson statistic: A statistic testing the independence of errors in least squares regression against the alternative of first-order serial correlation. The statistic is a simple linear transformation of the first-order serial correlation of residuals and, although its distribution is unknown, it is tested by bounding statistics that follow R. L. Anderson's distribution.

Econometrics: The quantitative examination of economic trends and relationships using statistical techniques, and the development, examination, and refinement of those techniques.

Elementary and secondary schools: As used in this publication, includes only regular schools, that is, schools that are part of state and local school systems and also most private elementary and secondary schools, both religiously affiliated and nonsectarian. Schools not included in this term are subcollegiate departments of institutions of higher education, federal schools for Indians, and federal schools on military posts and other federal installations.

Elementary school: A school classified as elementary by state and local practice and composed of any span of grades not above grade 8. A preschool or kindergarten school is included under this heading only if it is an integral part of an elementary school or a regularly established school system.

Enrollment: The number of students registered in a given school unit at a given time, generally in the fall of a year.

Estimate: A numerical value obtained from a statistical sample and assigned to a population parameter. The particular value yielded by an estimator in a given set of circumstances or the rule by which such particular values are calculated.

Estimating equation: An equation involving observed quantities and an unknown that serves to estimate the latter.

Estimation: Estimation is concerned with inference about the numerical value of unknown population values from incomplete data, such as a sample. If a single figure is calculated for each unknown parameter, the process is called point estimation. If an interval is calculated within which the parameter is likely, in some sense, to lie, the process is called interval estimation.

Expenditures: Charges incurred, whether paid or unpaid, that are presumed to benefit the current fiscal year. For elementary and secondary schools, these include all charges for current outlays plus capital outlays and interest on school debt. For degree-granting institutions, these include current outlays plus capital outlays. For government, these include charges net of recoveries and other correcting transactions other than for retirement of debt, investment in securities, or extension of credit. Government expenditures include only external transactions, such as the provision of perquisites or other payments in kind. Aggregates for groups of governments exclude intergovernmental transactions.

Expenditures per pupil: Charges incurred for a particular period of time divided by a student unit of measure, such as average daily attendance or average daily membership.

Exponential smoothing: A method used in time series analysis to smooth or to predict a series. There are various forms, but all are based on the supposition that more remote history has less importance than more recent history.

First-order serial correlation: When errors in one time period are correlated directly with errors in the ensuing time period. Also called *autocorrelation.*

First-professional degree: An award that requires completion of a program that meets all of the following criteria: (1) completion of the academic requirements to begin practice in the profession; (2) at least 2 years of college work prior to entering the program; and (3) a total of at least 6 academic years of college work to complete the degree program, including prior required college work plus the length of the professional program itself. First-professional degrees may be awarded in the following 10 fields: Chiropractic (D.C. or D.C.M.), Dentistry (D.D.S. or D.M.D.), Law (L.L.B., J.D.), Medicine (M.D.), Optometry (O.D.), Osteopathic Medicine (D.O.), Pharmacy (Pharm.D.), Podiatry (D.P.M., D.P., or Pod.D.), Theology (M.Div., M.H.L., B.D., or Ordination), Veterinary Medicine (D.V.M.).

First-professional enrollment: The number of students enrolled in following degree programs: Chiropractic (D.C. or D.C.M.), Dentistry (D.D.S. or D.M.D.), Law (L.L.B., J.D.), Medicine (M.D.), Optometry (O.D.), Osteopathic Medicine (D.O.), Pharmacy (Pharm.D.), Podiatry (D.P.M., D.P., or Pod.D.), Theology (M.Div., M.H.L., B.D., or Ordination), Veterinary Medicine (D.V.M.).

First-time freshman: A student attending any institution for the first time at the undergraduate level. Includes students enrolled in academic or occupational programs. Also includes students enrolled in the fall term who attended college for the first time in the prior summer term, as well as students who entered with advanced standing (college credits earned before graduation from high school).

Forecast: An estimate of the future based on rational study and analysis of available pertinent data, as opposed to subjective prediction.

Forecasting: Assessing the magnitude that a quantity will assume at some future point in time, as distinct from "estimation," which attempts to assess the magnitude of an already existent quantity.

Four-year institution: A postsecondary institution that offers programs of at least 4 years duration or one that offers programs at or above the baccalaureate level. Includes schools that offer postbaccalaureate certificates only or those that offer graduate programs only. Also includes free-standing medical, law or other first-professional schools.

Full-time-equivalent (FTE) enrollment: A measurement equal to one student enrolled full time for one academic year. Total FTE enrollment includes full time plus the calculated equivalent of the part-time enrollment. The full-time equivalent of the part-time students can be estimated using different factors depending on the type and control of institution and level of student.

Full-time worker: In educational institutions, an employee whose position requires being on the job on school days throughout the school year at least the number of hours the schools are in session; for higher education, a member of an educational institution's staff who is employed full time.

Function: A mathematical correspondence that assigns exactly one element of one set to each element of the same or another set. A variable that depends on and varies with another.

Functional form: A mathematical statement of the relationship among the variables in a model.

Graduate: An individual who has received formal recognition for the successful completion of a prescribed program of studies.

Graduate enrollment: The number of students who hold the bachelor's or first-professional degree, or the equivalent, and who are working towards a master's or doctor's degree. First-professional students are counted separately. These enrollment data measure those students who are registered at a particular time during the fall.

Higher education: Study beyond secondary school at an institution that offers programs terminating in an associate's, baccalaureate, or higher degree.

Higher education institutions (traditional classifications):

> **4-year institution:** An institution legally authorized to offer and offering at least a 4-year program of college-level studies wholly or principally creditable toward a bachelor's degree. A university is a postsecondary institution that typically includes one or more graduate professional schools.
>
> **2-year institution:** An institution legally authorized to offer and offering at least a 2-year program of college-level studies that terminates in an associate's degree or is principally creditable toward a baccalaureate.

See also *Degree-granting institutions* and *Postsecondary education*.

High school: A secondary school offering the final years of high school work necessary for graduation, usually including grades 10, 11, and 12 (in a 6-3-3 plan) or grades 9, 10, 11, and 12 (in a 6-2-4 plan).

Hispanic: A person of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race.

Independent variable: In regression analysis, a random variable, y, is expressed as a function of variables x_1, x_2,..., plus a stochastic term, the x's are known as "independent variables."

Interpolation: See *Linear interpolation.*

Lag: An event occurring at time t + k (k > 0) is said to lag behind an event occurring at time t, the extent of the lag being k. An event occurring k time periods before another may be regarded as having a negative lag.

Linear interpolation: A method that allows the prediction of an unknown value if any two particular values on the same scale are known and the rate of change is assumed constant.

Master's degree: An award that requires the successful completion of a program of study of at least the full-time equivalent of 1 but not more than 2 academic years of work beyond the bachelor's degree.

Mean absolute percentage error (MAPE): The average value of the absolute value of errors expressed in percentage terms.

Model: A system of postulates, data, and inferences presented as a mathematical description of a phenomenon, such as an actual system or process. The actual phenomenon is represented by the model in order to explain, predict, and control it.

Nonresident alien: A person who is not a citizen or national of the United States and who is in this country on a visa or temporary basis and does not have the right to remain indefinitely.

Ordinary least squares (OLS): The estimator that minimizes the sum of squared residuals.

Parameter: A quantity that describes a statistical population.

Part-time enrollment: Undergraduate—A student enrolled for either 11 semester credits or less, or 11 quarter credits or less, or less than 24 contact hours a week each term. Graduate—A student enrolled for either 8 semester credits or less, or 8 quarter credits or less.

Personal income: Current income received by persons from all sources minus their personal contributions for social insurance. Classified as "persons" are individuals (including owners of unincorporated firms), nonprofit institutions serving individuals, private trust funds, and private noninsured welfare funds. Personal income includes transfers (payments not resulting from current production) from government and business such as social security benefits, military pensions, and so forth, but excludes transfers among persons.

Postbaccalaureate enrollment: The number of students with a bachelor's degree who are enrolled in graduate-level or first-professional courses.

Postsecondary education: The provision of a formal instructional program whose curriculum is designed primarily for students who are beyond the compulsory age for high school. This includes programs whose purpose is academic, vocational, and continuing professional education, and excludes avocational and adult basic education programs.

Postsecondary education institution: An institution which has as its sole purpose or one of its primary missions, the provision of postsecondary education.

Private institution: A school or institution that is controlled by an individual or agency other than a state, a subdivision of a state, or the federal government (i.e., usually supported primarily by other than public funds) and the operation of whose program rests with other than publicly elected or appointed officials.

Projection: In relation to a time series, an estimate of future values based on a current trend.

Property tax: The sum of money collected from a tax levied against the value of property.

Public school or institution: A school or institution controlled and operated by publicly elected or appointed officials, and generally deriving its primary support from public funds.

Pupil/teacher ratio: The enrollment of pupils at a given period of time, divided by the full-time-equivalent number of classroom teachers serving these pupils during the same period.

R^2: The coefficient of determination; the square of the correlation coefficient between the dependent variable and its OLS estimate.

Race/ethnicity: Categories used to describe groups to which individuals belong, identify with, or belong in the eyes of the community. The categories do not denote scientific definitions of anthropological origins. A person may be counted in only one group. The groups used to categorize U.S. citizens, resident aliens, and other eligible non-citizens in this report are as follows: Black, American Indian/Alaska Native, Asian/Pacific Islander, Hispanic, White.

Region: The four geographical regions of the United States as defined by the Census Bureau of the U.S. Department of Commerce presented below:

> **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.
>
> **Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.
>
> **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.
>
> **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Regression analysis: A statistical technique for investigating and modeling the relationship between variables.

Revenue receipts: Additions to assets that do not incur an obligation that must be met at some future date and do not represent exchanges of property for money. Assets must be available for expenditures.

Revenues: All funds received from external sources, net of refunds and correcting transactions. Noncash transactions such as receipt of services, commodities, or other receipts "in kind" are excluded, as are funds received from the issuance of debt, liquidation of investments, or nonroutine sale of property.

Rho: A measure of the correlation coefficient between errors in time period t and time period t minus 1.

Salary: The total amount regularly paid or stipulated to be paid to an individual, before deductions, for personal services rendered while on the payroll of a business or organization.

School: A division of the school system consisting of students in one or more grades or other identifiable groups and organized to give instruction of a defined type. One school may share a building with another school or one school may be housed in several buildings.

Secondary instructional level: The general level of instruction provided for pupils in secondary schools (generally covering grades 7 through 12 or 9 through 12), and any instruction of a comparable nature and difficulty provided for adults and youth beyond the age of compulsory school attendance.

Secondary school: A school including any span of grades beginning with the next grade following elementary or middle school (usually 7, 8, or 9) and ending with or below grade 12. Both junior high schools and senior high schools are included.

Senior high school: A secondary school offering the final years of high school work necessary for graduation.

Serial correlation: Correlation of the error terms from different observations of the same variable. Also called *autocorrelation*.

Standard error of estimate: An expression for the standard deviation of the observed values about a regression line. An estimate of the variation likely to be encountered in making predictions from the regression equation.

Student: An individual for whom instruction is provided in an educational program under the jurisdiction of a school, school system, or other educational institution. No distinction is made between the terms "student" and "pupil," although "student" may refer to one receiving instruction at any level while "pupil" refers only to one attending school at the elementary or secondary level. The term "student" is used to include individuals at all instructional levels. A student may receive instruction in a school facility or in another location, such as at home or in a hospital. Instruction may be provided by direct student-teacher interaction or by some other approved medium, such as the Internet, television, radio, telephone, or correspondence.

Tax base: The collective value of sales, assets, and income components against which a tax is levied.

Time series: A set of ordered observations on a quantitative characteristic of an individual or collective phenomenon taken at different points in time. Usually the observations are successive and equally spaced in time.

Time series analysis: The branch of quantitative forecasting in which data for one variable are examined for patterns of trend, seasonality, and cycle.

Two-year institution: A postsecondary institution that offers programs of at least 2 but less than 4 years duration. Includes occupational and vocational schools with programs of at least 1800 hours and academic institutions with programs of less than 4 years. Does not include bachelor's degree-granting institutions where the baccalaureate program can be completed in 3 years.

Undergraduate enrollment: The number of students enrolled in a 4- or 5-year bachelor's degree program, an associate's degree program, or a vocational or technical program below the baccalaureate.

Undergraduate students: Students registered at an institution of higher education who are working in a program leading to a baccalaureate or other formal award below the baccalaureate, such as an associate's degree.

Ungraded student (elementary/secondary): A student who has been assigned to a school or program that does not have stan dard grade designations.

Variable: A quantity that may assume any one of a set of values.

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