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## American Immigration, Fertility, and Race

**Suicide at the Turn of the Century** Immigration has provoked nativist hostility in the United States since the mid-nineteenth century. At the turn of the century, representatives of long-established American families blamed a multitude of social problems—including crime, poverty, insanity, and political corruption—on newcomers to their shores. Critics of open-door immigration policies feared not only the immigrants themselves but also their descendants. These children of immigrants were viewed by Francis A. Walker, superintendent of the censuses of 1870 and 1880, as “our home-grown foreigners.” Explained Walker,

Although born among us, our general instinctive feeling testifies that they are not wholly of us. So separate has been their social life, due alike to their clannishness and to our reserve; so strong have been the ties of race and blood and religion with them; so acute has been the jealousy of their spiritual teachers to our institutions—that we think of them, and speak of them, as foreigners.

Even observers who were comparatively sympathetic to immigrants, such as Carpenter, tended to lump together “immigrants and their children” as a “foreign stock” population that “can be clearly set apart.”<sup>1</sup>

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1 For discussion of American nativism and fears of race suicide, see Barbara Miller Solomon, *Ancestors and Immigrants: A Changing New England Tradition* (New York, 1956); John Higham, *Strangers in the Land* (New Brunswick, 1955); Richard Hofstadter, *The Age of Reform* (New York, 1955). Francis A. Walker, “Our Domestic Service,” in Davis R. Dewey (ed.), *Discussions in Economics and Statistics* (New York, 1899), 234. Niles Carpenter, *Immigrants and Their Children* (Washington, D.C., 1927), 2.

The hostility to the children of the foreign-born drew attention to immigrant fertility levels. In turn, early studies of differential fertility stimulated hysterical predictions of imminent “race suicide.” As early as 1867, John Todd, a Congregational minister, warned that the large families of foreigners would overwhelm Anglo-Saxon stock. According to Todd, “while our foreign population has large families, our own native American families are running out, and, at this rate, must and will entirely run out. The statistics presented to our legislators on this subject are fearful.” Over forty years later, educator G. Stanley Hall echoed this alarm and vainly advocated legislation to force “selfish” native-born bachelors to marry. Fears of pernicious foreign influence subsided only after the passage of immigration restrictions in the 1920s and the subsequent glorification of assimilation in the American melting pot.<sup>2</sup>

Social historians now condemn the racist ideology underlying fears of high immigrant fertility. They nonetheless agree with the Victorians about the facts of the matter. Local and regional studies—from that of Bash in 1955 to that of Guest in 1982—have confirmed Victorian claims that immigrants were reproducing faster than native Americans.<sup>3</sup>

2 John Todd, *Serpents in the Dove's Nest* (Boston, 1867), quoted in Graham J. Barker-Benfield, *Horrors of the Half-Known Life: Male Attitudes Toward Women and Sexuality in Nineteenth Century America* (New York, 1976), 203. Charles Strickland Burgess (ed.), *Health, Growth, and Heredity: G. Stanley Hall on National Education* (New York, 1965).

3 Wendell H. Bash, “Differential Fertility in Madison County, New York, 1865,” *Milbank Memorial Fund Quarterly*, XXXIII (1956), 161–168; Avery M. Guest, “Fertility Variation among the U.S. Foreign Stock Population in 1900,” *International Migration Review*, XVI (1982), 577–594; Michael R. Haines, “Fertility and Marriage in a Nineteenth Century American City: Philadelphia, 1850–1900,” *Journal of Economic History*, XL (1980), 151–158; Tamara K. Hareven and Maris A. Vinovskis, “Patterns of Childbearing in Late Nineteenth Century America: The Determinants of Marital Fertility in Five Massachusetts Towns in 1880,” in *idem*, *Family and Population in Nineteenth Century America* (Princeton, 1978), 85–125; *idem*, “Marital Fertility, Ethnicity, and Occupation in Urban Families: An Analysis of South Boston and the South End in 1880,” *Journal of Social History*, IX (1975), 69–93; Mark J. Stern, *Society and Family Strategy: Erie County, New York, 1850–1920* (Albany, 1987); Joseph J. Spengler, *The Fecundity of Native and Foreign Born Women in New England* (Washington, D.C., 1930); Jerry Wilcox and Hilda J. Golden, “Prolific Immigrants and Dwindling Natives? Fertility Patterns in Western Massachusetts, 1850 and 1880,” *Journal of Family History*, VII (1982), 265–289; Stuart A. Tolnay, Stephen M. Graham, and Guest provide national figures on immigrant fertility trends in “Own-Child Estimates of U.S. White Fertility, 1886–99,” *Historical Methods*, XV (1982), 127–138; Guest and Tolnay, “Urban Industrial Structure and Fertility: The Case of Large American Cities,” *Journal of Interdisciplinary History*, XIII (1983), 387–409.

Scholars have also noted relatively high fertility levels among the descendants of immigrants before World War I. Virtually every historical study of the fertility of second-generation women in the late-nineteenth and early twentieth centuries has found that their fertility levels were higher than those of native women of native parentage, but lower than those of foreign-born women.<sup>4</sup> Such findings not only substantiate the contentions of Victorian investigators but also suggest a smooth linear relationship between family limitation and American assimilation.

There are at least two plausible rationales for hypothesizing a negative relationship between level of fertility and degree of American assimilation. First, some theorists have linked family limitation to a “modern” outlook, and rapid industrialization and urbanization in the United States might have fostered such a “modern” mentality. By contrast, most of the immigrants arriving in the United States during the last decades of the nineteenth century came from “traditional” rural communities. Second, a decline in fertility began exceptionally early among the American population, around the beginning of the nineteenth century; a comparable decline did not occur in most European countries—including those from which most immigrants came—until the 1870s or later.<sup>5</sup>

This paper reexamines the basis for Victorian fears of race suicide—the differential fertility of immigrant women, native-born women of foreign parentage, and native-born women of native parentage. The analysis is based on the 1900 Public Use Sample, a national random sample of households drawn from the federal census, which includes information on the fertility of over

4 For example, in their study of five Massachusetts towns in 1880, Vinovskis and Hareven found that “the [marital] fertility of second-generation women was 61.8 percent higher than that of women of native parentage and 18.3 percent lower than that of foreign-born women.” Hareven and Vinovskis, “Patterns of Childbearing,” 101. Similarly, Guest uncovered intermediate fertility levels among second-generation women, using data from counties in Ohio, Minnesota, and Rhode Island in 1900. Guest, “Fertility Variation,” 580–599.

5 On the agricultural origins of most immigrants, see David Montgomery, “Immigrant Workers and Managerial Reform,” in *idem*, *Workers’ Control in America* (Cambridge, 1979), 34. See Wilson H. Gabrill, Clyde V. Kiser, and Pascal K. Whelpton, *The Fertility of American Women* (New York, 1958); Ansley J. Coale, “The Decline of Fertility in Europe from the French Revolution to World War II,” *Fertility and Family Planning: A World View* (Ann Arbor, 1969), 3–24; *idem* and Susan Cotts Watkins (eds.), *The Decline of Fertility in Europe* (Princeton, 1985).

22,000 women between the ages of 15 and 44.<sup>6</sup> Our study reports fertility differentials at the turn of the century and explores the determinants of contrasting levels of childbearing.

The results show that overall fertility levels cannot be explained by the degree of American assimilation. We found that second-generation women experienced strikingly low overall fertility, relative to both foreign-born women and native-born women of native parentage. Moreover, the data indicate that the ethnic population had lower fertility than the third-generation native-born population. These unexpected findings are shown in

*Table 1* Measures of Overall Fertility of United States Women Ages 15 to 44 in 1900

	CHILD/ WOMAN RATIO <sup>a</sup>	MEAN NUMBER OF CHILDREN EVER-BORN	MEAN NUMBER OF CHILDREN BORN PER YEAR <sup>b</sup>	INDEX OF CHILDREN PER YEAR <sup>c</sup>	N
Comparison of native-native, second-generation, and foreign-born women					
All native-native	476.8	1.86	.1156	142	14079
White	469.5	1.74	.1068	131	11443
Nonwhite	497.1	2.37	.1521	187	2636
All ethnics	443.5	1.68	.0946	116	8769
Second-generation	376.8	1.46	.0815	100	5175
Foreign-born	529.2	1.93	.1117	137	3594
Ethnic population, broken down by number of foreign parents and age at immigration					
Second-generation					
One foreign parent	344.1	1.43	.0800	98	1518
Two foreign parents	385.5	1.46	.0818	101	3657
Foreign-born <sup>d</sup>					
Child immigrants	483.5	1.88	.1091	134	1064
Adult immigrants	539.8	1.96	.1136	140	2530

NOTE All figures are standardized by the age distribution of all women ages 15–44 in Center for Studies in Demography and Ecology, University of Washington, “United States Census Data, 1900: Public Use Sample” (Ann Arbor, 1981).

a Own-children under 5 resident in household per 1000 women.

b The sum of the number of children born divided by the number of years lived since age 15 for women age 15 and over.

c Second-generation women = 100.

d Missing data on year of immigration imputed (see note 8).

6 For further information about these data, see Center for Studies in Demography and Ecology, University of Washington, “United States Census Data, 1900: Public Use Sample” (Ann Arbor, 1981).

Table 1, which presents three age-standardized measures of fertility for native-born women of native-born parentage (native-native women); native-born women with at least one foreign-born parent (second-generation women); and foreign-born women. The native-native women are also broken down by race, since the Victorian theorists of race suicide would have drawn no comfort from the high fertility of native-born blacks.

The first column of Table 1 shows the child-woman ratio, which is the measure of fertility most commonly used in historical studies of census data. Although this ratio is the best available indicator of recent fertility, it has the disadvantage that it is influenced not only by fertility, but also by maternal and child mortality and by rates of coresidence between mothers and children. The mean number of children ever born to women, given in the second column, is a simple and reliable measure of past fertility, but it is insensitive to recent fertility because it reflects mainly the fertility of older women, who have the greatest number of children ever born. The third column presents a somewhat unusual measure—average number of children born per year of potential fertility. This statistic was calculated by dividing the number of children ever born to each woman under age forty-five by the number of years she had lived since age fifteen. The mean number of children per year is roughly comparable to a general fertility rate. We chose this measure to accommodate the retrospective nature of the children-ever-born data; unlike the simple measure of children ever born, it is not determined primarily by the experience of older women. The mean number of children-per-year measure is expressed in terms of index numbers in the fourth column of Table 1.<sup>7</sup>

7 Much of the following analysis relies on retrospective reports of the cumulative fertility of women who were between 15 and 45 years of age in 1900. We have placed less emphasis on other measures more appropriate for capturing recent fertility trends, such as child-woman ratios. We have employed own-children methods (which use the ages of children enumerated in the household for inferring fertility histories) primarily to allow comparison of our findings with those of other researchers and for the analysis of birth intervals and the cessation of childbearing (see Table 5). We chose to rely primarily on reports of children ever born for two reasons. First, the primary focus of this research is not long- or short-term change in childbearing practices, but rather differences in the past fertility of women who were of childbearing age in 1900. Children-ever-born data were most appropriate for the latter topic. Second, we wanted to avoid the potential biases in statistics based on children present in the household. Own-children estimates are affected by the mortality of children and of women of childbearing age. Because little information on

Overall, immigrants did have higher fertility than native-born women. But, when we consider the fertility of the daughters of immigrants—the “home-grown foreigners”—the results sharply contradict both previous demographic research and the Victorian prophets of race suicide. Regardless of the measure employed, Table 1 indicates that second-generation women had substantially lower fertility than any other group, including the native-native women. Such low fertility among second-generation women contradicts any simple linear relationship between assimilation and fertility control.

These results also force us to reevaluate nativist warnings of race suicide. When we combine the foreign-born with the second-generation women (All ethnics in Table 1), we find that the overall fertility of immigrants and their children was substantially lower than that of native-born women of native parentage. In other words, the fears of contemporary observers were misplaced; “native Americans” were reproducing faster than the “foreign stock” of immigrants and their children, and the net effect of immigration was to reduce fertility levels around the turn of the century.

In Table 1, the ethnic women are further subdivided according to the number of foreign-born parents and their age of immigration, categories intended to capture their degree of exposure to American society.<sup>8</sup> The patterns that emerge are consistent with

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mortality differentials by birthplace and ethnicity was available, it would have been impossible to adjust adequately for this source of error.

Children who live apart from their mothers also introduce error into these alternative methods. Comparison of children enumerated in the household with reports of surviving children showed that a significant proportion of women over 30 had children living elsewhere in 1900; residence patterns may well have differed by nativity and ethnicity. The chief limitation of children-ever-born data derives from the tendency for older women to omit mention of children who have died or have left home. Such downward bias in the older age groups is indicated when reported cumulative fertility decreases with age. See Coale and Paul Demeny, *Manuals on Methods of Estimating Population: Manual IV: Methods of Estimating Basic Demographic Measures from Incomplete Data* (New York, 1967), 31–40. There was little or no evidence of such downward bias in the 1900 census data, save for women well beyond the age of childbearing.

<sup>8</sup> Child immigrants are those foreign-born women who had immigrated when they were ten years old or younger; adult immigrants had immigrated when they were eleven or older. Missing data on year of immigration for 431 immigrants were imputed by allocating the year of immigration of the preceding immigrant with a nonmissing year of immigration. Missing data for the variable on years in the U.S. were imputed by means of a hot-deck procedure. The hypothesis that assimilation led to family limitation is supported by the finding that child immigrants, who were introduced to American norms at a more impressionable age, had fewer children than did adult immigrants, a fact which suggests that exposure to American customs encouraged family limitation. In addition, second-

the theory that ethnic fertility levels declined with assimilation. But they also create the impression that the second generation was more assimilated than the native-native population itself.

We initially thought that the low fertility of second-generation women relative to the foreign-born might reflect differences in the ethnic composition of the two groups. Certainly, there were changes in the “racial stock” of the foreign-born population after 1880; intellectuals and reformers repeatedly warned that the “Slav, Latin, and Asiatic races, historically downtrodden, atavistic, and stagnant” would overwhelm “British, German, and Scandinavian stock, historically free, energetic, and progressive.”<sup>9</sup>

In Table 2, the mean number of children born per year was broken down by generation and ethnic group in order to test whether greater representation of “old” immigrants among the second-generation women could account for their low fertility.<sup>10</sup>

Table 2 Fertility and Ethnic Origins of United States Women Ages 15 to 44 in 1900

PLACE OF ORIGIN	MEAN NUMBER OF CHILDREN BORN PER YEAR		PERCENT OF WOMEN FOREIGN-BORN	TOTAL CASES
	SECOND-GENERATION	FOREIGN-BORN		
Ireland	.0633	.0801	28.1	2024
Germany	.0885	.1145	29.5	2799
Great Britain	.0826	.1018	33.4	1027
Other NW Europe	.0912	.1024	55.1	988
Eastern Europe	.1224	.1553	79.8	664
Southern Europe	.1065	.1565	87.7	220
Non-European	.0978	.0977	56.4	1047

NOTE All figures are standardized by the age distribution of all women ages 15–44 in the 1900 “Public Use Sample.”

generation women with two foreign-born parents had higher cumulative fertility than did American-born women with one foreign-born parent. A similar pattern emerges if we also take into account the birthplaces of the husbands and parents-in-law of second-generation women; the average number of children ever born rises as the proportion of foreign-born relatives and in-laws increases. But the critical exception to this pattern—the low fertility of second-generation women relative to native-native women—must not be overlooked.

9 Prescott F. Hall, “Immigration and the Educational Test,” *North American Review*, CLXV (1897), 395, quoted in Solomon, *Ancestors and Immigrants*, 111.

10 The ethnicity of women born outside the United States was assigned on the basis of their own birthplaces. A second-generation woman with two foreign-born parents was classified on the basis of her mother’s birthplace, in accordance with the practice followed

As anticipated, the “new” immigrants—those from southern and eastern Europe—had higher fertility than the “old” immigrants from Ireland, Germany, and elsewhere in northern Europe. However, within each ethnic group, there was a substantial drop in fertility between the first generation and the second generation, and, in almost every group, second-generation fertility was lower than native-native fertility. Among the “old” immigrant groups, even the foreign-born had lower fertility than native-born women of native parentage.

The shift from “old” immigrants to “new” immigrants accounts for less than one fourth of the observed fertility differences between second-generation and foreign-born women. The “new” immigrants were simply not numerous enough in 1900 to have much impact on ethnic fertility: only 10 percent of the foreign-born and second-generation women could trace their origins to southern or eastern Europe. Moreover, the few southern and eastern European second-generation women had substantially lower fertility than foreign-born women from the same regions.

Thus the central question remains: why did second-generation women have so few children, compared with both native-native and foreign-born women? One approach to the issue is to investigate the extent to which second-generation women differed from native-native and foreign-born women when matched on three characteristics. Table 3 gives a breakdown of the number of children born per year for the three groups of women by rural/urban residence, region, and occupational status.<sup>11</sup> The three columns on the right of the table show the frequency distribution of each group. Compared with native-native women, the ethnics more often resided in cities and in the northeastern and north central regions of the country, and fewer of them were farmers. Among all three generational groups, residents of rural areas, the South, and the West, and farmers had the highest fertility; therefore both second-generation and foreign-born women were concentrated in low fertility areas.

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by the U.S. Census Bureau at the turn of the century. If a second-generation woman had a native-born mother and a foreign-born father, her ethnicity was determined by her father's birthplace.

11 Rural residence is defined as residence in a locality of under 1,000 population. The regional categories are defined according to the standard census bureau classification system. The occupational classification is described in Ruggles, “The Demography of the Unrelated Individual,” *Demography*, XXV (1988), 521–536.



Table 3 Mean Number of Children Born per Year and Frequency Distribution of White Women in the United States Ages 15 to 44, by Selected Factors

FACTOR AND CATEGORY	MEAN NUMBER OF CHILDREN BORN PER YEAR			FREQUENCY DISTRIBUTION OF WOMEN		
	NATIVE-NATIVE	SECOND-GENERATION	FOREIGN-BORN	NATIVE-NATIVE	SECOND-GENERATION	FOREIGN-BORN
Residence						
Urban	.0728	.0711	.1054	40.0	68.3	77.4
Rural	.1311	.1054	.1366	60.0	31.7	22.6
Region						
Northeast	.0752	.0715	.1063	25.3	37.5	52.2
North Central	.0994	.0855	.1198	33.1	48.4	36.9
Southeast	.1338	.0859	.1029	28.1	4.8	2.4
South and West	.1337	.0973	.1183	13.4	9.3	8.4
Occupation						
Bourgeois	.0671	.0683	.0946	11.1	12.1	7.6
Skilled	.0943	.0814	.1173	24.2	37.2	38.0
Unskilled	.1146	.0819	.0990	17.6	19.4	34.2
Farmers	.1368	.1100	.1487	37.5	19.0	12.2
N/A <sup>a</sup>	.0583	.0493	.1031	9.5	12.2	8.0
Total	.1068	.0815	.1119	100.0	100.0	100.0
N	11,443	5,156	3,566	11,443	5,156	3,566

NOTE All figures are standardized by the age distribution of all women ages 15–44 in the 1900 “Public Use Sample.”

a Includes missing data and non-occupational responses such as “at home,” “housewife,” and “in school.”

To assess whether the differences in fertility between the three groups would disappear if the groups had the same age composition and shared the same distributions of rural/urban residence, region, and occupation, we carried out a decomposition analysis (see Table 4).<sup>12</sup> The upper panel decomposes the differences between native-native and second-generation women, and the lower panel decomposes the differences between the foreign-born and second-generation women. The absolute differences between

12 We adopted the decomposition technique proposed by P. Das Gupta, “A General Method for Decomposing a Difference between Two Rates into Several Components,” *Demography*, XV (1978), 99–112, which is an elaboration and refinement of the methods developed by Evelyn M. Kitagawa, “Components of a Difference between Two Rates,” *Journal of the American Statistical Association*, L (1955), 1168–1194; Robert D. Retherford and Lee-Jay Cho, “Comparative Analysis of Recent Trends in East Asia,” in *Proceedings of the 17th General Conference of the International Union for the Scientific Study of Population* (Liege, 1973), II, 163–181. The use of index numbers in presenting decomposition results was suggested by Kitagawa, “Standardized Comparisons in Historical Research,” *Demography*, I (1964), 296–315.

*Table 4* Components of Differentials in the Mean Number of Children Born per Year to White Women in the United States Ages 15 to 44 in 1900

	COMPONENTS OF DIFFERENCE	INDEX OF DIFFERENCE
Difference between native-native and second-generation women		
Total difference	.0228	100.0
Effects of factors:		
Age	-.0012	-5.2
Rural/urban	.0088	38.9
Region	.0059	26.1
Occupational status	.0038	16.7
Combined effect of factors	.0174	76.5
Rate effect	.0054	23.5
Difference between foreign-born and second-generation women		
Total difference	.0534	100.0
Effects of factors:		
Age	.0206	38.5
Rural/urban	-.0014	-2.6
Region	-.0005	-1.0
Occupational status	-.0003	-0.6
Combined effect of factors	.0184	34.4
Rate effect	.0350	65.6

groups are shown on the left of the table, together with the components of difference that can be attributed to each factor. The rate effect that appears at the bottom of each panel represents the difference in fertility that would remain if the two groups being compared shared the same compositional characteristics—that is, the portion of difference unexplained by the factors. The results are expressed as index numbers on the right of the table.

The figures on the right of the upper panel of Table 4 indicate that if the second-generation women and the native-native women had identical distributions of age, residence, region, and occupation, and everything else were equal, then the difference in fertility between the two groups would diminish by 76.5 percent. The most important factor is rural/urban residence, which accounts for 39 percent of the difference, followed by region, which accounts for 26 percent.

The large effect of factors in the upper panel of Table 4 does not mean that the factors actually explain the low fertility of the second generation. After all, the foreign-born were similar to the second generation in their residence, region, and occupational status, and they had very high fertility. As can be seen in the lower panel of Table 4, the only factor that helps to explain the difference between second-generation and foreign-born women is age. What this analysis shows is that ethnics—both foreign-born and second-generation—resided in those parts of the United States that were characterized by low native-native fertility. Compared with their native-native neighbors, therefore, the fertility of second-generation women was not exceptionally low.

To understand why second-generation women had fewer children, it is helpful to examine some of the proximate determinants of fertility. To oversimplify, fertility is determined by three factors: starting, spacing, and stopping.<sup>13</sup> Each of these factors is explored in Table 5.

In Western societies, the onset of childbearing is usually determined by marriage. Some people never get married, and among those who marry some remain childless, but for most women childbearing begins shortly after marriage. There were striking differences in age at marriage and the proportion never marrying among the native-native, second-generation, and foreign-born women in 1900. The top panel of Table 5 shows the age-standardized distribution of marital status for each group, together with the indirect median age at marriage, the overall percentage never marrying, and the percentage of ever-married

13 This list is much-simplified; compare the proximate determinants model of John Bongaarts and Robert Potter in *Fertility, Biology, and Behavior* (New York, 1983), or the “exposure, conception, and gestation variables” identified by Kingsley Davis and Judith Blake in “Social Structure and Fertility: An Analytic Framework,” *Economic Development and Cultural Change*, IV (1956), 211–235. The scheme that we adopted reflects the limitations of census data. Two other potential influences on fertility levels—illegitimacy and separation of spouses—are not analyzed in the text because they did not appear to be significant determinants of fertility differentials among the groups studied. Reported fertility of never-married women was extremely low in 1900. The percentage of never-married women who had borne children in each group was as follows: native-native women, .02%; second-generation women, .07%; child immigrants, .27%; and adult immigrants, .27%. There was little difference between groups in the percentage of currently married women with spouse absent, in the frequency of divorce, or in the proportion of currently widowed women in each age group between 15–19 and 40–44.

Table 5 Some Proximate Determinants of the Fertility of United States Women Ages 15 to 44 in 1900

	NATIVE-NATIVE		SECOND- GENERATION	FOREIGN- BORN
	ALL	WHITE		
Starting: Marital Patterns and Childlessness				
Percent single	37.3	38.1	48.0	39.2
Percent married	58.3	58.4	48.2	57.6
Percent wid/sep	4.4	3.4	3.6	3.1
Indirect median age at marriage	21.4	21.8	23.9	22.0
Percent single at 45-49	8.2	8.4	13.6	7.6
Percent of ever-married childless at 45-49	10.4	11.2	12.0	10.5
Spacing: Median birth intervals, by life table method, in months				
Marriage to first birth	18.6	19.5	18.9	18.9
First to second birth	28.8	28.8	27.7	27.6
Second to third birth	28.7	29.0	29.0	27.5
Third to fourth birth	29.5	29.7	28.7	28.9
Stopping: Mean age of 45-49 year old mothers at birth of last child				
	35.1	34.8	34.8	35.9
Number of women, 15-44	14110	11436	5183	3606
Number of women, 45-49	1272	1077	271	518
Birth interval population				
at 18 months, 1st interval	3769	3337	1239	1154
at 30 months, 4th interval	919	771	264	380

women who remained childless.<sup>14</sup> The differences in marriage patterns are consistent with the fertility differentials shown in Table 1. The second-generation women, with the lowest fertility, married later and remained single much more frequently than either of the other groups.

The other determinants of fertility shown in Table 5—spacing and stopping—cannot help to explain the low fertility of the second generation. To minimize truncation bias, we used the life-table approach to the measurement of birth intervals. Only small differences between groups emerged, and those small differences

14 On the calculation of the indirect median age at marriage, see Henry S. Shryock and Jacob S. Siegel, *The Methods and Materials of Demography* (Washington, D.C., 1973).

are inconsistent with the observed differences in fertility. In fact, second-generation women appear to have had slightly shorter birth intervals than the native-native women. Stopping was estimated by measuring the mean age of the forty-five- to forty-nine-year-old mothers at the birth of their last child. This measure has considerable potential for selection bias, but given the limitations of the data it is probably the best that can be done.<sup>15</sup> Once again, the differences between groups are minimal. The foreign-born women had their last child about a year after the other groups, which may indicate that fewer of them were limiting their families through contraception.

In sum, marital patterns—age at marriage and proportion marrying—are the only plausible mechanisms to explain the low fertility of the second generation. To confirm this, Table 6 provides several measures of marital fertility. The first column shows the child-woman ratio for married women. This measure does not fully account for differences in the marriage patterns of different groups, since it is based on fertility experience during the previous five years, but does not control for marital status during that period. The second column gives the mean number of chil-

15 The life-table approach to measuring birth intervals involves calculating the proportion of women at risk of having given birth by month  $x$  who actually gave birth by that month; these proportions are then treated as “survival rates.” The sample was restricted to women who had completed the interval in question and whose previous birth (or marriage) had occurred at least  $x$  months before the census. To minimize the effects of mortality and children leaving home, the analysis was further restricted to women with all children born still present in the household. The latter restriction creates the potential for selection bias, since women with very large intervals are more likely to have older children, and older children will have a greater chance of having died or left home. Since the children of immigrants left home later than did other groups, there may be a small relative overstatement of the birth-intervals of the foreign-born. For a discussion of truncation effects in cross-sectional birth-interval analysis, see Mindel C. Sheps et al., “Truncation Effect in Closed and Open Birth Interval Data,” *Journal of the American Statistical Association*, LXV (1970), 678–693. On the relative importance of birth spacing and stopping in explaining the decline in fertility at the end of the nineteenth century, see Douglas L. Anderton and Lee L. Bean, “Birth Spacing and Fertility Limitation: A Behavioral Analysis of a Nineteenth Century Frontier Population,” *Demography*, XXII (1985), 169–183; Tolnay and Guest, “American Family Building Strategies in 1900: Stopping or Spacing,” *Demography*, XXI (1984) 9–18; Paul David and Warren Sanderson, “Rudimentary Contraceptive Methods and the American Fertility Transition to Marital Fertility Control, 1855–1915,” in Stanley L. Engerman and Robert E. Gallman (eds.), *Long Term Factors in American Economic Growth* (Chicago, 1986). The measure for stopping is influenced by child mortality and children leaving home. Women who had all of their children early are less likely to have their youngest child present in the household. The problem is exacerbated by differentials in the age at which children left home.

dren-ever-born for married women. Again, since children-ever-born is a retrospective measure of fertility, this measure does not fully capture the effects of differing marital patterns. The third column of Table 6 shows a more precise measure: the mean number of children born per year of marriage. This measure is also based on the children-ever-born variable in the census, but it controls for past marital experience: it is simply the number of children ever born to married women divided by duration of marriage. The measure is analogous to an age-standardized marital fertility rate.<sup>16</sup> The fourth column of Table 6 expresses the mean number of children per year of marriage in index numbers.

The results indicate that the marital fertility of second-generation women was virtually identical to that of white native-native women, once we control for differences in age structure and marital duration. In Table 1, the number of children born per year was 31 percent higher for white native-native than for second-generation women; in contrast, the index of children per year of marriage is virtually identical in the two groups.

Differences in marriage practices also account for some, but not all, of the fertility gap between second-generation women and foreign-born women. The mean number of children ever born per year shown in Table 1 was 37 percent higher for adult immigrants than for second-generation women; the mean number of children born per year of marriage in Table 6 was only 16 percent higher.

The findings presented so far can be summarized as follows:

- (1) Contrary to the contention of Victorian nativists, immigrants and their children actually lowered American fertility levels around the turn of the century, because of the extremely low fertility of second-generation ethnics.
- (2) The low fertility of second-generation women relative to the foreign born cannot be accounted for by differences in the ethnic makeup of the two groups.
- (3) Second-generation and foreign-born women were concentrated in northern cities, where native-native fertility was lowest.

16 The 1900 census provides information on the duration of current marriages, but not the age at first marriage. To minimize problems introduced by remarriage, we eliminated women whose eldest child was older than the marriage.

Table 6 Measures of Marital Fertility of United States Women Ages 15 to 44 in 1900

	CHILD/ WOMAN RATIO <sup>a</sup>	MEAN NUMBER OF CHILDREN EVER-BORN <sup>b</sup>	MEAN NUMBER OF CHILDREN BORN PER YEAR	INDEX OF CHILDREN PER YEAR <sup>c</sup>	N
Total native-native	790.1	3.00	.2727	102	7922
White native-native	787.2	2.86	.2662	100	6499
Second-generation	764.8	2.71	.2671	100	2451
Foreign-born	907.2	3.19	.3102	116	2400

NOTE All figures are standardized by the age distribution of all women ages 15-44 in the 1900 "Public Use Sample."

a Own-children under 5 resident in household per 1000 married women.

b Number of children born per year married.

c Second-generation women = 100.

- (4) The low fertility of second-generation women relative to white native-native women was almost entirely a product of differing marital patterns. Within marriage, the fertility patterns of the two groups were similar.
- (5) The high fertility of the foreign-born, relative to both native-native and second-generation women, was a result of both differing marital patterns and higher fertility within marriage.

These findings raise an obvious question: why did second-generation women get married less frequently and later than native-native women and foreign-born women? The superintendent of the 1900 U.S. Census put forward one explanation, noting, "early marriage is most common among negro females and least common among native white females of foreign parentage; the latter case is probably explained by the fact that a large number of young women of this class are engaged in gainful pursuits."<sup>17</sup>

17 U.S. Bureau of the Census, *Twelfth Census: Statistics of Population* (Washington, D.C., 1902), II, xci. The Census Bureau did not suggest that late marriage for the second-generation immigrants derived from a shortage of potential male spouses (a demographic marriage squeeze) because heavy male-dominated immigration created an overall excess of adult males in the population. Our analysis of the 1900 data indicates that native-born women of foreign parentage could participate in several alternative marriage markets; second-generation married women had found spouses among immigrant and native-native men as well as among second-generation men.

The superintendent was correct that second-generation women were frequently employed, but his explanation is insufficient: foreign-born and black women worked even more frequently, and that did not stop them from getting married early and often. Our own interpretation is complementary but more complex: second-generation immigrant women both delayed marriage and extended their employment because of strong familial obligations.

The daughters of immigrants remained at home with their parents substantially longer than the daughters of the native-born. Some historians have suggested that there was a stronger sense of duty toward kin among immigrant groups than among long-established Americans. Coresident daughters who had grown up in the United States were doubtless a boon to parents who spoke little English. Economic imperatives may have played an equally important role. Ethnic women were economically disadvantaged compared to natives; 41.8 percent of native-native women resided in families in which the head had a working-class occupation, compared with 56.6 percent of the second-generation women and 72.6 percent of the foreign-born. Second-generation women had a marked tendency to work outside their homes, and testimony from the period indicates that such working daughters contributed their earnings to the family.<sup>18</sup> Compared with native-native women, therefore, second-generation women had stronger bonds of obligation to parents coupled with greater economic need, factors which may have led them to forestall marriage.

18 See, for example, Virginia Yans-McLaughlin, *Family and Community: Italian Immigrants in Buffalo, 1880–1930* (Ithaca, 1977); Elizabeth Ewen, *Immigrant Women in the Land of Dollars: Life and Culture on the Lower East Side, 1890–1925* (New York, 1985); Florence B. Bloom, “Struggling and Surviving: The Life Style of European Immigrant Breadwinning Mothers in American Industrial Cities, 1900–1930,” *Women’s Studies International Forum*, VIII (1985), 609–620; Judith E. Smith, *Family Connections: A History of Italian and Jewish Lives in Providence, Rhode Island, 1900–1940* (Albany, 1985). For a discussion of the economic contribution of second-generation women to their family of origin, see, for example, Leslie Tentler, *Wage-Earning Women: Industrial Work and Family Life in the United States, 1900–1930* (New York, 1979); Gary Cross and Peter R. Shergold, “The Family Economy and the Market: Wages and Residence of Pennsylvania Women in the 1890s,” *Journal of Family History*, XI (1986), 245–265; Louise A. Tilly and Joan W. Scott, *Women, Work and Family* (New York, 1978); Hareven, *Amoskeag: Life and Work in an American Factory City* (New York, 1978); Judith Smith, “Our Own Kind: Family and Community Networks,” *Radical History Review*, XVII (1978), 99–120; Yans-McLaughlin, *Family and Community*.



Foreign-born women had similar economic incentives to work and similar cultural imperatives to support their kin, but far fewer of them had parents who resided in the United States. Indeed, many foreign-born women had married before they immigrated. The issue of parental obligations was therefore less important for foreign-born women than for native-born women.

The data on employment and residence with parents support the interpretation that second-generation women often delayed marriage because of their duties to their family of origin. The top section of Table 7 shows the proportion of women who resided with their parents and worked for wages. Overall, such behavior was almost 60 percent more common among second-generation single women than among either native-native or foreign-born women. The pattern was not merely a consequence of differing marital patterns; when we restrict the analysis to single women, the same basic relationship emerges.

The lower panel of Table 7 uses a synthetic cohort to estimate the mean number of years that women between the ages of fifteen and forty-four lived with their parents, worked, and both lived at home and worked.<sup>19</sup> The second-generation women spent more time living with their parents than either of the other groups. Foreign-born women had the longest period of employment, but the briefest period of residence with their parents, whereas the native-native women had a moderate period of residence with parents and a short period of employment. Overall, the second-generation women worked and resided with their parents 98 percent longer than white native-native women and 62 percent longer than the foreign-born. More than 95 percent of these second-generation women were single.

In sum, the evidence is consistent with the hypothesis that many second-generation women delayed or avoided marriage so that they could remain at home with their parents. The daughters of native-born parents probably had less economic and social pressure to stay with their parents, whereas many fewer of the foreign-born women had local parents with whom they could reside. This hypothesis is not the only possible explanation for the late marriage and low fertility of second-generation women;

19 This method is described in Ruggles, "Demography of Unrelated Individual."

Table 7 Marriage, Employment, and Residence with Parents for United States Women Ages 15 to 44 in 1900

Percent of all women who were employed and living with parents

AGE GROUP	NATIVE-NATIVE							
	ALL		WHITE		SECOND-GENERATION		FOREIGN-BORN	
	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N
20-24	13.4	3335	12.1	2461	26.7	1127	13.4	677
25-29	6.8	3083	6.7	2014	13.1	989	3.5	660
30-34	4.1	2491	4.3	1622	8.3	831	2.7	687
15-44	8.9	14110	7.8	11463	15.9	5183	10.0	3608

Percent of single women who were employed and living with parents

AGE GROUP	NATIVE-NATIVE							
	ALL		WHITE		SECOND-GENERATION		FOREIGN-BORN	
	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N
20-24	25.8	1471	23.2	1223	41.2	723	25.4	351
25-29	24.1	598	23.6	499	31.0	371	12.0	175
30-34	20.5	307	21.6	259	31.9	188	12.0	100
15-44	21.6	5557	19.0	4561	31.6	2539	24.4	1056

Estimated mean years that all women between ages 15 and 45 spent employed, living with parents, and both employed and living with parents<sup>a</sup>

	NATIVE-NATIVE		SECOND-GENERATION	FOREIGN-BORN
	ALL	WHITE		
With parents	8.45	8.91	10.65	5.61
Employed	6.26	4.81	7.55	8.52
With parents and employed	2.32	2.08	4.12	2.54
N	14110	11463	5183	3608

a Sum of proportions with indicated characteristics over the ages 15-44. See discussion of marriage duration in note 10.

further investigation may uncover additional economic or cultural barriers to marriage for these women.

Whatever the explanation for the marriage patterns of second-generation women, one conclusion is inescapable: the much-heralded "breeding power" of ethnics at the turn of the century was an illusion.<sup>20</sup> Given this, how is it possible that recent historical

20 Phrase from Nathaniel S. Shaler, "The Summer's Journal of a Naturalist," *Atlantic Monthly*, XXXI (1873), 713, quoted in Solomon, *Ancestors and Immigrants*.

studies and turn-of-the-century investigations have both reached exactly the opposite conclusion?

There are two reasons why the results presented here differ sharply from those of other historical studies. First, historical demographers working on this period generally limit their analyses to the study of marital fertility as opposed to overall fertility. This narrow focus reflects the preoccupation of demographers with the onset of fertility limitation within marriage through contraception. If we are interested in historical fertility differentials because we want to evaluate contemporary fears or because we are concerned with differential rates of population growth, we must consider general as well as marital fertility levels. Marrying late or not at all can sharply constrain fertility levels, but such effects cannot be detected if we ignore the unmarried. We should not allow our interest in contraception to obscure the powerful influence of marriage patterns on overall fertility levels; for most of the past 500 years, marital behavior has been the primary determinant of fertility rates in Western Society.<sup>21</sup>

The second reason that recent studies have failed to note the low fertility of second-generation women is that they have generally been case studies focusing on the northeast or north central regions of the United States. As noted, these were the areas in which native-native fertility was lowest. It turns out that if we limit the analysis to marital fertility levels in these regions, second-generation women appear to have had slightly higher fertility than native-native women.

These factors explain why historical demographers have failed to point out the strikingly low fertility of second-generation women around the turn of the century. But what about the Victorians? How can we explain the discrepancy between nativist fears of “race suicide” and the actual effect of immigration on American fertility levels? We have shown that the combined fertility of immigrants and their children was actually lower than that of native-born women of native parentage. Yet alarm about the shrinking birth rates of “native Americans” and the large families of foreigners permeated political discussion, academic debate, and the mass media around the turn of the century.

21 E. Anthony Wrigley and Roger S. Schofield, *The Population History of England, 1541–1871: A Reconstruction* (Cambridge, Mass., 1981).

The hysteria about the low fertility of the Yankee stock compared to the newcomers began well before there were sufficient data to test whether or not such a differential actually existed. But, for the middle-class residents of northern cities, the increasing foreign presence was threateningly obvious; by 1900, 51 percent of the residents of the northeastern states were of foreign parentage, and, in cities like New York and Chicago, the figure was over 75 percent. Since most of these aliens were born in America, the high fertility of immigrants seemed obvious. Added to this first-hand evidence of the ethnic presence was the increasing recognition in the closing decades of the nineteenth century that overall fertility was declining rapidly.<sup>22</sup>

The quantitative analyses of differential fertility that did appear were limited in scope. The most frequently cited study of the period was carried out by Kuczynski, who compared the children ever born to native-born and foreign-born women using the Massachusetts State Census of 1885. Kuczynski could not distinguish the second-generation women from the native-born

22 U.S. Bureau of the Census, *Twelfth Census: Statistics of Population*, I. clxxxii. For discussion of declining fertility from turn-of-the century observers, see, for example, Edward Lee Thorndike, "The Decrease in Size of American Families," *Popular Science Monthly*, LXIII (1903), 64–70; Theodore Roosevelt, "Race Decadence," in Hermann Hagedorn (ed.), *The Works of Theodore Roosevelt* (New York, 1926), XIV, 151–166. Differences in age structure may also have contributed to contemporaries' sense that native-born Americans were dying away. As a group, foreign-born women were older than native-born women, and immigrants had thus had greater opportunities to raise large families. Another factor that was generally ignored in the late-nineteenth-century rhetoric on race suicide was the higher mortality of the immigrant population. The 1900 census incorporates a variable on the number of children surviving, which can be compared with the variable on children ever born to estimate relative mortality. It turns out that the differences in mortality between the children of white native-born women of native parentage and second-generation women were very small, but the children of foreign-born women experienced substantially higher mortality. Applying the technique described by William Brass et al. (*The Demography of Tropical Africa* [Princeton, 1968], 12–182), and fitting model West of the Coale-Demeny regional model life tables (*Regional Model Life Tables and Stable Populations* [New York, 1983; 2nd ed.] yield a life expectancy at birth of 54.0 for the children of native-native women, 55.4 for the children of second-generation women, and 42.4 for the children of foreign-born women. This differential would further lower the relative rate of the natural increase of the ethnics. These figures were calculated with MORTPAK, the United Nations software package for mortality measurement. On the reliability of the children surviving variable as a measure of mortality, see Samuel H. Preston and Haines, "New Estimates of Child Mortality in the United States at the Turn of the Century," *Journal of the American Statistical Association*, LXXIX (1984), 272–281; Daniel Scott Smith, "Differential Mortality in the United States before 1900," *Journal of Interdisciplinary History*, XIII (1983), 735–759.

women of native parentage; not surprisingly, he found that the “average number of children for each adult native woman is 1.6; that of the foreign born is 3.1, or nearly double.” When later theorists of race suicide referred to Kuczynski’s work, they usually equated “native born” with “native stock.”<sup>23</sup> Thus, the Massachusetts data were seen as statistical confirmation of the race-suicide thesis.

The federal censuses of 1890, 1900, and 1910 all included a question on the number of children born to each woman, and these data could have been used to test the thesis of race suicide. Because of the limited resources of the census, however, no national tabulations of these inquiries appeared until many years later.<sup>24</sup> As the pressure to restrict immigration mounted in the early decades of the twentieth century, there was no evidence to contradict the argument that America would shortly be overrun by excessively fertile foreigners.

There was one observer who guessed correctly that ethnic fertility was even lower than that of the native stock. Commons, an economist from Wisconsin, believed that native fertility had declined mainly because more and more people were delaying marriage or remaining single to improve their economic positions. Noting that the proportion married among second-generation women was extremely low in the 1900 census, Commons inferred that their fertility was proportionately low, and that therefore the problem of race suicide was even greater for newcomers than for natives: “Could [Kuczynski] have separated the

23 Robert R. Kuczynski, “The Fecundity of the Native and Foreign Born Population in Massachusetts,” *Quarterly Journal of Economics*, XVI (1902), 168. For examples of the equation of “native born” with “native stock,” see Frederick Buchee, “The Declining Birth Rate and its Cause,” *Popular Science Monthly*, LXIII (1903); Frederick L. Hoffman, “The Decline in the Birth Rate,” *North American Review*, CLXXXIX (1909), 675–687; Walter F. Willcox, “Differential Fecundity,” *Journal of Heredity*, V (1914), 141–148.

24 Data from the 1900 census were tabulated for Rhode Island, Cleveland, Minneapolis, and selected rural Ohio and Minnesota counties by the Immigration Commission about ten years after that census was taken, and the results were presented in Joseph A. Hill, “Comparative Fecundity of Women of Native and Foreign Parentage in the United States,” *Publications of the American Statistical Association*, XIII (1913), 583–604. The analysis was restricted to currently married women under 45 years who had been married between 10 and 20 years. Hill reported that, among these women, those of native parentage had significantly fewer children than those of foreign parentage. If the study had considered the differences in marital patterns or had looked beyond the northeastern and north central regions, its conclusions would have been different. It was not until the 1940s that tabulations of children born to all women were published. See note 25 below.

two elements of the native population, he would have found that the immigrant element is dying out faster than the native population.” No one paid much attention to Commons’ argument, and by the time detailed fertility statistics confirming his thesis were released in 1943, race suicide was no longer a burning issue.<sup>25</sup>

It would be a mistake to ascribe the rise of the ideology of race suicide to a lack of adequate statistical data. Most of the writers on the topic made no reference to statistics. These authors typically resided in northeastern cities that they could see were becoming foreign, and they knew from firsthand experience that middle-class natives were postponing or foregoing marriage for “selfish” economic motives. Race suicide was typically viewed in moral terms, not quantitative ones. Theodore Roosevelt put it this way:

The fundamental, the unpardonable crime against the race is the crime of race suicide. The New England of the future will belong, and ought to belong, to the descendants of the immigrants of yesterday and today, because the descendants of the Puritans “have lacked the courage to live,” have lacked the conscience which ought to make men and women fulfill the primary law of their being.<sup>26</sup>

The moral argument was reinforced by fears of genetic pollution. Nativist spokesmen therefore feared not only the large families of immigrant couples but also interbreeding which might “dilute the Yankee gumption . . . [and] pollute the Yankee blood.”<sup>27</sup> This emphasis on genetic contamination made any

25 John R. Commons, *Races and Immigrants in America* (New York, 1913), 204, n. 1. We are grateful to Stephen Gross for pointing out this source. The variable on children-ever-born in the 1910 census was first tabulated as part of the analysis of the 1940 census. The results are most fully presented in U.S. Bureau of the Census, *Sixteenth Census of the United States: 1940 Population. Differential Fertility 1940 and 1910: Women by Number of Children Ever Born*. (Washington, D.C., 1945). The tables show that second-generation women had lower fertility than native-native women in both 1910 and 1940.

26 Roosevelt, “Twisted Eugenics,” in Hagedorn (ed.), *Works of Theodore Roosevelt*, XIV, 167–178.

27 The frequent references to American and immigrant “stock” and European “races” indicates the influence of eugenics doctrine on nativist thought. Medical opinion on heredity pervaded discussion of many social issues besides immigration, issues ranging from crime to mental illness. For further discussion of this topic, see, for example, Charles Rosenberg, “The Bitter Fruit,” *Perspectives in American History*, VII (1974), 189–235. Richard Fox, *So Far Disordered in Mind: Insanity in California, 1870–1930* (Berkeley, 1978). Hall, to the editor, *Boston Journal*, 30 June 1894, quoted in Solomon, *Ancestors and Immigrants*, 109.

childbearing by immigrants and their descendants seem threatening. Thus, the reproduction of foreign stock constituted a danger in itself, a danger that would have been feared even if contemporaries had known that immigrants and their offspring actually had lower fertility than did the native population.