PART 2
POPULATION CHANGE AND
THE FAMILY ENVIRONMENT
OF CHILDREN

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INTRODUCTION

Children’s lives have been completely transformed by enormous changes in their family environment, especially by changes in their family composition, parental work, and family income. Underlying changes in the family environment of children are historic trends in the size, composition, and demographic behavior and circumstances of the American population. This chapter begins by describing historic changes in the population and demography of the U.S. It then describes the nature and reasons for historic changes in the family environment of children. The chapter closes by discussing the value for public policy analysis of statistics using children as the unit of analysis, and a major new panel survey, the Survey of Program Dynamics (SPD), planned for the years 1993-2002 to provide a basis for evaluating welfare and health care reform as they affect children.
The U.S. population more than tripled during this century, rising from 76 million in 1900 to 250 million in 1990, an increase of 174 million. By the middle of the next century, the population is projected to grow by an additional 140 million, reaching 392 million by 2050 (Table 1). Children under age 18, adults age 18-64, and elderly persons age 65 years and over experienced very different rates of increase, however. As a result, by 1990 children accounted for a much smaller proportion of the population than they did in 1900, while the elderly accounted for a much larger proportion. This aging of the population is projected to continue through at least the middle of the next century.

Between 1900 and 1990, the proportion of the total population accounted for by adults age 18-64 fluctuated within the range of 55-63 percent (Figure 1). As of 1990, adults age 18-64 accounted for 62 percent of the total population, and this is projected to decline to about 56 percent in

Figure 1. PERCENT OF THE POPULATION BY AGE: 1900 - 2050

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2030-2050. Children, in contrast, experienced a steady decline in their share of the population, with the exception of the two-decade baby-boom, and children are projected to experience a continuing decline in their share of the population for the next sixty years. Meanwhile, the elderly have experienced and are projected to continue to experience a steady increase in their share of the population.

Children under age 18 as a proportion of the total population fell from 40 percent in 1900 to 26 percent in 1990. After 2000, the proportion of the total population consisting of children is projected to decline further to about 23 percent in 2040-2050. Meanwhile, the proportion of the total population accounted for by elderly adults age 65 years and over tripled from only 4 percent in 1900 to 13 percent in 1990. As the baby-boom generation begins to reach age 65 around 2010, the elderly population is projected to rise especially rapidly to 20-21 percent between 2030-2050.

During the forty years from 1990 to 2030, then, the U.S. population is projected to age substantially, as the proportion under age 18 declines from 26 to 24 percent, the proportion in the main working ages of 18-64 shrinks from 62 to 56 percent, and the proportion elderly expands from 13 to 20 percent.

Viewing children under age 18 and the elderly 65 years and over as the primary populations potentially dependent on working-age adults age 18-64 for their support and care, the relative size of the child population has shifted enormously. Children as a proportion of these potentially dependent age groups have dropped from 91 percent in 1900 to 67 percent in 1990, and they are projected to decline to only 53 percent of total potential dependents by 2050.

At least since 1970, the large decline in the comparative size of the child population and the large increase in the comparative size of the elderly population has been accompanied by a simultaneous shift in the composition of the population toward minority group membership. This growth in the comparative size of the minority population is projected to continue for at least fifty years, and to be especially large among children, but relatively small among the elderly (Table 1).

Between 1900 and 1970, whites accounted for 88-90 percent of the total population, 85-89 percent of children, 89-90 percent of adults age 18-64, and 91-94 percent of the elderly. After 1970, these proportions all began declines that are projected to continue through at least 2050. As of 1980, it became possible to distinguish the majority white, not Hispanic population from not white races and from Hispanics.

In 1980, 74 percent of children were white, not Hispanic; by 1990 this had declined to 69 percent, and projections suggest that by 2030, that is, 35 years from now, only 50 percent of U.S. children will be white, not Hispanic (Figure 2). During the same time, projections suggest that the proportion of persons who are white, not-Hispanic will decline for adults age 18-64 from 81 to 59 percent, and for the elderly from 88 to 75 percent. In other words, in all three age groups, the proportion who are members of a non-white race or who are Hispanic will double—from 26 percent to 50 percent for children, from 19 to 41 percent for working-age adults, and from 12 to 25 percent for the elderly (Figure 3). Despite the enormous increases in minority
group membership for all ages during the coming years, the gaps separating children from working-age adults and the elderly in the proportion who are minority group members will increase. Between 1980 and 2030, the extent to which children are more likely than working-age adults to be minority group members will grow from 7 to 9 percentage points, and the extent to children are more likely than the elderly to be minority group members will expand from 14 to 25 percentage points.

In short, the U.S. is now in the midst of large population increases which are associated with major shifts toward a population composition that will more elderly and more likely to belong to a non-white or Hispanic minority group. As a result, the experience of American children during the coming years will increasingly be the experience of minority children who live in a society where children constitute a decreasing proportion of the potentially dependent population, and where the elderly constitute an increasing proportion of the potentially dependent population. From the viewpoint of the elderly, because growing numbers of elderly will depend increasingly, for their economic support, on the productivity of working-age adults who are members of racial and ethnic minorities, the economic support available to the elderly will increasingly depend on the quality of the education, training, and health care received by members of minority groups when they are children.

Figure 2. PERCENT OF CHILDREN WHO ARE WHITE NOT HISPANIC, BLACK, AND HISPANIC: 1980 - 2050


The population of minority children consists mainly of two groups (which overlap slightly). In 1990 black children accounted for 15 percent of all children, a figure projected to increase to 20 percent by 2050 (Figure 2). The next largest group in 1990, Hispanic children, accounted for 12 percent of children in 1990, and is projected to grow to 28 percent by 2050.

Although blacks and Hispanics account for the largest proportions of the one-third of American children in 1990 who belong to non-white or Hispanic minority groups, minority children trace their backgrounds to many different sources (Table 2, Figure 4). For example, 1 percent of U.S. children were American Indian, Eskimo, and Aleut, and 3 percent were Asian or Pacific Islander. The Asian and Pacific Islander group in turn was very diverse, with 20 percent Chinese, 19 percent Filipino, 12 percent Korean, 11 percent Asian Indian, 10 percent Vietnamese, and 8 percent Japanese. The Hispanic population also was quite diverse in 1990, with 67 percent of Mexican origin, 12 percent Puerto Rican, 5 percent Central American, 3 percent Cuban, and 2 percent Dominican Republic.
Foreign countries have, of course, always contributed substantially to the U.S. population (Table 3). Between 1900 and 1930, 12-15 percent of the U.S. population was foreign-born, and this varied from 5-9 percent between 1940-1980. As of 1990, 8 percent of the U.S. Population was foreign-born, and these persons were drawn from many countries throughout the world; 22 percent from Mexico; 5 percent from the Philippines; 4 percent from each of three countries, Canada, Cuba, and Germany; 3 percent from each of five countries, United Kingdom, Italy, Korea, Vietnam, and China; and 2 percent from El Salvador. Even these eleven countries accounted for only 54 percent of the foreign-born, nearly half were drawn from other countries around the world.

The geographic distribution of the population also has changed enormously during American history. In 1790, 95 percent of the population lived in rural areas, only 5 percent lived in urban areas (Table 4). By 1900, the rural population had declined to 60 percent (39 percent in rural farm areas and 21 percent in rural nonfarm areas), and the urban population had grown to 40 percent (Figure 5). By 1920 a majority of Americans lived in urban areas, and by 1990, a large majority, 73 percent, lived in urban areas. While the remaining 27 percent lived in rural areas, most lived in nonfarm settings, only 2 percent of Americans lived in rural farm areas by 1990.

Figure 5. PERCENT OF THE POPULATION RESIDING IN URBAN AND RURAL AREAS 1790 - 1990, AND RURAL FARM AND RURAL NONFARM AREAS: 1890 - 1990


The living situations of persons in urban areas are, in turn, quite diverse. For example in 1990, 77 percent of children lived inside metropolitan areas, but these were split between the 30 percent who lived in central cities, and the 46 percent who lived outside the central cities (Table 5). Among the 23 percent of children living outside metropolitan areas, there was also diversity, since these children were split between the 8 percent in urban areas, and the 15 percent in rural areas.

Enormous differences exist in the geographic distribution of children by race and Hispanic origin. For example, more than one-half of black and Hispanic children lived in central cities in 1990, 57 and 51 percent, respectively, compared to 21 percent of white, not Hispanic children (Figure 6). Most likely to live outside metropolitan areas were white, not Hispanic children (27 percent), followed by black children (17 percent), and Hispanic children (11 percent).
The median age at first marriage for both men and women declined for more than half a century from 1890 until the late 1950s (Table 6, Figure 7), when fertility rates reached their baby-boom peak. Since then, the median age at first marriage for both men and women has increased substantially, especially since the mid-1970s. By 1993, the median age at first marriage reached 26.5 years for men, somewhat more than the historic high of 26.1 years recorded in 1890, and it reached 24.5 for women, substantially higher than at any time since 1890.

The post-1940 decline in the median age at first marriage was accompanied by large declines in the proportion of young adults who had never married (Table 7). The proportion of women never married dropped from 47 percent to 28 percent between 1940 and 1960 for women age 20-24, and from 23 percent to only 11 percent for women 25-29. Similarly for men between 1940 and 1960, the proportion never married dropped from 72 to 53 percent at ages 20-24 and from 36 to 21 percent for ages 25-29.

Since then, the proportion never married among young adults has increased dramatically (Table 7, Figure 8). Between 1960 and 1993, the proportion never married at ages 20-24 jumped from 28 to 67 percent for women, and from 53 to 81 percent for men. At ages 25-29 during the twenty-three years from 1970 to 1993, the proportion never married jumped from 11 to 33 percent for women and from 19 to 48 percent for men, and at ages 30-34 the proportion never married jumped from 6 to 19 percent for women, and from 9 to 30 percent for men.
Whites, blacks, and Hispanics all experienced large increases in the proportion of young adults never married, but the increases for blacks have been extraordinary. By 1993, for example, the proportions never married at ages 20-24 were 81 percent for black women, compared to 64 and 55 percent for white and Hispanic women, respectively, and at ages 25-29 the proportions never married were 57 percent for black women, compared to 29 and 31 percent for whites and Hispanics, respectively.

The divorce rate increased at a remarkably steady pace between for the 100 years spanning 1860 to 1960, with the exception of sharp but temporary peaks associated with the two world wars and a sharp but temporary dip associated with the Great Depression (Table 8, Figure 9). After 1960, the increase in the divorce rate accelerated sharply, and in 1979 the annual divorce rate reached a peak of 22.8 divorces per 1,000 married women. Since then the divorce rate has declined to 20.7 divorces per 1,000 married women in 1988, but by historical standards the divorce rate remains extremely high.

Figure 8. PERCENT SINGLE BY AGE AND SEX: 1960 - 1993 (never married)


These recent divorce rates suggest that the proportion whose first marriage may eventually end in divorce by age 65 will be 38-49 percent for women age 20-24 in 1990, compared to about 30-32 percent for women born thirty years earlier and age 50-54 in 1990 (Norton and Miller, 1992, p. 5). Of course many persons who divorce subsequently remarry, and of all current marriages, about 4 out of 10 in the U.S. involve a second or higher-order marriage of the bride, groom, or both (U.S. National Center for Health Statistics, 1991).

Many persons who remarry subsequently redivorce, however. Recent redivorce rates suggest, for example, that the proportion whose second marriage may eventually end in divorce may be 47-62 percent for women age 20-24 in 1990, compared to 38-46 percent for women born thirty years earlier.

In short, the past quarter century brought enormous increases in non-marriage among young men and women, especially among blacks, and it brought enormous increases in divorce and redivorce.

**Figure 9. DIVORCE RATE: 1860 TO 1988 (rate per 1000 married women age 15 and over)**

One commonly used measure of childbearing is the General Fertility Rate (GFR), calculated as the annual number of births per 1,000 women age 15-44 (Table 9, Figure 10). Using this measure, fertility declined during each of the 14 decades spanning 1800 to 1940, and by the time of the Great Depression and World War II, the GFR was less than one-third as large as it was in 1800. With the post-WWII baby boom, the GFR increased, for example, by about 50 percent between 1940 and 1957, returning to the level experienced in 1916.

A second commonly used fertility measure is the Total Fertility Rate (TFR), which indicates the mean number of births that would occur to a hypothetical cohort of 1,000 women over the course of their childbearing years if they were to experience the age-specific fertility rates for a given year. Divided by 1,000 the TFR indicates the average number of children that would be born to one woman in that hypothetical cohort. By this oft-cited measure, fertility increased by about 60 percent during the baby boom, from an average of 2.3 births per woman in 1930-1945 to a peak of 3.5 in 1957.

After the postwar baby boom, the historic fertility decline resumed, and by the early 1970s, both the GFR and the TFR had fallen below the level recorded during the Great Depression, with the TFR fluctuating narrowly between 1.7 and 1.9 births per woman.

A more direct measure of actual family size is the average (mean) number of children ever born to specific 5-year cohorts of women by the end of their childbearing years. Since the average childbearing age is about 27, estimates are graphed in Figure 10 (from Table 10) at the point about 27 years later than the average year of birth for each cohort of women. For women who have not yet completed their childbearing, expected family size can be calculated from data on the total number of births these women expect to have during their lifetime.

The general pattern of family-size change indicated by this measure is similar to the pattern of change shown in the GFR and TFR. The mean number of children ever born declined from more than 5.0 in 1865 to only 2.4 children in the mid-1930s. During the baby boom it then increased to 3.1 children per woman in the late 1950s and declined during the baby bust to about 2.1 children per woman in 1975. By this measure, then, the actual family size of women increased by about 30 percent during the baby boom—that is, by about one-half as much as the TFR—and the baby bust decline also was about one-half as large as the decline measured by the TFR.

Why were the postwar swings in family size so much smaller than the corresponding swings in fertility? Norman B. Ryder (1980) provided the answer to this question, calculating that one-half of the baby-boom increase in the TFR was due to: (1) childbearing among older women who had postponed having children during the economic hard times of the Great Depression; (2) a shift toward earlier childbearing among young women after World War II; and (3) the tendency of these young women to space their children's births more closely.

Similarly, more than one-half of the baby-bust decline in the TFR between 1957 and 1976 occurred because: (1) young women who during the baby boom started their childbearing at an early age also finished at an early age, and hence had relatively fewer births later in life; and (2) a shift toward later childbearing and longer spacing of births occurred among women who were beginning to bear children during the late 1960s.

In short, the fertility and family sizes of women have declined dramatically since 1800, with the post World War II baby boom as the single important interruption. The effect of the baby-boom on the family sizes of women was important, but it was only half as great as would be suggested by commonly used measures of fertility change.
Between 1940-1960, only 3-5 percent of children were born to unmarried mothers (Table 11, Figure 11). But as the proportion of young adults never married began increasing after 1960, so too did the proportion of children born to unmarried mothers, from 11 percent in 1970, to 18 percent in 1980, and to 30 percent in 1991.

Among whites, the proportion born to unmarried mothers has been smaller than for the population as a whole, but the increases have been large, rising from 2 percent for 1940-1960, to 6 percent in 1970, 11 percent in 1980, and 22 percent (more than 1-in-5) in 1991. Throughout the era, non-marital childbearing has been much higher among blacks. Between 1940-1960, births to unmarried women accounted for a fairly constant proportion at about 18-22 percent of nonwhite births, and this increased for blacks to 38 percent in 1970, 55 percent in 1980, and about 68 percent by 1991.

One factor contributing to the overall increase in the proportion of births occurring to unmarried women is that premaritally conceived births are only one-half as likely to lead to a marriage before the birth as was true during the 1960s (Figure 12). In the 1960-64 and 1965-69 periods, of all women whose first birth was premaritally conceived, 52 percent married for the first time before the birth. This percentage has decreased to 27 percent for the 1985-89 period. The increasing social acceptance of never-married mothers and the desire to avoid an unstable or economically disadvantageous marriage have been involved in the decline of women marrying before the birth of their first child.
Focusing on women 15-34 years with a first birth, estimates of premarital births are available for white, black, and Hispanic women (Figure 13). In the 1960-64 percent, the proportion of first births occurring to unmarried women was 9 percent for whites, 19 percent for Hispanics, and 42 percent for blacks. The percentage of women age 15-34 with their first birth occurring premaritally more than doubled for white women between the 1960-64 period and the 1985-89 period from 9 to 22 percent. The proportion also doubled for Hispanics from 19 to 38 percent. The proportion for blacks increased from 42 to 70 percent.

The life expectancy of Americans increased enormously after the turn of the century. In 1900-02, based on current death rates, the average life expectancy was only 49 years, but by 1991 it had increased to 76 years (Table 12). During the six decades from 1900-02 to 1959-61, the average life expectancy of Americans increased by 26 years, rising from 49 to 70 years of life. The three decades since have brought an additional, but much smaller, increase of 6 years in life expectancy.

Historically, the life expectancy of blacks was much shorter than that of whites (Figure 14). In 1900-02, the life expectancy for females was 51 years for whites, compared to only 35 years for blacks. Similarly, for males the life expectancy was 48 years for whites, compared to only 33 years for blacks. At the turn of the century, then, the racial gap in life expectancy was 16 years for both females and males.

Both whites and blacks experienced enormous increases in life expectancy during this century. For females, life expectancy has increased from 51 years to 80 years for whites, and from 35 to 74 years for blacks. For males, life expectancy has increased from 48 to 73 years for whites, and from 35 to 65 years for blacks. Hence, the racial gaps have narrowed substantially from 16 to 6 years for females, and from 16 to 8 years for males, but the gaps remain large.

**Figure 14. EXPECTATION OF LIFE AT BIRTH BY RACE AND SEX: 1901 TO 1991**


The gains in survival have been especially great in the first year of life, both for whites and for blacks (Table 13). In 1900-02, the proportion dying before age 1 was 11-13 percent for whites, and 21-25 percent for blacks. At the turn of the century, more than 1-in-10 white children died before age 1, and more than 1-in-5 black children did not live to see their first birthday. By 1988, only 1 percent of white children and 2 percent of black children died before age 1.

Improvements in survival by age 20 also are striking. In 1900-02 the proportion not reaching age 20 was 21-24 percent for whites and 41-43 percent for blacks. By 1988, only 1-2 percent of whites and 2-4 percent of blacks do not survive to age 20.

During the next twenty years of life, the racial is still larger, both historically and today. The proportion dying before age 40 in 1900-02 among females was 32 percent for whites 54 percent among for blacks, and among males was 35 percent for whites and 57 percent for blacks. As of 1989, current death rates imply that the proportion dying before age 40 among females was 3 percent for whites, and 6 percent for blacks, and among males was 5 percent for whites and 12 percent for blacks.

These historical statistics show that both whites and blacks have experienced enormous declines in mortality and corresponding increases in life expectancy during the past century. Despite these improvements, and a narrowing of the racial gaps, death rates for blacks continue to be about twice as great as for whites during the early childhood years under age 5, and during the middle adult ages of 25-54 years (Table 14, Figure 15). At other childhood ages and the adult ages through 64 years, blacks are 50 percent more likely than whites to die in any given year.

Figure 15. DEATH RATES BY AGE AND RACE: 1990 (Number of deaths, excluding fetal deaths, per 1000 population)
The average number of persons per household declined enormously during the past two centuries. In 1993, 2.6 persons lived in the average household, less than half the average household size of 5.8 in 1790 (Table 15). Of this total decline of 3.2 persons per household over 200 years, two-thirds occurred during the 80 years spanning 1900 to 1980.

Between 1790 and 1990, much of the decline can be accounted for by a 15 percentage point reduction, from 35.8 to 20.4 percent in the proportion living in households with 7 or more persons, and a corresponding 13 percentage point increase in the proportion living households with only 2-3 persons. Since 1900, the average household size decline can be accounted for mainly by the 35 percentage point drop in the proportion living in households with 5 or more persons, and corresponding increases in the proportions living in very small households with only 1 or 2 persons, at 19 percentage points and 17 percentage points, respectively.

By 1993, then, one-person households accounted for 25 percent of the total, and two-person households accounted for an additional 32 percent, while only 10 percent of households had 5 persons or more. From the perspective of persons, however, it is important to note that most persons do not live in one or two-person households. In fact, in 1993 only 9 percent of persons lived alone, and 25 percent lived in two-person households, while 23 percent lived in households with 5 persons or more.

Focusing on the era since the Great Depression, average household size declined from 3.7 to 2.6 persons per household between 1940 and 1993 (Table 16). Despite the post-war baby boom, however, there was no increase in average household size between 1947 and 1964, when household size actually declined from 5.6 in 1947 to 3.3 between 1951 and 1967. The average number of children under 18 years did increase during the baby boom, but only slightly, from 1.1 in 1948 to 1.2 between 1956-1967. Since 1983 the average number of children per household remained stable at 0.7.

Focusing more narrowly on only the number of family members in family households, average family size declined from 3.8 in 1940 to 3.2 in 1993, with a baby boom increase from 3.5 persons per family in 1950-1953 to 3.7 persons per family in 1959-1967. Similarly, the number of children per family declined from 1.2 to 1.0 between 1940 and 1993, with a baby boom increase from 1.2 in 1947-1951 to 1.4 in 1958-1969.

Married-couple families maintained 76-80 percent of all households between 1910 and 1957, but this proportion has fallen substantially since then, especially since 1970, from 71 percent to 61 percent in 1980, and 55 percent in 1993 (Table 17). From 1940 through 1993, the proportion of households maintained by a male with no wife in the home has remained within the narrow range of 2-4 percent, while the proportion maintained by a female with no husband present has increased from 8-10 percent in between 1940 and 1970, to 11 percent in 1980, and 12 percent in 1993. Despite this increase, most of the decline in married-couple households can be accounted for by the rise in nonfamily households, from 10-11 percent in 1940-1950 to 15 percent in 1960, 19 percent in 1970, 26 percent in 1980, and 29 percent in 1993.
Important changes by family type have occurred since 1970 in the number of children under age 18 per family with children. Between 1970 and 1977, there was no difference in the average number of children per family for married-couple families and mother-child families (Figure 16). Since then differences have emerged, with married couples having a slightly larger average number of children. The average number of children for married couples and for mother-child families has declined since 1970. Father-child families have had a substantially smaller number of children than other family types. On average in 1993, married couples had 1.9 children per family compared to 1.8 for mother-child families and 1.5 for father-child families.

Figure 16. AVERAGE NUMBER OF OWN CHILDREN UNDER 18 PER FAMILY WITH CHILDREN, BY TYPE OF FAMILY WITH CHILDREN: 1970 - 1993


Figure 17. PERCENT OF ONE-PARENT FAMILY GROUPS WITH A NEVER-MARRIED PARENT, BY RACE AND HISPANIC ORIGIN: 1993