

CITATIONS:**Bluebook 22nd ed.**

Abraham Mosisa & Steven Hipple, Trends in Labor Force Participation in the United States, 129 Monthly Lab. Rev. 35 (October 2006).

ALWD 7th ed.

Abraham Mosisa & Steven Hipple, Trends in Labor Force Participation in the United States, 129 Monthly Lab. Rev. 35 (2006).

APA 7th ed.

Mosisa, Abraham, & Hipple, Steven. (2006). Trends in labor force participation in the united states. *Monthly Labor Review*, 129(10), 35-57.

Chicago 18th ed.

Mosisa, Abraham, and Hipple, Steven. "Trends in Labor Force Participation in the United States." *Monthly Labor Review* 129, no. 10 (2006): 35-57. HeinOnline.

McGill Guide 10th ed.

Abraham Mosisa & Steven Hipple, "Trends in Labor Force Participation in the United States" (2006) 129:10 *Monthly Lab Rev* 35.

AGLC 4th ed.

Abraham Mosisa and Steven Hipple, 'Trends in Labor Force Participation in the United States' (2006) 129(10) *Monthly Labor Review* 35

MLA 9th ed.

Mosisa, Abraham, and Steven Hipple. "Trends in Labor Force Participation in the United States." *Monthly Labor Review*, vol. 129, no. 10, October 2006, pp. 35-57. HeinOnline.

OSCOLA 4th ed.

Abraham Mosisa & Steven Hipple, 'Trends in Labor Force Participation in the United States' (2006) 129 *Monthly Lab Rev* 35

Date Downloaded: Mon Feb 16 17:14:03 2026

Source: <https://heinonline.org/HOL/Page?handle=hein.journals/month129&id=1247>

Terms, Conditions & Use of PDF Document:

Please note, citations are provided as a general guideline. Users should consult their preferred citation format's style manual for proper formatting. Your use of this HeinOnline PDF indicates your acceptance of William S. Hein & Co., Inc. and HeinOnline's Terms & Conditions: <https://help.heinonline.org/kb/terms-conditions/>. The search text of this PDF is generated from uncorrected OCR text. To obtain permission to use this article beyond the scope of your license, please use: <https://www.copyright.com>.

Trends in labor force participation in the United States

After a long-term increase, the overall labor force participation rate has declined in recent years; although there was a sharp rise in participation among individuals aged 55 years and older, this increase did not offset declines in the participation rates of younger persons

Abraham Mosisa
and
Steven Hipple

The labor force participation rate—the proportion of the working-age population either working or actively looking for work—is an important labor market measure because it represents the relative size of labor resources available in the production of the Nation's goods and services.¹ After rising fairly steadily for more than five decades, the labor force participation rate peaked at 67.1 percent in the late 1990s. However, since 1999, the rate has receded—to 66.0 percent in 2004–05. (See chart 1 and table 1.)

The decrease in labor force participation in recent years occurred across most of the major age-sex groups. (See chart 2 and table 1.) The participation rate for persons aged 16 to 24 years—especially teenagers aged 16 to 19 years—dropped sharply. Among individuals aged 25 to 54 years, the rate for women decreased after rising steadily for more than a half century. The rate for men aged 25 to 54 years continued its long-term decline, reaching an all-time low in 2005. Since about 1995, however, a dramatic increase in labor force participation among individuals aged 55 years and older bucked these trends.

In the short term, the participation rate is *procyclical*. That is, the rate increases during economic expansions, when more individuals join the labor force because jobs are easier to find, and falls during economic downturns, as individuals leave the labor force altogether in response to relatively fewer job opportunities. In addition to cyclical influences, longer term structural factors

have had an important impact on labor force participation. Among these factors are changes in the age composition of the population, changes in the propensity of women to participate in the labor force, a rise in school enrollment, and changes to employer-provided private pensions and Social Security.

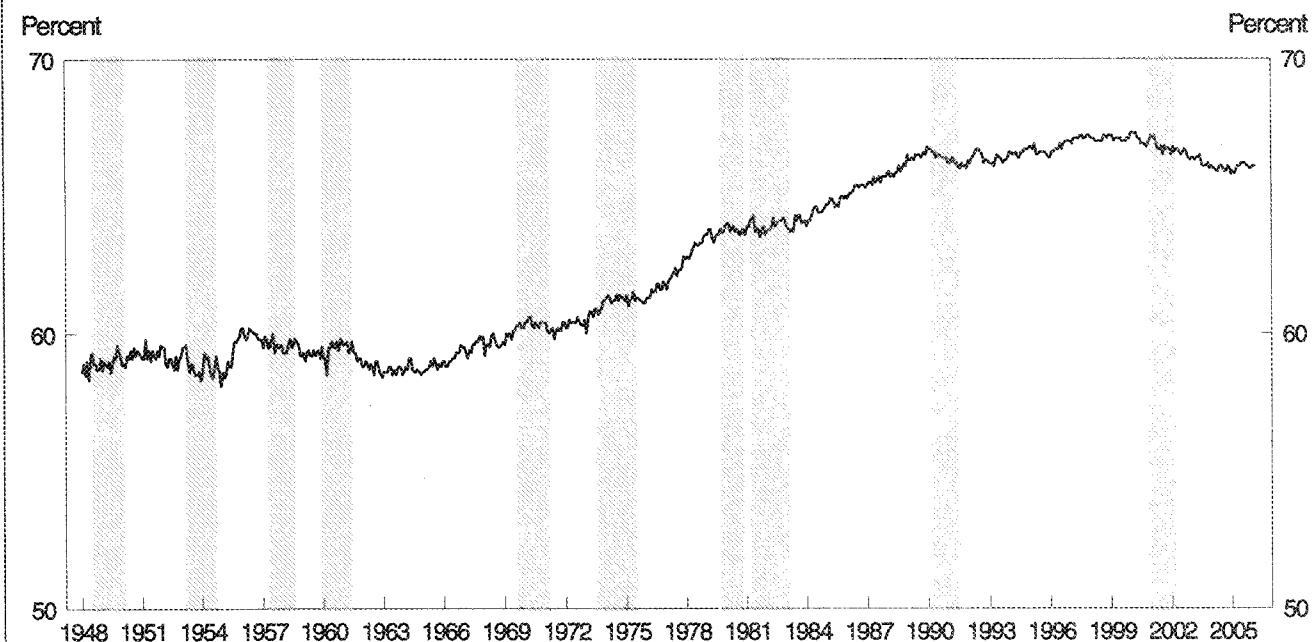
Using labor force estimates from the Current Population Survey (CPS), this article analyzes historical trends in labor force participation, focusing primarily on recent trends.² The analysis highlights changes in labor force participation among various demographic groups, discusses possible reasons for those changes, and explains how the changes affected the overall participation rate.

Population change

For nearly six decades, an event that has had a profound effect on the population's size and composition has been the aging of the “baby-boom” generation—those born between 1946 and 1964.³ The baby-boom generation—and the concomitant rise in participation of women—have had an enormous impact on overall participation. Table 2 shows the change in the noninstitutional civilian population by age group since 1950. During the 1970s and 1980s, baby boomers moved into age cohorts typically exhibiting very high levels of labor force participation—for example, 25 to 34 years and 35 to 44 years. Indeed, after being stagnant over the 1950s and 1960s, the aggregate labor force

Abraham Mosisa and Steven Hipple are economists in the Division of Labor Force Statistics, Bureau of Labor Statistics.

Chart 1. Civilian labor force participation rate of persons 55 years and older, seasonally adjusted, 1990–2006

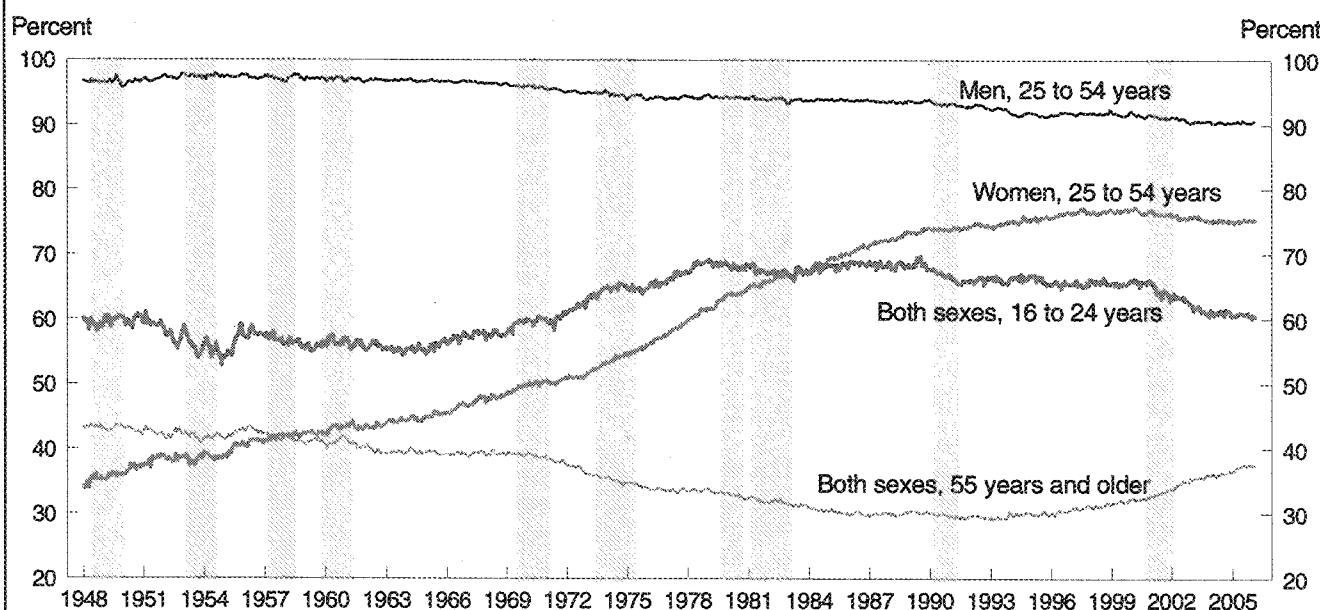


NOTE: Shaded areas represent recessions. Beginning in 1994, data reflect the introduction of a major redesign of the Current Population Survey. Additional adjustments to population controls were incorporated into the data in January of various years. These changes can affect comparability with data for previous periods.

Table 1. Labor force participation rates by age and sex, selected years, annual averages, 1948–2005

| Year | Both sexes, 16 years and older | Both sexes, 16 to 24 years | Men, 25 to 54 years | Women, 25 to 54 years | Both sexes, 55 years and older |
|------------|--------------------------------|----------------------------|---------------------|-----------------------|--------------------------------|
| 1948 | 58.8 | 59.2 | 96.6 | 35.0 | 43.3 |
| 1950 | 59.2 | 59.9 | 96.5 | 36.8 | 43.0 |
| 1955 | 59.3 | 56.1 | 97.4 | 39.8 | 42.1 |
| 1960 | 59.4 | 56.4 | 97.0 | 42.9 | 40.9 |
| 1965 | 58.9 | 55.8 | 96.7 | 45.2 | 39.4 |
| 1970 | 60.4 | 59.8 | 95.8 | 50.1 | 38.9 |
| 1975 | 61.2 | 64.6 | 94.4 | 55.1 | 34.7 |
| 1980 | 63.8 | 68.1 | 94.2 | 64.0 | 32.8 |
| 1985 | 64.8 | 68.3 | 93.9 | 69.6 | 30.3 |
| 1990 | 66.5 | 67.3 | 93.4 | 74.0 | 30.1 |
| 1994 | 66.6 | 66.4 | 91.7 | 75.3 | 30.1 |
| 1995 | 66.6 | 66.3 | 91.6 | 75.6 | 30.0 |
| 1996 | 66.8 | 65.5 | 91.8 | 76.1 | 30.3 |
| 1997 | 67.1 | 65.4 | 91.8 | 76.7 | 30.9 |
| 1998 | 67.1 | 65.9 | 91.8 | 76.5 | 31.3 |
| 1999 | 67.1 | 65.5 | 91.7 | 76.8 | 31.8 |
| 2000 | 67.1 | 65.8 | 91.6 | 76.7 | 32.4 |
| 2001 | 66.8 | 64.5 | 91.3 | 76.4 | 33.2 |
| 2002 | 66.6 | 63.3 | 91.0 | 75.9 | 34.5 |
| 2003 | 66.2 | 61.6 | 90.6 | 75.6 | 35.7 |
| 2004 | 66.0 | 61.1 | 90.5 | 75.3 | 36.2 |
| 2005 | 66.0 | 60.8 | 90.5 | 75.3 | 37.2 |

Chart 2. Labor force participation rates for major age-sex groups, seasonally adjusted, 1948–2006



NOTE: Shaded areas represent recessions. Beginning in 1994, data reflect the introduction of a major redesign of the Current Population Survey. Additional adjustments to population controls were incorporated into the data in January of various years. These changes can affect comparability with data for previous periods.

participation rate during the 1970s and 1980s rose rapidly, primarily because of the movement of baby boomers into these high-participation-rate ages and the increase in participation among women. However, in recent years, downward pressure has been exerted on overall participation due to the movement of the baby-boom generation into the 55-years-and-older age group, which traditionally has lower participation rates. In particular, the first of the baby boomers (those born in 1946) reached age 55 in 2001.⁴ Also, the labor force participation rate of women has flattened out in recent years.

Labor force participation after 2001

The longest postwar expansion in the Nation's history ended when the economy entered the most recent recession, which began in March 2001 and ended in November of that year.⁵ March 2006 marked 60 months since the onset of that recession. The performance of the labor market during the recent recession and the subsequent expansionary period that followed has been unusual compared with the average performance during the previous five recessions over similar 60-month subsequent time spans.⁶

After the economy entered the recession in March 2001, the labor force participation rate fell, with declines occurring among

individuals aged 16 to 24 years and 25 to 54 years. These declines were in contrast to average changes for the previous five recessions. (See chart 3.) The largest decline in labor force participation between March 2001 and March 2006 occurred for persons aged 16 to 24 years.⁷ During that period, the participation rate for this group fell by 5.3 percentage points. (The decline among 16- to 24-year-olds was particularly sharp for teens.⁸) Participation rates during the most recent labor market downturn also decreased among both women (by 1.6 percentage points) and men (by 0.8 percentage point) aged 25 to 54 years. In contrast, during the previous five recessions, the rate for women in that age group *increased*, rising 2.0 percentage points, on average, while the rate for their male counterparts edged downward.

The recent performance of women's labor force participation reflects an apparent shift in its long-term secular increase. Of late, women's participation has appeared to be more sensitive to cyclical downturns. In fact, in the 2001 recession and through much of the recovery to date, the rate trended down, to 75.3 percent by March 2006.

Partially offsetting the declines in participation among the other age groups, the labor force participation rate for individuals aged 55 years and older rose sharply (by 4.7 percentage points) over the most recent recession and the 4½ years that followed. During

Table 2. Annual growth rates of the civilian noninstitutional population, by sex and age, 1950–2005

[In percent]

| Age group | 1950–60 | 1960–70 | 1970–80 | 1980–90 | 1990–2000 | 2000–05 |
|--------------------------------------|---------------|----------------|----------------|----------------|----------------|----------------|
| Total, 16 years and older | 1.1 | 1.6 | 2.0 | 1.2 | 1.2 | 1.2 |
| Men | .9 | 1.5 | 2.1 | 1.3 | 1.2 | 1.4 |
| Women | 1.3 | 1.7 | 2.0 | 1.1 | 1.1 | 1.1 |
| 16 to 19 years | 2.3 | 3.6 | 1.3 | -1.3 | .9 | .6 |
| 20 to 24 years | -.8 | 4.1 | 3.0 | -.9 | -.3 | 2.1 |
| 25 to 34 years | -.5 | 1.1 | 4.1 | 1.6 | -1.0 | .2 |
| 35 to 44 years | 1.3 | -4 | 1.3 | 4.0 | 1.6 | -.6 |
| 45 to 54 years | 1.8 | 1.1 | -.2 | 1.1 | 4.1 | 2.3 |
| 55 years and older | 2.2 | 1.9 | 2.1 | .9 | 1.4 | 2.5 |
| 55 to 59 years | — | — | 1.5 | -1.1 | 2.7 | 5.1 |
| 60 to 64 years | — | — | 1.9 | .4 | .3 | 3.7 |
| 65 years and older | 3.0 | 2.2 | 2.5 | 1.8 | 1.4 | .9 |
| Age of oldest (1946) baby boomers .. | 4 to 14 years | 14 to 24 years | 24 to 34 years | 34 to 44 years | 44 to 54 years | 54 to 59 years |

NOTE: Dash indicates data not available.

the previous five recessions, the participation rate for this group fell on average by 0.8 percentage point.

Participation of younger individuals

Teenagers. In 2005, the labor force participation rate for teens (aged 16 to 19 years) was the lowest on record, 43.7 percent. From 2000 to 2005, the teen labor force participation rate declined sharply by 8.3 percentage points, far exceeding the decline in the rates of the other major age groups. The rate for male teens declined by 9.6 percentage points over the 2000–05 period, while that for their female counterparts was down by 7.0 percentage points. (See table 3.) Historically, male teens have been more likely than female teens to participate in the labor force. By 2005, however, the rates for the two groups had converged. (See chart 4.)

The labor force participation rates of teens vary considerably by race and ethnicity. In 2005, rates ranged from a low of 26.0 percent for Asians to a high of 46.9 percent for whites. Between 2000 and 2005, teenagers in each of the four major racial or ethnic groups—whites, blacks, Asians, and Hispanics—exhibited sharp drops in their labor force participation rates. (See table 3.) The decline in labor force participation was larger among male teens than among female teens in all the race and ethnic groups.

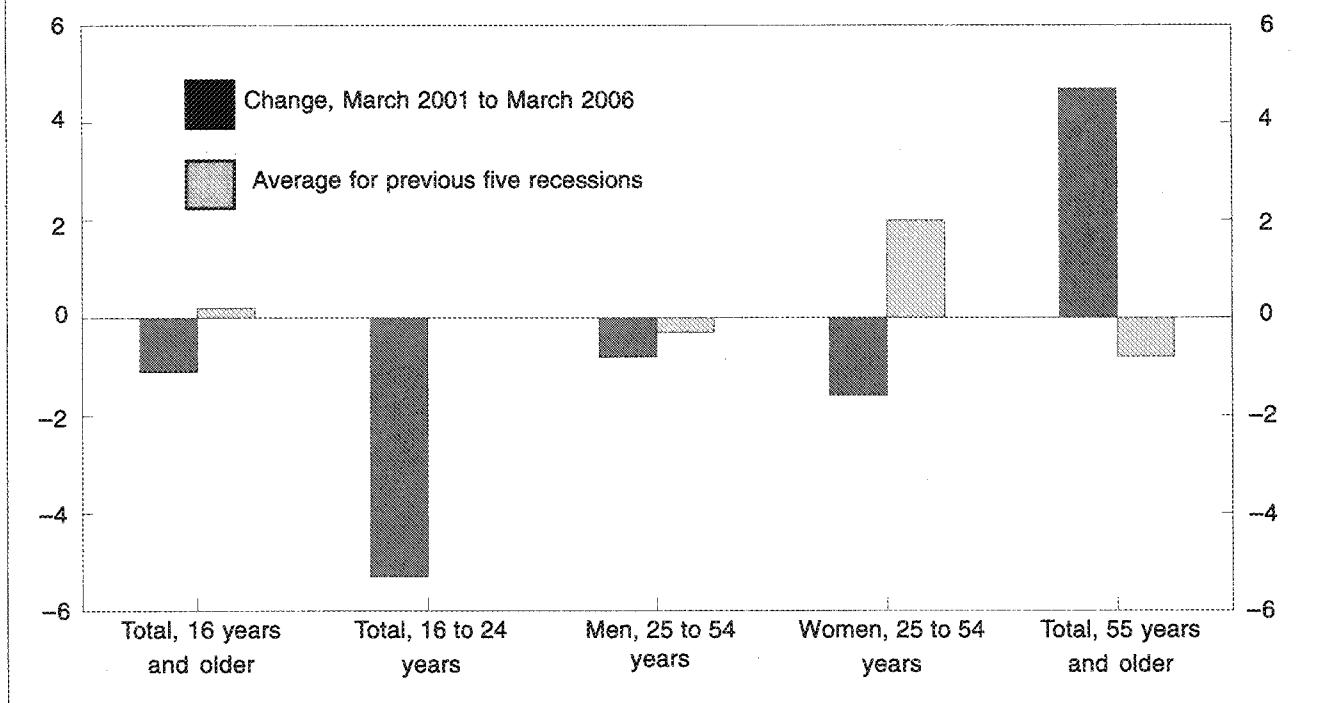
One explanation for the decline in teen labor force participation is that teens are staying in school in larger proportions. The increase in the enrollment rate most likely reflects a recognition of the positive impact that education has on labor market success. Increasing school enrollment puts downward pressure on overall teen labor force participation because teens enrolled in school are much less likely than those not enrolled in school to be labor force participants. (See chart 5.) Between 2000 and 2005, the teen school enrollment rate rose by 5.6 percentage points, from 76.9

percent to 82.5 percent. Over the same period, the labor force participation rate of teens enrolled in school declined by 6.7 percentage points, from 43.0 percent to 36.3 percent. (See table 4.) It is uncertain whether low labor force participation rates among teens is the cause, rather than the effect, of rising school enrollment rates. Increasing school enrollment may be only a partial cause of the decline in teen labor force participation. Other factors are a decline in economic conditions, the changing structure of the job market, globalization⁹ (the most likely cause), competition from the immigrant population, and increased demand for workers with higher education.

Although teens who are not enrolled in school are more likely to participate in the labor force than their counterparts who are enrolled in school, labor force participation rates for out-of-school teens also declined, from 76.2 percent to 71.8 percent from 2000 to 2005. The decline in labor force participation among all teens may include other factors, such as personal choice, rising family incomes, and competition for available jobs.¹⁰

Data show that teenagers have been facing competition for available jobs from a variety of demographic groups, including recent immigrants.¹¹ During labor market downturns, older workers with more experience or skills compete for available jobs in industries that employ predominately teens. In such cases, employers may prefer older persons with more experience than inexperienced teens.¹² Moreover, native-born youths—particularly, teens—face competition from foreign-born with low levels of education. In 2005, foreign-born persons 25 years and older who had not completed high school had far higher participation rates (61.2 percent) than their native-born persons counterparts (37.9 percent). Over the 2000–05 period, the labor force participation rate for native-born youths declined, while the rate was up for foreign-born individuals 25 years and older with less than a high school diploma. The following tabulation

Chart 3. Change in labor force participation rates around economic downturns, by age and sex



shows that, in 2005, older foreign-born workers with low levels of educational attainment and skills worked in occupations similar to those of native-born younger workers:

| Occupation | Native born, aged 16 to 24 | Foreign born, 25 years and older with less than a high school diploma |
|---|-------------------------------|---|
| Total employed (thousands) | 17,352 | 5,868 |
| Percent distribution | 100.0 | 100.0 |
| Management, business, and financial | 4.3 | 2.1 |
| Professional and related | 10.8 | 1.1 |
| Service | 29.1 | 32.9 |
| Sales and related | 18.2 | 5.1 |
| Office and administrative support | 16.6 | 4.0 |
| Farming, fishing, and forestry | 1.0 | 4.8 |
| Construction and extraction | 5.6 | 18.9 |
| Installation, maintenance, and repair | 2.9 | 3.5 |
| Production | 4.8 | 17.0 |
| Transportation and material moving | 6.7 | 10.6 |

In 2005, roughly 1 in every 3 workers in both groups was employed in a service occupation. However, older less educated foreign-born workers were much more likely than younger native-born workers to hold construction, production, transportation, and farming jobs.

Young adults. The trend in labor force participation from 2000 to 2005 among young adults (that is, individuals aged 20 to 24 years) is somewhat similar to the trend for 16- to 19-year-olds. However, in relative terms, the decline in participation of young adults was not as steep as it was for teenagers. Over the 2000–05 period, the participation rate for young adults fell by 3.2 percentage points, compared with a decline of 8.3 percentage points for teens. (See table 3.)

The decrease in labor force participation from 2000 to 2005 was about the same for young men and young women: 3.5 and 3.0 percentage points, respectively. Unlike the situation with teens, the labor force participation rate of young men was still higher than that of young women in 2005. Nonetheless, over the past half century, the gap in labor force participation among young men and young women has narrowed dramatically. For example, in 1959, the labor force participation rate of young men was 87.8 percent, compared with 45.1 percent for young women—a difference of 42.7 percentage points. By

Table 3. Labor force participation rates of youths 16 to 19 years and 20 to 24 years, by sex, race, and Hispanic or Latino ethnicity, annual averages, 2000–05

| Age | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | Change, 2000–05 |
|---------------------------|------|------|------|------|------|------|--------------------|
| Total | | | | | | | |
| 16 to 19 years | 52.0 | 49.6 | 47.4 | 44.5 | 43.9 | 43.7 | -6.3 |
| 20 to 24 years | 77.8 | 77.1 | 76.4 | 75.4 | 75.0 | 74.6 | -3.2 |
| Men | | | | | | | |
| 16 to 19 years | 52.8 | 50.2 | 47.5 | 44.3 | 43.9 | 43.2 | -9.6 |
| 20 to 24 years | 82.6 | 81.8 | 80.7 | 80.0 | 79.6 | 79.1 | -3.5 |
| Women | | | | | | | |
| 16 to 19 years | 51.2 | 49.0 | 47.3 | 44.8 | 43.8 | 44.2 | -7.0 |
| 20 to 24 years | 73.1 | 72.7 | 72.1 | 70.8 | 70.5 | 70.1 | -3.0 |
| White | | | | | | | |
| 16 to 19 years | 55.5 | 53.1 | 50.5 | 47.7 | 47.1 | 46.9 | -8.6 |
| 20 to 24 years | 79.9 | 79.2 | 78.6 | 77.7 | 77.1 | 76.3 | -3.6 |
| Black | | | | | | | |
| 16 to 19 years | 39.4 | 37.6 | 36.0 | 32.4 | 31.4 | 32.6 | -6.8 |
| 20 to 24 years | 71.8 | 69.9 | 68.6 | 68.2 | 68.3 | 70.1 | -1.7 |
| Asian | | | | | | | |
| 16 to 19 years | 35.8 | 32.0 | 33.3 | 29.6 | 28.4 | 26.0 | -9.8 |
| 20 to 24 years | 63.0 | 64.6 | 64.1 | 61.4 | 61.5 | 62.1 | -.9 |
| Hispanic or Latino | | | | | | | |
| 16 to 19 years | 46.3 | 46.9 | 44.0 | 37.7 | 38.2 | 38.6 | -7.7 |
| 20 to 24 years | 78.2 | 76.6 | 76.3 | 75.6 | 74.5 | 72.7 | -5.5 |

2005, the difference in participation between the two groups had narrowed to just 9.0 percentage points.

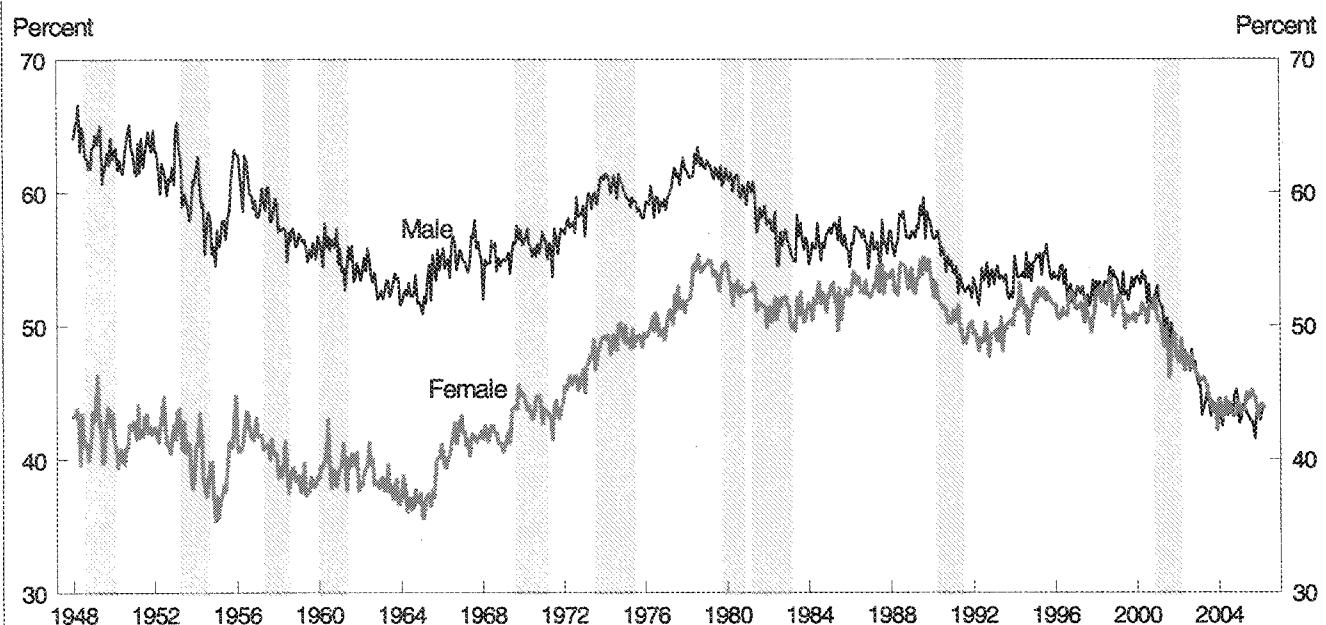
As was the case with teens, the labor force participation rate of young adults who were enrolled in school was lower than that of their counterparts who were not in school. The labor force participation rate of the former group declined from 64.7 percent in 2000 to 61.5 percent in 2005. (See table 5.) Over the same period, the proportion of these individuals who were enrolled in school grew from 32.5 percent to 36.1 percent. (See table 6.) Some young adults may have decided to enroll in school primarily because they had difficulty finding work, while others may have chosen to stop work in order to devote more time to school activities. In 2000, just prior to the onset of the most recent recession, the unemployment rate for young adults was 7.2 percent. The rate for this group continued to rise after the official end of the recession in November 2001, peaking at 10.0 percent in 2003. The rate edged down to 8.8 percent in 2005. Again, it is difficult to determine whether increasing school enrollment is the cause or the effect of lower participation rates among young adults.

Although school enrollment rates for teens and young adults have increased substantially over the past several decades, enrollment rates for 20- to 24-year olds, not surprisingly, are lower than those for 16- to 19-year olds, because many of the former group have completed their formal education. As table 6 shows,

only 36.1 percent of young adults were enrolled in school in 2005, compared with 82.5 percent of teens. That same year, 13.0 million 20- to 24-year-olds were *not* enrolled in school, and of this number, 83.5 percent were in the labor force. Between 2000 and 2005, the labor force participation rate of both 20- to 24-year-olds enrolled in school and those not enrolled in school was down by 3.2 percentage points and 1.1 percentage points, respectively. (See table 5.) The decline in the participation rate of 20- to 24-year-olds not enrolled in school is of concern because of the negative economic and social consequences associated with being young, not in school, and jobless.¹³ Of these nonparticipants, slightly more than 2 in 3 were women. Nearly 1 out of 3 young men and women who were neither enrolled in school nor participating in the labor force was a high school dropout.

At all levels of educational attainment, the labor force participation rate of young men who were not enrolled in school was higher than that of their female counterparts. (See table 7.) Among young adults (particularly women), the least likely to participate in the labor force were those without a high school diploma. In 2005, the labor force participation rate of young women not enrolled in school and with less than a high school diploma was only 50.8 percent—32.6 percentage points lower than that of their male counterparts. The lower participation among young adult women partly reflects the fact that some of these women are caring for young children. The gap in partic-

Chart 4 Labor force participation rates for 16- to 19-year-olds, by sex, seasonally adjusted, 1948–2006



NOTE: Shaded areas represent recessions. Beginning in 1994, data reflect the introduction of a major redesign of the Current Population Survey. Additional adjustments to population controls were incorporated into the data in January of various years. These changes can affect comparability with data for previous periods.

Chart 5. Labor force participation rates and school enrollment rate for 16- to 19-years olds, 1984–2005

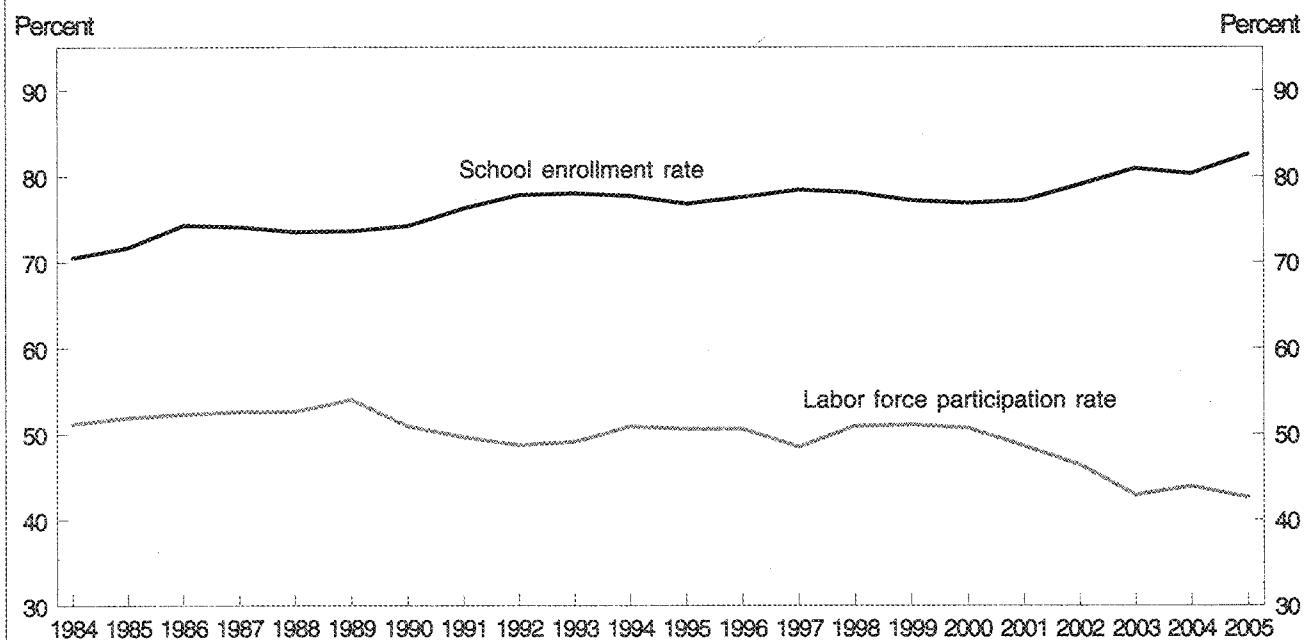


Table 4. Labor force participation rates and school enrollment status of persons aged 16 to 19 years, October 1970–October 2005

[Numbers in thousands]

| Year | Enrolled in school | | Not enrolled in school | |
|------------|--------------------|--------------------------------|------------------------|--------------------------------|
| | Labor force | Labor force participation rate | Labor force | Labor force participation rate |
| 1970 | 3,825 | 37.3 | 3,101 | 70.4 |
| 1971 | 3,979 | 37.3 | 3,115 | 70.1 |
| 1972 | 4,081 | 38.4 | 3,588 | 73.2 |
| 1973 | 4,360 | 41.5 | 3,949 | 74.1 |
| 1974 | 4,434 | 41.6 | 4,155 | 76.2 |
| 1975 | 4,551 | 40.8 | 3,867 | 74.7 |
| 1976 | 4,640 | 41.5 | 3,980 | 75.4 |
| 1977 | 4,875 | 43.7 | 4,116 | 77.4 |
| 1978 | 5,066 | 45.7 | 4,200 | 78.5 |
| 1979 | 4,883 | 44.5 | 4,220 | 78.2 |
| 1980 | 4,760 | 43.6 | 4,076 | 77.5 |
| 1981 | 4,706 | 42.0 | 3,776 | 77.3 |
| 1982 | 4,398 | 41.0 | 3,710 | 75.7 |
| 1983 | 4,233 | 39.8 | 3,387 | 75.5 |
| 1984 | 4,193 | 40.8 | 3,283 | 76.1 |
| 1985 | 4,364 | 42.1 | 3,144 | 76.8 |
| 1986 | 4,723 | 43.8 | 2,874 | 76.9 |
| 1987 | 4,831 | 44.5 | 2,876 | 75.7 |
| 1988 | 4,685 | 44.1 | 2,913 | 76.0 |
| 1989 | 4,740 | 45.7 | 2,875 | 77.1 |
| 1990 | 4,244 | 41.9 | 2,706 | 76.8 |
| 1991 | 4,330 | 42.8 | 2,250 | 71.5 |
| 1992 | 4,318 | 42.0 | 2,111 | 72.0 |
| 1993 | 4,363 | 42.0 | 2,177 | 74.1 |
| 1994 | 4,986 | 45.0 | 2,275 | 71.6 |
| 1995 | 4,931 | 43.7 | 2,491 | 73.2 |
| 1996 | 5,232 | 44.5 | 2,439 | 71.8 |
| 1997 | 5,087 | 41.8 | 2,431 | 72.6 |
| 1998 | 5,533 | 44.7 | 2,531 | 72.9 |
| 1999 | 5,510 | 44.3 | 2,736 | 74.5 |
| 2000 | 5,273 | 43.0 | 2,812 | 76.2 |
| 2001 | 5,016 | 40.6 | 2,758 | 75.7 |
| 2002 | 4,957 | 39.1 | 2,490 | 74.1 |
| 2003 | 4,662 | 35.8 | 2,264 | 72.8 |
| 2004 | 4,810 | 36.9 | 2,322 | 72.3 |
| 2005 | 4,937 | 36.3 | 2,070 | 71.8 |

ipation rates between young men and young women narrows with higher levels of educational attainment. Among those with college degrees or higher, for instance, the labor force participation rate of young women not enrolled was 91.0 percent, compared with 94.9 percent for their male counterparts.

As is the case with teens, less educated 20- to 24-year-olds compete for jobs with many of the foreign born of all ages and experience levels. For the most part, foreign-born workers are concentrated in similar low-paying, low-skilled occupations, including service jobs and production, transportation, and material-moving occupations.

During poor labor market conditions, some 20- to 24-year-olds choose to attend school rather than search for jobs, because greater competition for jobs makes finding employment even more difficult. Young women—especially those with low levels

of educational attainment—may choose to stay at home and take on family responsibilities.¹⁴

Labor force participation of adults

Women aged 25 to 54 years. One of the most striking labor market developments of the post-World War II period has been the dramatic rise in the participation rate of women. The increase in participation among women was the driving force behind the rise in the overall participation rate during the latter half of the 20th century.

Although the labor force participation of women aged 25 to 54 years grew steadily over this period, the pace of the increase varied. The largest increase in women's labor force participation occurred in the 1970s (13.9 percentage points), followed by the

Table 5 Labor force participation rates and school enrollment status of persons aged 20 to 24 years, October 1970—October 2005

[Numbers in thousands]

| Year | Enrolled in school | | Not enrolled in school | |
|-----------|--------------------|--------------------------------|------------------------|--------------------------------|
| | Labor force | Labor force participation rate | Labor force | Labor force participation rate |
| 1970..... | 1,710 | 50.9 | 9,068 | 74.1 |
| 1971..... | 1,822 | 50.5 | 9,583 | 74.7 |
| 1972..... | 1,918 | 51.9 | 10,292 | 76.7 |
| 1973..... | 1,933 | 52.8 | 10,872 | 78.0 |
| 1974..... | 2,128 | 55.8 | 11,101 | 79.1 |
| 1975..... | 2,179 | 52.9 | 11,236 | 78.9 |
| 1976..... | 2,403 | 54.9 | 11,568 | 80.4 |
| 1977..... | 2,416 | 55.0 | 12,047 | 81.5 |
| 1978..... | 2,409 | 56.7 | 12,603 | 82.6 |
| 1979..... | 2,458 | 57.3 | 12,779 | 82.6 |
| 1980..... | 2,696 | 56.2 | 13,987 | 83.0 |
| 1981..... | 2,650 | 56.4 | 13,455 | 83.3 |
| 1982..... | 2,800 | 57.2 | 13,172 | 82.7 |
| 1983..... | 2,653 | 56.2 | 13,286 | 82.8 |
| 1984..... | 2,824 | 57.8 | 13,152 | 83.7 |
| 1985..... | 2,854 | 59.8 | 12,812 | 84.6 |
| 1986..... | 2,759 | 59.4 | 12,510 | 84.7 |
| 1987..... | 2,889 | 60.3 | 11,795 | 84.3 |
| 1988..... | 3,029 | 62.9 | 11,461 | 84.1 |
| 1989..... | 2,945 | 60.9 | 10,892 | 83.4 |
| 1990..... | 3,057 | 60.0 | 10,673 | 84.1 |
| 1991..... | 3,335 | 61.7 | 10,333 | 82.5 |
| 1992..... | 3,419 | 61.1 | 10,102 | 83.0 |
| 1993..... | 3,329 | 61.7 | 10,030 | 82.8 |
| 1994..... | 3,711 | 63.4 | 10,368 | 83.3 |
| 1995..... | 3,370 | 60.5 | 10,002 | 82.4 |
| 1996..... | 3,517 | 62.6 | 9,802 | 84.0 |
| 1997..... | 3,754 | 62.7 | 9,721 | 84.7 |
| 1998..... | 3,674 | 63.3 | 9,953 | 84.3 |
| 1999..... | 3,689 | 62.3 | 10,200 | 84.1 |
| 2000..... | 3,910 | 64.7 | 10,632 | 84.6 |
| 2001..... | 3,897 | 61.2 | 10,658 | 84.5 |
| 2002..... | 4,027 | 60.1 | 10,654 | 83.5 |
| 2003..... | 4,270 | 60.3 | 10,662 | 83.4 |
| 2004..... | 4,483 | 62.9 | 10,868 | 82.8 |
| 2005..... | 4,505 | 61.5 | 10,826 | 83.5 |

1980s (10.0 percentage points). During most of the 1990s, the participation rate for women aged 25 to 54 years continued to rise, peaking at 76.8 percent in 1999; in the years soon after, however, the rate abruptly flattened out. By 2005, the labor force participation rate of women aged 25 to 54 years receded slightly, to 75.3 percent—still well above the rates witnessed throughout the 1970s, 1980s, and much of the 1990s. (See table 1 and chart 6.) This recent reversal of the long-term trend has raised a great deal of speculation regarding its cause as well as its impact.

The labor force participation of women differs by age. As table 8 shows, the overall decline in women's labor force participation began in 2000, and the rates for all the 5-year age groups have declined. The youngest age cohort—25- to 29-year-olds—exhibited the largest decline (2.7 percentage points) over the 2000–05 period. The rate for women aged 50 to 59 years was about unchanged during the same period.

The participation rate for white, black, Asian, and Hispanic women has decreased in recent years. From 1972 until the late 1990s, labor force participation increased for all the race and ethnic groups, but since 1999, the rates have declined.¹⁵ (See table 9.)

In earlier generations, full-time homemaking was considered the norm for mothers, but, apparently, the current generation views labor force participation as playing an integral role in mothers' lives. (See table 10.) Indeed, during the past half century, much of the increase in women's labor force participation can be attributed to the rising participation rates of women (both married and unmarried) with children. Most of these gains occurred in the late 1970s and the 1980s. Although there were small gains in the 1990s, the labor force participation rates of women aged 25 to 54 years have declined since 1999. (See table 1.)

Changes in the labor force participation pattern of mothers by

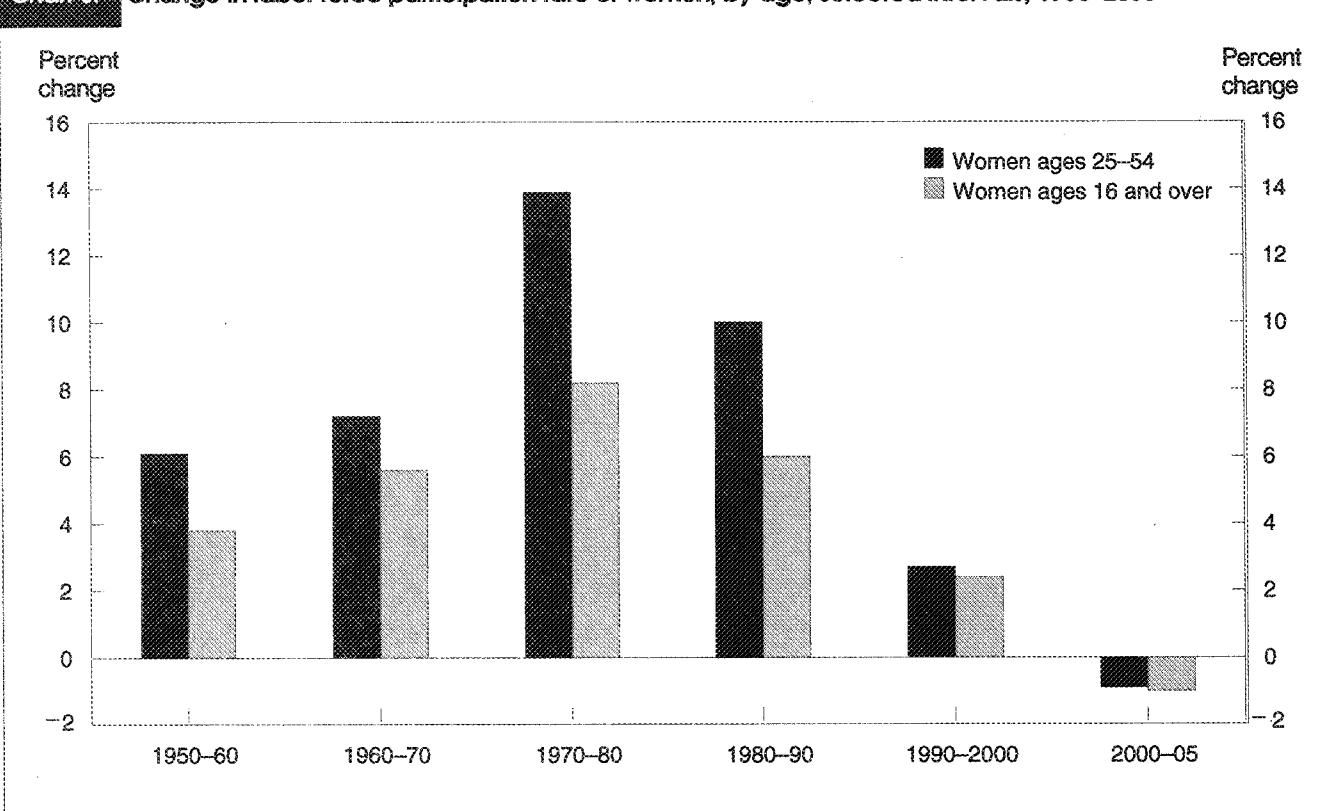
Table 6. Proportion of 16- to 19-year-olds and 20- to 24-year-olds enrolled in school, by age, October 1984–October 2005
 [Numbers in thousands]

| Year | Total civilian population | | | Percent enrolled in school | | |
|-----------|---------------------------|----------------|----------------|----------------------------|----------------|----------------|
| | 16 to 24 years | 16 to 19 years | 20 to 24 years | 16 to 24 years | 16 to 19 years | 20 to 24 years |
| 1984..... | 35,204 | 14,601 | 20,603 | 43.1 | 70.5 | 23.7 |
| 1985..... | 34,382 | 14,464 | 19,918 | 44.1 | 71.7 | 24.0 |
| 1986..... | 33,942 | 14,526 | 19,416 | 45.5 | 74.3 | 23.9 |
| 1987..... | 33,452 | 14,661 | 18,791 | 46.8 | 74.1 | 25.5 |
| 1988..... | 32,893 | 14,454 | 18,439 | 46.9 | 73.5 | 26.1 |
| 1989..... | 31,990 | 14,099 | 17,891 | 47.5 | 73.6 | 27.0 |
| 1990..... | 31,420 | 13,643 | 17,777 | 48.4 | 74.2 | 28.6 |
| 1991..... | 31,188 | 13,262 | 17,926 | 49.8 | 76.3 | 30.1 |
| 1992..... | 30,969 | 13,206 | 17,763 | 51.2 | 77.8 | 31.5 |
| 1993..... | 30,844 | 13,333 | 17,511 | 51.2 | 78.0 | 30.8 |
| 1994..... | 32,561 | 14,253 | 18,308 | 52.0 | 77.7 | 32.0 |
| 1995..... | 32,379 | 14,677 | 17,702 | 52.0 | 76.8 | 31.5 |
| 1996..... | 32,452 | 15,157 | 17,295 | 53.6 | 77.6 | 32.5 |
| 1997..... | 32,965 | 15,503 | 17,462 | 55.0 | 78.4 | 34.3 |
| 1998..... | 33,445 | 15,841 | 17,604 | 54.3 | 78.1 | 33.0 |
| 1999..... | 34,172 | 16,122 | 18,050 | 53.8 | 77.2 | 32.8 |
| 2000..... | 34,568 | 15,955 | 18,613 | 53.0 | 76.9 | 32.5 |
| 2001..... | 34,977 | 15,997 | 18,980 | 53.5 | 77.2 | 33.6 |
| 2002..... | 35,498 | 16,034 | 19,464 | 54.6 | 79.0 | 34.4 |
| 2003..... | 36,017 | 16,115 | 19,902 | 55.8 | 80.9 | 35.6 |
| 2004..... | 36,504 | 16,257 | 20,246 | 55.3 | 80.3 | 35.2 |
| 2005..... | 36,761 | 16,466 | 20,296 | 56.9 | 82.5 | 36.1 |

Table 7. Labor force participation rates of 20- to 24-year-olds not enrolled in school, by educational attainment and sex, annual averages, 1994–2005

| Year | Less than a high school diploma | High school graduate, no college | Some college, no degree | Associate's degree | Bachelor's degree or higher |
|--------------|---------------------------------|----------------------------------|-------------------------|--------------------|-----------------------------|
| Men | | | | | |
| 1994..... | 84.5 | 91.9 | 93.4 | 96.4 | 95.2 |
| 1995..... | 83.5 | 92.1 | 92.9 | 96.4 | 95.0 |
| 1996..... | 83.3 | 92.5 | 92.2 | 97.4 | 95.4 |
| 1997..... | 85.0 | 92.1 | 93.1 | 96.5 | 96.3 |
| 1998..... | 84.0 | 92.3 | 92.9 | 95.3 | 95.4 |
| 1999..... | 84.0 | 91.5 | 93.3 | 96.3 | 96.2 |
| 2000..... | 86.7 | 91.0 | 92.8 | 97.4 | 95.6 |
| 2001..... | 85.2 | 90.6 | 91.6 | 95.3 | 94.4 |
| 2002..... | 85.6 | 90.4 | 90.9 | 95.9 | 94.7 |
| 2003..... | 85.4 | 88.9 | 90.5 | 95.3 | 94.1 |
| 2004..... | 84.5 | 89.1 | 90.4 | 96.0 | 95.4 |
| 2005..... | 83.4 | 88.7 | 89.3 | 94.7 | 94.9 |
| Women | | | | | |
| 1994..... | 43.6 | 73.1 | 83.7 | 89.9 | 93.5 |
| 1995..... | 43.2 | 72.6 | 82.9 | 90.6 | 92.7 |
| 1996..... | 44.3 | 75.4 | 84.5 | 89.8 | 94.2 |
| 1997..... | 51.4 | 76.3 | 84.1 | 89.0 | 92.9 |
| 1998..... | 51.9 | 76.0 | 84.7 | 91.0 | 92.9 |
| 1999..... | 53.9 | 76.6 | 84.7 | 90.5 | 92.0 |
| 2000..... | 53.3 | 77.2 | 84.1 | 88.0 | 90.1 |
| 2001..... | 56.9 | 75.4 | 83.0 | 86.8 | 92.0 |
| 2002..... | 55.5 | 75.2 | 84.2 | 88.5 | 90.1 |
| 2003..... | 52.9 | 74.1 | 83.3 | 88.5 | 90.5 |
| 2004..... | 53.2 | 72.5 | 81.7 | 87.7 | 91.0 |
| 2005..... | 50.8 | 71.9 | 82.0 | 86.3 | 91.0 |

Chart 6 Change in labor force participation rate of women, by age, selected intervals, 1950–2005



the presence and age of children and by the educational attainment level of the mother might shed some light on the decline in women's labor force participation. From 1994 to 2005, the labor force participation rate of married mothers with higher levels of educational attainment—those with a bachelor's degree or beyond—declined by 3.2 percentage points. This drop compares with declines of 2.6 percentage points and 2.8 percentage points, respectively, for those with some college or an associate's degree and for those with a high school diploma (and no college). (See table 11.) The decline in labor force participation among married mothers with a bachelor's degree or higher was pronounced among mothers with preschool children. The labor force participation of married mothers without a high school diploma was little changed from 1994 to 2005. (See chart 7.) Apparently, some highly educated professional married women are dropping out of the labor force to care for their young children, either for the short term or until their children reach school age. These mothers who decide to stay home and care for their young children may rely on other sources of income, such as earnings of their spouses or returns on investments.

The trend in labor force participation among unmarried mothers during the past decade differs from that of their married counterparts. Between 1994 and 2005, the labor force participation rate of married women with children under 18 years was little

changed, while that of their unmarried counterparts increased by 8.8 percentage points. There were differences by the educational attainment of the mother, however. Specifically, the participation rate of unmarried mothers who were high school dropouts rose by 13.3 percentage points over the 1994–2005 period, while the rate for their married counterparts was about unchanged. It is possible that this increase in the labor force participation of single mothers with low levels of educational attainment was due at least in part to the stringent work requirements of welfare reform legislation enacted at both the State and Federal levels during the 1990s.¹⁶ Studies of the impact of welfare reform show that there has been dramatic growth in the importance of employment for those in the welfare system. Most obvious is the resulting increase in the labor supply of single mothers. The studies reveal that a precipitous decline in welfare caseloads accompanied the dramatic increase in labor force participation rates of single mothers, particularly those with lower levels of education.¹⁷ Not only are those leaving welfare more likely to be working than in the past, but so are welfare recipients and those entering welfare.¹⁸

The trend since the 2001 recession in the labor force participation of mothers by their educational attainment differs from the 1994–2000 trend. Overall, the decline in labor force participation since the 2001 recession was pronounced among single

Table 8. Labor force participation rates of women, by age, annual averages, 1989–2005

| Year | 25 to 54 years | 25 to 29 years | 30 to 34 years | 35 to 39 years | 40 to 44 years | 45 to 49 years | 50 to 54 years |
|------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1989 | 73.6 | 73.9 | 73.1 | 75.0 | 77.2 | 74.3 | 65.9 |
| 1990 | 74.0 | 73.6 | 73.3 | 75.5 | 77.5 | 74.7 | 66.9 |
| 1991 | 74.1 | 73.2 | 73.0 | 75.6 | 77.6 | 75.4 | 67.8 |
| 1992 | 74.6 | 74.1 | 73.7 | 75.5 | 78.1 | 75.7 | 68.7 |
| 1993 | 74.6 | 73.6 | 73.3 | 75.3 | 78.0 | 76.4 | 69.8 |
| 1994 | 75.3 | 74.3 | 73.7 | 76.0 | 78.3 | 77.6 | 70.7 |
| 1995 | 75.6 | 74.9 | 75.0 | 76.3 | 78.1 | 77.2 | 70.7 |
| 1996 | 76.1 | 75.8 | 74.7 | 76.5 | 78.6 | 78.0 | 71.9 |
| 1997 | 76.7 | 77.3 | 74.9 | 76.6 | 78.9 | 78.1 | 73.5 |
| 1998 | 76.5 | 77.3 | 75.4 | 75.6 | 78.6 | 76.8 | 73.0 |
| 1999 | 76.8 | 76.9 | 75.9 | 76.2 | 78.2 | 78.9 | 74.0 |
| 2000 | 76.7 | 76.7 | 75.5 | 75.7 | 78.7 | 79.1 | 74.1 |
| 2001 | 76.4 | 75.7 | 75.3 | 76.1 | 78.1 | 78.5 | 74.1 |
| 2002 | 75.9 | 75.7 | 74.6 | 75.3 | 77.5 | 77.8 | 74.0 |
| 2003 | 75.6 | 74.4 | 73.8 | 74.5 | 77.4 | 78.6 | 74.7 |
| 2004 | 75.3 | 73.1 | 74.0 | 74.5 | 76.7 | 78.2 | 74.5 |
| 2005 | 75.3 | 74.0 | 73.9 | 74.6 | 76.8 | 77.7 | 74.0 |

Table 9. Labor force participation rates of women aged 25 to 54 years, by race and Hispanic or Latino ethnicity, annual averages, 1972–2005

| Year | Total | White | Black | Asian | Hispanic or Latino |
|------------|-------|-------|-------|-------|--------------------|
| 1972 | 51.0 | 49.9 | 60.0 | — | — |
| 1973 | 52.3 | 51.3 | 60.6 | — | — |
| 1974 | 53.9 | 53.0 | 60.7 | — | — |
| 1975 | 55.1 | 54.3 | 60.9 | — | — |
| 1976 | 56.8 | 55.9 | 63.0 | — | — |
| 1977 | 58.5 | 57.7 | 64.4 | — | — |
| 1978 | 60.6 | 59.7 | 66.6 | — | — |
| 1979 | 62.3 | 61.6 | 66.8 | — | — |
| 1980 | 64.0 | 63.4 | 67.6 | — | 54.5 |
| 1981 | 65.3 | 64.9 | 68.0 | — | 55.4 |
| 1982 | 66.3 | 66.1 | 68.8 | — | 55.4 |
| 1983 | 67.1 | 66.8 | 70.1 | — | 54.9 |
| 1984 | 68.2 | 68.0 | 70.6 | — | 57.1 |
| 1985 | 69.6 | 69.4 | 71.7 | — | 57.3 |
| 1986 | 70.8 | 70.7 | 72.1 | — | 59.2 |
| 1987 | 71.9 | 71.8 | 73.6 | — | 60.7 |
| 1988 | 72.7 | 72.7 | 73.9 | — | 60.7 |
| 1989 | 73.6 | 73.8 | 74.3 | — | 62.5 |
| 1990 | 74.0 | 74.3 | 73.8 | — | 62.3 |
| 1991 | 74.1 | 74.6 | 73.2 | — | 61.8 |
| 1992 | 74.6 | 74.9 | 74.2 | — | 62.3 |
| 1993 | 74.6 | 75.2 | 73.1 | — | 62.1 |
| 1994 | 75.3 | 76.0 | 73.5 | — | 62.7 |
| 1995 | 75.6 | 76.3 | 74.4 | — | 62.9 |
| 1996 | 76.1 | 76.5 | 75.8 | — | 64.0 |
| 1997 | 76.7 | 77.0 | 77.0 | — | 65.7 |
| 1998 | 76.5 | 76.6 | 78.3 | — | 65.8 |
| 1999 | 76.8 | 76.8 | 79.4 | — | 66.3 |
| 2000 | 76.7 | 76.8 | 78.9 | 71.3 | 67.6 |
| 2001 | 76.4 | 76.4 | 78.5 | 71.6 | 67.7 |
| 2002 | 75.9 | 76.0 | 77.6 | 71.1 | 67.2 |
| 2003 | 75.6 | 75.6 | 78.1 | 71.0 | 65.4 |
| 2004 | 75.3 | 75.4 | 77.5 | 69.9 | 66.1 |
| 2005 | 75.3 | 75.4 | 77.3 | 69.7 | 65.4 |

NOTE: Dash indicates data not available.

Table 10. Labor force participation rates of mothers, by age of youngest child, March 1975–2005

| Year | Mothers with children under 18 years | Mothers with children 6 to 17 years | Mothers with children under 6 years | Mothers with children under 3 years |
|------------|--------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1975 | 47.4 | 54.9 | 39.0 | 34.3 |
| 1976 | 48.8 | 56.2 | 40.1 | 34.1 |
| 1977 | 50.8 | 58.3 | 41.2 | 35.4 |
| 1978 | 53.0 | 60.0 | 44.0 | 39.4 |
| 1979 | 54.5 | 61.6 | 45.7 | 41.1 |
| 1980 | 56.6 | 64.3 | 46.8 | 41.9 |
| 1981 | 58.1 | 65.5 | 48.9 | 44.3 |
| 1982 | 58.5 | 65.8 | 49.9 | 45.6 |
| 1983 | 58.9 | 66.3 | 50.5 | 46.0 |
| 1984 | 60.5 | 68.1 | 52.1 | 47.6 |
| 1985 | 62.1 | 69.9 | 53.5 | 49.5 |
| 1986 | 62.8 | 70.4 | 54.4 | 50.8 |
| 1987 | 64.7 | 72.0 | 56.7 | 52.9 |
| 1988 | 65.1 | 73.3 | 56.1 | 52.4 |
| 1989 | 65.7 | 74.2 | 56.7 | 52.4 |
| 1990 | 66.7 | 74.7 | 58.2 | 53.6 |
| 1991 | 66.6 | 74.4 | 58.4 | 54.5 |
| 1992 | 67.2 | 75.9 | 58.0 | 54.5 |
| 1993 | 66.9 | 75.4 | 57.9 | 53.9 |
| 1994 | 68.4 | 76.0 | 60.3 | 57.1 |
| 1995 | 69.7 | 76.4 | 62.3 | 58.7 |
| 1996 | 70.2 | 77.2 | 62.3 | 59.0 |
| 1997 | 72.1 | 78.1 | 65.0 | 61.8 |
| 1998 | 72.3 | 78.4 | 65.2 | 62.2 |
| 1999 | 72.1 | 78.5 | 64.4 | 60.7 |
| 2000 | 72.9 | 79.0 | 65.3 | 61.0 |
| 2001 | 72.7 | 79.4 | 64.4 | 60.7 |
| 2002 | 72.2 | 78.6 | 64.1 | 60.5 |
| 2003 | 71.7 | 78.7 | 62.9 | 58.7 |
| 2004 | 70.7 | 77.5 | 62.2 | 57.3 |
| 2005 | 70.5 | 76.9 | 62.6 | 59.0 |

mothers without a high school diploma (5.1 percentage points). Irrespective of the marital status of the mother, the decline in labor force participation since the 2001 recession was highest for mothers with less than a high school education and lowest for mothers with a bachelor's degree or beyond. From 2000 to 2005, the labor force participation of mothers (both married and unmarried) with children under 18 years declined by 3.3 percentage points for those without a high school diploma, while it was about unchanged for those with bachelor's degree or higher. This difference is not surprising, considering that persons with less educational attainment and skills are more sensitive to business cycles, increasing their participation during expansions and substituting other activities for paid work during recessions. Among married women, the decline in labor force participation was highest for mothers with less than a high school diploma and was lowest for mothers with a bachelor's degree or beyond. (See table 11.) (Labor force participation patterns of 5-year cohorts of women and men who were between ages of 20 and 69 years in 2005 are discussed in the appendix.)

Men aged 25 to 54 years. A significant development in the labor force over the past 50 years has been the steady decline in labor force participation among men aged 25 to 54 years. After peaking at 97.4 percent in the mid-1950s, the participation rate for these men has fallen steadily, reaching a low of 90.5 percent in 2005. (See table 1.) Dropping by an average of 0.8 percentage point each decade between 1950 and 1990, the labor force participation rate for men aged 25 to 54 years has declined much more since the 1990s. For example, between 1990 and 2000 the rate fell by 1.8 percentage points, and since 2000 it has dropped by 1.1 percentage points.

Within the 25- to 54-year age group, men aged 50 to 54 years are somewhat less likely to participate in the labor force than men in other 5-year age groups, all of which had fairly similar rates. Labor force participation rates of all of these groups declined after 2000. (See table 12.)

The participation rate of men in all the major categories declined in recent years. Over the past quarter century, white and black men experienced a decrease in their labor force participation. The decline was particularly steep among black men,

Table 11. Labor force participation rates of women with children under 18 years, by educational attainment and marital status, annual averages, 1994–2005

| Educational attainment and marital status | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | Change | | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|-----------|-----------|-----------|
| | | | | | | | | | | | | | 1994–2000 | 1994–2005 | 2000–2005 |
| College graduates | | | | | | | | | | | | | | | |
| Total, with children under 18 years | 78.6 | 78.4 | 78.5 | 78.7 | 77.6 | 77.6 | 76.2 | 75.5 | 75.6 | 75.7 | 75.3 | 75.9 | -2.4 | -2.7 | -0.3 |
| Married, spouse present .. | 76.9 | 76.7 | 76.7 | 76.8 | 75.5 | 75.3 | 74.1 | 73.1 | 72.9 | 73.3 | 72.9 | 73.7 | -2.8 | -3.2 | -4 |
| Not married | 90.9 | 90.7 | 91.4 | 91.0 | 91.7 | 92.2 | 90.9 | 91.6 | 91.4 | 90.5 | 90.1 | 89.2 | .0 | -1.7 | -1.7 |
| Some college or associate's degree | | | | | | | | | | | | | | | |
| Total, with children under 18 years | 75.5 | 75.5 | 76.5 | 76.7 | 76.9 | 76.9 | 77.2 | 76.8 | 76.2 | 75.9 | 75.2 | 75 | 1.7 | -.5 | -2.2 |
| Married, spouse present .. | 74.4 | 74.0 | 74.7 | 74.2 | 74.0 | 73.4 | 74 | 73.6 | 72.7 | 72.6 | 72 | 71.8 | -.4 | -2.6 | -2.2 |
| Not married | 78.2 | 79.4 | 80.9 | 82.9 | 84.1 | 85.4 | 85.3 | 84.5 | 84.6 | 83.4 | 82.3 | 81.9 | 7.1 | 3.7 | -3.4 |
| High school graduates, no college | | | | | | | | | | | | | | | |
| Total, with children under 18 years | 68.9 | 70.1 | 71.2 | 72.4 | 71.7 | 72.2 | 72.4 | 72.2 | 72.1 | 71.2 | 70.0 | 69.7 | 3.5 | .8 | -2.7 |
| Married, spouse present .. | 69.0 | 69.5 | 70.0 | 70.1 | 68.9 | 69.0 | 69.2 | 69.1 | 68.9 | 68.0 | 66.3 | 66.2 | .2 | -2.8 | -3.0 |
| Not married | 68.8 | 71.5 | 74.2 | 77.7 | 78.4 | 79.5 | 79.5 | 79.1 | 79.0 | 78.0 | 77.7 | 76.4 | 10.7 | 7.6 | -3.1 |
| Less than high school diploma | | | | | | | | | | | | | | | |
| Total, with children under 18 years | 44.5 | 46.0 | 47.6 | 50.5 | 52.2 | 52.7 | 53.9 | 54.4 | 53.6 | 51.5 | 50.7 | 50.6 | 9.4 | 6.1 | -3.3 |
| Married, spouse present .. | 45.7 | 47.1 | 47.5 | 49.3 | 49.2 | 48.8 | 48.9 | 50.2 | 48.8 | 47.1 | 46.1 | 46.8 | 3.2 | 1.1 | -2.1 |
| Not married | 42.8 | 44.6 | 47.8 | 52.2 | 56.4 | 58.3 | 61.2 | 60.6 | 60.9 | 58.3 | 57.7 | 56.1 | 18.4 | 13.3 | -5.1 |

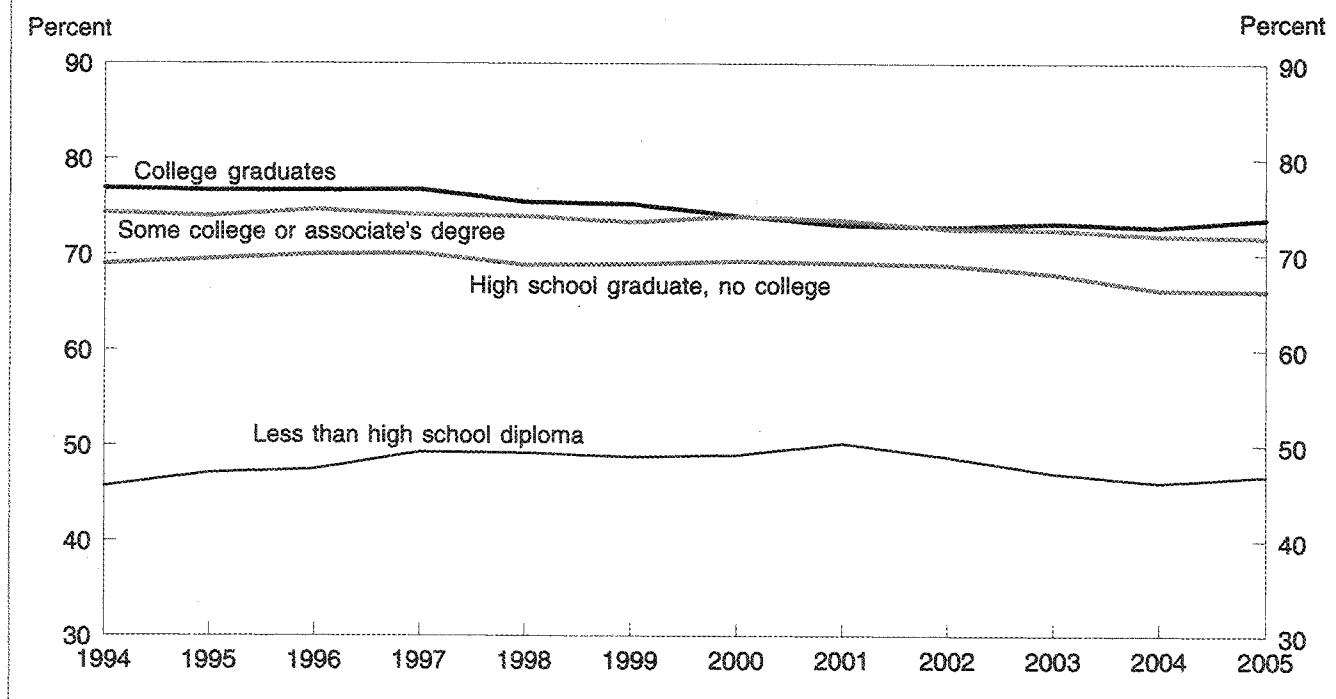
Chart 7. Labor force participation of married women with spouse present and children under 18 years, by educational attainment, 1994–2005

Table 12. Labor force participation rates of men, by age, annual averages, 1989–2005

| Year | Total, 25 to 54 years | 25 to 29 years | 30 to 34 years | 35 to 39 years | 40 to 44 years | 45 to 49 years | 50 to 54 years |
|------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 1989 | 93.7 | 93.7 | 95.1 | 94.7 | 94.3 | 92.7 | 89.3 |
| 1990 | 93.4 | 93.7 | 94.5 | 94.8 | 93.9 | 92.2 | 88.8 |
| 1991 | 93.1 | 93.3 | 93.9 | 94.4 | 93.8 | 92.2 | 88.4 |
| 1992 | 93.0 | 93.1 | 94.4 | 94.1 | 93.2 | 92.1 | 89.0 |
| 1993 | 92.6 | 92.9 | 93.8 | 93.7 | 93.1 | 91.6 | 88.1 |
| 1994 | 91.7 | 91.9 | 93.2 | 92.8 | 92.7 | 91.0 | 86.7 |
| 1995 | 91.6 | 92.3 | 93.6 | 92.5 | 92.0 | 90.7 | 86.4 |
| 1996 | 91.8 | 92.9 | 93.4 | 92.7 | 92.0 | 90.8 | 86.9 |
| 1997 | 91.8 | 92.5 | 93.4 | 93.0 | 92.1 | 90.8 | 87.8 |
| 1998 | 91.8 | 92.8 | 93.6 | 93.0 | 92.2 | 90.8 | 87.3 |
| 1999 | 91.7 | 92.7 | 93.8 | 93.3 | 92.3 | 90.3 | 87.0 |
| 2000 | 91.6 | 92.5 | 94.2 | 93.2 | 92.1 | 90.2 | 86.8 |
| 2001 | 91.3 | 91.7 | 93.7 | 92.9 | 92.1 | 90.2 | 86.6 |
| 2002 | 91.0 | 91.4 | 93.4 | 92.7 | 91.6 | 90.2 | 86.5 |
| 2003 | 90.6 | 90.6 | 92.9 | 92.8 | 91.4 | 89.2 | 86.0 |
| 2004 | 90.5 | 90.9 | 92.9 | 92.7 | 91.2 | 89.3 | 85.4 |
| 2005 | 90.5 | 90.8 | 92.7 | 92.6 | 91.6 | 89.3 | 85.9 |

whose rate over the period fell by 7.0 percentage points since 1973, compared with a 3.9-percentage-point decline for their white counterparts. Participation rates for Asian men declined by 1.7 percentage points in recent years, while the rate among Hispanic men was little changed. (See table 13.)

Several factors contributed to the decrease in participation of men. The following tabulation shows labor force participation rates for men aged 25 to 54 years, by educational attainment, for 1970 and 2005:

| | 1970 | 2005 | Change |
|--|------|------|---------------|
| | | | 1970– 2005 |
| Total | 96.4 | 89.6 | – 6.9 |
| Less than a high school diploma | 93.6 | 81.5 | –12.1 |
| High school graduate, no college | 97.6 | 87.5 | –10.1 |
| Some college, no degree | 97.1 | 90.8 | – 6.3 |
| College graduate | 97.1 | 94.6 | – 2.5 |

As might be expected, men with more education are more likely to be labor force participants. The largest decline since 1970 was among those with less education: the participation rate for men with less than a high school diploma fell by 12.1 percentage points, in contrast to a drop of 2.5 percentage points for those with a college degree. In 1970, the gap between less and more educated men was 3.5 percentage points; by 2005, it had widened to 13.1 percentage points.

One cause of the large decline in participation among the less educated could be that the types of jobs available to these individuals have become less desirable over the past several

decades. Indeed, inflation-adjusted wages for men with less than a high school diploma fell by 27 percent over the past quarter century; in contrast, wages for college graduates rose by 20 percent over the same period.¹⁹ Less educated men may not participate because the types of jobs available to them pay low wages. Alternatively, they may choose to drop out of the labor force for other reasons.²⁰

Another cause of the decline in labor force participation among men aged 25 to 54 years could be increased access to Social Security disability benefits. The Social Security Disability (SSD) program was enacted into law in 1956 and was meant to provide income for the totally disabled.²¹ Over time, however, a number of liberalizations of the eligibility requirements for SSD benefits has caused the number of beneficiaries to increase dramatically. Indeed, between 1980 and 2004, the number of beneficiaries more than doubled, from 2.9 million to 6.2 million. The decline in labor force participation of men over this period coincides with the rise in disability benefits.²²

Individuals aged 55 years and older. Over the latter half of the 20th century, one of the most striking labor market trends was the exit of individuals aged 55 and older from the labor force. From 1948 to 1995, the labor force participation of individuals in that age group declined by 13.3 percentage points. In recent years, however, this trend has reversed. (See chart 2 and table 1.) Beginning in 1996, the participation rate began to rise, and in 2000, the pace of the increase began to accelerate. Between 2000 and 2005, the participation rate rose from 32.4 percent to 37.2 percent. (See chart 8.) The long-term trend in the labor force participation of men and women aged 55 years and older is similar. As table 14 shows, the participation rate for both groups has risen in recent years.²³

Table 13. Labor force participation rates of men aged 25 to 54 years, by race and Hispanic or Latino ethnicity, annual averages, 1972–2005

| Year | Total | White | Black | Asian | Hispanic |
|------------|-------|-------|-------|-------|----------|
| 1972 | 95.1 | 95.7 | 90.0 | — | — |
| 1973 | 95.0 | 95.5 | 90.3 | — | — |
| 1974 | 94.7 | 95.4 | 89.4 | — | — |
| 1975 | 94.4 | 95.1 | 88.6 | — | — |
| 1976 | 94.2 | 94.9 | 88.3 | — | — |
| 1977 | 94.2 | 95.0 | 88.4 | — | — |
| 1978 | 94.3 | 95.0 | 88.8 | — | — |
| 1979 | 94.4 | 95.1 | 89.1 | — | — |
| 1980 | 94.2 | 95.0 | 88.4 | — | 93.0 |
| 1981 | 94.1 | 95.0 | 87.5 | — | 92.7 |
| 1982 | 94.0 | 94.9 | 87.7 | — | 92.7 |
| 1983 | 93.8 | 94.6 | 88.2 | — | 92.5 |
| 1984 | 93.9 | 94.8 | 88.1 | — | 92.6 |
| 1985 | 93.9 | 94.8 | 87.8 | — | 92.2 |
| 1986 | 93.8 | 94.6 | 88.4 | — | 92.7 |
| 1987 | 93.7 | 94.5 | 87.9 | — | 92.3 |
| 1988 | 93.6 | 94.5 | 87.7 | — | 92.6 |
| 1989 | 93.7 | 94.6 | 87.8 | — | 92.8 |
| 1990 | 93.4 | 94.4 | 87.4 | — | 92.4 |
| 1991 | 93.1 | 94.1 | 86.6 | — | 91.2 |
| 1992 | 93.0 | 94.0 | 86.1 | — | 91.5 |
| 1993 | 92.6 | 93.7 | 85.3 | — | 91.7 |
| 1994 | 91.7 | 92.9 | 84.5 | — | 90.9 |
| 1995 | 91.6 | 92.7 | 84.1 | — | 90.9 |
| 1996 | 91.8 | 93.0 | 84.1 | — | 91.5 |
| 1997 | 91.8 | 93.0 | 84.4 | — | 91.8 |
| 1998 | 91.8 | 92.9 | 84.4 | — | 91.6 |
| 1999 | 91.7 | 92.8 | 85.1 | — | 91.6 |
| 2000 | 91.6 | 92.7 | 84.4 | 91.7 | 92.5 |
| 2001 | 91.3 | 92.4 | 83.6 | 91.3 | 91.7 |
| 2002 | 91.0 | 92.2 | 83.5 | 90.5 | 91.5 |
| 2003 | 90.6 | 91.7 | 82.9 | 89.7 | 91.6 |
| 2004 | 90.5 | 91.6 | 82.5 | 90.7 | 92.1 |
| 2005 | 90.5 | 91.6 | 83.3 | 90.0 | 92.0 |

Note: Dash indicates data not available.

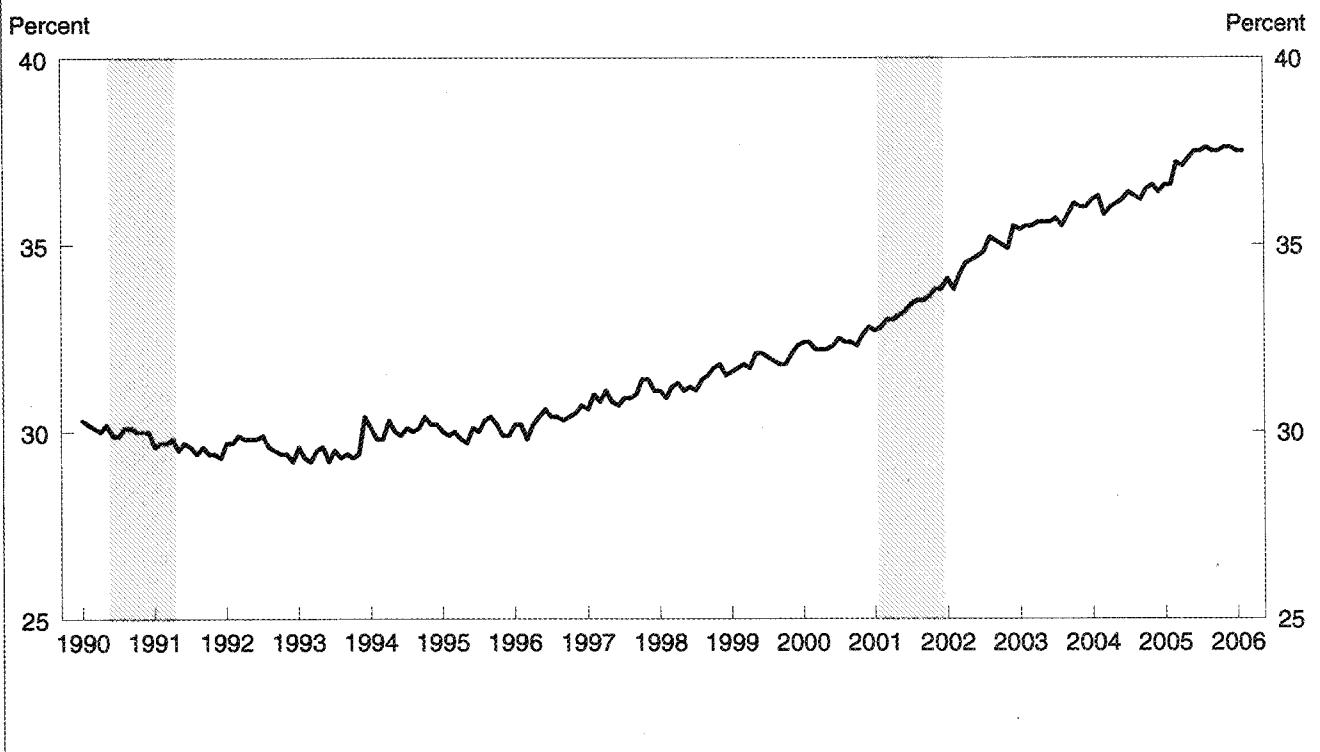
Table 15 shows data for 2000 and 2005 on participation rates by age and sex for individuals approaching or who have reached retirement age. Labor force participation trends closely track age requirements for receiving Social Security earnings benefits. Data show a steep decline in labor force participation when individuals reach age 62—the age they first become eligible for Social Security benefits—and again at age 65—the age they become eligible for full Social Security benefits. In 2005, the rate for men fell by 5.8 percentage points at age 62 and 7.8 percentage points at age 65; for women, the decreases at age 62 and 65 were 7.1 percentage points and 6.8 percentage points, respectively.

Although men aged 55 years and older are much more likely than their female counterparts to participate in the labor force, the increase in the participation rate for women was slightly higher than that for men between 2000 and 2005 (5.3 percentage points compared with 4.1 percentage points). For men, the rise in participation was mostly among those aged 59 years and older.

For women, all ages 55 years and older experienced an increase in participation since 2000. (See table 15.)

Several factors may have contributed to the recent rise in labor force participation among older individuals.²⁴ One was the passage of the Senior Citizens Freedom to Work Act, which removed the earnings test, or “earnings penalty,” for workers aged 65 to 70 years who earned wages; the removal of the earnings test may have influenced the retirement decisions of some older individuals, especially those employed full time.²⁵ Another factor was the gradual increase, beginning in 2000, in the normal retirement age for receiving Social Security benefits; this legislation may have induced some individuals to stay in the labor force longer than they had originally planned.²⁶ Traditionally, retirement benefits are first available at age 62, with a reduction for each month that benefits are received before age 65, the age at which individuals are eligible for full Social Security benefits. The normal retirement age was raised as part of the 1983

Chart 8. Civilian labor force participation rate of persons 55 years and older, seasonally adjusted, 1990–2006



Social Security reform legislation. The age rises gradually for individuals born in 1937 or later. Currently, the highest normal retirement age will be 67 years, for those born in 1960 or later.

In addition to changes to Social Security, fundamental changes to private retirement plans have coincided with the rise in participation of older workers. In one of these changes, in recent decades there has been a decline in the number of individuals covered by defined-benefit pension plans and an increase in the number covered by defined-contribution plans, with most of the growth attributable to an increase in the number of 401(k) plans.²⁷ For instance, in the early 1990s, defined-benefit pensions and defined-contribution plans each covered about a third of private-industry workers. By 2005, defined-contribution plans covered about twice as many private-sector workers as did defined-benefit pensions—42 percent and 21 percent, respectively.

The main impact of the rise in the prevalence of defined-contribution plans has been the placement of more responsibility for accumulating retirement assets onto individuals, a responsibility that may have caused some to participate in the labor force longer.²⁸ Retirement income from a defined-contribution plan depends on the decision of workers to participate in the plan, the share of their income they choose to save, and the rate of return on their account balances. Because

investment risk in a defined-contribution plan is borne by workers, an extended stock market downturn, for example, may have a detrimental effect on account balances and cause some individuals to delay their decision to exit the labor force.²⁹

The rise in labor force participation rates among older workers also may reflect improvement in the health status of older individuals. Research has shown that health is clearly an important determinant of whether a person will exit the labor force.³⁰ Older workers today have longer life expectancies because of improvements in their health. For instance, according to data from the National Center for Health Statistics, individuals born between 1939 and 1941 could expect to live 64 years, on average; for individuals born 10 years later, the average rose to 68 years.³¹

Another factor that probably affects the labor force participation of older workers is access to retiree health benefits. In 1997, 22 percent of private-sector employers offered retiree health benefits to individuals who retired prior to age 65; by 2002, the proportion had declined to 13 percent.³² For individuals eligible for Medicare—those aged 65 years and older—the proportion of private-sector employers offering retiree health benefits declined from 20 percent in 1997 to 13 percent in 2002.³³ These changes may influence the retirement decisions of individuals approaching retirement age. Specifically, workers near retirement

Table 14 Labor force participation rates of persons aged 55 years and older, by sex, selected years, 1976–2005

| Year | Total 55 years and older | 55 to 59 years | 60 to 61 years | 62 to 64 years | 65 to 69 years | 70 years and older |
|--------------|-----------------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|
| Men | | | | | | |
| 1976 | 47.8 | 83.5 | 74.3 | 56.1 | 29.3 | 14.2 |
| 1980 | 45.6 | 81.7 | 71.8 | 52.6 | 28.5 | 13.1 |
| 1985 | 41.0 | 79.6 | 68.9 | 46.1 | 24.4 | 10.5 |
| 1990 | 39.4 | 79.9 | 68.8 | 46.5 | 26.0 | 10.7 |
| 1994 | 37.8 | 76.9 | 64.8 | 45.1 | 26.8 | 11.7 |
| 1995 | 37.9 | 77.4 | 65.6 | 45.0 | 27.0 | 11.6 |
| 1996 | 38.3 | 77.9 | 66.3 | 45.7 | 27.5 | 11.5 |
| 1997 | 38.9 | 78.7 | 66.0 | 46.2 | 28.4 | 11.6 |
| 1998 | 39.1 | 78.4 | 67.0 | 47.3 | 28.0 | 11.1 |
| 1999 | 39.6 | 78.4 | 66.3 | 46.9 | 28.5 | 11.7 |
| 2000 | 40.1 | 77.0 | 66.0 | 47.0 | 30.3 | 12.0 |
| 2001 | 40.9 | 77.2 | 67.7 | 48.2 | 30.2 | 12.1 |
| 2002 | 42.0 | 78.0 | 67.3 | 50.4 | 32.2 | 11.5 |
| 2003 | 42.6 | 77.6 | 67.0 | 49.6 | 32.8 | 12.3 |
| 2004 | 43.2 | 77.6 | 64.9 | 50.8 | 32.6 | 12.8 |
| 2005 | 44.2 | 77.6 | 65.6 | 52.5 | 33.6 | 13.5 |
| Women | | | | | | |
| 1976 | 23.0 | 48.1 | 39.9 | 28.3 | 14.9 | 4.6 |
| 1980 | 22.8 | 48.5 | 39.6 | 28.5 | 15.1 | 4.5 |
| 1985 | 22.0 | 50.3 | 40.3 | 28.7 | 13.5 | 4.3 |
| 1990 | 22.9 | 55.3 | 42.9 | 30.7 | 17.0 | 4.7 |
| 1994 | 24.0 | 59.2 | 45.3 | 33.1 | 17.9 | 5.5 |
| 1995 | 23.9 | 59.5 | 46.1 | 32.5 | 17.5 | 5.3 |
| 1996 | 23.9 | 59.8 | 47.2 | 31.8 | 17.2 | 5.2 |
| 1997 | 24.6 | 60.7 | 47.9 | 33.6 | 17.6 | 5.1 |
| 1998 | 25.0 | 61.3 | 47.3 | 33.3 | 17.8 | 5.2 |
| 1999 | 25.6 | 61.8 | 46.2 | 33.7 | 18.4 | 5.5 |
| 2000 | 26.1 | 61.4 | 49.0 | 34.1 | 19.5 | 5.8 |
| 2001 | 27.0 | 61.7 | 50.5 | 36.7 | 20.0 | 5.9 |
| 2002 | 28.5 | 63.8 | 52.8 | 37.6 | 20.7 | 6.0 |
| 2003 | 30.0 | 65.5 | 53.9 | 38.6 | 22.7 | 6.4 |
| 2004 | 30.5 | 65.0 | 54.0 | 38.7 | 23.3 | 6.7 |
| 2005 | 31.4 | 66.6 | 53.8 | 40.0 | 23.7 | 7.1 |

age may postpone their exit from the labor force because they may not be able to obtain health insurance coverage or may not be able to afford health insurance premiums and out-of-pocket expenses.

In addition to diminishing access to employer-provided retiree benefits, rising health care costs may affect the retirement decisions of older workers because many must pay large out-of-pocket expenses for health care.³⁴ Indeed, over the past two decades, there has been a steep increase in the cost of medical care.³⁵ Between 1984 and 2005, the Consumer Price Index (CPI-U) for medical care rose at an annual rate of 5.5 percent, nearly double the 3.0-percent annual rate of increase of the CPI-U for all items. Over the same period, the index for prescription drugs and medical supplies increased at an annual rate of 5.8 percent.

OVERALL LABOR FORCE PARTICIPATION HAS DECLINED in recent years after rising steadily for more than half a century. The decline occurred across most of the major demographic

groups. The largest drop was among teenagers. Increased school enrollment, a slower-than-average labor market recovery, and higher competition for available jobs from older workers as well as from recent immigrants are considered the major factors that contributed to the decline in teen participation.

The labor force participation of young adults—individuals aged 20 to 24 years—also declined; however, in relative terms, the decrease was not as steep as that for teenagers. Among young adults, those least likely to be labor force participants were high school dropouts; in particular, young women without high school diplomas were least likely to be working or looking for work. As was the case with teenagers, increased school enrollment and the sluggish labor market recovery may be partly responsible for the decline in participation of young adults.

The labor force participation of women aged 25 to 54 years also declined in recent years, following a steady increase over the previous five decades. Women in the younger age cohorts—especially those aged 25 to 29 years—registered the largest

Table 15. Labor force participation rates of persons aged 55 years and older, by age and sex, annual averages, 2000 and 2005

| Age | Men | | | Women | | |
|---------------------------------|------|------|-------------------|-------|------|-------------------|
| | 2000 | 2005 | Change 2000-05 | 2000 | 2005 | Change 2000-05 |
| Total, 55 years and older | 40.1 | 44.2 | 4.1 | 26.1 | 31.4 | 5.3 |
| 55 years | 79.8 | 80.6 | .8 | 65.2 | 69.8 | 4.6 |
| 56 years | 79.7 | 79.6 | -.1 | 64.9 | 66.8 | 1.9 |
| 57 years | 77.9 | 77.6 | -.3 | 61.8 | 66.7 | 4.9 |
| 58 years | 75.6 | 75.8 | .2 | 58.4 | 64.3 | 5.9 |
| 59 years | 71.0 | 73.6 | 2.6 | 55.6 | 59.1 | 3.5 |
| 60 years | 66.2 | 67.7 | 1.5 | 51.5 | 55.7 | 4.2 |
| 61 years | 65.9 | 63.5 | -2.4 | 46.4 | 51.7 | 5.3 |
| 62 years | 53.0 | 57.7 | 4.7 | 38.7 | 44.6 | 5.9 |
| 63 years | 44.0 | 51.1 | 7.1 | 33.6 | 39.4 | 5.8 |
| 64 years | 43.2 | 47.5 | 4.3 | 29.9 | 35.1 | 5.2 |
| 65 years | 35.9 | 39.7 | 3.8 | 23.2 | 28.3 | 5.1 |
| 66 years | 32.7 | 34.8 | 2.1 | 21.6 | 25.4 | 3.8 |
| 67 years | 30.3 | 31.6 | 1.3 | 19.3 | 24.6 | 5.3 |
| 68 years | 28.1 | 32.2 | 4.1 | 16.6 | 20.6 | 4.0 |
| 69 years | 23.8 | 28.3 | 4.5 | 16.4 | 18.6 | 2.2 |
| 70 years | 20.2 | 23.8 | 3.6 | 10.9 | 16.7 | 5.8 |
| 71 years | 18.0 | 23.4 | 5.4 | 11.6 | 14.5 | 2.9 |
| 72 years | 18.5 | 21.6 | 3.1 | 10.8 | 11.8 | 1.0 |
| 73 years | 18.7 | 17.9 | -.8 | 9.6 | 11.4 | 1.8 |
| 74 years | 14.1 | 16.0 | 1.9 | 7.0 | 9.2 | 2.2 |
| 75 years and older | 8.1 | 9.4 | 1.3 | 3.6 | 4.5 | .9 |

decreases in participation. Changes in the labor force participation pattern of mothers over the past decade show that the decrease in labor force participation of mothers with more education was greater than that of those with less education. The decline in labor force participation among married mothers with a bachelor's degree or higher was more pronounced among mothers with preschool children.

The labor force participation of men aged 25 to 54 years edged down fairly steadily between 1950 and 1990. Since 1990,

the decline has been much sharper. Over the past quarter century, the decrease in participation among less educated men has been much larger than that of their more educated counterparts.

Finally, one group has bucked the overall trend in recent years: persons aged 55 years and older. Beginning in 1995, the labor force participation rate of older workers began to rise, after falling for about 50 years; since 2000, the pace of the increase has accelerated. □

Notes

ACKNOWLEDGMENT: The authors thank Kenneth W. Robertson and Bernard Altschuler for tabulating data on the educational attainment of women by presence and age of children.

¹ The working-age population consists of the civilian noninstitutional population aged 16 years and older who reside in the 50 States and the District of Columbia. This group excludes inmates of institutions (for example, mental and penal institutions, and homes for the aged) and persons who are on active duty in the Armed Forces.

² The Current Population Survey (CPS) is a monthly sample survey of about 60,000 households that provides information on the demographic characteristics of the labor force and employment status of the noninstitutional population aged 16 years and older.

³ In a recent study, Mitra Toossi provides a detailed analysis of the impact of the baby-boom generation on the labor force, examining

changes projected to take place over the 2004–14 period. (See Mitra Toossi, "Labor force projections to 2014: retiring boomers," *Monthly Labor Review*, November 2005, pp. 25–44.)

⁴ A recent report by the Government Accountability Office (GAO) provides a comprehensive analysis of the problems that the economy, employers, and older individuals might face from future demographic changes. At the conclusion of the report, the GAO proposes a number of recommendations, including designing a "comprehensive and highly visible public awareness campaign," to the Secretary of Labor to address the problems associated with the aging of the population. (See *Older Workers: Labor Can Help Employers and Employees Plan Better for the Future*, GAO-06-80 (U.S. Government Accountability Office, December 2005).)

⁵ The National Bureau of Economic Research, the generally recognized arbiter of business cycle turning points, designated

November 2001 as the trough of the recession which began in March of that year.

⁶ For this analysis, only five previous recessions were used, to minimize any overlap of recessionary periods. Although the most recent recession officially ended in November 2001, the labor market continued to be somewhat sluggish.

⁷ Note, however, that labor force participation rates of younger workers are highly sensitive to cyclical changes in labor market conditions.

⁸ In general, the movement in the teen labor force participation rate parallels the business cycle, growing during periods of economic expansion and shrinking during periods of economic contraction. However, in the 5 years following the onset of the March 2001 recession, the labor force participation rate of teenagers trended downward, falling by 7.0 percentage points, from 50.9 percent in March 2001 to 43.9 percent in March 2006. In contrast, in the 60 months that followed the onset of the previous 8 recessions, the labor force participation rate for teens was, on average, essentially unchanged.

⁹ The authors examine the recent decline in teen work activity, offering explanations for both the long secular decline since the late 1970s and the recent acceleration in this decline since 2000. They argue that much of this pattern is due to a significant increase in the rewards to formal education. They also explore the importance of changes to labor demand, crowding out by substitutable workers, the increased work activity of mothers, and increases in wealth. Daniel Aaronson, Kyung-Hong Park, and Daniel G. Sullivan, "The Decline in Teen Labor Force Participation," *Economic Perspectives*, Quarter I, 2006 Available on the Internet at ssrn.com/abstract=888529, visited October 30, 2006.

¹⁰ The No Child Left Behind Act (NCLB) of 2001 may have forced some teens who were enrolled in school to pull out of the labor force. The Act, the latest revision of the 1965 Elementary and Secondary Education Act, was signed into law in early 2002 and is a State-mandated testing requirement imposed on schools. To help schools and districts meet the goals required by the NCLB, the law provides a blend of requirements, incentives, and resources. Because teens may have to work harder and, probably, longer hours to pass the Act's requirements, many may substitute schoolwork for paid work.

¹¹ According to George J. Borjas, "Even though the average native gains somewhat from immigration, this does not mean that everyone in the country gains. There are distinct groups of winners and losers. The winners are the people who employ or use immigrant services, and achieve their economic goals at lower costs. The losers are the people who compete with immigrant workers, and experience a corresponding reduction in their income." (See George J. Borjas, *Heaven's Door: Immigration Policy and the American Economy* (Princeton University Press, 1999), p. 103.)

¹² One group of researchers suggests that low-skilled women who entered the labor force in response to welfare reform may have crowded out jobs for inexperienced teenagers and young adults. However, these same researchers conclude that the decline in youth participation has been due largely to increases in family wealth and higher returns to schooling, rather than to factors related to the demand for labor. (See Daniel Aaronson, Kyung-Hong Park, and Daniel G. Sullivan, "The Decline in Teen Labor Force Participation," *Economic Perspectives*, 2006, on the Internet at ssrn.com/abstract=888529, visited October 30, 2006.)

¹³ See Rima Shore, *Reducing the Number of Disconnected Youth*, (Baltimore, The Annie E. Casey Foundation, July 2005); and Thomas A. Mroz and Timothy H. Savage, *The Long-term Effects of Youth Unemployment*, (Washington, DC, Employment Policies Institute, October 2001).

¹⁴ Note, however, that the lack of available jobs is not necessarily the only reason young adults choose to enroll in school. Individuals aged 20 to 24 years may stay in school because education is an

investment that can lead to higher paying jobs with greater access to employed benefits. In addition, persons with higher education are less likely to be unemployed and more likely to be employed. Likewise, weak labor market conditions may not necessarily be the main reason young mothers withdraw from school and the labor force to care for their children.

¹⁵ Data for Asians are available only since 2000.

¹⁶ The 1996 Welfare Reform Bill, The Personal Responsibility and Work Opportunity Reconciliation Act of 1996, changed the Nation's welfare system into one that requires work in exchange for time-limited assistance. The bill contains strong work requirements, a performance bonus to reward States for moving welfare recipients into jobs, State maintenance-of-effort requirements, comprehensive child support enforcement, and supports for families moving from welfare to work—including increased funding for childcare and guaranteed health care coverage. These changes encourage single mothers to enter the labor force. For more information on the impact of welfare reform, see *The National Evaluation of the Welfare-to-Work Grants Program: Final Report* (Princeton, NJ, Washington, DC, and Cambridge, MA, Mathematica Policy Research, Inc., September 2004); and Robert F. Schoeni and Rebecca M. Blank, "What Has Welfare Reform Accomplished? Impacts of Welfare Participation, Employment, Income, Poverty, and Family Structure," Working Paper No. 7627, (National Bureau of Economic Research, March 2000).

¹⁷ See Timothy J. Bartik, *Instrumental Variable Estimates of the Labor Market Spillover Effects of Welfare Reform*, Working Paper No. 02-078 (Kalamazoo, MI, The W.E Upjohn Institute for Employment Research, April 2002), pp. 2, 47.

¹⁸ See William J. Carrington, Peter R. Mueser, and Kenneth R. Troske, *The Impact of Welfare Reform on Leaver Characteristics, Employment and Recidivism*, Discussion Paper No. 561 (Bonn, Germany, IZA, August 2002).

¹⁹ "Wages" refers to median weekly earnings of men aged 25 years and older, in constant 2004 dollars. The change in wages is that between 1979 and 2004.

²⁰ See Chinhui Juhn and Simon Potter's recent study, "Changes in Labor Force Participation in the United States," *Journal of Economic Perspectives*, summer 2006, pp. 27–46. The authors find that over the past three decades profound changes have occurred in the U.S. labor market, with one recurring theme being a decline in demand for less skilled workers. The authors conclude that the result has been both a decline in wages among less skilled men and a sharp fall in the employment of less educated men.

²¹ For more information on the history of Social Security Disability programs, see *A History of the Social Security Disability Programs* (Social Security Administration, January 1986).

²² A study conducted in 2001 concluded that the increase in the liberalization of disability benefits may have caused less educated individuals to exit the labor force. (See David H. Autor and Mark G. Duggan, "The Rise in the Disability Rolls and the Decline in Unemployment," *Quarterly Journal of Economics*, February 2003, pp. 157–205.) Research conducted by Jonathan S. Leonard found that nearly half of the decline in labor force participation rates among "prime-age" men during the 1960s and 1970s was due to the growth of the Social Security Disability program. (See Jonathan S. Leonard, *The Social Security Disability Program and Labor Force Participation*, Working Paper No. 392 (National Bureau of Economic Research, August 1979).

²³ The long-term trends in labor force participation for men and women aged 55 years and older are similar to those of men and women aged 25 to 54 years. That is, the rate for older men has declined, while that for older women has increased.

²⁴ In a recent paper, Kevin E. Cahill, Michael D. Giandrea, and Joseph F. Quinn discuss the concept of "bridge jobs," or jobs that older individuals

take in moving from full-time "career" employment to complete withdrawal from the labor force. The authors argue that bridge jobs have become more prevalent in recent years due to a number of changes in the retirement environment. (See Kevin E. Cahill, Michael D. Giandrea, and Joseph F. Quinn, *Are Traditional Retirements a Thing of the Past? New Evidence on Retirement Patterns and Bridge Jobs*, Working Paper 384, (Bureau of Labor Statistics, September 2005).) For an analysis of the impact of Social Security on the labor force participation of older workers, see David A. Wise, "Social Security Provisions and the Labor Force Participation of Older Workers," in Linda J. Waite, ed., *Aging, Health, and Public Policy: Demographic and Economic Perspectives* (New York, Population Council, 2005), pp. 176–204. An analysis carried out by Gary Burtless and Joseph F. Quinn examines long-term trends in retirement among older individuals and discusses policies that might increase the labor force participation of older workers. (See Gary Burtless and Joseph F. Quinn, "Retirement Trends and Policies to Encourage Work Among Older Americans," in Peter Budetti, Richard Burkhauser, Janice Gregory, and Allan Hunt, eds., *Ensuring Health and Income Security for an Aging Workforce* (Kalamazoo, MI: W. E. Upjohn Institute for Employment Research, 2001), pp. 375–415.)

²⁵ See Steven J. Haider and David S. Loughran, *Do the Elderly Respond to Taxes on Earnings? Evidence from the Social Security Retirement Earnings Test*, RAND Working Paper wp 223 (Santa Monica, CA), RAND Corporation, January 2005). The authors found that removal of the earnings test had little influence on the labor supply decisions of women; there was evidence, however, that eliminating the earnings test may have had an impact on the labor supply decisions of men.

²⁶ Courtney Coile and Jonathan Gruber found that Social Security policies which increase incentives to work at older ages can significantly reduce the exit rate of older workers from the labor force. (See Courtney Coile and Jonathan Gruber, *Social Security and Retirement*, Working Paper No. 7830 (National Bureau of Economic Research, August 2000).)

²⁷ For more information on trends in retirement plan coverage, see Dallas L. Salisbury, ed., *The Future of Private Retirement Plans* (Washington, DC, Employee Benefit Research Institute, 2000).

²⁸ See Leora Freidberg and Anthony Webb, *Retirement and the Evolution of Pension Structure*, Working Paper No. 9999 (National Bureau of Economic Research, September 2003).

²⁹ Some researchers have speculated that the performance of the stock market may influence retirement decisions of older workers. For example, the poor performance of equities over the 2000–02 period may have caused some older individuals to delay their exit from the labor force, thus raising their labor force participation rates. (See Andrew D. Eschtruth and Jonathan Genuis, "Are Older Workers Responding to the Bear Market?" *Just the Facts on Retirement Issues* (Chestnut Hill, MA, Center for Retirement Research at Boston College, September 2002).) However, in a recent study, Courtney Coile and Phillip Levine found scant evidence that the stock market affects retirement decisions or reentry into the labor force. (See Courtney C. Coile and Phillip B. Levine, *Bulls, Bears, and Retirement Behavior*, Working Paper No. 10779 (National Bureau of Economic Research, September 2004).)

³⁰ For example, research has found that poor health leads to an exit from the labor force for many older workers. (See John Bound, Michael Schoenbaum, Todd R. Stinebrickner, and Timothy Waidmann, "The Dynamic Effects of Health on the Labor Force Transitions of Older Workers," *Labor Economics*, June 1999, pp. 179–202.)

³¹ See *United States Life Tables, 2002* (U.S. Department of Health and Human Services, National Center for Health Statistics, November 2004).

³² See *The Impact of the Erosion of Retiree Health Benefits on Workers and Retirees*, Issue Brief No. 279 (Washington, DC, Employee Benefit Research Institute, March 2005).

³³ *Ibid.*

³⁴ See Richard W. Johnson and Rudolph G. Penner, *Will Health Care Costs Erode Retirement Security?* Issue In Brief No. 23, (Chestnut Hill, MA, Center for Retirement Research at Boston College, October 2004); and Richard W. Johnson, Amy J. Davidoff, and Kevin Perese, "Health Insurance Costs and Early Retirement Decisions," *Industrial and Labor Relations Review*, July 2003, pp. 716–29.

³⁵ According to the Centers for Medicare and Medicaid Services, national health expenditures accounted for about 9 percent of total gross domestic product in the late 1970s; by 2004, the proportion had risen to 16 percent.

APPENDIX: Worklife patterns

Women born at different times have had dramatically different worklife patterns. That women at or near retirement ages have much lower participation rates than young women is only partly due to an aging effect. More so, it reflects differences between cohorts of women. For instance, many women aged 50 years and older in 2005 first reached the age at which they entered the labor force in the 1960s and 1970s, when women were not usually expected or encouraged to work and when employment opportunities were somewhat limited.

In more recent decades, changes in social norms regarding women's workforce participation affected young women dramatically, and the effect has been lasting. As a result, women in their late thirties in 2005 are far more likely to be labor force participants than were their mothers or grandmothers at any age.

Chart A-1 shows differences in the labor force participation patterns of 5-year cohorts of women who were between the ages of 20 and 69 years in 2005. By linking together the participation rates of these cohorts as they passed through successive ages (for example, women aged 65 to 69 years in 2005 were aged 50 to 54 years in 1990, 55 to 59 years in 1995, and so forth), a longitudinal perspective is derived from cross-sectional CPS data. As the chart illustrates, even between groups born as little as 5 years apart, differences in labor force participation are striking. At every age, each successive cohort was more likely to work than the preceding one. Part of the rise in participation of women probably reflects a delay in marriage and in the birth of the first child. A comparison of the oldest and youngest groups of women illustrates the cumulative effect of that trend. For instance, more than 70 percent of women in their thirties in 2005 were in the labor force, nearly twice as many as in 1975.

Not only have participation rates increased with each successive group of women, but, as chart A-1 illustrates, worklife patterns

have changed fundamentally over time. The older cohorts followed a pattern in which about half of women were in the labor force in their early twenties. Their participation rates dropped sharply during their childbearing years and then increased to a peak in their late forties. The peak rose higher and higher for each successive group, but the pattern began to change with the cohort entering the labor force in the late 1960s.

In the last several decades, the latter pattern has been replaced by one in which participation rates start much higher and continue to rise, with no dropoff during childbearing years. Note, however, that, instead of rising steadily, the labor force participation pattern for the cohort currently in its early thirties has fallen over the past 5 years.¹ Chart A-2 shows current labor force patterns for men at each age. Although women's participation rates are lower than men's at each age, the current labor force patterns of young women resemble those of their *fathers* more closely than those of their mothers. Until the mid-1960s, women's participation rates by age dipped during the main childbearing years of the twenties. That pattern is now shifted to an inverted "U" and thus is similar to that of men.

Note to Appendix

¹ The decline in labor force participation of the youngest cohort could reflect, in part, a rise in the number of births among women aged 30 to 34 years. For example, in 1976, there were 56.4 births per 1,000 women in this cohort; by 2004, the number rose to 93.8 births per 1,000 women. (See U.S. Census Bureau, Current Population Survey, June 2004.)

Chart A-1. Labor force participation rates for selected 5-year cohorts of women, by age in 2005

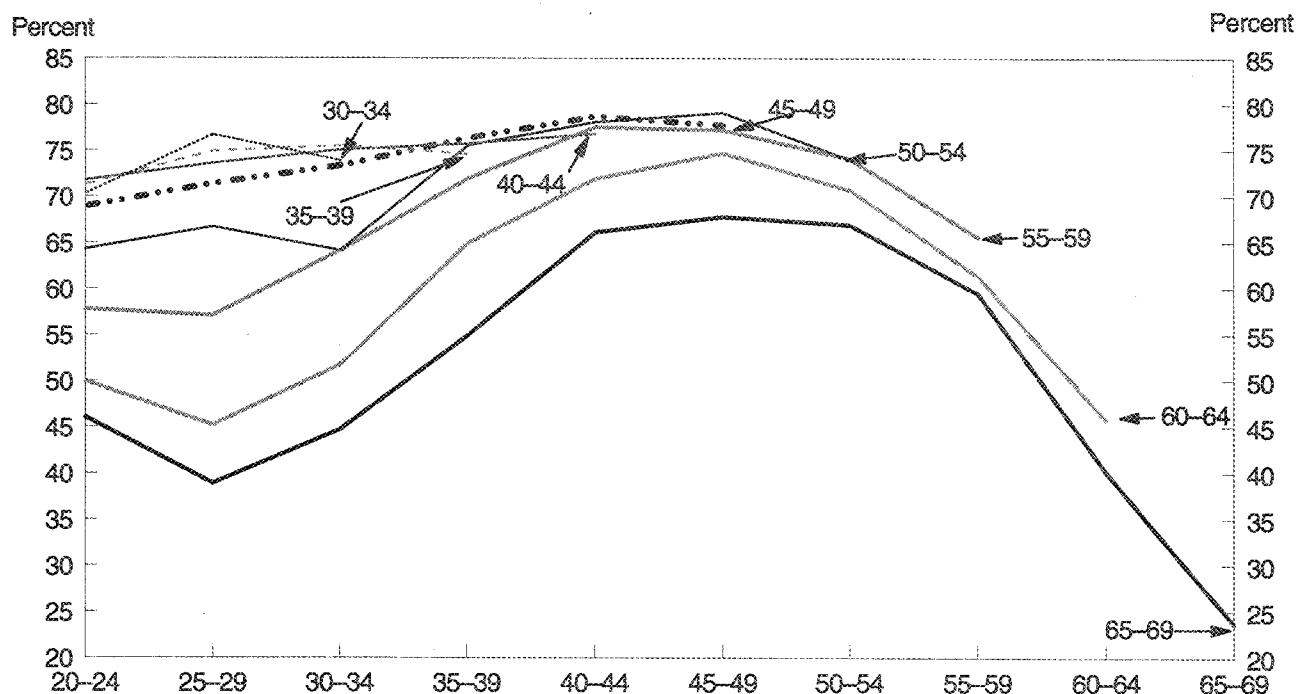


Chart A-2. Labor force participation rates for selected 5-year cohorts of men, by age in 2005

