## A new look at long-term labor force projections to 2050

Among the factors affecting the composition and growth of the labor force over the next 50 years are the aging of the baby-boom generation, the stabilization of women's labor force participation rates, and increasing racial and ethnic diversity in the workforce

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Mitra Toossi is an economist in the Office of Occupational Statistics and Employment Projections, Bureau of Labor Statistics. E-mail: Toossi.Mitra@bls.gov where the 2005–50 period, the labor force is projected to reach 194.8 million in 2050. Peaking at 2.6 percent during the 1970s, the growth rate of the labor force has been decreasing with the passage of each decade and is expected to continue to do so in the future. (See chart 1.)

The 0.6-percent annual growth rate from 2005 to 2050 reflects a projected population of 322.6 million and a labor force participation rate of 60.4 percent in 2050. The period to 2050 will witness the baby-boom generation ascending the age ladder until the group moves out of the labor force, bringing to an end one of the major drivers of labor force growth over the post-World War II period. (See table 1.)

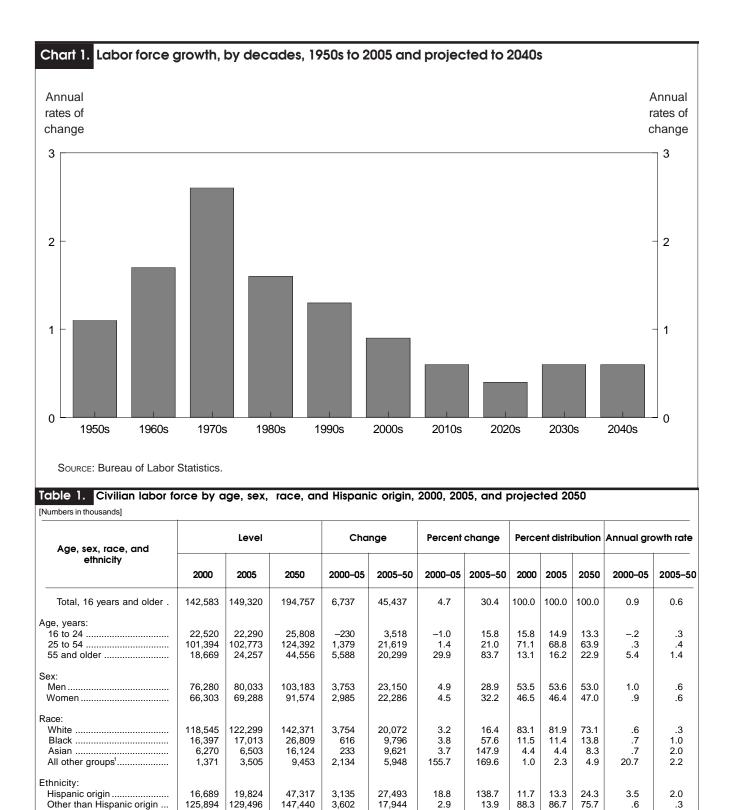
Because labor force growth is one of the major determinants of long-term economic growth, projections of the labor force shed light on the future path of the economy and its ability to create goods and services. The Bureau of Labor Statistics carries out medium-term, or 10-year, labor force projections every other year. Every several years, longer term projections of the labor force are carried out to elicit possible future paths of labor force growth. Several key factors are expected to continue to affect the composition and growth of the labor force in the next 50 years:

• *The impact of the aging baby-boom generation on the labor force.* The impact

of the baby-boom generation on the composition and growth of the labor force will continue to be a key factor. As this large cohort ages, the increase in the share of the older labor force and, eventually, the exit of the baby-boom cohort from the workforce will be the main factor in lowering the growth of the labor force.

- The stabilization of women's labor force participation rates after years of remarkable increases. The growth rate of the labor force was much affected by the sizable increase in the labor force participation of women during the 1970s and 1980s. However, women's labor force participation rates appear to have peaked at 60 percent in 1999. Every year since then, the participation rate of women decreased, reaching 59.3 percent in 2005.
- Increasing racial and ethnic diversity. The labor force is expected to become even more diverse than it is now. Minorities, with higher population growth through immigration, higher fertility rates, and higher labor force participation rates, are projected to expand their share of the workforce considerably in the future.

The labor force of the future will be determined primarily by the dynamism of U.S. population change. The diversity of the Nation's



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102,729

multiple racial origin and (2) the race categories of (2a) American Indian and

<sup>1</sup> The "all other groups" category includes (1) those classified as being of

103,891

100,189

1,162

-3,702

1.1

group, all 2000 numbers are estimates.

-3.6

69.6

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72.0

Alaska Native and (2b) Native Hawaiian and other Pacific Islanders. For this

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population has affected the size and composition of the labor force in the past and will continue to do so in the future.

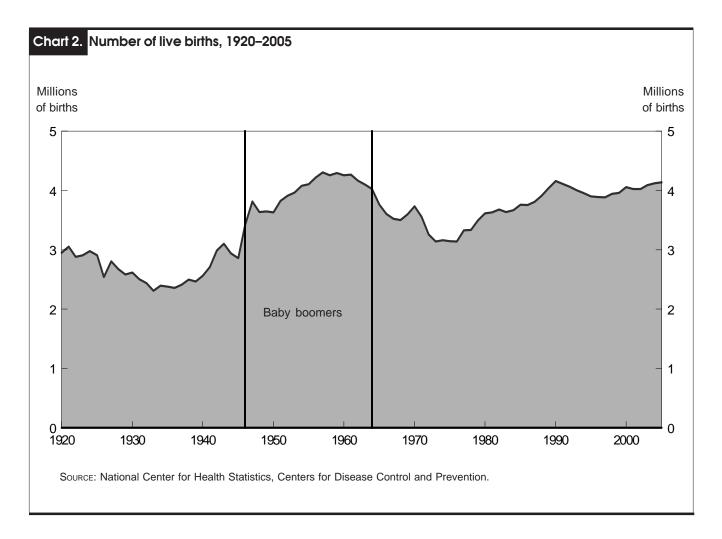
Chart 2 presents a snapshot of demographic change in the United States since 1920. The chart shows the waves of change that have been the result of differing birthrates during the past eight or nine decades. The following features are evident:

- A reduction in birthrates—the "birth dearth"—in the late 1920s and early 1930s
- A surge in birthrates—the "baby boom"—in the 1946– 64 period
- A slight reduction in birthrates again—the "baby bust"—from 1965 to 1975
- An increase in birthrates again—the "baby-boom echo"—during the late 1980s and the 1990s.

Even if all other variables are kept constant, the differing birthrates of the U.S. population throughout the past eight or nine decades, and the resulting boom-and-bust waves of population change, would greatly influence the demographics of the present and future workforce.

The current projections of the labor force reinforce the results of previous BLS projections, revealing a population, and consequently a labor force, that possesses the following characteristics of change over the next 50 years:

- The aging of both the population and the labor force will result in a slowing down of the growth rate of the labor force.
- The share of the labor force aged 55 and older is rising rapidly, a direct result of increases in life expectancies and decreases in fertility rates of the U.S. population. By 2020, the share of the labor force held by those 55 years and older is projected to be nearly 24 percent.
- Significant numbers of the older age groups in the labor force will be retiring, resulting in a loss of much-needed skills and significant amounts of institutional knowledge.



- The share of the youth (16 to 24 years) workforce is projected to decrease until 2020 and to grow very slowly after that.
- The share of the prime-age (25 to 54 years) workforce is also projected to decline up to 2020 and to grow slowly after that date.
- Both the population and the labor force are projected to become even more racially and ethnically diverse.
- The median age of the labor force is expected to increase, reaching 42 years in 2020.
- The economic dependency (see pp. 37–38) of the U.S. population also will increase substantially.

## Labor force projections

BLS long-term labor force projections are carried out by applying population projections produced by the U.S. Census Bureau to BLS projections of the labor force participation rate.<sup>1</sup> The assumptions about the population and the labor force participation rate that underlie the current BLS long-term projections of the labor force to 2050 differ from those of the previous BLS study conducted in 2002.

Assumptions about the population. The previous BLS longterm labor force projections were based on long-term Census Bureau population projections, weighted by 1990 census weights.<sup>2</sup> The previous BLS long-term labor force projections from 2000 to 2050 were extensions of the 2000–10 interim projections.<sup>3</sup>

The current BLS labor force projections to 2050 are based on interim population projections of the Census Bureau, in turn based on Census 2000.<sup>4</sup> The current long-term labor force projections through 2050 are extensions of the 2004–14 projections published in the November 2005 issue of the *Monthly Labor Review*.<sup>5</sup>

Census Bureau interim population projections are based on assumptions about future fertility and mortality rates of the U.S. population. Assumptions about immigration to the United States, which has a significant impact on population growth, are added to the assumptions about fertility and mortality. Indeed, of the preceding three factors—assumptions about fertility rates, assumptions about mortality rates, and assumptions about immigration—all of which are the basis of the calculation of the future population, none is as important or as uncertain as the assumptions about immigration.

Assumptions about the labor force participation rate. In the previous BLS long-term labor force projections, the detailed labor force participation rates were projected from 2000 to 2015, but were held constant from 2015 through 2050. As a result, any projected changes in the aggregate labor force participation rate and in the labor force between 2015 and

2050 reflected only changes in the composition of the population by age, sex, race, and ethnicity.

In the current set of long-term labor force projections, detailed labor force participation rates were projected from 2004 to 2020. Consequently, during this period, any changes projected in the labor force are the result not only of compositional changes of the population, but also of changes in the detailed labor force participation rates of the various age, sex, race, and ethnic categories. However, the latter changes are based on the past labor force behavior of those categories and are often assumed to approach zero beyond a certain point in the projection horizon. Accordingly, changes in the aggregate labor force participation rate and in the labor force between 2020 and 2050 will reflect only changes in the age, sex, race, and ethnic composition of the population.

## Major factors affecting labor force change

Population growth and changes in participation rates are the main factors in the growth of the labor force. However, most of the changes in labor force growth are a result of changes in the population. During the 2000–50 timeframe, the projected overall decline in the participation rate is expected to exert a relatively insignificant influence on the labor force, whose growth will likely be due mostly to the impact of population growth.

The Census Bureau carries out long-term population projections of the resident U.S. population. The conversion from the resident population concept of the Census Bureau to the civilian noninstitutional population concept of the BLS Current Population Survey (CPS) takes place in three steps. First the population of children under 16 years is taken out of the total resident population. Then the population of the Armed Forces, broken down into different age, sex, race, and ethnic categories, is subtracted. Finally, the institutional population is subtracted from the civilian population for all the different categories. Thus, the civilian noninstitutional population comprises all nonmilitary persons 16 years and older who are not inmates of penal or mental institutions, sanitariums, or homes for the aged.

## Population

The many demographic events since the beginning of the 20th century have led to significant changes in the size and composition of the population. Table 2 portrays the civilian noninstitutional population by age, sex, race, and ethnicity from 1990 to 2050, and chart 3 shows the noninstitutional population and the labor force in 1950, 2000, and 2050 (projected).

The civilian noninstitutional population was 189.2 million in 1990, 212.6 million in 2000, and 226.1 million in 2005, an increase of more than 13.5 million over the 2000–05 timeframe.

Age, years:         33.421         34.452         36.672         37.901         36.910         40.944         43.670         42.377           25 10 34         33.771         13.8747         126.477         126.488         130.967         44.317         142.775         136.974         143.977         143.977         143.977         132.445         143.977         143.977         133.974         143.977         133.974         143.977         143.977         143.977         143.977         143.977         143.977         133.974         144.904         44.061         42.658         46.077         47.07           85 to 64         20.720         24.230         30.165         35.946         42.443         30.106         143.41         45.38           90.377         101.964         109.151         114.631         122.766         135.306         145.799         166.23           Sec:         100.925         176.220         176.220         124.441         191.253         203.270         21.647         22.567         25.368         142.71         22.567         26.33         24.743         24.701         24.901         23.942         11.259         14.011         14.271         22.567         25.266         7.558         9.683	Age, sex, race, and ethnicity	1990	2000	2005	2010	2020	2030	2040	2050
Age, years:         33.427         34.453         36.674         37.901         36.910         40.944         43.610         42.377           18 16 24         33.777         123.687         124.767         125.681         123.683         130.964         43.377         143.377         143.377         143.377         143.377         135.104         143.107         143.377 </td <td>Level</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Level								
16       10       23       24       33       36       674       37.901       36.910       40.844       43.610       46.32         25       10       43.071       124.175       126.057       43.813       44.374       43.071       43.674	Total, 16 years and older	189,164	212,577	226,082	237,417	257,984	280,024	301,567	322,550
16       10       23       24       33       36       674       37.901       36.910       40.844       43.610       46.32         25       10       43.071       124.175       126.057       43.813       44.374       43.071       43.674	Age, years:								
25 to 34		33,421	34,453	36,674	37,901	36,910	40,844	43,610	46,320
35 to 44         37,719         44,312         43,005         40,431         42,065         46,867         47,00           55 to 64         25,081         37,641         42,107         44,504         40,0610         42,565         46,807         47,00           56 to 64         20,720         24,220         30,165         35,494         42,443         67,978         41,341         43,362           Sec         29,247         30,257         101,964         109,151         114,631         124,766         135,306         145,799         156,31           Women         98,787         101,964         109,151         114,461         124,664         135,306         145,799         156,31           Walack         21,477         24,901         24,444         191,253         203,276         215,942         225,678         255,178         253,161         15,032           All other groups'         -         -         2,126         5,277         5,588         7,558         9,683         12,161         15,332         24,401         453,352         74,90           White non-Hispanic origin         15,904         135,306         157,394         160,277         126,605         227,709         238,215         24		105,777	120,657	124,175	125,442	126,488	132,095	141,147	149,223
45 to 54	25 to 34	42,976							51,34
55 to 64       20.720       24.230       30,165       35,946       42,443       39,108       41,341       45,35         Sac:       90,377       101,984       109,151       114,631       124,864       135,306       145,793       155,378       156,33         Women       98,787       110,613       119,6151       114,631       124,864       135,306       145,793       156,33         White       160,625       176,220       184,446       191,253       203,270       215,142       225,678       255,17         Asian       7,062       9,330       9,442       112,276       36,882       41,188       45,368         All other groups'       -       2,126       5,277       5,868       7,558       9,883       12,161       150,22         Ubianticity:       15,904       153,506       157,394       160,827       116,538       166,999       167,631       166,999         Ithicity:       15,904       153,506       157,394       160,827       120,658       227,709       228,212       41,926       52,915       63,352       74,90         Ithiganian lispatic olgin       148,535       166,939       126,53       126,567       20,040       21,543			/-					-, -	50,88
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Sex:         90.377         101,964         109,151         114,631         124,664         135,306         145,799         156,23           White         160,625         176,220         184,446         191,253         203,270         215,142         225,673         225,17         226,073         33,320         144,711         155,764         26,892         41,188         45,28         26,892         41,188         45,28         26,677         29,303         32,756         36,982         41,188         45,32         21,5142         225,673         25,98         21,812         225,17         25,868         7,558         9,683         12,161         150,24         226,215         41,926         223,158         45,325         144,01         182,171         22,515         43,325         24,164         150,394         160,827         166,538         166,999         167,631         166,999         167,631         166,999         167,631         166,999         167,634         160,827         164,538         166,999         167,631         166,999         167,634         160,827         164,538         166,999         167,631         166,999         167,634         160,827         164,538         166,999         167,634         166,999         167,631									
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Bace:         160.625         176.220         184.446         191.253         203.270         215.142         225.678         235.18           Asian	Men	90,377	101,964	109,151	114,631	124,664	135,306	145,799	156,31
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All other groups! $-$ 2,126       5,277       5,868       7,558       9,683       12,161       15,03         Ethnicity:       115,904       123,938       129,133       32,821       41,926       52,315       63,352       74,90         White non-Hispanic origin       173,260       173,260       155,094       196,949       204,596       227,709       238,215       247,661       166,999       167,631       166,999         Other than Hispanic origin       146,533       1990-2000       2000-05       2005-70       20,067       22,040       21,643       200,90         All of years and older       1,032       2,221       1,227       -991       3,934       2,766       2,71         16 to 24       1,032       2,221       1,227       -991       3,934       2,766       2,71         25 to 64       -4,272       360       1,443       3,060       -1394       4,893       2,935       4,042       355       4,042       355       4,042       355       4,042       355       4,042       355       4,042       355       4,042       355       4,042       355       4,042       355       4,042       355       4,0455       355       4,0455		,	,	,		- ,	,	· ·	
Hispanic origin       15.904       23.938       29.133       32.821       41.926       52.315       63.352       74.90         Other than Hispanic origin       173.260       186.639       196.949       160.827       160.58       27.709       238.25       247.460         White non-Hispanic       1990-2000       2000-05       2005-10       2010-20       2020-30       2030-40       2040-55         Change       23.413       13.505       11.335       20.567       22.040       21.543       20.986         Age, years:       1.032       2.221       1.227       -991       3.934       2.766       2.711         16 to 24       1.043       3.618       1.267       1.046       5.607       9.052       8.07         25 to 54       -4.272       300       1.443       3.306       -139       4.935       4.968       2.937         5 to 64       3.510       5.393       5.781       6.496       -3.335       2.233       4.02         Sec:       3.990       1.830       3.060       14.016       15.835       7.492       6.13         Sec:       Men       11.587       7.187       5.480       10.033       10.642       10.637       9.				,				· ·	
Hispanic origin       15.904       23.938       29.133       32.821       41.926       52.315       63.352       74.90         Other than Hispanic origin       173.260       186.639       196.949       160.982       166.98       27.709       238.25       247.460         Nite non-Hispanic       1990-2000       2000-05       2005-10       2010-20       2020-30       2030-40       2040-55         Age, years:       1       1.032       2.221       1.227       -991       3.934       2.766       2.716         16 to 24       1.032       2.221       1.227       -991       3.934       2.766       2.711         15 to 54       1.032       2.221       1.227       -991       3.934       2.766       2.711         25 to 54       -4.272       360       1.443       3.366       -139       4.938       2.973         25 to 64       3.510       5.393       5.781       6.496       -3.355       2.233       4.02         Sec:       0       1.826       6.318       12.017       1.1825       7.492       6.12         Sec:       0       1.1.827       7.187       5.480       10.033       10.642       10.493       10.51 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Other than Hispanic origin         173,260         188,639         196,349         204,596         216,058         227,709         238,215         247,64           White non-Hispanic         146,535         157,394         160,827         164,538         166,999         167,631         166,99           Change         2000-05         2005-10         2010-20         2020-30         2030-40         2040-50           Age, years:         10.32         2.221         1.227         -991         3.934         2.766         2.71           16 to 24         1.032         2.221         1.227         -991         3.934         2.766         2.71           16 to 24         -4.44         3.518         1.267         1.046         5.607         9.052         8.07           25 to 34         -4.272         300         -4.574         1.646         -3.35         2.233         4.06           55 to 54         -3.510         5.335         5.781         6.486         -3.355         7.492         6.13           56 to 4         3.990         1.830         3.0660         14.016         15.855         7.492         6.13           65 and older         3.990         1.303         3.0661         14.0	,								
White non-Hispanic         146,535         153,506         157,394         160,827         164,538         166,999         167,631         166,949           Change Total, 16 years and older         23,413         13,505         11,335         2005-10         2010-20         2020-30         2030-40         2040-5           Age, years:         1         1         1         1         1         3         2         2         2         1         3         3         2         2         2         0         2         2         0         2         2         0         2         2         0         2         1         3         3         2         7         6         2         0         2         0         2         0         2         1         0         2         1         0         2         1         0         2         1         0         2         0									
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Change         23,413         13,505         11,335         20,567         22,040         21,543         20,966           Age, years:         16 to 24         1,032         2,221         1,227         -991         3,934         2,766         2,716           25 to 54         1,4800         3,518         1,267         1,043         3,066         -139         4,693         2,976           25 to 54         -4,272         360         1,443         3,306         -139         4,693         2,97           35 to 44         6,593         -1,307         -2,574         1,634         3,791         317         4,70           55 to 54         3,390         1,830         3,060         14,016         15,835         7,492         6,13           58:         Men         11,587         7,187         5,480         10,033         10,642         10,493         10,51           Women         11,826         6,318         5,855         10,534         11,398         11,050         10,462           All other groups <sup>1</sup> 2,2268         512         1,417         3,141         3,817         4,323         4,324         4,33           All other groups <sup>1</sup> 2,2268         5	White non-hispanic	140,555	155,500	157,594	100,027	104,556	100,999	107,031	100,91
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65 and older3,9901,8303,06014,01615,8357,4926,13Sex: Men11,5877,1875,48010,03310,64210,49310,51Women11,8266,3185,85510,53411,39811,05010,462Race: White15,5958,2266,80712,01711,87210,5379,50Black3,4241,6162,5193,7204,2264,2064,22Asian2,2685121,4173,1413,8174,3234,38All other groups'2,1263,1512,5911,6902,1262,4782,87Ethnicity: Hispanic origin8,0345,1953,6889,10510,38911,03711,551Other than Hispanic origin6,9713,8883,4333,7102,461632-71Percent changeTotal, 16 years and older12,46.45.08.78.57.77Age, years: 16 to 243,36.23,3-2.610.76.8625 to 54-45.08.78.2-310.76335 to 54-50,111,95,7-8.74.89,5555 to 6416.924.519.218.1-7.95,7935 to 5416.924.519.218.1-7.95,7935 to 5416.924.519.218.1-7.95,79	45 to 54		12,560	4,466	2,397	-3,894	1,955	4,042	39
Sex:       11,587       7,187       5,480       10,033       10,642       10,493       10,51         Women       11,826       6,318       5,855       10,534       11,398       11,050       10,462         Race:       11,595       8,226       6,807       12,017       11,872       10,537       9,50         Black       3,424       1,616       2,519       3,720       4,226       4,206       4,206         Asian       2,268       512       1,417       3,141       3,817       4,323       4,33         All other groups¹       2,126       3,151       2,591       1,690       2,126       2,478       2,87         Ethnicity:       11,579       8,310       7,647       11,462       11,651       10,506       9,42         White non-Hispanic origin       15,379       8,310       7,647       11,462       11,651       10,506       9,42         White non-Hispanic origin       12,4       6.4       5.0       8.7       8.5       7.7       7         Age, years:       12,4       6.4       5.0       8.7       8.5       7.7       7         Age, years:       14,1       2.9       1.0       .8	55 to 64		3,510	5,935	5,781	6,496	-3,335	2,233	4,05
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	65 and older		3,990	1,830	3,060	14,016	15,835	7,492	6,13
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Sex:								
Women       11,826 $6,318$ $5,855$ $10,534$ $11,398$ $11,050$ $10,46$ Race:       White $15,595$ $8,226$ $6,807$ $12,017$ $11,872$ $10,537$ $9,50$ Black $3,424$ $1,616$ $2,519$ $3,720$ $4,226$ $4,206$ $4,206$ $4,226$ $4,206$ $4,226$ $4,206$ $4,226$ $2,216$ $2,178$ $2,877$ Ethnicity:       Hispanic origin $8,034$ $5,195$ $3,688$ $9,105$ $10,389$ $11,037$ $11,557$ $0,422$ $0,422$ $1,617$ $16,82$ $-77$ $77$ $77$ $77$ $77$ $77$ $77$ $77$ $77$			11.587	7.187	5.480	10.033	10.642	10.493	10.51
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			· · · · ·	,	,	/	- / -	· ·	10,46
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Race.								
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			15,595	8,226	6,807	12,017	11,872	10,537	9,50
All other groups! $2,126$ $3,151$ $2,591$ $1,690$ $2,126$ $2,478$ $2,87$ Ethnicity: Hispanic origin $8,034$ $5,195$ $3,688$ $9,105$ $10,389$ $11,037$ $11,555$ Other than Hispanic origin $15,379$ $8,310$ $7,647$ $11,462$ $11,651$ $10,506$ $9,42$ White non-Hispanic $6,971$ $3,888$ $3,433$ $3,710$ $2,461$ $632$ $-71$ Percent changeTotal, 16 years and older $12.4$ $6.4$ $5.0$ $8.7$ $8.5$ $7.7$ $7$ Age, years: $25 to 54$ $14.1$ $2.9$ $1.0$ $.8$ $4.4$ $6.9$ $5$ $25 to 54$ $14.1$ $2.9$ $1.0$ $.8$ $4.4$ $6.9$ $5$ $25 to 54$ $17.5$ $-2.9$ $-6.0$ $4.0$ $9.0$ $.7$ $10.7$ $45 to 54$ $50.1$ $11.9$ $5.7$ $-8.7$ $4.8$ $9.5$ $.7$ $55 to 64$ $16.9$ $24.5$ $19.2$ $18.1$ $-7.9$ $5.7$ $9$			3,424		2,519			4,206	4,20
$ \begin{array}{c} \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Asian		2,268	512	1,417	3,141	3,817	4,323	4,39
Hispanic origin       8,034       5,195       3,688       9,105       10,389       11,037       11,55         Other than Hispanic origin       15,379       8,310       7,647       11,462       11,651       10,506       9,42         White non-Hispanic       6,971       3,888       3,433       3,710       2,461       632       -71         Percent change       12.4       6.4       5.0       8.7       8.5       7.7       7         Age, years:       14.1       2.9       1.0       .8       4.4       6.9       5         25 to 54       14.1       2.9       1.0       .8       4.4       6.9       5         25 to 34       7.5       -2.9       -6.0       4.0       9.0       .7       10.7         35 to 44       55       50.1       11.9       5.7       -8.7       4.8       9.5         55 to 64       16.9       24.5       19.2       18.1       -7.9       5.7       9	All other groups <sup>1</sup>		2,126	3,151	2,591	1,690	2,126	2,478	2,87
$\begin{array}{c c c c c c c c c c c c c c c c c c c $									
Other than Hispanic origin			8 034	5 105	3 688	9 105	10 380	11 037	11 55
White non-Hispanic       6,971       3,888       3,433       3,710       2,461       632       -71         Percent change       12.4       6.4       5.0       8.7       8.5       7.7       7         Age, years:       12.4       6.4       5.0       8.7       8.5       7.7       7         Age, years:       3.3       6.2       3.3       -2.6       10.7       6.8       6         25 to 54       14.1       2.9       1.0       .8       4.4       6.9       5         25 to 34       -9.9       .9       3.7       8.2      3       10.7       6         35 to 44       17.5       -2.9       -6.0       4.0       9.0       .7       10.4         45 to 54       50.1       11.9       5.7       -8.7       4.8       9.5									
Total, 16 years and older       12.4       6.4       5.0       8.7       8.5       7.7       7.7         Age, years:       3.3       6.2       3.3       -2.6       10.7       6.8       6.8       6.9       5.0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-71</td>									-71
Total, 16 years and older       12.4       6.4       5.0       8.7       8.5       7.7       7.7         Age, years:       3.3       6.2       3.3       -2.6       10.7       6.8       6.8       6.9       5.0 <td>·</td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td>	·					-			
Age, years:       3.3       6.2       3.3       -2.6       10.7       6.8       6         25 to 54       14.1       2.9       1.0       .8       4.4       6.9       5         25 to 34       -9.9       9       3.7       8.2      3       10.7       6         35 to 44       17.5       -2.9       -6.0       4.0       9.0       .7       10         45 to 54       50.1       11.9       5.7       -8.7       4.8       9.5          55 to 64       16.9       24.5       19.2       18.1       -7.9       5.7       9			40.4		5.0	0.7			_
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	lotal, 16 years and older		12.4	6.4	5.0	8.7	8.5	1.1	7.
25 to 54         14.1         2.9         1.0         .8         4.4         6.9         5.           25 to 34         -9.9         .9         3.7         8.2        3         10.7         6           35 to 44         17.5         -2.9         -6.0         4.0         9.0         .7         10.           45 to 54         50.1         11.9         5.7         -8.7         4.8         9.5            55 to 64         16.9         24.5         19.2         18.1         -7.9         5.7         9									
25 to 34       -9.9       .9       3.7       8.2      3       10.7       6         35 to 44       17.5       -2.9       -6.0       4.0       9.0       .7       10.7         45 to 54       50.1       11.9       5.7       -8.7       4.8       9.5       9.5         55 to 64       16.9       24.5       19.2       18.1       -7.9       5.7       9									6.
35 to 44       17.5       -2.9       -6.0       4.0       9.0       .7       10.         45 to 54       50.1       11.9       5.7       -8.7       4.8       9.5       55         55 to 64       16.9       24.5       19.2       18.1       -7.9       5.7       9									5
45 to 54         50.1         11.9         5.7         -8.7         4.8         9.5           55 to 64         16.9         24.5         19.2         18.1         -7.9         5.7         9							1		
55 to 64							1		
			16.9 14.4	24.5 7.8	19.2 5.7	18.1	-7.9 30.4	5.7 11.0	

# Table 2. Continued—Civilian noninstitutional population by sex, age, race, and ethnicity, 1990 to 2005 and projected 2010 to 2050

Age, sex, race, and ethnic	city	1990-2000	2000-05	2005-10	2010–20	2020–30	2030–40	2040-5
Percent change—continue	d							
Sex:								
Men		12.8	7.0	4.9	8.8	8.5	7.8	7.2
Women		12.0	5.7	5.0	8.6	8.5	7.6	6.7
ace: .								
White		9.7	4.7	3.7	6.3	5.8	4.9	4.2
Black		15.9	6.5	9.5	12.8	12.9	11.4	10.2
Asian		32.2	5.5	14.4	27.9	26.5	23.7	19.5
All other groups <sup>1</sup>				87.5	28.8	28.1	25.6	23.6
thnicity:								
Hispanic origin		50.5	21.7	12.7	27.7	24.8	21.1	18.2
Other than Hispanic origin		8.9	4.4	3.9	5.6	5.4	4.6	4.0
White non-Hispanic		4.8	2.5	2.2	2.3	1.5	.4	4
	1990	2000	2005	2010	2020	2030	2040	2050
Percent distribution								
Total, 16 years and older	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ge, years:								
16 to 24	17.7	16.2	16.2	16.0	14.3	14.6	14.5	14.4
25 to 54	55.9	56.8	54.5	52.8	49.0	47.2	46.8	46.3
25 to 34	22.7	18.2	17.3	17.1	17.0	15.6	16.0	15.9
35 to 44	19.9	20.8	19.0	17.0	16.3	16.4	15.3	15.8
45 to 54	13.3	17.7	18.6	18.7	15.7	15.2	15.5	14.6
55 to 64	11.0	11.4	13.3	15.1	16.5 20.2	14.0	13.7	14.1
65 and older	15.5	15.6	15.5	16.1	20.2	24.3	25.0	25.3
Sex:			(0.0	10.0	10.0	10.0	10.0	
Men Women	47.8 52.2	48.0 52.0	48.3 51.7	48.2 51.7	48.3 51.7	48.3 51.7	48.3 51.7	48.5 51.5
Race:								
White	84.9	82.9	81.6	80.6	78.8	76.8	74.8	72.9
Black	11.4	11.7	11.7	12.2	12.7	13.2	13.7	14.1
Asian	3.7	4.4	4.4	4.7	5.6	6.5	7.5	8.4
All other groups <sup>1</sup>	-	-	2.3	2.5	2.9	3.5	4.0	4.7
Ethnicity:								
Hispanic origin	8.4	11.3	12.9	13.8	16.3	18.7	21.0	23.2
Other than Hispanic origin	91.6	88.7	87.1	86.2	83.7	81.3	79.0	76.8
White non-Hispanic	77.5	72.2	69.6	67.7	63.8	59.6	55.6	51.7
Annual growth rate (percen	<b>(†</b> )	1990–2000	2000-05	2005-10	2010–20	2020–30	2030–40	2040-5
Total, 16 years and older		1.2	1.2	1.0	.8	.8	.7	.7
.ge, years:								
16 to 24		.3	1.3	.7	3	1.0	.7	.6
25 to 54		1.3	.6	.2	.1	.4	.7	.6
25 to 34		-1.0	.2	.7	.8	.0	1.0	.6
35 to 44		1.6	6	-1.2	.4	.9	.1	1.0
45 to 54		4.1	2.3	1.1	9	.5	.9	.1
55 to 64 65 and older		1.6 1.3	4.5 1.1	3.6 1.7	1.7 3.2	8 2.7	.6 1.1	.9 .8
								.0
Sex:		1.2	1.4	1.0	.8	.8	.7	.7
				1.0		.0		. /
Men Women		1.1	1.1	1.0	.8	.8	.7	.7

 Table 2.
 Continued—Civilian noninstitutional population by sex, age, race, and ethnicity, 1990 to 2005 and projected

 2010 to 2050

Age, sex, race, and ethnicity	1990-2000	2000-05	2005-10	2010-20	2020–30	2030-40	2040-50
Annual growth rate (percent)— continued							
Race:							
White	.9	.9	.7	.6	.6	.5	.4
Black	1.5	1.3	1.8	1.2	1.2	1.1	1.0
Asian	2.8	1.1	2.7	2.5	2.4	2.2	1.8
All other groups <sup>1</sup>			13.4	2.6	2.5	2.3	2.1
Ethnicity:							
Hispanic origin	4.2	4.0	2.4	2.5	2.2	1.9	1.7
Other than Hispanic origin	.9	.9	.8	.5	.5	.5	.4
White non-Hispanic	.5	.5	.4	.2	.1	.0	.0

The growth rate of the civilian noninstitutional population was 1.2 percent on an annual basis during 1990–2000 and 1.2 percent again between 2000 and 2005. The rate is projected to decrease to 1.0 percent over the 2005–10 period and to slow even further over the decades that follow. The civilian non-institutional population is expected to grow at an annual rate of 0.8 percent over the 2005–50 period, reaching 322.6 million in 2050.

Table 2 also shows the shares of the civilian noninstitutional population for several age groups. The 16- to 24year-old age group made up 16.2 percent of the population in each of 2000 and 2005. This group's share of the population is projected to decline to 14.4 percent in 2050. The share of the 25- to 54-year-old age group was 55.9 percent in 1990 and 56.8 percent in 2000 and is projected to be 46.3 percent in 2050.

The 55-years-and-older age group accounted for 26.5 percent of the civilian noninstitutional population in 1990 and 28.8 percent in 2005 and is projected to be 39.4 percent in 2050. The share of those aged 65 years and older also is expected to increase, and the share of those under 25 years is anticipated to decrease. From 1990 to 2005, the share of the former group in the population increased. In sharp contrast to the pattern for the youngest age group, the 65-year-and-older civilian noninstitutional population is expected to grow steadily and increase its share of the population from 15.5 percent in 2005 to 25.3 percent in 2050.

With the passage of each decade, immigration will continue to change the size and composition of the population in various ways. Immigration is expected to spur the growth rate of certain racial and ethnic categories, such as Asians and Hispanics. Immigration also affects the age composition of the population. Immigrants to the United States are predominantly younger than the native-born population, so their entry into the country adds to the population of the younger age groups. Immigrants offset the slow growth of the nativeborn population and lower the average age of the workingage population.

The rate of growth of the Hispanic population is expected to be greater than that of all other racial and ethnic groups. Hispanics constituted 12.9 percent of the share of the civilian noninstitutional population in 2005 and are projected to increase their share to 16.3 percent in 2020 and reach 23.2 percent by 2050.

## Labor force participation

Table 3 shows the labor force participation rates of the different age, sex, race, and ethnic groups for the years 1990, 2000, and 2005 and the projected rates through 2050. The civilian labor force participation rate is the proportion of the civilian noninstitutional population that is in the labor force. Overall, changes in the labor force participation rate over time are fairly consistent across the different age, sex, race, and ethnic groups. The overall labor force participation rate was 66.5 percent in 1990 and peaked at 67.1 percent during the period from 1997 to 2000. Every year after 2000, the rate declined gradually, from 66.8 percent in 2001 to 66.0 percent in 2004 and 2005. According to the BLS projections, the overall participation rate will continue its gradual decrease each decade and reach 60.4 percent in 2050.

Labor force participation rate by sex. Men and women have differed in their labor force participation rates throughout the history of U.S. labor markets and have affected the overall labor force participation rates in different ways. Historically, the labor force participation rate of men has been decreasing since the 1950s as a result of various factors. For example, the Social Security Act was amended in 1960 to make individuals under 50 years eligible for disability payments. In contrast, the labor force participation rate of women has increased

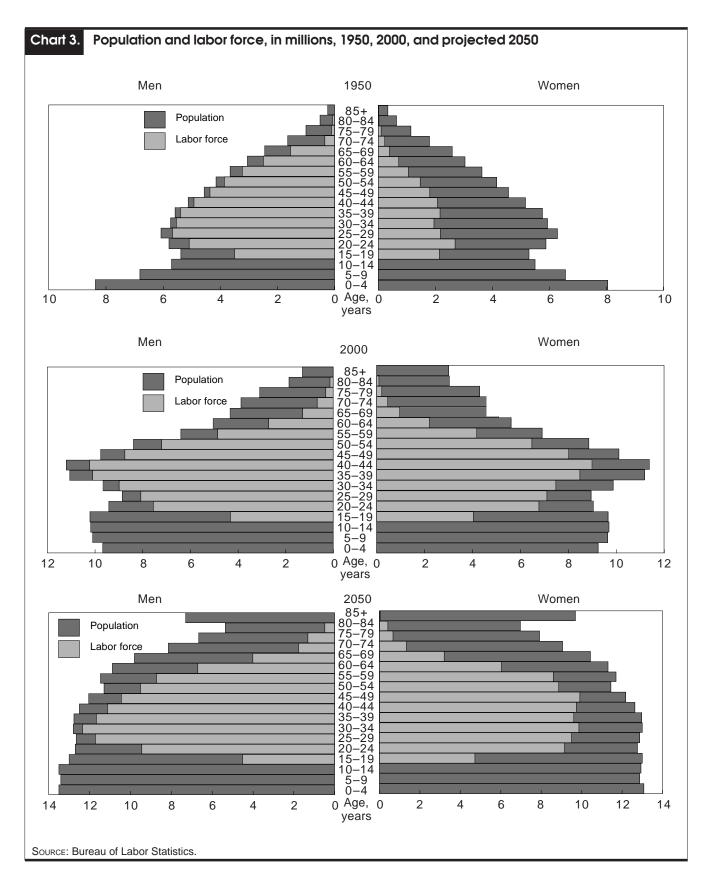


 Table 3.
 Civilian labor force participation rates by age, sex, race, and ethnicity, 1990 to 2005 and projected 2010 to 2050

Age, sex, race, and ethnicity	1990	2000	2005	2010	2020	2030	2040	2050
Total, 16 years and older	66.5	67.1	66.0	65.9	64.5	61.7	60.8	60.4
Iotal, To years and older	00.5	07.1	00.0	05.9	04.5	01.7	00.0	00.4
Age, years								
16 to 24	67.3	65.4	60.8	59.5	56.5	56.3	56.2	55.7
16 to 19	53.7	52.0	43.7	40.8	35.9	35.4	35.1	34.5
20 to 24	77.8	77.8	74.6	74.7	73.8	73.5	73.3	73.1
25 to 54	83.5	84.0	82.8	83.1	83.7	83.5	83.4	83.4
25 to 34	83.6	84.6	82.8	84.5	85.6	85.1	84.9	84.7
35 to 44	85.2	84.8	83.8	83.2	82.8	82.7	82.8	82.9
45 to 54	80.7	82.5	81.7	81.7	82.6	82.5	82.4	82.5
55 and older	30.1	32.4	37.2	40.1	41.9	37.1	35.3	35.1
55 to 64	55.9	59.3	62.9	64.0	67.0	66.4	66.7	66.2
55 to 59	67.0	68.9	71.4	72.8	75.2	75.0	74.9	74.8
60 to 64	44.8	47.2	52.4	53.7	58.3	57.9	57.6	57.4
60 to 61	55.1	57.1	59.4	61.8	66.0	65.9	65.7	65.5
62 to 64	38.0	40.2	46.7	47.8	52.8	52.2	51.7	51.6
65 and older	11.8	12.9	15.1	17.5	21.5	20.2	18.1	17.7
65 to 74	16.7	19.2	22.4	25.0	28.6	27.9	27.3	27.6
65 to 69	21.0	24.5	28.3	31.1	36.1	35.9	35.7	35.7
70 to 74	11.3	13.5	16.3	16.9	19.2	18.9	18.4	18.1
75 and older	4.3	5.3	6.4	8.2	10.8	10.6	10.1	9.4
sex, and age in years								
n	76.4	74.8	73.3	72.6	70.0	67.4	66.5	66.0
6 to 24	71.8	68.6	62.9	60.4	56.3	56.2	56.2	55.8
16 to 19	55.7	52.8	43.2	40.0	34.3	34.0	33.7	33.3
20 to 24	84.4	82.6	79.1	77.1	75.0	74.8	74.6	74.4
25 to 54	93.4	91.6	90.5	90.7	90.4	90.1	90.0	90.2
25 to 34	94.1	93.4	91.7	94.7	95.4	95.0	94.7	94.5
35 to 44	94.3	92.7	92.1	91.3	90.2	90.0	90.1	90.2
45 to 54	90.7	88.6	87.7	86.5	85.1	85.2	85.1	85.5
55 and older	39.4	40.1	44.2	46.1	46.4	41.8	40.1	39.7
55 to 64	67.8	67.3	69.3	68.7	69.1	69.0	69.4	69.0
55 to 59	79.9	77.1	77.6	77.2	76.4	76.3	76.2	76.1
60 to 64	55.5	55.0	58.0	58.6	61.3	61.6	61.8	61.5
60 to 61	68.8	66.0	65.6	65.3	66.2	66.5	66.5	66.3
62 to 64	46.5	47.0	52.5	53.6	57.7	58.1	58.4	58.1
65 and older	16.3	17.7	19.8	22.3	26.1	24.7	22.4	21.9
65 to 74	21.4	24.6	27.2	29.7	32.8	32.2	31.9	32.2
65 to 69	26.0	30.3	33.6	36.3	40.8	40.9	41.0	41.0
70 to 74	15.4	18.0	20.7	20.6	22.4	22.2	21.9	21.7
75 and older	7.1	8.1	9.4	11.6	14.5	14.3	13.2	12.0
omen	57.5	59.9	59.3	59.7	59.4	56.5	55.5	55.1
	62.9	63.0	58.6	58.6	56.7	56.4	56.3	55.7
6 to 24							1	
16 to 19	51.6	51.2	44.2	41.5	37.5	36.9	36.4	35.7
20 to 24	71.3	73.1	70.1	72.3	72.6	72.1	72.1	71.8
25 to 54	74.0	76.7	75.3	75.7	77.1	76.9	76.8	76.6
25 to 34	73.5	76.1	73.9	74.5	76.0	75.4	75.2	75.0
35 to 44	76.4	77.2	75.8	75.4	75.5	75.6	75.6	75.7
45 to 54	71.2	76.8	76.0	77.1	80.1	79.9	79.7	79.5
55 and older	22.9	26.1	31.4	35.0	38.1	33.0	31.2	31.0
55 to 64	45.2	51.9	57.0	59.7	65.0	64.0	64.2	63.6
					74.2			
55 to 59	55.3	61.4	65.6	68.7		73.8	73.7	73.5
60 to 64	35.5	40.2	45.8	49.2	55.5	54.4	53.7	53.4
60 to 61	42.9	49.0	53.8	58.5	65.8	65.2	64.9	64.7
62 to 64	30.7	34.1	40.0	42.4	48.3	46.8	45.5	45.4
65 and older	8.6	9.4	11.5	13.9	17.9	16.6	14.6	14.3
65 to 74	13.0	14.9	18.4	21.0	25.0	24.1	23.3	23.4
65 to 69	17.0	19.5	23.7	26.6	31.9	31.5	30.8	30.7
70 to 74	8.2	10.0	12.8	13.8	16.4	16.1	15.4	14.9
75 and older	2.7	3.6	4.5	6.0	8.2	8.1	7.8	7.4
Race and sex	66.9	67.3	66.3	66.4	64.6	61.7	60.9	60.5
Men								
-	77.1	75.5	74.1	73.4	70.6	67.9	67.0	66.7
Vomen	57.4	59.5	58.9	59.6	58.8	55.9	54.9	54.6

Table 3. C

Continued—Civilian labor force participation rates by age, sex, race, and ethnicity, 1990 to 2005 and projected 2010 to 2050

Age, sex, race, and ethnicity	1990	2000	2005	2010	2020	2030	2040	2050
Race and sex-continued								
Black	64.0	65.8	64.2	63.1	63.3	60.9	59.9	59.1
Men	71.0	69.2	67.3	65.3	63.4	61.4	60.6	59.6
Women	58.3	63.1	61.6	61.3	63.2	60.5	59.3	58.6
Asian	65.4	67.2	66.1	66.4	65.7	63.0	61.0	59.9
Men	75.0	76.1	74.8	75.3	74.1	71.3	69.5	68.4
Women	57.4	59.2	58.2	58.6	58.5	56.1	54.1	52.8
All other groups <sup>1</sup>	_	_	67.0	64.1	63.9	62.6	62.9	62.9
Men	_		72.0	71.6	71.0	69.9	70.3	70.3
Women	_	_	62.3	56.9	56.9	55.5	55.6	55.5
Ethnicity and sex								
Hispanic	67.4	69.7	68.0	68.4	68.7	66.4	64.5	63.2
Men	81.4	81.5	80.1	78.7	76.9	74.4	72.2	70.7
Women	53.1	57.5	55.3	58.0	60.5	58.5	56.8	55.8
White non-Hispanic	66.8	66.9	66.0	66.1	63.9	60.8	60.1	60.0
Men	76.5	74.6	72.9	72.5	69.4	66.3	65.6	65.5
Women	57.8	59.8	59.5	60.0	58.8	55.5	54.8	54.8

<sup>1</sup> The "all other groups" category includes (1) those classified as being of multiple racial origin and (2) the race categories of (2a) American Indian and

Alaska Native and (2b) Native Hawaiian and other Pacific Islanders. Note: Dash indicates no data collected for category.

significantly since the 1950s and has compensated for the decline in the labor force participation rate of men. The overall labor force participation rate consists of the joint contributions of the labor force participation rates of both men and women, which take into account their age structure or their population weights in each age, race, and ethnic category.

*1. Men.* The participation rate of men has been continually decreasing, having registered 76.4 percent in 1990, 74.8 percent in 2000, and 73.3 percent in 2005. The rate is projected to be 70.0 percent in 2020 and 66.0 percent in 2050.

2. Women. Women's labor force participation, a low 33.9 percent in 1950, increased significantly during the 1970s and 1980s and reached 57.5 percent in 1990. In 1999, the women's participation rate reached a peak of 60 percent. By 2000, however, the rate had declined slightly to 59.9 percent, and since then it has been displaying a pattern of slow decline in each successive period, falling to 59.3 percent in 2005. The participation rate of women is projected to be 59.4 percent in 2020 and 55.1 percent in 2050. Looking back at women's participation rates during the past three decades reveals that the peak appears to have been reached and the rapid increase of the 1970–80 era is over. Although women's participation rate is expected to remain below the men's rate through 2050.

The women's labor force participation rate is not expected to be high enough to offset the decline in the men's participation rate in the future. As a result, the overall labor force participation rate is expected to decline gradually in the coming years.

*Labor force participation rate by age.* The labor force participation rate differs among the various age groups, reflecting a number of factors that come into play at different ages.

1. Youths 16 to 24 years. The youth labor market consists of the teenage group of 16- to 19-year-olds and young adults aged 20 to 24 years. The labor force participation rates of the two groups have been different from each other in the past. The different shares of students and nonstudents in the two age groups has been part of the explanation for the difference in their participation rates. Because students are less likely to participate in the labor force, increases in school attendance at the secondary and college levels and, especially, increases in school attendance during the summer, significantly reduce the labor force participation rate of youths. The labor force participation rate of the 16- to 19-year-old group was 53.7 percent in 1990, declined to 52.0 percent in 2000, and fell further to 43.7 percent in 2005. The Bureau projects that the downward trend in the participation rate of 16- to 19-year-olds will continue and the rate will reach 34.5 percent in 2050.

The labor force participation rate of 20- to 24-year-olds was 77.8 percent in both 1990 and 2000. In 2005, the rate declined significantly, to 74.6 percent.

The rise in school attendance during the past couple of decades has been a major contributor to the decrease in the labor force participation rate of both youth groups.<sup>6</sup> The participation rate of the 20- to 24-year age group is projected to decrease further, to 73.8 percent in 2020 and 73.1 percent in 2050. The decrease in the labor force participation rate of youths—especially 16- to 19-year-old men—has been a major contributor to the decrease in the overall labor force participation rate.

2. *Prime-aged workers 25 to 54 years*. Historically, all age cohorts in this group have exhibited strong attachment to the labor market. The group's participation rate was 83.5 percent in 1990, 84.0 percent in 2000, and 82.8 percent in 2005. The rate is projected to be 83.4 percent in 2050.

Both men and women have contributed to the strong labor force participation rates of this age group in the past. The participation rate of 25- to 54-year-old men was 90.5 percent in 2005 and is projected to be 90.7 percent in 2010 and to decrease slightly to 90.2 percent in 2050. The participation rate of 25- to 54-year-old women, by contrast, is expected to increase from its 2005 level of 75.3 percent to 75.7 percent in 2010 and 76.6 percent in 2050.

*3. Workers 55 years and older.* As workers move out of the prime-age category, reach the older age cohorts, and go through early and normal retirement, their labor force participation rate decreases dramatically.

The participation rate of the 55- to 64-year-old age group increased sharply from 55.9 percent in 1990 to 59.3 percent in 2000 and 62.9 percent in 2005. Still, the participation rate of the group in 2005 was lower by nearly 19 percentage points than the rate of those aged 45 to 54 years, which stood at 81.7 percent the same year.

A review of the historical data shows that, as a result of a variety of factors, the labor force participation rate of the 55-years-and-older age group has increased significantly since the end of the 1980s. The continued gradual increase in the labor force participation rate of this group, multiplied by the sheer number of baby boomers in the group, is expected to affect the overall labor force participation rate and keep it from declining further in the future.

Compared with all other age groups of the labor force, the 55years-and-older group has the most potential to increase its labor force participation rate further, and that may contribute to an increase in the growth of the labor force in the future.

4. *Race and ethnicity.* Changes in the labor force participation rates of the different racial and ethnic categories vary over time. However, judging by past data, differences in labor force participation by race and ethnic origin usually are not as great as those by the age and sex categories.

Hispanics have a younger population relative to other racial and ethnic groups and thus have higher aggregate labor force participation rates. Hispanic men have the highest labor force participation rate of any labor force group, in large part reflecting their young age structure.

The participation rate of Hispanics was 67.4 percent in 1990, 69.7 percent in 2000, and 68.0 percent in 2005. The rate is projected to be 68.7 percent in 2020. As a result of aging of the Hispanic population, the Hispanic labor force participation rate is expected to decline and reach 63.2 percent in 2050.

Asians have high participation rates as well. Their participation rate was 65.4 percent in 1990, 67.2 percent in 2000, and 66.1 percent in 2005. The Asian rate is expected to be 65.7 percent in 2020 and 59.9 percent in 2050.

The labor force participation rate of blacks stood at 64.0 percent in 1990, 65.8 percent in 2000, and 64.2 percent in 2005. The black participation rate is projected to be 63.3 percent in 2020 and 59.1 percent in 2050. The decline in the labor force participation rate of blacks between 2020 and 2050 is the result of the changing age structure of the black population.

#### The projected labor force

As the various age, sex, race, and ethnicity groups experience changes in their populations and participation rates, the labor force also experiences change. The U.S. labor force was 125.8 million in 1990, 142.6 million in 2000, and 149.3 million in 2005. The labor force is projected to reach 166.4 million in 2020 and 194.8 million in 2050.

The labor force and its rate of growth on an annual basis, both in the past and projected to 2050, are shown in table 4. The annual growth of the labor force peaked at 2.6 percent during the 1970–80 period, mainly the result of the continued entry of the baby-boom generation into the job market, but also a consequence of the significant acceleration of the labor force participation rate of women. The growth of the labor force has declined since that period. The annual growth rate of the labor force was 1.3 percent during 1990–2000, slowing to 0.9 percent from 2000 to 2005. The rate is projected to be 0.6 percent over the 2000–50 timeframe.

The discussion that follows breaks down the projected labor force by the different age, sex, racial, and ethnic categories.

*Projected labor force by sex.* Projections of the labor force by sex are based on past participation rates and shares of the population and therefore differ between men and women.

1. Men. The number of men in the labor force has always

## Table 4. Civilian labor force by age, sex, race, and ethnicity, 1990 to 2005 and projected 2010 to 2050

Age, sex, race, and ethnicity	1990	2000	2005	2010	2020	2030	2040	2050
Level								
Total, 16 years								
and older	125,840	142,583	149,320	156,511	166,355	172,910	183,427	194,757
	120,040	142,000	140,020	100,011	100,000	172,510	100,427	104,707
je, years:								
16 to 24	22,492	22,520	22,290	22,567	20,852	22,979	24,518	25,808
16 to 19	7,792	8,270	7,164	6,898	6,047	6,541	6,841	7,195
20 to 24	14,700	14,250	15,127	15,668	14,805	16,439	17,677	18,612
25 to 54 25 to 34	88,322 35,929	101,394 32,756	102,773 32,341	104,269 34,241	105,873 37,510	110,241 37,169	117,656 41,045	124,392 43,462
35 to 44	35,929	32,756	32,341	33,657	34,834	37,169	38,228	43,462
45 to 54	20,248	31,072	34,402	36,372	33,530	35,130	38,383	38,766
55 and older	15,026	18,669	24,257	29,675	39,629	39,689	41,253	44,556
55 to 64	11,575	14,357	18,979	23,013	28,427	25,986	27,594	30,076
65 and older	3,451	4,312	5,278	6,663	11,202	13,704	13,659	14,481
65 to 74	2,952	3,505	4,212	5,259	8,970	10,456	9,574	10,343
75 and older	498	807	1,066	1,404	2,232	3,248	4,085	4,138
16 10000								
en, 16 years and older	69,011	76,280	80,033	83,179	87,215	91,144	96,948	103,183
16 to 24	11,960	11,789	11,644	11,509	10,416	11.497	12,289	12,960
16 to 19	4,094	4,268	3,590	3,435	2,924	3,172	3,330	3,516
20 to 24	7,866	7,521	8,054	8,074	7,491	8,325	8,958	9,444
25 to 54	48,456	54,206	55,385	56,138	56,638	59,054	63,032	66,773
25 to 34	19,872	17,844	17,837	19,050	20,744	20,542	22,676	24,050
35 to 44	17,481	20,093	19,495	18,221	18,844	20,498	20,645	22,778
45 to 54	11,103	16,269	18,053	18,867	17,049	18,013	19,711	19,945
55 and older	8,594	10,285	12,904	15,533	20,161	20,593	21,628	23,450
55 to 64	6,627	7,796	10,045	11,879	14,165	13,136	14,093	15,416
65 and older 65 to 74	1,967 1,664	2,489 2,018	2,859 2,346	3,654 2,875	5,996 4,773	7,456 5,641	7,534 5,276	8,034 5,780
75 and older	303	471	612	779	1,223	1,815	2,258	2,254
omen, 16 years								
nd older	56,829	66,303	69,288	73,332	79,140	81,766	86,479	91,574
16 to 24 16 to 19	10,532 3,698	10,731 4,002	10,647 3,574	11,057 3,463	10,437 3,122	11,482 3,369	12,229 3,510	12,848 3,679
20 to 24	6,834	6,729	7,073	7,594	7,314	8,113	8,719	9,169
25 to 54	39,866	47,188	47,387	48,132	49,235	51,187	54,625	57,620
25 to 34	16,058	14,912	14,503	15,191	16,765	16,627	18,370	19,412
35 to 44	14,663	17,473	16,535	15,436	15,989	17,444	17,583	19,387
45 to 54	9,145	14,803	16,349	17,505	16,481	17,116	18,672	18,820
55 and older	6,431	8,384	11,253	14,143	19,468	19,097	19,625	21,100
55 to 64	4,948	6,561	8,934	11,134	14,262	12,849	13,500	14,660
65 and older	1,483	1,823	2,319	3,009	5,206	6,248	6,125	6,446
65 to 74 75 and older	1,288 195	1,487 336	1,866 454	2,384 625	4,197 1,009	4,814 1,433	4,298 1,827	4,562 1,884
	155	0000		020	1,000	1,400	1,021	1,00-
ice:								
White	107,447	118,545	122,299	126,941	131,333	132,849	137,354	142,371
Men	59,638	64,466	66,694	68,596	70,211	71,450	74,044	76,920
Women	47,809	54,079	55,605	58,345	61,121	61,400	63,310	65,451
Black	13,740	16,397	17,013	18,334	20,739	22,519	24,661	26,809
Men	6,802	7,702	7,998	8,576	9,460	10,430	11,561	12,651
Women	6,938	8,695	9,014	9,758	11,279	12,088	13,100	14,158
Asian	4.650	6.070	6 500	7 470	0.457	44.470	40.750	10.40
Asian Men	4,652 2,570	6,270 3,362	6,503 3,500	7,473 3,946	9,457 4,901	11,476 5,917	13,759 7,101	16,124 8,348
Women	2,082	2,908	3,002	3,526	4,556	5,559	6,658	7,776
	_,502							
other groups <sup>1</sup>	_	1,371	3,505	3,764	4,826	6,066	7,653	9,453
Men	—	754	1,840	2,061	2,643	3,347	4,242	5,264
Women	_	617	1,665	1,703	2,183	2,719	3,411	4,188

## Table 4. Continued—Civilian labor force by age, sex, race, and ethnicity, 1990 to 2005 and projected 2010 to 2050

Men         Women           White non-Hispanic         Men           Men         Women           Women         Men           Women         Men           Women         Men           Women         Men           Women         Men           Women         Men           Stock         Men           Women         Men           Women         Men           Stock         Men           Stock         Men           Women         Men           Men         Men           Women         Men           Women         Men           Women         Men           Women         Men           Women         Men           Men         Men           Women         Men           Women         Men           Women         Men           Men         Men           Women         Men           Women         Men           Women         Men           Women         Men           Women         Men           Women         Men		16,689 9,923 6,767 125,894 66,357 59,536 102,729 55,040 47,689 <b>1990–2000</b> 16,743 28	19,824 11,985 7,839 129,496 68,048 61,449 103,891 55,492 48,399 <b>2000–05</b> 6,737	22,442 12,948 9,494 134,069 70,231 63,838 106,272 56,595 49,677 <b>2005–10</b> 7,191	28,795 16,087 12,708 137,560 71,128 66,432 105,187 55,486 49,701 <b>2010–20</b>	34,734 19,363 15,371 138,176 71,781 66,395 101,480 53,819 47,662 <b>2020–30</b>	40,842 22,702 18,140 142,585 74,246 68,339 100,709 53,515 47,194 <b>2030–40</b>	47,317 26,204 21,114 147,440 76,979 70,460 100,189 53,372 46,817 <b>2040–50</b>
Hispanic origin	6,546 4,174 115,120 62,465 52,655 97,818 53,731 44,087	9,923 6,767 125,894 66,357 59,536 102,729 55,040 47,689 <b>1990–2000</b> 16,743 28	11,985 7,839 129,496 68,048 61,449 103,891 55,492 48,399 <b>2000–05</b>	12,948 9,494 134,069 70,231 63,838 106,272 56,595 49,677 <b>2005–10</b>	16,087 12,708 137,560 71,128 66,432 105,187 55,486 49,701	19,363 15,371 138,176 71,781 66,395 101,480 53,819 47,662	22,702 18,140 142,585 74,246 68,339 100,709 53,515 47,194	26,204 21,114 147,440 76,975 70,460 100,189 53,372 46,817
Men	6,546 4,174 115,120 62,465 52,655 97,818 53,731 44,087	9,923 6,767 125,894 66,357 59,536 102,729 55,040 47,689 <b>1990–2000</b> 16,743 28	11,985 7,839 129,496 68,048 61,449 103,891 55,492 48,399 <b>2000–05</b>	12,948 9,494 134,069 70,231 63,838 106,272 56,595 49,677 <b>2005–10</b>	16,087 12,708 137,560 71,128 66,432 105,187 55,486 49,701	19,363 15,371 138,176 71,781 66,395 101,480 53,819 47,662	22,702 18,140 142,585 74,246 68,339 100,709 53,515 47,194	26,204 21,114 147,440 76,975 70,460 100,189 53,372 46,817
Women	4,174 115,120 62,465 52,655 97,818 53,731 44,087	6,767 125,894 66,357 59,536 102,729 55,040 47,689 <b>1990–2000</b> 16,743 28	7,839 129,496 68,048 61,449 103,891 55,492 48,399 <b>2000–05</b>	9,494 134,069 70,231 63,838 106,272 56,595 49,677 <b>2005–10</b>	12,708 137,560 71,128 66,432 105,187 55,486 49,701	15,371 138,176 71,781 66,395 101,480 53,819 47,662	18,140 142,585 74,246 68,339 100,709 53,515 47,194	21,114 147,440 76,979 70,460 100,189 53,372 46,817
Other than Hispanic origin .         Men           Women         Women           White non-Hispanic         Men           Men         Women           Women         Men           Gto 19         Men           20 to 24         Men           25 to 54         Men           25 to 54         Men           35 to 44         Men           45 to 54         Men           55 and older         Men	115,120 62,465 52,655 97,818 53,731 44,087	125,894 66,357 59,536 102,729 55,040 47,689 <b>1990–2000</b> 16,743 28	129,496 68,048 61,449 103,891 55,492 48,399 <b>2000–05</b>	134,069 70,231 63,838 106,272 56,595 49,677 <b>2005–10</b>	137,560 71,128 66,432 105,187 55,486 49,701	138,176 71,781 66,395 101,480 53,819 47,662	142,585 74,246 68,339 100,709 53,515 47,194	147,440 76,979 70,460 100,189 53,372 46,817
Men         Women           Women         Women           Wen         Women           Women         Women           Change         Total, 16 years and older           Total, 16 years and older         16 to 19           20 to 24         20 to 24           25 to 54         25 to 54           25 to 54         35 to 44           45 to 54         55 and older	62,465 52,655 97,818 53,731 44,087	66,357 59,536 102,729 55,040 47,689 <b>1990–2000</b> 16,743 28	68,048 61,449 103,891 55,492 48,399 <b>2000–05</b>	70,231 63,838 106,272 56,595 49,677 <b>2005–10</b>	71,128 66,432 105,187 55,486 49,701	71,781 66,395 101,480 53,819 47,662	74,246 68,339 100,709 53,515 47,194	76,979 70,460 100,189 53,372 46,817
Women	52,655 97,818 53,731 44,087	59,536 102,729 55,040 47,689 <b>1990–2000</b> 16,743 28	61,449 103,891 55,492 48,399 <b>2000–05</b>	63,838 106,272 56,595 49,677 <b>2005–10</b>	66,432 105,187 55,486 49,701	66,395 101,480 53,819 47,662	68,339 100,709 53,515 47,194	70,460 100,189 53,372 46,817
White non-Hispanic           Men           Women           Change           Total, 16 years and older           16 to 24           20 to 24           25 to 54           25 to 54           35 to 44           45 to 54           55 and older	97,818 53,731 44,087	102,729 55,040 47,689 <b>1990-2000</b> 16,743 28	103,891 55,492 48,399 <b>2000–05</b>	106,272 56,595 49,677 <b>2005–10</b>	105,187 55,486 49,701	101,480 53,819 47,662	100,709 53,515 47,194	100,18 53,37 46,81
Men         Change           Women	53,731 44,087	55,040 47,689 <b>1990–2000</b> 16,743 28	55,492 48,399 <b>2000–05</b>	56,595 49,677 <b>2005–10</b>	55,486 49,701	53,819 47,662	53,515 47,194	53,372 46,81
Men         Change           Women	53,731 44,087	55,040 47,689 <b>1990–2000</b> 16,743 28	55,492 48,399 <b>2000–05</b>	56,595 49,677 <b>2005–10</b>	55,486 49,701	53,819 47,662	53,515 47,194	53,372 46,81
Change           Total, 16 years and older           ge, years:           16 to 24           16 to 19           20 to 24           25 to 54           25 to 54           35 to 44           45 to 54           55 and older	44,087	47,689 1990-2000 16,743 28	48,399 2000–05	49,677 <b>2005–10</b>	49,701	47,662	47,194	46,81
Total, 16 years and older         ge, years:         16 to 24         16 to 19         20 to 24         25 to 54         25 to 54         35 to 44         45 to 54         55 and older		16,743 28			2010–20	2020-30	2030-40	2040-50
Total, 16 years and older         ge, years:         16 to 24         16 to 19         20 to 24         25 to 54         25 to 54         35 to 44         45 to 54         55 and older		28	6,737	7,191				
ge, years: 16 to 24		28	6,737	7,191				
16 to 24         16 to 19         20 to 24         25 to 54         25 to 34         35 to 44         45 to 54         55 and older				1	9,844	6,555	10,517	11,330
16 to 19         20 to 24         25 to 54         25 to 34         35 to 44         45 to 54         55 and older								
20 to 24 25 to 54 25 to 34 35 to 44 45 to 54 55 and older			-230	277	-1,715	2,127	1,539	1,29
25 to 54		478	-1,106	-266	-851	494	300	35
25 to 34 35 to 44 45 to 54 55 and older		-450	877	541	-863	1,634	1,238	93
35 to 44 45 to 54 55 and older		13,072	1,379	1,496	1,604	4,368	7,415	6,73
45 to 54 55 and older		-3,173	-415	1,900	3,269	-341	3,876	2,41
55 and older		5,421	-1,536	-2,373	1,177	3,108	286	3,93
		10,824	3,330	1,970	-2,842	1,600	3,253	38
		3,643	5,588	5,418	9,954	60	1,564	3,30
55 to 64		2,782	4,622	4,034	5,414	-2,441	1,608	2,48
65 and older		861	966	1,385	4,539	2,502	-45	82
65 to 74		553	707	1,047	3,711	1,486		769
75 and older		309	259	338	828	1,016	837	5
len, 16 years and older		7,269	3,753	3,146	4,036	3,929	5,804	6,23
16 to 24		-171	-145	-135	-1,094	1,082	791	67
16 to 19		174	-678	-155	-511	248	158	18
20 to 24		-345	533	20	-583	834	633	48
25 to 54		5,750	1,179	753	501	2,416	3,977	3,74
25 to 34		-2,028	-7	1,213	1,695	-202	2,133	1,37
35 to 44		2,612	-598	-1,274	623	1,654	147	2,13
45 to 54		5,166	1,784	814	-1,817	964	1,697	23
55 and older		1,691	2,619	2,629	4,629	431	1,035	1,82
55 to 64		1,169	2,249	1,834	2,286	-1,029	957	1,32
65 and older		522	370	795	2,342	1,460	78	50
65 to 74		354	328	529	1,898	868	-366	50
75 and older		168	141	167	444	592	443	-
omen, 16 years and older		9,474	2,985	4,044	5,808	2,626	4,713	5,09
16 to 24		199	-84	410	-621	1,045	747	61
16 to 19		304	-428	-111	-341	246	142	16
20 to 24		-105	344	521	-280	799	606	45
25 to 54		7,322	199	745	1,103	1,952	3,438	2,99
25 to 34		-1,146	-409	688	1,574	-138	1,743	1,04
35 to 44		2,810	-938	-1,099	554	1,454	139	1,80
45 to 54		5,658	1,546	1,156	-1,025	636	1,556	14
55 and older		1,953	2,869	2,890	5,325	-371	529	1,48
55 to 64		1,613	2,373	2,200	3,128	-1,413	651	1,15
65 and older		340	496	690	2,197	1,042	-122	32
65 to 74 75 and older		199 141	379 118	518 171	1,813 384	618 424	–516 394	26 5
ace: White		11,098	3,754	4,642	4,392	1,516	4,505	5,01
Men		4,828	2,228	1,902	1,615	1,239	2,594	2,87
Women		6,270	1,526	2,740	2,776	279	1,910	2,14

## Table 4. Continued—Civilian labor force by age, sex, race, and ethnicity, 1990 to 2005 and projected 2010 to 2050

Age, sex, race, and ethnicity	1990-2000	2000–05	2005-10	2010-20	2020–30	2030–40	2040–50
Change—continued							
Black	2,657	616	1,321	2.405	1,780	2.142	2.148
Men	900	296	578	884	970	1,131	1,090
Women	1,757	319	744	1,521	809	1,012	1,058
Asian	1,656	233	970	1,984	2,019	2,283	2,365
Men	792	138	446	955	1,016	1,184	1,247
Women	864	94	524	1,030	1,003	1,099	1,118
All other groups <sup>1</sup>			259	1,062	1,240	1,587	1,800
Men			221	582	704	895	1,022
Women			38	480	536	692	777
thnicity:							
Hispanic origin	5,969	3,135	2,618	6,353	5,939	6,108	6,475
Men	3,377	2,062	963	3,139	3,276	3,339	3,502
Women	2,593	1,072	1,655	3,214	2,663	2,769	2,974
Other than Hispanic origin	10,774	3,602	4,573	3,491	616	4,409	4,855
Men	3,892	1,691	2,183	897	653	2,465	2,733
Women	6,881	1,913	2,389	2,594	-37	1,944	2,121
White non-Hispanic	4,911	1,162	2,381	-1,085	-3,707	-771	-520
Men	1,309	452	1,103	-1,109	-1,667	-304	-143
Women	3,602	710	1,278	24	-2,039	-468	-377
Percent change							
Total, 16 years and older	13.3	4.7	4.8	6.3	3.9	6.1	6.2
ige, years:							
16 to 24	.1	-1.0	1.2	-7.6	10.2	6.7	5.3
16 to 19	6.1	-13.4	-3.7	-12.3	8.2	4.6	5.2
20 to 24	-3.1	6.2	3.6	-5.5	11.0	7.5	5.3
25 to 54	14.8	1.4	1.5	1.5	4.1	6.7	5.7
25 to 34	-8.8	-1.3	5.9	9.5	9	10.4	5.9
35 to 44	16.9	-4.1	-6.6	3.5	8.9	.8	10.3
45 to 54	53.5	10.7	5.7	-7.8	4.8	9.3	1.0
55 and older	24.2	29.9	22.3	33.5	.2	3.9	8.0
55 to 64	24.0	32.2	21.3	23.5	-8.6	6.2	9.0
65 and older	24.9	22.4	26.2	68.1	22.3	3	6.0
65 to 74	18.7	20.2	24.9	70.6	16.6	-8.4	8.0
75 and older	62.0	32.1	31.7	59.0	45.5	25.8	1.3
len, 16 years and older	10.5	4.9	3.9	4.9	4.5	6.4	6.4
16 to 24	-1.4	-1.2	-1.2	-9.5	10.4	6.9	5.5
16 to 19	4.3	-15.9	-4.3	-14.9	8.5	5.0	5.6
20 to 24	-4.4	7.1	.2	-7.2	11.1	7.6	5.4
25 to 54	11.9	2.2	1.4	.9 8.9	4.3	6.7	5.9
25 to 34 35 to 44	-10.2 14.9	.0 –3.0	6.8 6.5	3.4	-1.0 8.8	10.4	6.1 10.3
45 to 54	46.5	-3.0 11.0	4.5	-9.6	5.7	.7 9.4	1.2
55 and older	19.7	25.5	20.4	29.8	2.1	5.0	8.4
55 to 64	17.6	28.8	18.3	19.2	-7.3	7.3	9.4
65 and older	26.5	14.9	27.8	64.1	24.4	1.0	9.4 6.6
65 to 74	21.3	16.3	22.6	66.0	18.2	-6.5	9.6
75 and older	55.4	29.9	27.2	57.0	48.4	24.4	2
Vomen, 16 years and older	16.7	4.5	5.8	7.9	3.3	5.8	5.9
16 to 24	1.9	8	3.9	-5.6	10.0	6.5	5.1
16 to 19	8.2	-10.7	-3.1	-9.8	7.9	4.2	4.8
20 to 24	-1.5	5.1	7.4	-3.7	10.9	7.5	5.2
25 to 54	18.4	.4	1.6	2.3	4.0	6.7	5.5
25 to 34	-7.1	-2.7	4.7	10.4	8	10.5	5.7
35 to 44	19.2	-5.4	-6.6	3.6	9.1	.8	10.3
45 to 54	61.9	10.4	7.1	-5.9	3.9	9.1	

## Table 4. Continued—Civilian labor force by sex, age, race, and ethnicity, 1990 to 2005 and projected 2010 to 2050

Age, sex, race, and	ethnicity	1990-2000	2000–05	2005-10	2010–20	2020–30	2030–40	2040-50
Percent change—co	ontinued							
55 and older		30.4	34.2	25.7	37.7	-1.9	2.8	7.5
55 to 64		32.6	36.2	24.6	28.1	-9.9	5.1	8.6
65 and older		22.9	27.2	29.8	73.0	20.0	-2.0	5.2
65 to 74		15.5	25.5	27.7	76.1	14.7	-10.7	6.1
75 and older		72.3	35.1	37.8	61.4	42.0	27.5	3.1
Race:								
White		10.3	3.2	3.8	3.5	1.2	3.4	3.7
Men		8.1	3.5	2.9	2.4	1.8	3.6	3.9
Women		13.1	2.8	4.9	4.8	.5	3.1	3.4
Black		19.3	3.8	7.8	13.1	8.6	9.5	8.7
Men		13.2	3.8	7.2	10.3	10.3	10.8	9.4
Women		25.3	3.7	8.3	15.6	7.2	8.4	8.1
•		05.0	0.7		00.5	04.0	40.0	17.0
Asian		35.9	3.7	14.9	26.5	21.3	19.9	17.2
Men Women		30.8 39.7	4.1 3.2	12.7 17.5	24.2 29.2	20.7 22.0	20.0 19.8	17.6 16.8
		33.1	5.2	17.5	23.2	22.0	13.0	10.0
All other groups <sup>1</sup>				7.4	28.2	25.7	26.2	23.5
Men				12.0	28.2	26.6	26.7	24.1
Women				2.3	28.2	24.6	25.5	22.8
thnicity:								
Hispanic origin		55.7	18.8	13.2	28.3	20.6	17.6	15.9
Men		51.6	20.8	8.0	24.2	20.4	17.2	15.4
Women		62.1	15.8	21.1	33.9	21.0	18.0	16.4
Other than Hispanic origin	2	9.4	2.9	3.5	2.6	.4	3.2	3.4
Men		6.2	2.5	3.2	1.3	.4	3.4	3.4
Women		13.1	3.2	3.9	4.1	1	2.9	3.1
White non-Hispanic		5.0 2.4	1.1 .8	2.3 2.0	-1.0 -2.0	-3.5 -3.0	8 6	5 3
Men Women		8.2	1.5	2.6	.0	-3.0 -4.1	-1.0	3 8
	1990	2000	2005	2010	2020	2030	2040	2050
Percent distribution								
Total, 16 years								
and older	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ge, years:								
16 to 24	17.9	15.8	14.9	14.4	12.5	13.3	13.4	13.3
16 to 19	6.2	5.8	4.8	4.4	3.6	3.8	3.7	3.7
20 to 24	11.7	10.0	10.1	10.0	8.9	9.5	9.6	9.6
25 to 54	70.2	71.1	68.8	66.6	63.6	63.8	64.1	63.9
25 to 34	28.6	23.0	21.7	21.9	22.5	21.5	22.4	22.3
35 to 44	25.5	26.3	24.1	21.5	20.9	21.9	20.8	21.7
45 to 54	16.1	21.8	23.0	23.2	20.2	20.3	20.9	19.9
55 and older	11.9	13.1	16.2	19.0	23.8	23.0 15.0	22.5 15 0	22.9
55 to 64 65 and older	9.2 2.7	10.1 3.0	12.7 3.5	14.7 4.3	17.1 6.7	15.0 7.9	15.0 7.4	15.4 7.4
65 to 74	2.7			4.3 3.4	5.4		7.4 5.2	7.4 5.3
75 and older	2.3	2.5	2.8 .7	.9	5.4 1.3	6.0 1.9	5.2 2.2	5.3 2.1
				-		-		-
len, 16 years	<b>5</b> 4 0	F0 F	50.0	<b>FO</b> 4			50.0	<b>FO C</b>
and older	54.8	53.5	53.6	53.1	52.4	52.7	52.9	53.0
16 to 24	9.5	8.3	7.8	7.4	6.3	6.6	6.7	6.7
16 to 19	3.3	3.0	2.4	2.2	1.8	1.8	1.8	1.8
20 to 24	6.3	5.3	5.4	5.2	4.5	4.8	4.9	4.8
	38.5	38.0	37.1	35.9	34.0	34.2	34.4	34.3
25 to 54 25 to 34	15.8	12.5	11.9	12.2	12.5	11.9	12.4	12.3

Table 4.	Continued—Civilian labo	r force by sex, age	, race, and Hispanic	origin, 1990 to 2005 and pro	jected 2010 to
	2050				

2050 lumbers in thousands]								
Age, sex, race, and ethnicity	1990	2000	2005	2010	2020	2030	2040	2050
Percent distribution— continued								
35 to 44	13.9	14.1	13.1	11.6	11.3	11.9	11.3	11.7
45 to 54	8.8	11.4	12.1	12.1	10.2	10.4	10.7	10.2
55 and older	6.8	7.2	8.6	9.9	12.1	11.9	11.8	12.0
55 to 64	5.3	5.5	6.7	7.6	8.5	7.6	7.7	7.9
65 and older	1.6	1.7	1.9	2.3	3.6	4.3	4.1	4.1
65 to 74	1.3	1.4	1.6	1.8	2.9	3.3	2.9	3.0
75 and older	.2	.3	.4	.5	.7	1.0	1.2	1.2
/omen, 16 years								
and older	45.2	46.5	46.4	46.9	47.6	47.3	47.1	47.0
16 to 24	8.4	7.5	7.1	7.1	6.3	6.6	6.7	6.6
16 to 19	2.9	2.8	2.4	2.2	1.9	1.9	1.9	1.9
20 to 24	5.4	4.7	4.7	4.9	4.4	4.7	4.8	4.7
25 to 54	31.7	33.1	31.7	30.8	29.6	29.6	29.8	29.6
25 to 34	12.8	10.5	9.7	9.7	10.1	9.6	10.0	10.0
35 to 44	11.7	12.3	11.1	9.9	9.6	10.1	9.6	10.0
45 to 54	7.3	10.4	10.9	11.2	9.9	9.9	10.2	9.7
55 and older	5.1	5.9	7.5	9.0	11.7	11.0	10.2	10.8
55 to 64	3.9	4.6	6.0	7.1	8.6	7.4	7.4	7.5
65 and older	1.2	1.3	1.6	1.9	3.1	3.6	3.3	3.3
65 to 74	1.2	1.0	1.0	1.9	2.5	2.8	2.3	3.3 2.3
75 and older	.2	.2	.3	.4	.6	.8	1.0	2.3
	.2	.2	.5	.4	.0	.0	1.0	1.0
ace:								
White	85.4	83.1	81.9	81.1	78.9	76.8	74.9	73.1
Men	47.4	45.2	44.7	43.8	42.2	41.3	40.4	39.5
Women	38.0	37.9	37.2	37.3	36.7	35.5	34.5	33.6
Black	10.9	11.5	11.4	11.7	12.5	13.0	13.4	13.8
Men	5.4	5.4	5.4	5.5	5.7	6.0	6.3	6.5
Women	5.5	6.1	6.0	6.2	6.8	7.0	7.1	7.3
Asian	3.7	4.4	4.4	4.8	5.7	6.6	7.5	8.3
Men	2.0	2.4	2.3	2.5	2.9	3.4	3.9	4.3
Women	1.7	2.0	2.0	2.3	2.7	3.2	3.6	4.0
All other groups <sup>1</sup>	_		2.3	2.4	2.9	3.5	4.2	4.9
Men	_		1.2	1.3	1.6	1.9	2.3	2.7
Women	—	-	1.1	1.1	1.3	1.6	1.9	2.2
thnicity:								
Hispanic origin	8.5	11.7	13.3	14.3	17.3	20.1	22.3	24.3
Men	5.2	7.0	8.0	8.3	9.7	11.2	12.4	13.5
Women	3.3	4.7	5.2	6.1	7.6	8.9	9.9	10.8
Other than Hispanic								
origin	91.5	88.3	86.7	85.7	82.7	79.9	77.7	75.7
Men	49.6	46.5	45.6	44.9	42.8	41.5	40.5	39.5
Women	41.8	41.8	41.2	40.8	39.9	38.4	37.3	36.2
White non-Hispanic	77.7	72.0	69.6	67.9	63.2	58.7	54.9	51.4
Men	42.7	38.6	37.2	36.2	33.4	31.1	29.2	27.4
Women	35.0	33.4	32.4	31.7	29.9	27.6	25.7	24.0
L		1990-2000	2000-05	2005-10	2010-20	2020-30	2030-40	2040-50
Annual growth rate (p	ercent)							
Total, 16 years and olde		1.3	.9	.9	.6	.4	.6	.6
ge, years:								
16 to 24		.0	2	.2	8	1.0	.7	.5
16 to 19		.6	-2.8	8	-1.3	.8	.4	.5
20 to 24		3	1.2	.7	6	1.1	.7	.5
		1.4	.3	.3	.2	.4	.7	.6
25 to 54								
		9	3	1.1	.9	1	1.0	.6
25 to 54 25 to 34 35 to 44		9 1.6	3 8	1.1 -1.4	.9 .3	1 .9	1.0 .1	.6 1.0

# Table 4. Continued—Civilian labor force by sex, age, race, and Hispanic origin, 1990 to 2005 and projected 2010 to 2050

Age, sex, race, and ethnicity	1990-2000	2000–05	2005–10	2010–20	2020–30	2030–40	2040-50
Annual growth rate (percent)— continued							
45 to 54	4.4	2.1	1.1	8	.5	.9	.1
55 and older	2.2	5.4	4.1	2.9	.0	.0	.8
55 to 64	2.2	5.7	3.9	2.1	9	.6	.9
65 and older	2.3	4.1	4.8	5.3	2.0	.0	.6
65 to 74	1.7	3.7	4.5	5.5	1.5	9	.8
75 and older	4.9	5.7	5.7	4.7	3.8	2.3	.1
				_			
len, 16 years and older	1.0	1.0	.8	.5	.4	.6	.6
16 to 24	1	2	2	-1.0	1.0	.7	.5
16 to 19	.4	-3.4	9	-1.6	.8	.5	.5
20 to 24	4	1.4	.0	7	1.1	.7	.5
25 to 54	1.1	.4	.3	.1	.4	.7	.6
25 to 34	-1.1	.0	1.3	.9	1	1.0	.6
35 to 44	1.4	6	-1.3	.3	.8	.1	1.0
45 to 54	3.9	2.1	.9	-1.0	.6	.9	.1
55 and older	1.8	4.6	3.8	2.6	.2	.5	.8
55 to 64	1.6	5.2	3.4	1.8	8	.7	.9
65 and older	2.4	2.8	5.0	5.1	2.2	.1	.6
65 to 74	1.9	3.1	4.2	5.2	1.7	7	.9
75 and older	4.5	5.4	4.9	4.6	4.0	2.2	.0
Vomen, 16 years and older	1.6	.9	1.1	.8	.3	.6	.6
16 to 24	.2	2	.8	6	1.0	.6	.5
16 to 19	.8	-2.2	6	-1.0	.8	.4	.5
20 to 24	2	1.0	1.4	4	1.0	.7	.5
25 to 54	1.7	.1	.3	.2	.4	.7	.5
25 to 34	7	6	.9	1.0	1	1.0	.6
35 to 44	1.8	-1.1	-1.4	.4	.9	.1	1.0
45 to 54	4.9	2.0	1.4	6	.4	.9	.1
55 and older	2.7	6.1	4.7	3.2	2	.3	.7
55 to 64	2.9	6.4	4.5	2.5	-1.0	.5	.8
65 and older	2.1	4.9	5.3	5.6	1.8	2	.5
65 to 74	1.4	4.6	5.0	5.8	1.4	-1.1	.6
75 and older	5.6	6.2	6.6	4.9	3.6	2.5	.3
Race:							
White	1.0	.6	.7	.3	.1	.3	.4
Men	.8	.7	.6	.2	.2	.4	.4
Women	1.2	.6	1.0	.5	.0	.3	.3
Black	1.8	.7	1.5	1.2	.8	.9	.8
Men	1.3	.8	1.4	1.0	1.0	1.0	.9
Women	2.3	.7	1.6	1.5	.7	.8	.8
Asian	3.1	.7	2.8	2.4	2.0	1.8	1.6
Men	2.7	.8	2.4	2.2	1.9	1.8	1.6
Women	3.4	.6	3.3	2.6	2.0	1.8	1.6
	-			-			_
All other groups <sup>1</sup>		1.4	2.5	2.3	2.4	2.1	2.2
Men		2.3	2.5	2.4	2.4	2.2	2.4
Women		.5	2.5	2.2	2.3	2.1	2.1
thnicity:							
Hispanic origin	4.5	3.5	2.5	2.5	1.9	1.6	1.5
Men	4.2	3.8	1.6	2.3	1.9	1.6	1.4
Women	5.0	3.0	3.9	3.0	1.9	1.7	1.5
Other than Hispanic origin	.9	.6	.7	.3	.0	.3	.3
Men	.6	.5	.6	.1	.1	.3	.4
Women	1.2	.6	.8	.4	.0	.3	.3
White non-Hispanic	.5	.2	.5	1	4	1	1
Men	.5	.2	.4	1	4	1	.0
Women	8	.2 .3	.5	2	3	1	1
	ō	.3	с.	.0	4	1	11

<sup>1</sup> The "all other groups" category includes (1) those classified as of multiple racial origin and (2) the race categories of (2a) American Indian and Alaska Native and (2b) Note: Dash indicates no data collected for category.

been more than the number of women. The men's labor force was 69.0 million in 1990, 76.3 million in 2000, and 80 million in 2005 and is projected to be 87.2 million in 2020 and 103.2 million in 2050.

2. Women. Historically, the growth rate of women in the labor force has been higher than that of men. Concomitant with the significant increases in the labor force participation rate of women in the 1970–80 period, the women's labor force has increased. The labor force of women stood at 56.8 million in 1990 and reached 66.3 million in 2000. The labor force of women is projected to grow to 79.1 million in 2020 and 91.6 million in 2050.

*Projected labor force by age.* As with projections by sex, projections of the labor force by age are based on the various age groups' past participation rates and shares of the population and therefore differ among those age groups.

*1. Youths 16 to 24 years.* The youth labor force is conveniently broken down into two groups: 16- to 19-year-olds and 20-to 24-year-olds. Historical data show that the labor forces of these two groups have been growing at different rates. As discussed earlier, the difference can be partially explained by the share of students and nonstudents in each group. The labor force of 16- to 19-year-olds was 7.8 million in 1990, 8.3 million in 2000, and 7.2 million in 2005; it is projected to decrease until 2020 and then gradually increase, reaching 7.2 million again in 2050.

The increase in school attendance of youths, especially 16- to 19-year-olds, has been the main reason the youth labor force as a whole has been decreasing. The labor force of 20- to 24-year-olds, which stood at 14.7 million in 1990, contributed to the decrease by falling to 14.3 million in 2000, but then rose to 15.1 million in 2005. The labor force of 20- to 24-year-olds is projected to grow by an average of 0.5 percent annually from 2005 to 2050, enabling it to reach 18.6 million in 2050.

2. Prime-aged workers 25 to 54 years. Of all the age groups, the prime-aged workers have the strongest ties to the labor market. Their labor force numbered 88.3 million in 1990, 101.4 million in 2000, and 102.8 million in 2005. The Bureau projects that, by 2050, the prime-aged workforce will reach 124.4 million. The group made up 70.2 percent of the total labor force in 1990 and increased to a 71.1-percent share in 2000, but then decreased to 68.8 percent in 2005. By the year 2000, all the baby boomers were in the group of prime-aged workers. With the passage of each year after 2000, the baby boomers started entering the next group: those 55 years and older. The share of 25- to 54-year-olds is expected to be about 64 percent of the total labor force in 2050.

*3. Workers 55 years and older.* The number of persons 55 years and older who are working is on an upward trend, with

an annual growth rate several times the rate of the overall labor force. There were 15 million workers 55 years and older in 1990, accounting for nearly 12 percent of the labor force. Ten years later, in 2000, the group reached 18.7 million, or 13.1 percent of the labor force. In 2005, this age group reached 24.3 million, or 16.2 percent of the labor force. The sizable increase in the labor force 55 years and older is again attributable to the baby boomers, who swell the size of the labor force whichever age category they are in. In 2020, the 55-yearsand-older age group will reach 39.6 million and have a 23.8percent share of the labor force. By 2050, the group will number more than 44.6 million workers and constitute 23.0 percent of the labor force. Within this age group, the 55- to 64year-olds are projected to be 28.4 million in 2020 and the 65- to 74-year-olds are expected to be nearly 9 million then.

*Projected labor force by race and ethnicity.* As the main engine of U.S. population growth, immigration will further diversify the population and the labor force in the coming years. In addition, immigrants are more likely than their native-born counterparts to be labor force participants. That phenomenon, in turn, will be another generator of diversity in the labor force.

The Hispanic labor force, 10.7 million in 1990, 16.7 million in 2000, and nearly 20 million in 2005, is projected to continue its strong presence in the U.S. labor force and reach 47.3 million in 2050, 24.3 percent of the total labor force. The annual growth rate of the Hispanic labor force is expected to average 2.0 percent during the 2005–50 projection period.

The Asian labor force also is expected to grow at an annual rate of 2.0 percent during the same timeframe. The Asian labor force is projected to reach 9.5 million in 2020 and 16.1 million, or 8.3 percent of the total workforce, in 2050.

The black labor force is projected to increase at an annual growth rate of 1.0 percent over the 2005–50 projection period and reach 20.7 million in 2020 and 26.8 million in 2050, nearly 14 percent of the total labor force.

The white non-Hispanic share of the total labor force is projected to decrease from nearly 70 percent in 2005 to 51.4 percent in 2050, a result of the faster growth rate of other racial and ethnic groups in the U.S. workforce. In addition, the retirement of the baby boomers, a group that has a large share of white non-Hispanics—especially white non-Hispanic men will further lower the white non-Hispanic share of the total labor force. The lower fertility rate of the white non-Hispanic group, compared with those of the other racial and ethnic categories, will add lesser numbers to the white non-Hispanic population and hence to their labor force.

## Implications of an aging labor force

Median age. The age of the labor force can be measured in

various ways. Two such measures are the median age and the labor force shares of younger, prime-age, and older workers. The median age is defined as that age than which half the population is older and half is younger. From the beginning of the 20th century, demographic changes have had major impacts on the median age of the U.S. population. With increases in life expectancies and decreases in fertility, the median age of the U.S. population, as well as that of the labor force, has increased significantly. According to the Census Bureau, the median age of the population increased by 2½ years between 1990 and 2000, reaching 35.3 years in the latter year. Oddly (though not contradictorily), during the same period the 65-years-and-older population increased at a slower rate than the overall population, as a result of the "birth dearth" of the late 1920s and early 1930s.<sup>7</sup>

At 40.5 years in 1962, the median age of the labor force was the highest ever attained before the baby boomers entered the labor force. The median age dropped steadily until 1980, when it began rising as the baby boomers began exiting the younger age groups. The overall median age of the labor force is projected to continue to increase in the future and reach 42 years in 2020. With the early retirement of the baby-boom generation at 62 years and normal retirement at 65, the median age of the labor force is projected to decrease slowly after 2020, reaching 41.6 years by 2050. (See table 5.)

Although the median age of both the population and the labor force is increasing, the median age of the population is increasing more than that of the labor force. Because the labor force participation rates of older persons are much lower than the rates of younger workers, the median age of the labor force is less than the median age of the population. Still, the growth of the older population, combined with the increase in its participation rates, is projected to increase the overall median age of the labor force to 42 years in 2020. Men's median age is projected to be 41.4 years that year, while women's median age is expected to reach 42.7 years.

The median age of the white non-Hispanic labor force continues to be higher than that of other racial and ethnic categories. This trend is expected to continue, and the median age of the white non-Hispanic labor force is projected to be 43.8 years in 2020. Compared with white non-Hispanic groups, the black and Hispanic groups have a lower median age, reflecting their younger age profile and higher fertility. Still, the median age of minorities in the labor force is expected to increase. The median age of Hispanics is projected to be 38.6 years in 2020. The median age of the black labor force was 38.8 years in 2005 and is projected to be 39.5 years in 2020. Similarly, the median age of Asians, which was 39.5 years in 2005, is anticipated to reach 43.8 years in 2020.

*Economic dependency ratio.* The economic dependency ratio is the number of persons in the total population (including the Armed Forces overseas and children) who are not in the labor force, per 100 of those who are in the labor force. The modern human life cycle begins with nearly 20 years of economic dependency in childhood and ends with another 20 or so years of economic dependency in old age, with 40-plus years in between in which workers produce more than they consume and reallocate the surplus to members of other age groups for consumption.<sup>8</sup>

Table 6 shows the economic dependency ratio by age for 1990 and 2000 and projected to 2050. For every 100 persons in the labor force in 2000, about 94 persons were not in the labor force. Of the latter group, approximately 44 were children, 28

Sex, race, and ethnicity	1990	2000	2005	2010	2020	2030	2040	2050
Total	36.4	39.3	40.8	41.5	42.0	41.9	41.8	41.6
Men	36.5	39.2	40.6	41.1	41.4	41.6	41.4	41.3
Women	36.2	39.4	41.0	41.9	42.7	42.4	42.2	42.0
Race:								
White	36.6	39.7	41.2	42.0	42.6	42.3	42.1	41.9
Black	34.8	37.4	38.8	38.8	39.5	39.8	40.0	40.2
Asian	35.8	37.9	39.5	41.4	43.8	44.0	43.6	43.8
thnicity:								
Hispanic origin	32.3	34.0	35.2	36.8	38.6	38.7	38.9	39.3
White non-Hispanic	37.0	40.6	42.3	43.2	43.8	43.5	43.4	43.0
Cable 6.         Economic depend           Per hundred in the labor force]	dency ratio	o, 1990 to 200	0 and projec	ted 2010 to 2	2050			
Age group	1990	2000	2010	2020	203	0	2040	2050
	98.3	93.9	95.6	100.1	108.	5	112.0	114.0
Total population	30.5							
Total population Jnder 16 years	45.8	44.1	41.8	42.7	43.	8	44.2	44.8
Total population Jnder 16 years 16 to 64 years			41.8 32.5	42.7 31.5	43.		44.2 31.9	44.8 32.4

were 16 to 64 years old, and 22 were older than 64 years. (See chart 4.)

The economic dependency ratio attributed to children has decreased in the last couple of decades and will decrease even further until 2010. The ratio for 16- to 64-year-olds decreased from 1990 to 2000 and is projected to be 32 persons in 2050.

The dependency ratio of those 65 years and older has been increasing steadily in the past and is expected to rise yet further in the future. The economic dependency ratio of this group, which was about 22 (persons not working) in 2000, is projected to increase to approximately 26 in 2020 and then increase rapidly to about 37 in 2050.

### Qualifications to the projections

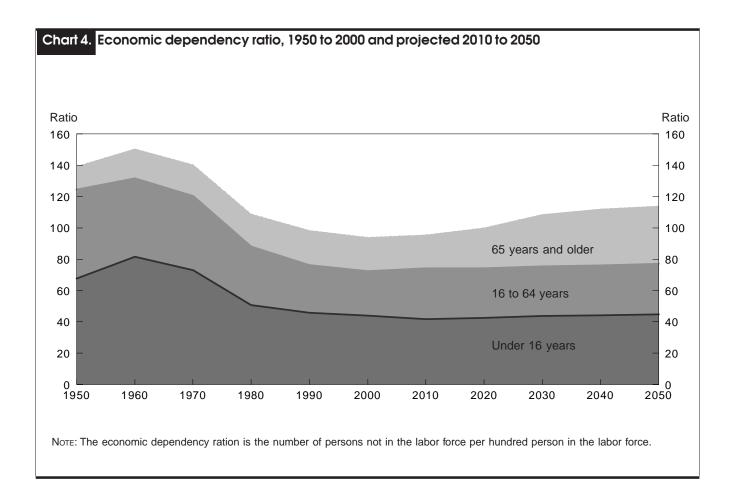
As noted earlier, labor force growth in the future is the result of either

1. The projected growth in the labor force participation rates of the different age, sex, racial, and ethnic categories or

2. The projected growth in the populations of the different age, sex, racial, and ethnic categories.

The BLS long-term labor force projections, which are subject to certain assumptions, point to a lessening of the growth of the labor force in the future. Several factors may interfere with the projected further slowdown of labor force growth:

An increase in the participation rate of the young. A more efficient use of the youth labor force is one way that both the overall labor force participation rate and the growth of the labor force might increase. However, the increase in school enrollment of youths during the past several decades has decreased the labor force participation rates of the young age cohorts dramatically. The increase in school attendance and the growth in the number of students enrolled in high school, college, and summer school together represent a structural change with a permanent impact on the labor market. On the basis of the current long-term projections, it appears that the labor force participation rate of the young age groups will not



be increasing any time soon enough to be effective in increasing either the overall labor force participation rate or the growth of the labor force.

An increase in the participation rate of women. A second possibility for increasing the overall labor force participation rate and the growth of the labor force is through an increase in the labor force participation rate of women. Women's participation rates have increased significantly since the 1970s, and the gender gap has been greatly reduced. However, on the basis of previous BLS projections, as well as the current set of long-term labor force projections, it appears that the labor force participation rate of women already may have reached its peak. The recent decline in women's participation is another factor contributing to the downward trend in the overall participation rate of women will achieve the significant increases registered during the 1970–90 timeframe; more likely, the rate will remain flat or edge down.

An increase in the participation rate of the older workforce. Yet another manner in which the labor force can be more efficiently used is through an increase in the participation rate of the older workforce. Such a state of affairs can come about through changes in laws, regulations, and employment policies. The baby boomers currently (in 2006) are between the ages of 42 years and 60 years. An increase in the labor force participation rate of the older workforce, multiplied by the large number of workers in this age group, has the potential to increase the size of the labor force significantly. The 55-years-and-older age group accounted for 16.2 percent of the labor force in 2005 and is projected to constitute 19.0 percent of the labor force in 2010 and nearly 24 percent in 2020. The group's share is expected to decrease slightly to 22.9 percent in 2050.

The labor force participation rate of older workers has been increasing since the end of the 1980s. The decision to continue work into the later years of life has been the result of several intertwined factors, such as the continually increasing life expectancy of the population, wherein a growing number of people are healthier for a longer portion of their life span. Because the average number of years spent in retirement has been rising steadily over the past several decades, and even before that, since the 1980s older workers have increasingly chosen to remain in the labor force in pursuit of additional earnings. In addition, the elimination of mandatory retirement and the enactment of age discrimination laws have contributed to the increase in participation rates of older persons.

Other factors, such as significant increases in healthcare costs and a decrease in the availability of health benefits, also have increased the participation of the older age groups in the workforce. Finally, recent changes in the Social Security laws, along with an increase in the normal retirement age for certain birth cohorts and a decrease in benefits with early retirement, have encouraged the 55-years-and-older group to increase its labor force participation.

*Immigration.* As far as population projections are concerned, different immigration scenarios result in different growth rates for the population and the labor force. Because immigration accounts for more than 40 percent of the growth of the U.S population, assumptions about immigration have a direct effect on the Census Bureau's population projections and hence on the BLS labor force projections.

According to the Census Bureau's Web site, the United States posts one birth every 8 seconds, one death every 11 seconds, one (net) international migrant every 31 seconds, and a net gain of one person every 14 seconds. Changes in future immigration policies could affect the growth rate of the population, which is the major factor in labor force projections.

### Notes

<sup>1</sup> Projections of the labor force participation rate for each group are developed by first estimating a trend rate of change based on past participation behavior. The latter rate is then modified when the timeseries projections for the specific group appear to be inconsistent with the results of cross-sectional and cohort analysis. This second step ensures consistency in the projections across the various demographic groups. For further information, see "Employment Projections," Chapter 13 of *Handbook of Methods* (Bureau of Labor Statistics, 1999); on the Internet at **stats.bls.gov/opub/hom/homch13\_a.htm**.

<sup>2</sup> Frederick W. Hollman, Tammany J. Mulder, and Jeffrey E. Kallan, *Population Projections of the United States, 1999 to 2100: Methodology and Assumptions*, Working Paper No. 38 (Bureau of the Census, 1999).

<sup>3</sup> See Mitra Toossi, "A century of change: the U.S. labor force, 1950-

2050," Monthly Labor Review, May 2002, pp. 15-28.

<sup>4</sup> Information about the U.S. Census Bureau is on the Internet at **www.census.gov/ipc/www/usinterimproj**.

<sup>5</sup> See Mitra Toossi, "Labor force projections to 2014: retiring boomers," *Monthly Labor Review*, November 2005, pp. 25–44.

<sup>6</sup> Steven Hipple, "Labor force during recent labor market downturns," *Issues in Labor Statistics*, Summary 03–03 (Bureau of Labor Statistics, September 2003).

7 Toossi, "A century of change."

<sup>8</sup> Ronald D. Lee, *Intergenerational Transfers* (Berkeley, CA, Center for Research and Education in Aging), on the Internet at **crea.berkeley.edu/ lee-profile.shtml**.