

*Employment outlook: 1998–2008*

## Labor force projections to 2008: steady growth and changing composition

*Labor force diversity will continue to increase; as the baby-boom generation gets older, the median age of the labor force will rise to record levels*

Howard N Fullerton, Jr.

The number of persons working or looking for work is projected to increase by 17 million over the 1998–2008 period, reaching 155 million in 2008.<sup>1</sup> This 12-percent increase is only slightly lower than the 13-percent increase over the previous 10-year period, 1988–98, when the labor force grew by 16 million.

For women, the rate of growth in the labor force is expected to slow, but it will still increase at a faster rate than that of men. (See table 1.) As a result, the share of women in the labor force is projected to increase from 46 percent in 1998 to 48 percent in 2008. The number of men in the labor force is projected to grow, but at a slower rate than in the past, as the aggregate labor force participation rate for men is projected to continue declining. The projected labor force growth will be affected by the aging of the baby-boom generation, persons born between 1946 and 1964. In 2008, the baby-boom cohort will be ages 44 to 62, and this age group will show significant growth over the 1998–2008 period. Race or Hispanic origin groups have shown—and are projected to continue to show—widely varied growth rates because of divergent rates of population growth in the past. The Asian and other labor force is projected to increase most rapidly. By 2008, the Hispanic labor force is projected to be larger than the black labor force, primarily because of faster population growth.

The youth labor force (aged 16 to 24) is expected to grow more rapidly than the overall labor force for the first time in 25 years. At the same time, the num-

ber of persons in the labor force aged 25 to 34 and 35 to 44 is projected to decrease, as the baby-boom generation continues its inexorable aging.

This article describes the labor force projections, made by the Bureau of Labor Statistics for 128 age, sex, race, or Hispanic origin groups. First, it discusses changes in the labor force, which are attributed to changes in labor force participation rate or to population change. Then, it examines changes in the labor force based on the dynamics resulting from persons entering, leaving, or staying in the labor force. Finally, this article reviews the demographic implications of projected changes in the age composition of the labor force and population.

The labor force projections are made by combining projections of the population made by the Bureau of the Census with labor force participation rate projections made by the Bureau of Labor Statistics. Consequently, the resulting labor force reflects changes in both projections. Changes in the labor force are better understood if they are decomposed into the two components and, therefore, each of these subjects is discussed separately.

### Population projections

The civilian noninstitutional population will continue to increase over the 1998–2008 period, at roughly the same rate of growth as during the previous 10 years. This analysis of changes in the civilian noninstitutional population is based

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**Table 1.** Civilian labor force, 16 and older, by sex, age, race, and Hispanic origin, 1978, 1988, 1998, and projected 2008

[Numbers in thousands]

Group	Level				Change			Percent change			Percent distribution				Annual growth rate (percent)		
	1978	1988	1998	2008	1978–88	1988–98	1998–2008	1978–88	1988–98	1998–2008	1978	1988	1998	2008	1978–88	1988–98	1998–2008
Total .....	102,251	121,669	137,673	154,576	19,418	16,004	16,903	19.0	13.2	12.3	100.0	100.0	100.0	100.0	1.8	1.2	1.2
Men .....	59,620	66,927	73,959	81,132	7,307	7,032	7,173	12.3	10.5	9.7	58.3	55.0	53.7	52.5	1.2	1.0	.9
Women .....	42,631	54,742	63,714	73,444	12,111	8,972	9,729	28.4	16.4	15.3	41.7	45.0	46.3	47.5	2.5	1.5	1.4
16 to 24 .....	25,022	22,536	21,894	25,210	-2,486	-642	3,316	-9.9	-2.8	15.1	24.5	18.5	15.9	16.3	-1.0	-.3	1.4
25 to 54 .....	62,414	84,041	98,718	104,133	21,627	14,677	5,415	34.7	17.5	5.5	61.0	69.1	71.7	67.4	3.0	1.6	.5
55 and older .....	14,814	15,092	17,062	25,233	278	1,970	8,171	1.9	13.1	47.9	14.5	12.4	12.4	16.3	.2	1.2	4.0
White .....	89,634	104,756	115,415	126,665	15,122	10,659	11,251	16.9	10.2	9.7	87.7	86.1	83.8	81.9	1.6	1.0	.9
Black .....	10,432	13,205	15,982	19,101	2,773	2,777	3,119	26.6	21.0	19.5	10.2	10.9	11.6	12.4	2.4	1.9	1.8
Asian and other <sup>1</sup> .....	2,185	3,708	6,278	8,809	1,523	2,570	2,531	69.7	69.3	40.3	2.1	3.0	4.6	5.7	5.4	5.4	3.4
Hispanic origin <sup>2</sup> .....	...	8,982	14,317	19,585	...	5,335	5,268	...	59.4	36.8	...	7.4	10.4	12.7	...	4.8	3.2
Other than Hispanic origin <sup>2</sup> .....	...	112,687	123,356	134,991	...	10,669	11,635	...	9.5	9.4	...	92.6	89.6	87.3	...	.9	.9
White non-Hispanic <sup>2</sup> ..	...	96,141	101,767	109,216	...	5,626	7,449	...	5.9	7.3	...	79.0	73.9	70.7	...	.6	.7

<sup>1</sup> The "Asian and other" group includes (1) Asians and Pacific Islanders and (2) American Indians and Alaska Natives. The historical data are derived by subtracting "black" from the "black and other" group; projections are made

directly, not by subtraction.

<sup>2</sup> Data by Hispanic origin are not available before 1980.

on the Census Bureau's middle population projection scenario.<sup>2</sup> Minority groups that have grown the fastest in the past, Asians and others and Hispanics, are projected to continue to grow much faster than white non-Hispanics. Youth, ages 16 to 24, will increase as a share of the population, reversing a declining trend since the late 1970s. The age group 55 to 64 will increase by 10 million persons over the 1998–2008 period—a much larger level of growth than the 655,000 increase over the 1988–98 period. The 65- and-older group will maintain its share of the population.

Population growth trends and changes in its demographic composition reflect births, deaths, and migration to and from the United States. Table 2 provides four snapshots of the population at 10-year intervals over the 1978–2008 period. Four demographic events have had a significant impact on shaping the changes in growth rates of the population and its composition by age, sex, race, and Hispanic origin over this period:

- The birth dearth of the late 1920s and early 1930s
- The baby boom of the late 1940s through the early 1960s
- The modest increase in births from the late 1970s through the early 1990s
- The massive migration to the United States that started in the 1970s and continues

The effects of the birth dearth are reflected in the declining number of persons aged 45 to 54 from 1978–88, aged 55 to 64

from 1988–98, and aged 65 to 74, 1998–2008. The second event can be traced by following the movements of the baby-boom generation through age groups with the greatest increase in each period. For example, the 25- to 44-age group increased most significantly over the 1978–88 period and the 35- to 54-age group had the greatest increase over the 1988–98 period. For the projected period, 1998–2008, persons aged 45 to 64 are expected to generate the highest growth. The population in the age group following the baby-boomers show declining numbers, those age 25 to 34 from 1988 to 1998 and 35 to 44 in the projection, 1998–2008. From 1998 to 2008, the number of persons aged 35 to 44 is expected to decline by 3.7 million. This same age group increased by 10.7 million during 1978–88, when the baby-boomers were that age.

The third demographic event will be reflected in growth of the population aged 16 to 24 from 1998 to 2008, which will reverse the trend of declining numbers in this age group over the 1978–97 period.

The fourth event has had a significant impact on population growth over the 1978–98 period and is expected to continue to do so from 1998 to 2008. The Census Bureau uses age-sex-specific rates from the 1980s to project foreign-born emigration from the United States. These rates are held constant and therefore the level of emigration changes as the number of foreign-born changes due to earlier migration. Migration is assumed to decrease slightly between 1999 and 2008. The effect of decreased immigration

**Table 2.** Civilian noninstitutional population by sex, age, race, and Hispanic origin, 1978, 1988, 1998, and projected 2008

[Numbers in thousands]

Group	Level				Change			Annual growth rate			Percent distribution			
	1978	1988	1998	2008	1978-88	1988-98	1998-2008	1978-88	1988-98	1998-2008	1978	1988	1998	2008
Total, 16 years and older .....	161,910	184,613	205,220	228,623	22,703	20,607	23,403	1.3	1.1	1.1	100.0	100.0	100.0	100.0
16 to 24 .....	36,703	32,960	33,237	38,100	-3,743	277	4,862	-1.1	.1	1.4	22.7	17.9	16.2	16.7
16 to 19 .....	16,695	14,527	15,644	17,830	-2,168	1,117	2,187	-1.4	.7	1.3	10.3	7.9	7.6	7.8
20 to 24 .....	20,007	18,434	17,593	20,269	-1,573	-841	2,676	-8	-5	1.4	12.4	10.0	8.6	8.9
25 to 54 .....	81,167	101,398	117,450	121,967	20,231	16,052	4,518	2.3	1.5	.4	50.1	54.9	57.2	53.3
25 to 34 .....	34,091	42,611	38,778	37,704	8,520	-3,833	-1,074	2.3	-9	-3	21.1	23.1	18.9	16.5
35 to 44 .....	24,099	34,784	44,299	40,635	10,685	9,515	-3,664	3.7	2.4	-9	14.9	18.8	21.6	17.8
45 to 54 .....	22,977	24,004	34,373	43,629	1,027	10,369	9,256	.4	3.7	2.4	14.2	13.0	16.7	19.1
55 and older .....	44,043	50,253	54,533	68,556	6,210	4,280	14,023	1.3	.8	2.3	27.2	27.2	26.6	30.0
55 to 64 .....	20,875	21,641	22,296	32,538	766	655	10,242	.4	.3	3.9	12.9	11.7	10.9	14.2
65 and older .....	23,166	28,612	32,238	36,018	5,446	3,626	3,780	2.1	1.2	1.1	14.3	15.5	15.7	15.8
65 to 74 .....	14,822	17,515	17,947	19,526	2,693	432	1,579	1.7	.2	0.8	9.2	9.5	8.7	8.5
75 and older ...	8,456	11,096	14,290	16,492	2,640	3,194	2,201	2.8	2.6	1.4	5.2	6.0	7.0	7.2
Men, 16 years and older .....	76,576	87,857	98,758	110,067	11,281	10,901	11,309	1.4	1.2	1.1	47.3	47.6	48.1	48.1
16 to 24 .....	18,003	16,233	16,772	19,179	-1,770	539	2,408	-1.0	.3	1.4	11.1	8.8	8.2	8.4
16 to 19 .....	8,309	7,304	7,968	9,010	-1,005	664	1,042	-1.3	.9	1.2	5.1	4.0	3.9	3.9
20 to 24 .....	9,693	8,931	8,804	10,170	-762	-127	1,366	-8	-1	1.5	6.0	4.8	4.3	4.4
25 to 54 .....	39,308	49,570	57,724	59,688	10,262	8,154	1,964	2.3	1.5	.3	24.3	26.9	28.1	26.1
25 to 34 .....	16,598	20,937	19,094	18,404	4,339	-1,843	-690	2.3	-9	-4	10.3	11.3	9.3	8.1
35 to 44 .....	11,665	17,008	21,857	19,886	5,343	4,849	-1,971	3.8	2.5	-9	7.2	9.2	10.7	8.7
45 to 54 .....	11,045	11,625	16,773	21,398	580	5,148	4,625	.5	3.7	2.5	6.8	6.3	8.2	9.4
55 and older .....	19,267	22,052	24,262	31,200	2,785	2,210	6,938	1.4	1.0	2.5	11.9	11.9	11.8	13.6
55 to 64 .....	9,758	10,193	10,649	15,559	435	456	4,910	.4	.4	3.9	6.0	5.5	5.2	6.8
65 and older .....	9,509	11,859	13,613	15,641	2,350	1,754	2,028	2.2	1.4	1.4	5.9	6.4	6.6	6.8
65 to 74 .....	6,412	7,773	8,074	8,969	1,361	301	895	1.9	.4	1.1	4.0	4.2	3.9	3.9
75 and older ...	3,142	4,086	5,539	6,672	944	1,453	1,133	2.7	3.1	1.9	1.9	2.2	2.7	2.9
Women, 16 years and older .....	85,334	96,756	106,462	118,556	11,422	9,706	12,093	1.3	1.0	1.1	52.7	52.4	51.9	51.9
16 to 24 .....	18,701	16,727	16,466	18,920	-1,974	-261	2,454	-1.1	-2	1.4	11.6	9.1	8.0	8.3
16 to 19 .....	8,386	7,224	7,676	8,821	-1,162	452	1,145	-1.5	.6	1.4	5.2	3.9	3.7	3.9
20 to 24 .....	10,315	9,503	8,790	10,099	-812	-713	1,310	-8	-8	1.4	6.4	5.1	4.3	4.4
25 to 54 .....	41,859	51,828	59,725	62,280	9,969	7,897	2,555	2.2	1.4	.4	25.9	28.1	29.1	27.2
25 to 34 .....	17,493	21,674	19,683	19,299	4,181	-1,991	-383	2.2	-1.0	-2	10.8	11.7	9.6	8.4
35 to 44 .....	12,435	17,776	22,442	20,749	5,341	4,666	-1,693	3.6	2.4	-8	7.7	9.6	10.9	9.1
45 to 54 .....	11,932	12,378	17,600	22,231	446	5,222	4,631	.4	3.6	2.4	7.4	6.7	8.6	9.7
55 and older .....	24,776	28,201	30,271	37,356	3,425	2,070	7,085	1.3	.7	2.1	15.3	15.3	14.8	16.3
55 to 64 .....	11,118	11,448	11,646	16,979	330	198	5,332	.3	.2	3.8	6.9	6.2	5.7	7.4
65 and older .....	13,658	16,753	18,625	20,377	3,095	1,872	1,752	2.1	1.1	.9	8.4	9.1	9.1	8.9
65 to 74 .....	8,410	9,742	9,873	10,558	1,332	131	684	1.5	.1	.7	5.2	5.3	4.8	4.6
75 and older ...	5,314	7,010	8,752	9,820	1,696	1,742	1,068	2.8	2.2	1.2	3.3	3.8	4.3	4.3
White, 16 years and older .....	141,612	158,194	171,478	186,641	16,582	13,284	15,163	1.1	.8	.9	87.5	85.7	83.6	81.6
Men .....	67,401	75,855	83,352	90,875	8,454	7,497	7,524	1.2	.9	.9	41.6	41.1	40.6	39.7
Women .....	74,213	82,340	88,126	95,766	8,127	5,786	7,639	1.0	.7	.8	45.8	44.6	42.9	41.9
Black, 16 years and older .....	16,970	20,692	24,373	28,809	3,722	3,681	4,436	2.0	1.7	1.7	10.5	11.2	11.9	12.6
Men .....	7,577	9,289	10,927	12,988	1,712	1,638	2,061	2.1	1.6	1.7	4.7	5.0	5.3	5.7
Women .....	9,394	11,402	13,446	15,820	2,008	2,044	2,374	2.0	1.7	1.6	5.8	6.2	6.6	6.9
Asian and other, 16 years and older <sup>1</sup> .....	3,391	5,725	9,369	13,173	2,334	3,644	3,804	5.4	5.0	3.5	2.1	3.1	4.6	5.8
Men .....	1,630	2,714	4,479	6,203	1,084	1,765	1,724	5.2	5.1	3.3	1.0	1.5	2.2	2.7
Women .....	1,761	3,011	4,890	6,970	1,250	1,879	2,080	5.5	5.0	3.6	1.1	1.6	2.4	3.0
Hispanic origin, 16 years and older <sup>2</sup> .....	...	13,325	21,070	28,936	...	7,745	7,866	...	4.7	3.2	...	7.2	10.3	12.7
Men .....	...	6,604	10,734	14,158	...	4,130	3,424	...	5.0	2.8	...	3.6	5.2	6.2
Women .....	...	6,721	10,335	14,778	...	3,614	4,442	...	4.4	3.6	...	3.6	5.0	6.5

**Table 2.** Continued—Civilian noninstitutional population by sex, age, race, and Hispanic origin, 1978, 1988, 1998, and projected 2008

[Numbers in thousands]

Group	Level				Change			Annual growth rate			Percent distribution			
	1978	1988	1998	2008	1978-88	1988-98	1998-2008	1978-88	1988-98	1998-2008	1978	1988	1998	2008
Other than Hispanic origin, 16 years and older <sup>2</sup> .....	...	171,288	184,150	199,687	...	12,862	15,536	...	.7	.8	...	92.8	89.7	87.3
Men .....	...	81,253	88,023	95,909	...	6,770	7,885	...	.8	.9	...	44.0	42.9	42.0
Women .....	...	90,035	96,127	103,778	...	6,092	7,651	...	.7	.8	...	48.8	46.8	45.4
White non-Hispanic, 16 and older .....	...	145,346	151,406	160,793	...	6,060	9,388	...	.4	.6	...	78.7	73.8	70.3
Men .....	...	69,521	73,100	78,153	...	3,579	5,053	...	.5	.7	...	37.7	35.6	34.2
Women .....	...	75,825	78,305	82,640	...	2,480	4,335	...	.3	.5	...	41.1	38.2	36.1

<sup>1</sup> The "Asian and other" group includes (1) Asians and Pacific Islanders and (2) American Indians and Alaska Natives. The historical data are derived by subtracting "black" from the "black and other" group; projections are made directly, not by subtraction. <sup>2</sup> Data by Hispanic origin are not available before 1980.

and relatively constant emigration is to decrease projected net migration over the period. The change is modest, from a net migration of 960,000 in 1999 to 782,000 in 2008. However, this net migration is significant: a sizable proportion of the net population growth over the projected 1998–2008 period will stem from migration. The effects of migration on the demographic composition of the population can be seen in two ways in table 2. The first is reflected in the very rapid growth rate of the Asian and other and Hispanic populations. Although growth of these groups is expected to slow from 1998–2008, the projected growth rates for these groups are nevertheless much faster than for other groups. The second way migration affects the composition of the population is by age distribution. For example, persons aged 25 to 34 numbered 34.1 million in 1978. Ten years later, this same cohort was even larger, 34.8 million. Similarly, the number of persons aged 25 to 34 in 1988 grew from 42.6 million to 44.3 million 10 years later. The only way these cohorts could increase is through net migration. Because the overwhelming reason for migration is the opportunity to work, the population at these ages is affected significantly by migration.<sup>3</sup>

The general effect of mortality on the population can be seen by the age distributions of women and men. However, the longevity of women compared with men also is seen clearly. (See table 2.) In 1998, men and women aged 16 to 24 were each 8 percent of the population. However, for persons 75 years of age and older, women made up 4 percent of the population and men, 2.7 percent, reflecting the higher life expectancy of women.

### Labor force participation rates

The labor force participation or activity rate—a measure of the proportion of a population group in the labor force—differs

by age, sex, race and Hispanic origin as shown in table 3. Although labor force participation rates for specific groups change over time, the general overall pattern is fairly consistent across age groups, between the sexes, and among race and Hispanic origin groups.

*Age.* Labor force participation is relatively low for young persons (aged 16 to 24) because of school or child care responsibilities. It rises during the working years, ages 25 to 44, and then declines after age 55 as workers retire. For example, in 1998, the participation rate for persons aged 16 to 19 was 53 percent; for those aged 35 to 44, the rate was 85 percent; and for those aged 75 and older, the rate dropped to 5 percent.

*Sex.* The labor force participation rates for men are not only higher than those for women at the aggregated level, but also at every age group. The trend in the rates for men and women are also different. In general, the rates for women have been rising. In contrast, the rates for men have been declining until 1996–98, when the rates held steady. The difference in rates by sex also holds across race and Hispanic origin groups, as a later section shows.

*Rates by age and sex.* Changes over time in the aggregate labor force participation rates of men have been consistently down. The age-specific activity rates of men have been dropping across age groups with few exceptions. Labor force participation rates for men 65 and older have increased, starting in 1985. The rates for men, 65 to 74 increased by 1.3 percentage points from 1988 to 1998, reversing a trend that dates back to at least 1890. Labor force participation for men 55 to 64 also increased over the 1988–98 period. Because of the change in the age structure within the 55 and older

group, labor force participation for this overall group decreased even though the component rates increased.

Earlier decreases in the labor force participation rates of older men reflect the increased availability of pensions and disability awards.<sup>4</sup> The decrease in participation over the 1950-80 period for men 65 and older was 26.8 percentage points, with most of the decrease occurring in the 1950's. During the 1970s, the Social Security payments were over-adjusted for inflation and the decrease in labor force participation for men 65 and older was greater than in the 1960s. The decrease in participation was much lower in the 1980s, after the inflation adjustment procedure was changed. By the 1990s, participation increased for this group of older men. For men 55 to 64, labor force participation rates started to decrease in the 1960s for those 55 to 64.<sup>5</sup> Some of the 20-percentage point decreases since 1960 for men in this age group has to be attributed to the availability of Social Security to men 62 years of age. By 1994, only half the men age 62 were in the labor force, a decrease from 75 percent in 1970. Since 1994, however, the rate has increased modestly.

During the 1950-80 period, defined benefit pension coverage became more widespread. A worker realizes the greatest return on such a pension by retiring as soon as eligible. During the 1980s, part of worker downsizing included early pensions and lump-sum payments to older workers.<sup>6</sup> More recently, few defined benefit pension programs have been initiated; new pension plans have been of the defined contribution type. These are not as likely to induce early retirement. Some workers are covered by both types of pension plans. We are now in a period of transition from retirement decisions being based on defined benefit pensions to those being based on defined contribution pensions. However, once the transition is completed, workers are expected to work longer. The issue of how much longer men will work is clouded by two issues: a small proportion of workers do physically demanding work and may not be able to work more than 30 years. Some portion of the increased life-span the American people have been experiencing involves restrictions to daily living that make work difficult, if not impossible.

In 2000, the normal retirement age for Social Security benefits is scheduled to increase.<sup>7</sup> Because the size of the benefit is lowered for each month a recipient is younger than the normal retirement age, this should induce some workers to continue working. However, for those receiving defined benefit pensions that are significantly larger than their Social Security benefit, there is likely to be no response. For those workers dependent on Social Security, the lower benefits will require them to work longer or they will have to make do with lower benefits. The following tabulation shows the Social Security benefit for each age group starting with those born in 1937 or earlier to 1943-54:

<i>Birth year</i>	<i>Normal retirement age</i>	<i>Become age 62</i>	<i>Age 62 benefit as percent of primary insurance amount</i>
1937 or earlier ..	65 years or earlier	1999 or earlier	80.0
1938 .....	65 and 2 months	2000	79.2
1939 .....	65 and 4 months	2001	78.3
1940 .....	65 and 6 months	2002	77.5
1941 .....	65 and 8 months	2003	76.7
1942 .....	65 and 10 months	2004	75.8
1943-54 .....	66 years	2005-16	75.0

For age groups under 55, the drop in participation was greater in the 1988-98 period than that in the 1978-88 period. There continues to be little research on the long-term decrease in participation rates of men aged 25 to 54, a group that our society views as strongly attached to the labor force.

Unlike men, the labor force participation rates of women have been increasing across age groups, with the exception of young and older women. For example, the labor force participation rates of women ages 16 to 19 decreased 1.3 percentage points between 1988 and 1998. Also, the labor force participation rates of women 75 and older decreased in the 1978-88 period, but increased in the later period, offsetting the decrease. The group of women who increased their participation the most during the 1978-88 period were aged 35 to 44; their participation increased almost 14 percentage points. Interestingly, the same group of women displayed the greatest increase in participation in the 1988-98 period, when they were aged 45 to 54.

*Race and Hispanic origin.* Differences in labor force participation by race and Hispanic origin are usually not as great as that observed for age and sex. However, changes in labor force rates over time differ among the groups. When participation rate changes are combined with different patterns of population growth, substantial differences in the future labor force result.

The data shown in the lower part of table 3 indicate the variation in labor force participation by race. The following illustration ranks those groups in terms of their labor force participation rates in 1998 (1 is highest labor force participation; 4 is lowest):

**Table 3.** Civilian labor force participation rates by sex, age, race, and Hispanic origin, 1978, 1988, 1996, 1998, and projected 2008

Group	Participation rate (percent)					Percentage point change		
	1978	1988	1996	1998	2008	1978-88	1988-98	1998-2008
Total, 16 years and older .....	63.2	65.9	66.8	67.1	67.6	2.8	1.2	.5
16 to 24 .....	68.2	68.4	65.5	65.9	66.2	.2	-2.5	.3
16 to 19 .....	57.8	55.3	52.3	52.8	52.7	-2.5	-2.5	-.1
20 to 24 .....	76.8	78.7	76.8	77.5	78.0	1.9	-1.2	.5
25 to 54 .....	76.9	82.9	83.8	84.1	85.4	6.0	1.2	1.3
25 to 34 .....	78.3	83.3	84.1	84.6	85.9	5.0	1.3	1.3
35 to 44 .....	78.3	84.6	84.8	84.7	86.0	6.3	0.1	1.3
45 to 54 .....	78.1	79.6	82.1	82.5	84.3	1.5	2.9	1.8
55 and older .....	33.6	30.0	30.3	31.3	36.8	-3.6	1.3	5.5
55 to 64 .....	56.3	54.6	57.9	59.3	63.3	-1.7	4.7	4.0
65 and older .....	13.3	11.5	12.1	11.9	12.9	-1.8	.5	1.0
65 to 74 .....	17.7	16.1	17.5	17.7	19.7	-1.7	1.6	2.0
75 and older .....	5.3	4.2	4.7	4.7	4.8	-1.0	.4	.2
Men, 16 years and older .....	77.9	76.2	74.9	74.9	73.7	-1.7	-1.3	-1.2
16 to 24 .....	74.9	72.4	68.8	68.4	68.0	-2.5	-4.0	-.3
16 to 19 .....	62.0	56.9	53.2	53.3	52.9	-5.0	-3.7	-.3
20 to 24 .....	85.9	85.0	82.5	82.0	81.4	-.9	-3.0	-.6
25 to 54 .....	94.3	93.6	91.8	91.8	91.3	-.7	-1.7	-.5
25 to 34 .....	95.3	94.3	93.2	93.2	93.2	-1.0	-1.1	.0
35 to 44 .....	95.7	94.5	92.4	92.6	92.3	-1.2	-1.9	-.4
45 to 54 .....	91.3	90.9	89.1	89.2	88.8	-.4	-1.7	-.4
55 and older .....	47.2	39.9	38.3	39.1	43.5	-7.3	-.7	4.4
55 to 64 .....	73.3	67.0	67.0	68.1	69.4	-6.3	1.1	1.3
65 and older .....	20.4	16.5	16.9	16.5	17.8	-3.8	-.1	1.4
65 to 74 .....	25.5	21.3	22.9	22.6	25.5	-4.2	1.3	2.9
75 and older .....	9.6	7.4	7.3	7.5	7.5	-2.2	.0	.1
Women, 16 years and older ...	50.0	56.6	59.3	59.8	61.9	6.6	3.3	2.1
16 to 24 .....	61.7	64.5	62.2	63.3	64.3	2.7	-1.1	.9
16 to 19 .....	53.7	53.6	51.3	52.3	52.4	-0.1	-1.3	.2
20 to 24 .....	68.3	72.7	71.3	73.0	74.6	4.4	.3	1.6
25 to 54 .....	60.6	72.7	76.1	76.5	79.7	12.1	3.9	3.2
25 to 34 .....	62.2	72.7	75.2	76.3	79.0	10.5	3.6	2.7
35 to 44 .....	61.6	75.2	77.5	77.1	80.0	13.5	1.9	2.9
45 to 54 .....	57.0	69.0	75.4	76.2	80.0	11.9	7.2	3.8
55 and older .....	23.1	22.3	23.9	25.0	31.2	-.8	2.7	6.2
55 to 64 .....	41.3	43.5	49.6	51.2	57.7	2.2	7.7	6.5
65 and older .....	8.3	7.9	8.6	8.6	9.1	-.4	.7	.5
65 to 74 .....	11.8	11.9	13.1	13.7	14.8	.1	1.8	1.1
75 and older .....	2.7	2.4	3.1	2.9	3.0	-.4	.5	.1
White, 16 years and older .....	63.3	66.2	67.2	67.3	67.9	2.9	1.1	.6
Men .....	78.6	76.9	75.8	75.6	74.5	-1.7	-1.3	-1.2
Women .....	49.4	56.4	59.1	59.4	61.5	7.0	3.0	2.1
Black, 16 years and older .....	61.5	63.8	64.1	65.6	66.3	2.3	1.8	.7
Men .....	71.7	71.0	68.7	69.0	68.3	-.7	-2.0	-.7
Women .....	53.2	58.0	60.4	62.8	64.6	4.8	4.8	1.9
Asian and other, 16 years and older <sup>1</sup> .....	64.6	65.0	65.8	67.0	66.9	.4	2.0	-.1
Men .....	75.9	74.4	73.4	75.5	74.0	-1.5	1.1	-1.5
Women .....	54.1	56.5	58.8	59.2	60.5	2.4	2.7	1.3
Hispanic origin, 16 years and older <sup>2</sup> .....	...	67.4	66.5	67.9	67.7	...	.5	-.2
Men .....	...	81.9	79.6	79.8	77.9	...	-2.1	-1.9
Women .....	...	53.2	53.4	55.6	57.9	...	2.4	2.3
Other than Hispanic origin, 16 years and older <sup>2</sup> .....	...	65.8	66.8	67.0	67.6	...	1.2	.6
Men .....	...	75.7	74.4	74.3	73.1	...	-1.4	-1.2
Women .....	...	56.8	59.9	60.3	62.5	...	3.5	2.2
White non-Hispanic, 16 and older <sup>2</sup> .....	...	66.1	67.3	67.2	67.9	...	1.1	.7
Men .....	...	76.4	75.3	75.0	73.9	...	-1.4	-1.1
Women .....	...	56.7	59.8	59.9	62.3	...	3.3	2.3

<sup>1</sup> The "Asian and other" group includes (1) Asians and Pacific Islanders and (2) American Indians and Alaska Natives. The historical data are derived by subtracting "black" from the "black and other" group; projections are made

directly, not by subtraction.

<sup>2</sup> Data by Hispanic origin are not available before 1980.

	<i>Men</i>	<i>Women</i>	<i>Rank</i>
Hispanic .....	Hispanic	Black	1
White non-Hispanic ....	Asian and other	White non-Hispanic	2
Asian and other .....	White non-Hispanic	Asian and other	3
Black .....	Black	Hispanic	4

The rankings by race differ by sex. Hispanic men have the highest labor force participation rates, Hispanic women, the lowest. For blacks, the situation by gender is reversed, as men have the lowest participation rate and women, the highest.

The high labor force participation rate for Hispanic males, in part, reflects their age structure. Hispanics have a younger population with a greater proportion at the ages of higher labor force participation. As table 4 shows, the rates for non-Hispanic white men are higher for all age groups except at ages 20 to 24, 30 to 34, and 55 to 59. The table also shows that Hispanic men have proportionally more young men. The aggregate labor force participation rate may be regarded as the weighted sum of the age-specific rates, in which the weights are the population distribution.

These examples indicate that age, sex, and race are important in describing the variations in labor force participation. However, the previous discussion focused on 1998. Over the 1998–2008 period, overall labor force participation is projected to change the rankings for these groups as well:

	<i>Men</i>	<i>Women</i>	<i>Rank</i>
Asian and other .....	Asian and other	Black	1
Black .....	White non-Hispanic	White non-Hispanic	2
White non-Hispanic ....	Black	Hispanic	3
Hispanic .....	Hispanic	Asian and other	4

For the totals by group, the ranking of Asians and others shifted to first and blacks moved to second rank, while Hispanics who had the greatest participation had the least change. The labor force participation rates of Asian and other men increased and the rates of all other groups of men dropped. Hispanic men, who had the greatest participation rate in 1998, had the least change over the 1988–98 period. The labor force participation of black women grew more than that for white non-Hispanic women. Hispanic women, who have lower overall participation than Asian and other women, had a greater increase in participation.

### Projected rate changes

The labor force participation rate is projected to rise by .5 percentage points between 1998 and 2008. Increases in the

participation rates are expected to be greatest for the 55- to 64-age group, made up of the baby-boom generation. As in 1998, however, the ages of peak labor force participation should be 35 to 44. Thus, the baby-boom generation's aging by itself will act to lower overall participation. For both sexes combined, labor force rates are projected to increase for all groups older than age 20. For teenagers, labor force participation is expected to drop only slightly.

The overall labor force participation rate of men is projected to drop by 1.2 percentage points, similar to the decline in the last decade. The similarity of the change is fortuitous because the overall male rate is a summary of the changes in the age composition of the population and changes in labor force participation for each age as well as the increased race and Hispanic diversity of the male population. For men in the peak ages of labor force participation, 25 to 54, the rates by 5-year groups are projected to remain unchanged over the 1998–2008 period. Because of changes in age composition, however, the 10-year age group rates presented in table 3 show a slight decline, except for the 25- to 34-age group. Older men are expected to continue to have increasing participation.

The increase in the labor force participation rate of women in the past has displayed a pattern of slower increases in the more recent periods. For the 1998–2008 period, labor force participation rate growth is projected to continue slowing. All age groups of women are expected to increase their presence in the labor force. Those aged 55 to 64 in 2008 are the same cohort that had large increases in labor force participation in the past—35 to 44 in 1978–88 and 45 to 54 in 1988–98—and are expected again to have the greatest increase in the future. However, that 55- to 64-age group will be past the years of peak labor force participation in 2008 and their labor force rate will decline from 76 percent to 58 percent in 1998.

The rankings of labor force participation by race or Hispanic groups in 2008 are expected to be the same as in 1998, for both men and women. However, the overall labor force participation rate of white non-Hispanics is projected to be highest because of increases in labor force participation of women and lesser decreases in participation of men.

### Historical changes in the labor force

Labor force growth over the 1988–98 period was significantly slower than the rate of growth over the 1978–88 period, when larger numbers of the later baby boomers caused high rates of labor force growth and large absolute growth. The labor force grew by 19 million between 1978 and 1988, compared with 16 million over the 1988–98 period. (See table 5.) The male labor force, because of the entry of the baby-boom generation, grew by 12 percent over the earlier period, then by 11 percent between 1988 and 1998. Women increased their numbers by 28

**Table 4.** Comparison of the labor force participation rates and the age composition of Hispanic and white non-Hispanic men, 1998

[In percent]

Age	Labor force participation rate			Population composition by age		
	Hispanic	White, non-Hispanic	Difference	Hispanic	White, non-Hispanic	Difference
16 and 17 .....	32.0	48.8	16.8	5.5	3.7	-1.8
18 and 19 .....	65.6	67.7	2.1	5.4	3.6	-1.8
20 and 21 .....	84.1	77.6	-6.5	5.4	2.9	-2.5
22 to 24 .....	90.6	87.2	-3.4	8.3	5.0	-3.3
25 to 29 .....	92.8	95.3	2.6	13.1	8.3	-4.8
30 to 34 .....	95.2	93.7	-1.5	14.0	9.3	-4.7
35 to 39 .....	92.4	95.2	2.8	12.5	11.0	-1.5
40 to 44 .....	90.2	92.8	2.6	9.6	10.9	1.3
45 to 49 .....	87.7	92.1	4.4	7.2	9.7	2.5
50 to 54 .....	85.4	88.9	3.5	5.3	8.3	3.0
55 to 59 .....	83.5	79.0	-4.5	3.9	6.4	2.5
60 and 61 .....	65.5	68.7	3.2	1.3	2.2	.9
62 to 64 .....	46.6	48.2	1.6	2.0	3.1	1.1
65 to 69 .....	24.6	28.5	3.9	2.8	4.9	2.1
70 to 74 .....	10.1	17.0	6.8	1.8	4.4	2.6
75 and older .....	5.7	7.5	1.8	2.1	6.5	4.4

percent over the 1978–88 period. This growth rate was cut to 16 percent over the latter period.

*Age.* Labor force changes by age over the 1978–98 period were largely influenced by the baby-boomers and the birth dearth group of the thirties. Between 1978 and 1988, the baby-boomers were in the age groups that grew rapidly. Those aged 25 to 34 increased by 8.8 million and those 35 to 44, by 11 million. For the next decade, the two groups with the greatest change were aged 35 to 44 and 45 to 54, with 8.1 million and 9.3 million added workers. Growth of the labor force by the baby-boomers was affected not just by population growth, but by growth in the labor force participation rate for women.

By contrast, the age group 45 to 54 grew by only 2.2 million during the 1978–88 period; over the next 10 years, the 55- to 64-age group added fewer members. The modest changes reflect the passage of the birth dearth generation. The labor force participation rates of this cohort increased, offsetting population decreases.

*Sex.* Labor force growth for men was less than that for women in both the 1978–88 and 1988–98 periods, whether measured by numbers of persons or rates of change. Although population growth for both sexes was similar, labor force participation rates for men declined, and increased for women.

In contrast to the general pattern, labor force participation rates of young women, 16 to 24 years of age dropped over the 1988–98 period. Because the population of women in that age group also decreased, the labor force numbers dropped. Their population and labor force also decreased in the 1978–88 period, as it did for young men. For the 1978–88 period, the labor force of young men dropped more than that for young women

(13 percent, versus 7 percent). The decreases were smaller in the 1988–98, but those of women exceeded those of men (3.3 percent, against 2.5 percent).

*Race and Hispanic origin.* White non-Hispanics were the largest group in the labor force in 1988, accounting for 79 percent of the total. However, from 1988–98, this group had the lowest growth rate, 0.6 percent a year, among the groups analyzed. The smallest group, Asians and others had the fastest growth rate. Interestingly, growth rates were inversely related to ranking by size, and the rankings were the same for men and women. Asian and other women and men each were the fastest growing labor force group over the 1988–98 period. Moreover, all minority groups increased their share of the labor force. Hispanics increased their share from 7.4 percent to 10.4 percent, Asian and others increased their share from 3.1 percent to 4.6 percent and blacks increased their share from 10.9 percent to 11.6 percent. By contrast, white non-Hispanics, decreased their share of the labor force from 79 percent to 74 percent. The pattern of labor force growth rates is more reflective of changes in the population than the changes in labor force participation rates, which grew more rapidly for white non-Hispanics than other groups.

### Projected changes in the labor force

Although population and labor force participation are both expected to continue increasing at a slower rate, the labor force is projected to grow only slightly more slowly over the 1998–2008 period than it did over the 1988–98 period. The labor force, however, will change in composition, as various age, race or Hispanic groups, and men and women will experience change at different rates.

**Table 5. Civilian labor force by sex, age, race, and Hispanic origin, 1978, 1988, 1998, and projected 2008**

[Numbers in thousands]

Group	Level				Change			Percent change			Percent distribution				Annual growth rate (percent)		
	1978	1988	1998	2008	1978-88	1988-98	1998-2008	1978-88	1988-98	1998-2008	1978	1988	1998	2008	1978-88	1988-98	1998-2008
Total, 16 years and older .....	102,251	121,669	137,673	154,576	19,418	16,004	16,903	19.0	13.2	12.3	100.0	100.0	100.0	100.0	1.8	1.2	1.2
16 to 24 .....	25,022	22,536	21,894	25,210	-2,486	-642	3,316	-9.9	-2.8	15.1	24.5	18.5	15.9	16.3	-1.0	-.3	1.4
16 to 19 .....	9,652	8,031	8,256	9,396	-1,621	225	1,140	-16.8	2.8	13.8	9.4	6.6	6.0	6.1	-1.8	.3	1.3
20 to 24 .....	15,370	14,505	13,638	15,814	-865	-867	2,176	-5.6	-6.0	16.0	15.0	11.9	9.9	10.2	-6	-6	1.5
25 to 54 .....	62,414	84,041	98,718	104,133	21,627	14,677	5,415	34.7	17.5	5.5	61.0	69.1	71.7	67.4	3.0	1.6	.5
25 to 34 .....	26,703	35,503	32,813	32,398	8,800	-2,690	-415	33.0	-7.6	-1.3	26.1	29.2	23.8	21.0	2.9	-.8	-.1
35 to 44 .....	18,821	29,435	37,536	34,945	10,614	8,101	-2,591	56.4	27.5	-6.9	18.4	24.2	27.3	22.6	4.6	2.5	-7
45 to 54 .....	16,891	19,104	28,368	36,790	2,213	9,264	8,422	13.1	48.5	29.7	16.5	15.7	20.6	23.8	1.2	4.0	2.6
55 and older .....	14,814	15,092	17,062	25,233	278	1,970	8,171	1.9	13.1	47.9	14.5	12.4	12.4	16.3	.2	1.2	4.0
55 to 64 .....	11,744	11,808	13,215	20,588	64	1,407	7,373	0.5	11.9	55.8	11.5	9.7	9.6	13.3	.1	1.1	4.5
65 and older .....	3,070	3,284	3,847	4,645	214	563	798	7.0	17.1	20.7	3.0	2.7	2.8	3.0	.7	1.6	1.9
65 to 74 .....	2,627	2,814	3,179	3,849	187	365	670	7.1	13.0	21.1	2.6	2.3	2.3	2.5	.7	1.2	1.9
75 and older .....	444	471	668	796	27	197	128	6.1	41.9	19.1	.4	.4	.5	.5	.6	3.6	1.8
Men, 16 years and older .....	59,620	66,927	73,959	81,132	7,307	7,032	7,173	12.3	10.5	9.7	58.3	55.0	53.7	52.5	1.2	1.0	.9
16 to 24 .....	13,476	11,752	11,464	13,049	-1,724	-288	1,585	-12.8	-2.5	13.8	13.2	9.7	8.3	8.4	-1.4	-.2	1.3
16 to 19 .....	5,149	4,159	4,244	4,769	-990	85	525	-19.2	2.0	12.4	5.0	3.4	3.1	3.1	-2.1	.2	1.2
20 to 24 .....	8,327	7,594	7,221	8,279	-733	-373	1,059	-8.8	-4.9	14.7	8.1	6.2	5.2	5.4	-9	-5	1.4
25 to 54 .....	37,057	46,382	53,002	54,496	9,325	6,620	1,494	25.2	14.3	2.8	36.2	38.1	38.5	35.3	2.3	1.3	.3
25 to 34 .....	15,814	19,742	17,796	17,145	3,928	-1,946	-651	24.8	-9.9	-3.7	15.5	16.2	12.9	11.1	2.2	-1.0	-.4
35 to 44 .....	11,159	16,074	20,242	18,345	4,915	4,168	-1,897	44.0	25.9	-9.4	10.9	13.2	14.7	11.9	3.7	2.3	-1.0
45 to 54 .....	10,083	10,566	14,963	19,006	483	4,397	4,043	4.8	41.6	27.0	9.9	8.7	10.9	12.3	.5	3.5	2.4
55 and older .....	9,088	8,793	9,493	13,587	-295	700	4,095	-3.2	8.0	43.1	8.9	7.2	6.9	8.8	-.3	.8	3.7
55 to 64 .....	7,151	6,831	7,253	10,797	-320	422	3,544	-4.5	6.2	48.9	7.0	5.6	5.3	7.0	-.5	.6	4.1
65 and older .....	1,936	1,960	2,240	2,790	24	280	551	1.2	14.3	24.6	1.9	1.6	1.6	1.8	.1	1.3	2.2
65 to 74 .....	1,634	1,657	1,826	2,287	23	169	461	1.4	10.2	25.2	1.6	1.4	1.3	1.5	.1	1.0	2.3
75 and older .....	302	304	413	503	2	109	90	0.7	35.9	21.8	.3	.2	.3	.3	.1	3.1	2.0
Women, 16 years and older .....	42,631	54,742	63,714	73,444	12,111	8,972	9,729	28.4	16.4	15.3	41.7	45.0	46.3	47.5	2.5	1.5	1.4
16 to 24 .....	11,546	10,783	10,430	12,161	-763	-353	1,732	-6.6	-3.3	16.6	11.3	8.9	7.6	7.9	-.7	-.3	1.5
16 to 19 .....	4,503	3,872	4,012	4,627	-631	140	615	-14.0	3.6	15.3	4.4	3.2	2.9	3.0	-1.5	.4	1.4
20 to 24 .....	7,043	6,910	6,418	7,535	-133	-492	1,117	-1.9	-7.1	17.4	6.9	5.7	4.7	4.9	-2	-7	1.6
25 to 54 .....	25,358	37,659	45,716	49,637	12,301	8,057	3,921	48.5	21.4	8.6	24.8	31.0	33.2	32.1	4.0	2.0	.8
25 to 34 .....	10,888	15,761	15,017	15,253	4,873	-744	236	44.8	-4.7	1.6	10.6	13.0	10.9	9.9	3.8	-.5	.2
35 to 44 .....	7,662	13,361	17,294	16,600	5,699	3,933	-694	74.4	29.4	-4.0	7.5	11.0	12.6	10.7	5.7	2.6	-.4
45 to 54 .....	6,807	8,537	13,405	17,784	1,730	4,868	4,379	25.4	57.0	32.7	6.7	7.0	9.7	11.5	2.3	4.6	2.9
55 and older .....	5,727	6,301	7,569	11,645	574	1,268	4,077	10.0	20.1	53.9	5.6	5.2	5.5	7.5	1.0	1.9	4.4
55 to 64 .....	4,593	4,977	5,962	9,791	384	985	3,829	8.4	19.8	64.2	4.5	4.1	4.3	6.3	.8	1.8	5.1
65 and older .....	1,134	1,324	1,607	1,854	190	283	247	16.8	21.4	15.4	1.1	1.1	1.2	1.2	1.6	2.0	1.4
65 to 74 .....	993	1,157	1,352	1,562	164	195	209	16.5	16.9	15.5	1.0	1.0	1.0	1.0	1.5	1.6	1.4
75 and older .....	141	167	255	293	26	88	38	18.4	52.7	14.8	.1	.1	.2	.2	1.7	4.3	1.4
White, 16 years and older .....	89,634	104,756	115,415	126,665	15,122	10,659	11,251	16.9	10.2	9.7	87.7	86.1	83.8	81.9	1.6	1.0	.9
Men .....	52,955	58,317	63,034	67,664	5,362	4,717	4,630	10.1	8.1	7.3	51.8	47.9	45.8	43.8	1.0	.8	.7
Women .....	36,679	46,439	52,380	59,001	9,760	5,941	6,621	26.6	12.8	12.6	35.9	38.2	38.0	38.2	2.4	1.2	1.2
Black, 16 years and older .....	10,432	13,205	15,982	19,101	2,773	2,777	3,119	26.6	21.0	19.5	10.2	10.9	11.6	12.4	2.4	1.9	1.8
Men .....	5,435	6,596	7,542	8,877	1,161	946	1,335	21.4	14.3	17.7	5.3	5.4	5.5	5.7	2.0	1.3	1.6
Women .....	4,997	6,609	8,441	10,224	1,612	1,832	1,783	32.3	27.7	21.1	4.9	5.4	6.1	6.6	2.8	2.5	1.9
Asian and other, 16 years and older <sup>1</sup> .....	2,190	3,721	6,278	8,809	1,531	2,557	2,531	69.9	68.7	40.3	2.1	3.1	4.6	5.7	5.4	5.4	3.4
Men .....	1,237	2,019	3,383	4,591	782	1,364	1,208	63.2	67.5	35.7	1.2	1.7	2.5	3.0	5.0	5.3	3.1
Women .....	953	1,702	2,895	4,219	749	1,193	1,323	78.6	70.1	45.7	.9	1.4	2.1	2.7	6.0	5.5	3.8

**Table 5.** Continued—Civilian labor force by sex, age, race, and Hispanic origin, 1978, 1988, 1998, and projected 2008

[Numbers in thousands]

Group	Level				Change			Percent change			Percent distribution				Annual growth rate (Percent)		
	1978	1988	1998	2008	1978-88	1988-98	1998-2008	1978-88	1988-98	1998-2008	1978	1988	1998	2008	1978-88	1988-98	1998-2008
Hispanic origin, 16 years and older <sup>2</sup> .....	...	8,982	14,317	19,585	...	5,335	5,268	...	59.4	36.8	...	7.4	10.4	12.7	...	4.8	3.2
Men .....	...	5,409	8,571	11,033	...	3,162	2,462	...	58.5	28.7	...	4.4	6.2	7.1	...	4.7	2.6
Women .....	...	3,573	5,746	8,552	...	2,173	2,806	...	60.8	48.8	...	2.9	4.2	5.5	...	4.9	4.1
Other than Hispanic origin, 16 years and older <sup>2</sup> .....	...	112,687	123,356	134,991	...	10,669	11,635	...	9.5	9.4	...	92.6	89.6	87.3	...	.9	.9
Men .....	...	61,518	65,388	70,099	...	3,870	4,711	...	6.3	7.2	...	50.6	47.5	45.3	...	.6	.7
Women .....	...	51,169	57,968	64,892	...	6,799	6,924	...	13.3	11.9	...	42.1	42.1	42.0	...	1.3	1.1
White non-Hispanic, 16 and older <sup>2</sup> .....	...	96,141	101,767	109,216	...	5,626	7,449	...	5.9	7.3	...	79.0	73.9	70.7	...	.6	.7
Men .....	...	53,122	54,833	57,756	...	1,710	2,924	...	3.2	5.3	...	43.7	39.8	37.4	...	.3	.5
Women ..	...	43,018	46,935	51,459	...	3,916	4,525	...	9.1	9.6	...	35.4	34.1	33.3	...	.9	.9

<sup>1</sup> The "Asian and other" group includes (1) Asians and Pacific Islanders and (2) American Indians and Alaska Natives. The historical data are derived by subtracting "black" from the "black and other" group; projections are made directly,

not by subtraction.

<sup>2</sup> Data by Hispanic origin are not available before 1980.

**Age.** The youth labor force (aged 16 to 24) is projected to increase by 3.3 million, reversing the drop of the earlier period. The 2008 youth labor force is projected to be larger than that in 1978, 1988, and 1998. For the labor force aged 25 to 54, the story is different. The projected increase of 5.4 million is about a quarter of the increase for the 1978–88 period. Those aged 25 to 34, whose number decreased over the 1988–98 period by 2.7 million, are projected to drop just 0.4 million. The 35- to 44-age group, which increased by 8.1 million over the 1988–98 period, is projected to drop by 2.6 million. Only the 45- to 54-age group is expected to increase in size; but even this group, made up of the younger members of the baby-boom generation, is expected to increase at a slower rate than earlier. The smaller, younger age groups are those following the baby-boom generation.

The labor force of workers 55 and older<sup>3/4</sup> identified as having the fastest rates of population growth and the greatest increases in labor force participation<sup>3/4</sup> is expected to grow by 8.2 million. Within that group, the 55-to 64-group is expected to add 7.3 million.

**Sex.** The labor force of men is projected to grow by 0.9 percent annually, while that of women is expected to grow by 1.4 percent. These projections represent a slowing growth from 1988–98, because population is expected to grow more slowly and because women's labor force participation rates are expected to increase more slowly. Because of the differential growth rates, women's *share* of the labor force is projected to increase from 46 percent to 48 percent.

**Race and Hispanic origin.** The Hispanic population has been growing and is expected to continue to grow faster than the black population; as a result, the Hispanic labor force will be larger than the black labor force by 2008. Given that projections have errors and the possibility that the method for enumerating race and Hispanic origin could change, the specificity of the year should be viewed with caution.<sup>8</sup> However, by the middle of the next decade, the Hispanic labor force should exceed that of blacks.

The Asian and other group's population is also growing rapidly. However, they are expected to remain the smallest of the four labor force groups well beyond 2008. Similarly, the white non-Hispanic group, which is growing slowly, will remain the largest group. Their share of the 2008 labor force is expected to be 71 percent and would be 7.4 million larger than that in 1998. The remaining three groups are expected to add 9.5 million persons to the labor force over the same period. White non-Hispanics will remain by far the largest group of the labor force for years after 2008.

**Dynamics**

From 1998 through 2008, the dynamics of labor force change emerge from three distinct groups: entrants, those who will be in the labor force in 2008, but who were not in it in 1998; leavers, those who will exit the labor force after 1998 and before 2008; and stayers, those who were in the labor force in 1998 and will remain through 2008.<sup>9</sup> To the extent that the demographic com-

position of labor force entrants between 1998 and 2008 is different from the composition of those now in the labor force, the 2008 labor force will be different from today's labor force. But the labor force also is affected by the demographic composition of those leaving. Thus, the labor force of 2008 may be regarded as consisting of the labor force of 1998, plus the entrants, less the leavers.

BLS projects that between 1998 and 2008, 42 million workers will enter the labor force and 25 million will leave. (See table 6.) These figures compare with 35 million entrants and 19 million leavers over the 1988–98 period. During this time, entrants were more likely to be men. Leavers also were more likely to be men, because the male labor force was and is older than that of women. However, the vast difference in share exhibited for the 1988–98 period is projected to narrow somewhat, resulting in

an almost equal share of women and men entering the labor force.

According to these projections, by 2008, 21 million men will have joined the 1998 labor force of 74 million, and 14 million men will have left the labor force, resulting in a labor force of 81 million men in 2008. Similarly, 21 million women are expected to enter the labor force over the period 1998–2008, while 11 million women are projected to leave. The relatively fewer women leaving the labor force would raise their share of the labor force from 46.3 percent in 1998 to 47.5 percent in 2008.

The largest share of the 1998 labor force—74 percent—was made up of non-Hispanic whites. Three-fifths of the population expected to enter the labor force between 1998 and 2008 are projected to be non-Hispanic whites, less than their share over the 1986–96 period. These proportions are smaller than

**Table 6.** Civilian labor force, 16 and older, 1988 and 1998, and projected 2008, and entrants and leavers, actual 1988–98 and projected, 1998–2008

Group	1988	1988–98			1998	1998–2008			2008
		Entrants	Leavers	Stayers		Entrants	Leavers	Stayers	
<b>Number (thousands)</b>									
Total .....	121,669	35,033	19,028	102,640	137,673	42,033	25,131	112,542	154,576
Men .....	66,927	18,392	11,361	55,566	73,959	20,963	13,790	60,169	81,132
Women .....	54,742	16,641	7,668	47,074	63,714	21,070	11,341	52,373	73,444
White non-Hispanic .....	96,141	21,392	15,766	80,375	101,767	24,619	17,170	84,597	109,216
Men .....	53,122	11,299	9,590	43,533	54,833	12,578	9,654	45,178	57,756
Women .....	43,018	10,093	6,176	36,842	46,935	12,041	7,516	39,419	51,459
Black non-Hispanic .....	12,980	4,607	1,998	10,982	15,589	6,928	4,789	10,800	17,728
Men .....	6,470	1,916	1,049	5,421	7,337	3,166	2,302	5,034	8,200
Women .....	6,510	2,691	949	5,561	8,252	3,762	2,487	5,766	9,528
Hispanic origin .....	8,982	6,252	917	8,065	14,317	6,800	1,532	12,785	19,585
Men .....	5,409	3,713	551	4,858	8,571	3,431	969	7,602	11,033
Women .....	3,573	2,539	366	3,207	5,746	3,369	563	5,183	8,552
Asian and other, non-Hispanic .....	3,566	2,782	347	3,218	6,000	3,686	1,639	4,361	8,047
Men .....	1,926	1,464	171	1,755	3,219	1,788	864	2,355	4,143
Women .....	1,640	1,318	176	1,464	2,782	1,898	775	2,006	3,904
<b>Share (percent)</b>									
Total .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Men .....	55.0	52.5	59.7	54.1	53.7	49.9	54.9	53.5	52.5
Women .....	45.0	47.5	40.3	45.9	46.3	50.1	45.1	46.5	47.5
White non-Hispanic .....	79.0	61.1	82.9	78.3	73.9	58.6	68.3	75.2	70.7
Men .....	43.7	32.3	50.4	42.4	39.8	29.9	38.4	40.1	37.4
Women .....	35.4	28.8	32.5	35.9	34.1	28.6	29.9	35.0	33.3
Black non-Hispanic .....	10.7	13.2	10.5	10.7	11.3	16.5	19.1	9.6	11.5
Men .....	5.3	5.5	5.5	5.3	5.3	7.5	9.2	4.5	5.3
Women .....	5.4	7.7	5.0	5.4	6.0	9.0	9.9	5.1	6.2
Hispanic origin .....	7.4	17.8	4.8	7.9	10.4	16.2	6.1	11.4	12.7
Men .....	4.4	10.6	2.9	4.7	6.2	8.2	3.9	6.8	7.1
Women .....	2.9	7.2	1.9	3.1	4.2	8.0	2.2	4.6	5.5
Asian and other, non-Hispanic .....	2.9	7.9	1.8	3.1	4.4	8.8	6.5	3.9	5.2
Men .....	1.6	4.2	.9	1.7	2.3	4.3	3.4	2.1	2.7
Women .....	1.3	3.8	.9	1.4	2.0	4.5	3.1	1.8	2.5

NOTE: The four race, Hispanic origin groups add to the total. Hispanics may be of any race. The "Asian and other" group includes (1) Asians and

Pacific Islanders and (2) American Indians and Alaska Natives.

their share of the work force, reflecting this group’s lower population growth. As a result of the 25 million non-Hispanic whites entering the labor force, and the 17 million leaving over the 1998–2008 period, the share of non-Hispanic whites in the labor force is projected to be 71 percent in 2008—a drop of 3 percentage points and down 8 percentage points from 1988. In the 1988–98 period, white non-Hispanic men supplied the most entrants—32 percent. More striking, they supplied most of those leaving—50 percent.

The labor force of white non-Hispanics is projected to grow 0.7 percent per year, slower than the overall labor force. The slower growth reflects little migration of this demographic group to the United States and lower birth rates in the past, compared with other population groups. This results in relatively fewer labor force entrants and relatively more labor force leavers—a reflection of the aging white male labor force. White non-Hispanic women are projected to increase their participation more than any other group, but this faster growth rate is not enough to offset the slow growth in the non-Hispanic population of only 0.5 percent yearly.

Blacks, the second largest group in the 1998 labor force, made up 11.3 percent of the labor force or a total of 15.9 million. (This number reflects an adjustment, placing Hispanic blacks with Hispanic rather than with non-Hispanic blacks.) Blacks are projected to add 6.9 million workers to the labor force between 1998 and 2008—16.5 percent of all new entrants during the period. This is more than the number that entered between 1988 and 1998. With the 4.8 million black non-Hispanics projected to leave the labor force over the period, the group will increase in number, and by 2008, their share of the labor force is expected to be 11.5 percent, the same as in 1998. The black labor force is projected to grow slightly faster than the overall labor force because of their higher than average population growth resulting from higher than average birth rates and migration.

In 1998, Hispanics (of all races) were the third largest labor force group, with 14.3 million workers representing 10.4 percent of the labor force. Because of their higher levels of migration, some 6.8 million Hispanics are projected to enter the labor force during the 1998–2008 period. Only 1.5 million Hispanics are projected to leave the labor force (reflecting their relatively young age composition), so the number of Hispanics in the labor force is projected to grow by more than 5.3 million. By 2008, the Hispanic labor force is projected to be greater than the black non-Hispanic labor force. The Hispanic labor force is projected to increase to 19.6 million persons in 2008. The Hispanic share of the labor force is expected to grow because of overall population growth<sup>3/4</sup> from higher birth levels and increased migration<sup>3/4</sup> and because of increases in the participation rate of Hispanic women.

In 1998, the smallest racial group in the labor force was Asian and other. About 3.7 million members of this group will enter

the labor force during the 1998–2008 period, which is a notable amount, considering that was the size of its 1988 labor force. Because relatively fewer workers of this group are projected to leave the labor force over the period, the group is projected to increase by 40 percent. Increases in the number of Asians and others in the labor force reflect their continued high migration.

### Aspects of the aging labor force

*Median age.* The age of the labor force can be measured in various ways; one is median age. As the baby-boom generation entered the labor force, the median age of the labor force decreased; once in the labor force, this large group can only age. The median age of the labor force, at 40.5 years in 1962 (the highest level attained before the baby-boomers entered the labor force), dropped steadily until 1980, and since then, it has been rising. With the population projected to continue aging as rapidly as in the past, the median age of the labor force in 2008 is projected to just exceed the level reached in 1962. (See table 7.) The following tabulation provides median ages for the civilian noninstitutional population and labor force ages 16 and older:

	1988	1998	2008
Population .....	39.4	41.9	44.6
Labor force .....	35.9	38.7	40.7
Difference .....	3.5	3.2	3.8

The median age of both groups is increasing. The median age of the population is increasing more than the labor force. The median age of the labor force is less than the population’s because the labor force participation rates of older persons are much lower than the rates of young workers. The growth of the older population combined with the increase in their participation rates results in the median age of the 2008 projected

**Table 7.** Median ages of the labor force, by sex, race, and Hispanic origin, selected historical years and projected 2008

Group	1962	1978	1988	1998	2008
Total .....	40.5	34.8	35.9	38.7	40.7
Men .....	40.5	35.4	36.1	38.7	40.8
Women .....	40.4	33.9	35.6	38.7	40.7
White .....	40.9	34.9	36.1	42.6	41.2
Black .....	( <sup>1</sup> )	33.4	34.3	36.8	38.6
Asian and other <sup>2</sup> ..	( <sup>1</sup> )	33.9	36.1	37.8	39.3
Hispanic origin <sup>3</sup> ....	( <sup>4</sup> )	( <sup>4</sup> )	32.9	34.3	36.2

<sup>1</sup> Data not available before 1972.

<sup>2</sup> The “Asian and other” group includes (1) Asians and Pacific Islanders and (2) American Indians and Alaska Natives. The historical data are derived by subtracting “Black” from the “Black and other” group; projections are made directly.

<sup>3</sup> Persons of Hispanic origin may be of any race.

<sup>4</sup> Data not available before 1980.

labor force exceeding the level of the highest median that was recorded in 1962.

Historically, white participants in the labor force have been older than the rest of the labor force. This is projected to continue, with the difference reaching 0.5 year in 2008. Compared with the whites, black and Hispanic groups are younger, reflecting their higher birth rates. As a result, the youth are projected to claim a somewhat larger share of their respective populations. Black participants in the labor force have been about 1.5 years to 2.0 years younger than the overall labor force; this age gap is projected to continue to 2008. In 1998, the median age of Asians and other participants in the labor force was 0.9 years less than the overall labor force. This difference is expected to increase to 1.4 years by 2008. Hispanic participants generally have been younger, due to their higher fertility rate. This group is projected to continue having a lower median age than the overall labor force, but it is projected to age from a median of 34.3 years in 1998 to 36.2 years in 2008, reflecting the aging of earlier immigrants. The median age of all race and Hispanic groups is expected to increase during the 1998–2008 period.

*Age composition.* There are other ways to look at the age structure of the labor force. For example, if the labor force is aging, the proportion of those 65 and older in the labor force would be increasing and the proportion of those under 25 would be decreasing. Table 8 presents such information for the population and labor force aged 16 and older, by sex.

From 1978 to 1998, the proportion of those 65 and older in the population increased. This proportion is expected to decline slightly through 2008. By contrast, the proportion of persons 16 to 24 decreased over the 1978–98 period, however, it is expected to increase by 2008. The population is getting older,

based on the median age, and younger, based on proportions! Since 1988, the proportion of 25- to 39-year olds has decreased and it is expected to continue decreasing through 2008.

Looking at the composition of the population by sex, the same general patterns hold. However, the male population has proportionately more youth than the female population, reflecting their higher proportion of births, slightly higher current migration, and higher mortality. Relatively more women are in the older ages. Table 8 does not show the relative sizes of women and men's population groups, as does table 2, it only indicates that the female population has a greater share of their population in the older ages.

The age structure of the *labor force*, 16 and older is different from that of the *population*, 16 and older. A smaller share of the labor force is 65 and older. Youth aged 16 to 24 also make up a smaller share of the labor force than of the population. However, between 1998 and 2008, the youth share of the labor force is projected to increase. The baby-boom generation can be followed within the labor force by observing that in 1978, it was in the youth group. By 1988, the share of the labor force aged 25 to 39 had increased by 6 percentage points, indicating that the baby-boomers were this age. By 2008, this age group's share of the labor force is projected to be less than it was in 1978, as the baby-boom generation will have aged. In 1998, 46.5 percent of the labor force was age 40 or older; by 2008, more than half the labor force will be in this age category.

*Economic dependency.* In 1987, for the first time ever, more Americans were in the labor force than were not. This status is projected to prevail throughout the entire projection period, with the proportion of those not working to those who are working reaching 90.6 per 100 workers in 2008. This measure, known as the economic dependency ratio, is the number of

**Table 8.** Distribution of the population and labor force by age and sex, 1978, 1988, 1998, and projected 2008

Group	[Percent]							
	Population				Labor force			
	1978	1988	1998	2008	1978	1988	1998	2008
Total, 16 years and older .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16 to 24 .....	22.7	17.9	16.2	16.7	24.5	18.5	15.9	16.3
25 to 39 .....	29.0	33.3	29.8	25.1	36.0	42.3	37.6	31.9
40 and older .....	48.3	48.9	54.0	58.2	39.6	39.2	46.5	51.7
65 and older .....	14.3	15.5	15.7	15.8	3.0	2.7	2.8	3.0
75 and older .....	5.2	6.0	7.0	7.2	.4	.4	.5	.5
Men, 16 years and older .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16 to 24 .....	23.5	18.5	17.0	17.4	22.6	17.6	15.5	16.1
25 to 39 .....	29.8	34.4	30.6	25.4	36.6	42.6	38.0	32.2
40 and older .....	46.7	47.2	52.5	57.1	40.8	39.9	46.5	51.8
65 and older .....	12.4	13.5	13.8	14.2	3.2	2.9	3.0	3.4
75 and older .....	4.1	4.7	5.6	6.1	.5	.5	.6	.6
Women, 16 years and older .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16 to 24 .....	21.9	17.3	15.5	16.0	27.1	19.7	16.4	16.6
25 to 39 .....	28.3	32.3	29.2	24.8	35.1	41.9	37.1	31.7
40 and older .....	49.8	50.4	55.4	59.2	37.8	38.4	46.6	51.7
65 and older .....	16.0	17.3	17.5	17.2	2.7	2.4	2.5	2.5
75 and older .....	6.2	7.2	8.2	8.3	.3	.3	.4	.4

persons in the total population (including Armed Forces overseas and children) who are not in the labor force per 100 of those who are in the labor force. (See table 9.) For every 100 persons in the 1998 labor force, about 90 persons were not. Of this group, about 45 were children, 25 were 16 to 64 years of age, and 21 were older than 64.

Upon examining these ratios, for various age groups, one can see that the decrease in the overall ratio is attributable to the change in the number of children. As the number of births diminished and the baby boom moved to ages older than 16, the total economic dependency ratio dropped. Most of the 35-percentage point drop for the total population between 1975 and 1998 was because of the decline in the number of births. The portion of the ratio attributed to children is projected to continue dropping, despite somewhat higher fertility. The remainder of the historical drop is attributable to higher labor force participation for women aged 16 to 64. The ratio for the 16- to 64-age group dropped 19 points, from 44.2 in 1975 to 25.4 in 1998. This ratio is projected to increase, reflecting the projected decrease in participation of men and of young women aged 16 to 24.

The part of the dependency ratio that has been steadily increasing is the portion attributable to older persons. In 1975, this was by far the smallest part of the dependency ratio, and by 2008, it is expected to still be the smallest proportion. How-

**Table 9.** Economic dependency ratio, 1975–98 and projected 2008, by age

[Per hundred in the labor force]						
Group	1975	1980	1985	1990	1998	2008
Total population	126.3	108.9	103.3	98.3	90.4	90.6
Under age 16 ....	61.4	50.7	47.3	45.8	44.5	40.5
16 to 64 .....	44.2	37.4	34.2	30.5	25.4	28.8
65 and older ...	20.7	20.8	21.8	22.1	20.6	21.3

ever, between 1975 and 1990, the older persons' dependency ratio grew 1.4 percentage points; it then fell to 20.6 per hundred. It is projected to rise again, to 21.3 older retired persons per 100 workers in 2008—a level below that of 1985. With what we now believe to be the composition of the population after 2008, it is clear that the overall dependency ratio will rise some time after 2010; but it may never reach the levels of 1975.

THE 2008 LABOR FORCE is expected to have a greater proportion of women and Hispanics than the 1998 labor force. Between 1998 and 2008, 42 million workers are projected to enter the labor force, 25 million are expected to leave and 113 million workers are expected to remain in the labor force. As a result, the labor force in 2008 would be 155 million, up 17 million from the 1998 level. This represents a continuation of the current growth rate. □

## Notes

<sup>1</sup> The civilian labor force consists of employed and unemployed persons actively seeking work, but does not include any Armed Forces personnel. Historical data for this series are from the Current Population Survey, conducted by the Bureau of the Census for the Bureau of Labor Statistics.

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

<sup>3</sup> For a discussion of migration theories, see Douglass S. Massey, Joaquin Arango, Graeme Hugo, Ali Kouaouci, Adela Pellegrino, and J. Edward Taylor, "Theories of International Migration: A Review and Appraisal," *Population and Development Review*, September 1993, pp. 431–66.

<sup>4</sup> See Richard A. Ippolito, "Toward Explaining Early Retirement After 1970," *Industrial and Labor Relations Review*, July 1990, pp. 556–69.

<sup>5</sup> The analysis is complicated by the redesign of the Current Population Survey implemented in 1994. The survey is now counting more older women and men in the labor force due to the improved questionnaire design.

<sup>6</sup> See Diane E. Herz, "Work after early retirement: An increasing trend among men," *Monthly Labor Review*, April 1995, pp. 13–20.

<sup>7</sup> *Normal Retirement Age*, Social Security Administration, May 24, 1999, on the Internet at <http://www.ssa.gov/OACT/ProgData/nra.html> (visited November 3, 1999).

<sup>8</sup> For the most recent evaluation of BLS labor force projections, see Howard N. Fullerton, Jr., "An evaluation of labor force projections to 1995," *Monthly Labor Review*, September 1997, pp. 5–9.

<sup>9</sup> Entrants and leavers are computed by comparing the labor force numbers for birth cohorts at two points in time. If the labor force numbers at the second point are larger, the difference is termed the entrants. If the labor force numbers at the second point are smaller, the difference is the leavers. These concepts understate the numbers likely to enter and leave the labor force over the period covered by the two points in time, but are still a valid comparison. As with measures of geographic mobility, which also do not measure all the changes over a period, we do not call these net entrants and leavers. For a further discussion of the methods, see Howard N. Fullerton, Jr., "Measuring Rates Of Labor Force Dynamics," *Proceedings of the Social Statistics Section*, American Statistical Association, 1993.