

The job market remains strong in 1999

The unemployment rate hit a 30-year low; services led job growth, and the recent downward trend in manufacturing employment abated in the second half of the year

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The U.S. economy entered its 9th year of expansion in 1999. By the end of the year, 106 months of uninterrupted recovery from the 1990–91 recession had passed, equaling the lengthy expansion of the 1960s—the longest on record. Gross domestic product increased 4.3 percent in 1999, with the strength due, in large part, to exceptionally robust consumer spending. (See table 1.) Most indicators of labor market performance evidenced continued strength in 1999. Over the year, total non-farm payroll employment increased by 2.7 million, to 129.6 million in the fourth quarter, and the unemployment rate declined to 4.1 percent by year's end, a 30-year low.

With employment continuing to grow and unemployment continuing to inch down, concerns about the economy overheating and resultant inflationary pressures prompted the Federal Reserve to raise interest rates several times in the second half of the year. As the year progressed, wage growth remained tepid, and by the end of the year, consumer prices were up by only 2.6 percent from a year earlier.

The service-producing industries provided the overwhelming majority of employment growth in 1999. Job growth in construction also was healthy, buoyed by low interest rates and strong consumer confidence, although the rise in mortgage interest rates in the second half of the year dampened employment in homebuilding a bit. Manufactur-

ing continued to lose jobs in 1999, as export growth remained sluggish in the wake of recent economic turmoil in several Asian economies. However, the rate of job loss in manufacturing was slower than in the previous year.

Workers in most major demographic groups benefited from the healthy labor market in 1999, as unemployment rates fell to their lowest levels in decades. Almost half of the employment growth over the year occurred in the higher paying managerial and professional specialty occupations. Men, women, whites, blacks, and Hispanics all reported increases in real earnings.

This article provides snapshots of several important developments or issues related to the U.S. economy and labor market in 1999. The primary sources of data are the Current Employment Statistics (CES) survey of establishments and the Current Population Survey (CPS) of households.¹ Both of these surveys are conducted monthly; however, quarterly averages are used in the analysis that follows, unless otherwise noted, and over-the-year changes are based on comparisons of fourth-quarter 1998 and 1999 data, unless otherwise noted.

More than half of all job growth in 1999 was in services, and companies that provide services to businesses led the way. Contracting for services and workers has grown at a rapid pace throughout the current expansion. Two factors

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Table 1. Over-the-year percent change in selected broad economic indicators, 1993–99

Indicator	1997–98	1993–98 average	1998–99
Real gross domestic product ¹	4.6	3.9	4.3
Real exports ¹	1.9	8.3	6.2
Home mortgage interest rate	-11.4	.0	13.1
New home sales ¹	15.4	4.5	4.5
Sales of existing homes ¹	11.8	3.7	10.0
Consumer confidence ²	-3.9	11.9	9.8
Consumer Price Index (CPI-U)	1.5	2.4	2.6

¹ Percent changes for 1998–99 are based on third-quarter comparisons.

² Not seasonally adjusted.

NOTE: Seasonally adjusted fourth-quarter data, unless otherwise noted.

provided further impetus for businesses to contract for services in 1999: tight labor markets and the need to rewrite computer programs so that they would work in the new century.

Nonfarm payroll employment grew by 2.7 million in 1999, somewhat less than the 2.9 million in 1998 (see table 2), but in line with the average for the current expansion. As in the past, the services industry led employment growth, adding almost 1.5 million employees during 1999. (See chart 1.) An industry ranking of jobs added within services reveals that the stron-

gest performers were those industries that provided services to other businesses (business services and engineering and management services) instead of those driven by individual consumers or demographic trends (social services and health services). (See chart 2.)

Businesses purchase services for many reasons. Some companies maximize their flexibility to respond to changing demand for their products and services by contracting for those services instead of directly hiring permanent employees for peak periods. Others contract out for services for which they lack expertise, such as installing new computer programs or implementing new accounting systems. In some companies, the growth of output increases the demand for routine services such as payroll or facilities management. Many companies meet peak workloads by contracting for workers through a temporary help agency. Among the services that businesses purchased, management and public relations, computer and data processing services, and personnel supply services each experienced employment growth greater than 7 percent in 1999, compared with 2.1 percent for all industries.

The number of jobs in *management and public relations services* grew by 11.2 percent in 1999, almost equaling 1998's strong

Conceptual differences between employment estimates from the Current Population Survey (household survey) and the Current Employment Statistics survey (establishment survey)

The Bureau of Labor Statistics maintains two independent monthly data series on employment: the estimate of total nonfarm jobs, derived from the Current Employment Statistics (CES) survey, and the estimate of total employment, derived from the Current Population Survey (CPS).

The CES survey is an employer-based survey that provides data on the number of jobs within industries. The CPS is a survey of households that provides data on the labor force status (employed, unemployed, and not in the labor force) of individuals and includes information on their demographic as well as socioeconomic characteristics. The surveys are largely complementary.

Employment estimates from the CPS are for persons in any type of work arrangement: wage and salary workers, self-employed persons, and unpaid workers in family businesses. To be considered employed, an *unpaid family worker* must have worked 15 or more hours in an enterprise operated by a member of the family. Estimates from the CES survey refer only to persons on nonfarm payrolls. As a result, the count of employment from the CPS is larger than that from the CES survey.

Partially offsetting the higher estimates from the CPS is the fact that it is a count of persons, and individuals are

counted only once, regardless of the number of jobs they hold. In contrast, the establishment survey is a count of jobs and includes each job for persons who work in more than one establishment.

There are other differences in the surveys' methodology and coverage. For example, the reference period for the CPS is the *week* that includes the 12th day of the month, while, for the CES survey, it is the *pay period* that includes the 12th of the month. Pay periods vary in length and can be longer than 1 week. It is therefore possible for the CES survey estimate of employment to reflect a longer reference period than that used for the CPS.

The universe for the CPS is the civilian noninstitutional population, which comprises persons 16 years of age and older residing in the United States who are not residents of institutions (for example, penal and mental facilities and homes for the aged) and who are not on active duty in the Armed Forces. In this regard, the coverage of the CES survey is broader: there is no age restriction, uniformed military personnel who hold civilian jobs are covered because of their civilian employment, and persons who commute into the United States from Mexico or Canada to work are counted as employed.

Table 2. Employees on nonfarm payrolls, by industry, seasonally adjusted quarterly averages, 1993-99

[Numbers in thousands]

Industry	Fourth quarter, 1993	Fourth quarter, 1998	Fourth quarter, 1999	Change, fourth quarter to fourth quarter					
				1997-98		Average, 1994-98		1998-99	
				Thousands	Percent	Thousands	Percent	Thousands	Percent
Total nonfarm	111,780	126,865	129,585	2,919	2.4	3,017	2.6	2,720	2.1
Total private	92,857	106,920	109,313	2,609	2.5	2,813	2.9	2,393	2.2
Goods-producing	23,486	25,319	25,245	138	.5	367	1.5	-74	-3
Mining	607	574	528	-27	-4.5	-7	-1.1	-46	-8.0
Metal mining	49	50	48	-3	-5.7	0	.4	-2	-4.0
Oil and gas extraction	353	325	289	-21	-6.1	-6	-1.6	-36	-11.1
Nonmetallic minerals, except fuels ...	103	109	108	1	.9	1	1.1	-1	-9
Construction	4,782	6,100	6,356	325	5.6	264	5.0	256	4.2
General building contractors	1,151	1,396	1,449	71	5.4	49	3.9	53	3.8
Heavy construction, except building	723	856	870	52	6.5	27	3.4	14	1.6
Special trade contractors	2,908	3,848	4,036	202	5.5	188	5.8	188	4.9
Manufacturing	18,097	18,645	18,361	-160	-9	110	.6	-284	-1.5
Durable goods	10,247	11,098	10,956	-48	-4	170	1.6	-142	-1.3
Lumber and wood products	725	820	830	17	2.1	19	2.5	10	1.2
Furniture and fixtures	492	533	544	15	2.9	8	1.6	11	2.1
Stone, clay, and glass products	521	568	570	13	2.3	9	1.7	2	.4
Primary metal industries	684	701	686	-15	-2.1	3	.5	-15	-2.1
Fabricated metal products	1,348	1,495	1,488	-2	-1	29	2.1	-7	-5
Industrial machinery and equipment	1,942	2,177	2,117	-23	-1.0	47	2.3	-60	-2.8
Computer and office equipment	356	372	358	-10	-2.6	3	.9	-14	-3.8
Electronic and other electrical equipment	1,532	1,675	1,665	-38	-2.2	29	1.8	-10	-6
Electronic components and accessories	529	643	644	-26	-3.9	23	4.0	1	.2
Transportation equipment	1,738	1,887	1,835	8	.4	30	1.7	-52	-2.8
Motor vehicles and equipment	853	996	1,002	-3	-.3	29	3.1	6	.6
Aircraft and parts	515	520	467	3	.6	1	.2	-53	-10.2
Instruments and related products	882	855	832	-19	-2.2	-5	-6	-23	-2.7
Miscellaneous manufacturing industries	382	387	389	-6	-1.5	1	.3	2	.5
Nondurable goods	7,850	7,547	7,405	-111	-1.4	-61	-.8	-142	-1.9
Food and kindred products	1,686	1,689	1,686	4	.2	1	.0	-3	-.2
Tobacco products	43	40	38	-1	-2.4	-1	-1.4	-2	-5.0
Textile mill products	672	586	551	-26	-4.2	-17	-2.7	-35	-6.0
Apparel and other textile products	976	730	662	-77	-9.5	-49	-5.6	-68	-9.3
Paper and allied products	690	667	655	-15	-2.2	-5	-7	-12	-1.8
Printing and publishing	1,522	1,563	1,550	4	.3	8	.5	-13	-.8
Chemicals and allied products	1,076	1,042	1,033	2	.2	-7	-.6	-9	-.9
Petroleum and coal products	150	140	136	-1	-.7	-2	-1.4	-4	-2.9
Rubber and miscellaneous plastics products	919	1,010	1,023	8	.8	18	1.9	13	1.3
Leather and leather products	116	79	71	-9	-10.2	-7	-7.4	-8	-10.1
Service-producing	88,294	101,545	104,340	2,780	2.8	2,650	2.8	2,795	2.8
Transportation and public utilities	5,853	6,671	6,864	192	3.0	164	2.7	193	2.9
Transportation	3,638	4,334	4,476	158	3.8	139	3.6	142	3.3
Railroad transportation	244	231	227	4	1.8	-3	-1.1	-4	-1.7
Local and interurban passenger transit	387	474	487	18	3.9	17	4.1	13	2.7
Trucking and warehousing	1,471	1,768	1,834	71	4.2	59	3.7	66	3.7
Water transportation	170	183	181	7	4.0	3	1.5	-2	-1.1
Transportation by air	989	1,202	1,261	43	3.7	43	4.0	59	4.9
Pipelines, except natural gas	18	14	13	0	.0	-1	-4.9	-1	-7.1
Transportation services	360	462	473	16	3.6	20	5.1	11	2.4
Communications and public utilities ..	2,215	2,337	2,388	34	1.5	24	1.1	51	2.2
Communications	1,275	1,485	1,546	42	2.9	42	3.1	61	4.1
Electric, gas, and sanitary services ..	940	851	843	-9	-1.0	-18	-2.0	-8	-.9
Wholesale trade	6,023	6,889	7,071	175	2.6	173	2.7	182	2.6
Durable goods	3,466	4,073	4,195	100	2.5	121	3.3	122	3.0
Nondurable goods	2,557	2,816	2,876	75	2.7	52	1.9	60	2.1

See footnote at end of tables.

Table 2. Continued—Employees on nonfarm payrolls, by industry, seasonally adjusted quarterly averages, 1993–99

[Numbers in thousands]

Industry	Fourth quarter, 1993	Fourth quarter, 1998	Fourth quarter, 1999	Change, fourth quarter to fourth quarter					
				1997–98		Average, 1994–98		1998–99	
				Thousands	Percent	Thousands	Percent	Thousands	Percent
Retail trade	20,004	22,453	22,910	355	1.6	490	2.3	457	2.0
Building materials and garden supplies	795	962	1,004	33	3.6	33	3.9	42	4.4
General merchandise stores	2,498	2,751	2,763	34	1.3	51	1.9	12	.4
Department stores	2,158	2,448	2,457	46	1.9	58	2.6	9	.4
Food stores	3,247	3,487	3,481	8	.2	48	1.4	-6	-.2
Automotive dealers and service stations	2,047	2,362	2,426	42	1.8	63	2.9	64	2.7
New and used car dealers	927	1,055	1,096	10	1.0	26	2.6	41	3.9
Apparel and accessory stores	1,141	1,146	1,197	18	1.6	1	.1	51	4.5
Furniture and home furnishings stores	846	1,043	1,098	35	3.5	39	4.3	55	5.3
Eating and drinking places	6,933	7,817	7,946	135	1.8	177	2.4	129	1.7
Miscellaneous retail establishments	2,495	2,886	2,995	52	1.8	78	3.0	109	3.8
Finance, insurance, and real estate	6,856	7,519	7,679	312	4.3	133	1.9	160	2.1
Finance	3,290	3,652	3,726	167	4.8	72	2.1	74	2.0
Depository institutions	2,089	2,045	2,048	9	.4	-9	-.4	3	.1
Commercial banks	1,498	1,466	1,466	-4	-.3	-6	-.4	0	.0
Savings institutions	320	258	253	0	.0	-12	-4.2	-5	-1.9
Nondepository institutions	484	692	712	89	14.8	42	7.4	20	2.9
Security and commodity brokers	491	660	697	47	7.7	34	6.1	37	5.6
Holding and other investment offices	226	256	270	23	9.9	6	2.5	14	5.5
Insurance	2,224	2,374	2,412	85	3.7	30	1.3	38	1.6
Insurance carriers	1,549	1,619	1,638	62	4.0	14	.9	19	1.2
Insurance agents, brokers, and services	675	755	774	23	3.1	16	2.3	19	2.5
Real estate	1,342	1,493	1,540	60	4.2	30	2.2	47	3.1
Services ¹	30,637	38,069	39,544	1,438	3.9	1,486	4.4	1,475	3.9
Agricultural services	537	727	766	36	5.2	38	6.2	39	5.4
Hotels and other lodging places	1,615	1,783	1,807	25	1.4	34	2.0	24	1.3
Personal services	1,143	1,198	1,216	8	.7	11	.9	18	1.5
Business services ¹	5,895	8,779	9,347	549	6.7	577	8.3	568	6.5
Services to buildings	832	962	1,001	28	3.0	26	2.9	39	4.1
Personnel supply services	2,029	3,271	3,508	162	5.2	248	10.0	237	7.2
Help supply services	1,786	2,905	3,109	139	5.0	224	10.2	204	7.0
Computer and data processing services	909	1,675	1,831	201	13.6	153	13.0	156	9.3
Auto repair, services, and parking ...	934	1,159	1,197	30	2.7	45	4.4	38	3.3
Miscellaneous repair services	340	388	402	13	3.5	10	2.7	14	3.6
Motion pictures	421	576	611	11	1.9	31	6.5	35	6.1
Amusement and recreation services	1,285	1,638	1,723	77	4.9	71	5.0	85	5.2
Health services ¹	8,850	9,891	10,025	119	1.2	208	2.2	134	1.4
Offices and clinics of medical doctors	1,517	1,830	1,886	67	3.8	63	3.8	56	3.1
Nursing and personal care facilities	1,616	1,757	1,757	-7	-.4	28	1.7	0	.0
Hospitals	3,772	3,950	3,981	68	1.8	36	.9	31	.8
Home health care services	504	652	657	-58	-8.2	30	5.3	5	.8
Legal services	926	986	1,012	34	3.6	12	1.3	26	2.6
Private schools and other educational services	1,756	2,214	2,297	83	3.9	92	4.7	83	3.7
Social services ¹	2,106	2,695	2,836	134	5.2	118	5.1	141	5.2
Child day care services	482	615	642	29	4.9	27	5.0	27	4.4
Residential care	580	760	797	32	4.4	36	5.6	37	4.9
Museums and botanical and zoological gardens	77	94	95	3	3.3	3	4.1	1	1.1
Membership organizations	2,045	2,376	2,413	63	2.7	66	3.0	37	1.6
Engineering and management services ¹	2,535	3,271	3,502	216	7.1	147	5.2	231	7.1
Engineering and architectural services	761	919	960	40	4.6	32	3.8	41	4.5
Management and public relations ..	696	1,080	1,201	113	11.7	77	9.2	121	11.2
Government	18,922	19,945	20,272	310	1.6	205	1.1	327	1.6
Federal	2,898	2,712	2,647	27	1.0	-37	-1.3	-65	-2.4

See footnotes at end of tables.

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 [Numbers in thousands]

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				1997–98		Average, 1994–98		1998–99	
				Thousands	Percent	Thousands	Percent	Thousands	Percent
Federal, except Postal Service	2,100	1,832	1,778	8	.4	-54	-2.7	-54	-2.9
State government	4,513	4,641	4,727	56	1.2	26	.6	86	1.9
State government, except education	2,663	2,715	2,761	37	1.4	10	.4	46	1.7
State government education	1,851	1,926	1,966	20	1.0	15	.8	40	2.1
Local government	11,511	12,592	12,898	226	1.8	216	1.8	306	2.4
Local government, except education	5,126	5,463	5,575	70	1.3	67	1.3	112	2.1
Local government education	6,385	7,129	7,323	157	2.3	149	2.2	194	2.7

¹Includes other industries not shown separately.

SOURCE: Bureau of Labor Statistics, Current Employment Statistics survey.

performance. Consulting companies often help businesses streamline their processes for managing people, performance, and liabilities, with the goal of improving productivity. Consultants are primarily skilled professionals and frequently are assigned a specific budget, task, and time horizon. With the turn of the century approaching, consulting services were called upon to replace or modernize information systems and to prepare contingency plans for potential computer problems related to the year-2000 date turnover. Like management and public relations services, the computer services industry also enjoyed continued strong growth in the past year. Employment in computer and data-processing services increased by 9.3 percent in 1999, not as fast as the growth in 1998, but still 4 times the pace for all industries.

Because, in 1999, businesses were already straining to find labor resources to meet increasing demand, many companies continued to turn to employment agencies or to temporary help services that year to help them survive seasonal increases, meet one-time requirements for specific tasks, or fill permanent positions. *Personnel supply services* provide businesses with employees whose occupations range from day laborers to computer scientists. The need to closely adjust labor input to handle fluctuations in consumer demand has particularly benefited the help supply industry, which typically supplies workers to businesses for defined, limited periods. However, the tight labor market in 1999 also prompted some businesses to turn to help supply industries to fill permanent positions. In this capacity, a temporary help agency not only recruits workers, but also may provide them with limited training, as well as a period of “trial” employment, before they are transferred to a permanent position on the business’ payroll.²

The number of workers employed in personnel supply services rose by 7.2 percent from 1998 to 1999. Even though this industry was among the fastest growing, the 1999 increase was below the average annual rate of growth of the industry for the past 5 years. While growth in employment in the personnel

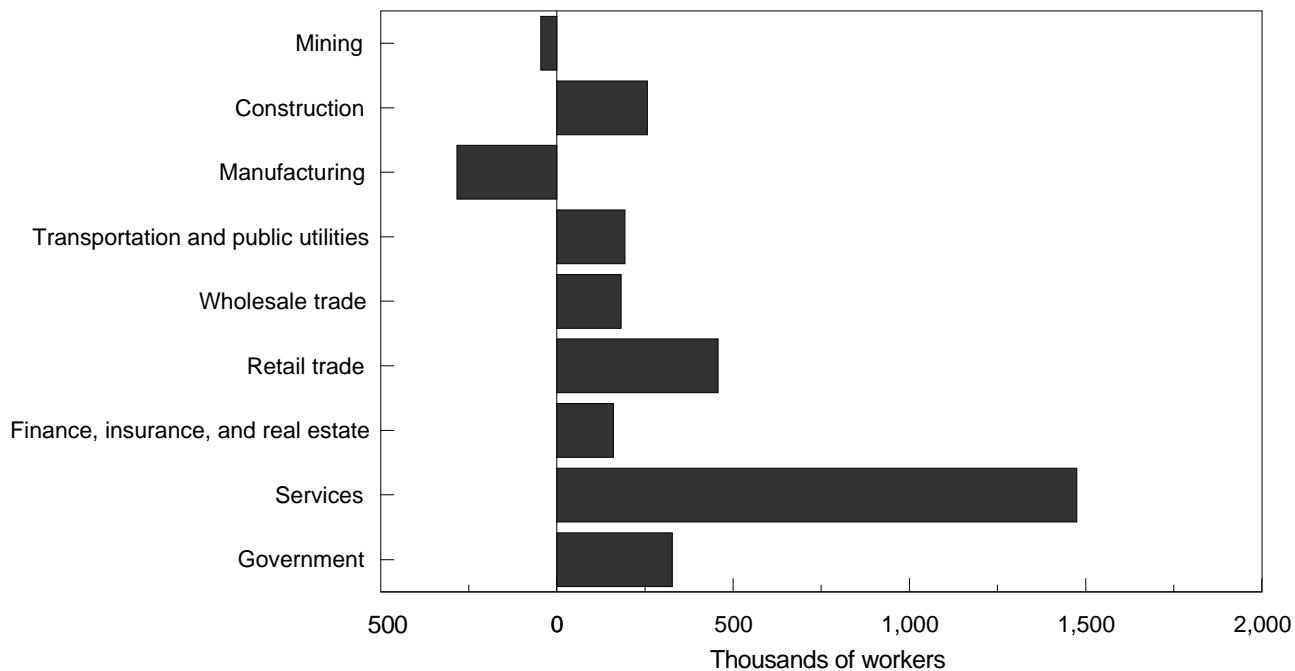
supply industry has been particularly robust throughout the current expansion,³ growth in 1999 was tempered by a tight labor market. Thus, the scarcity of qualified persons available to be hired, which boosted the demand for personnel supply services, also limited the industry’s ability to meet demand.⁴

The economy was buoyed by strong consumer confidence. *With consumers enjoying the benefits of low price inflation and continuing their pattern of spending rather than saving, consumer demand sustained the domestic economy even as most other economies around the world remained weak. The confidence workers had about the economy, combined with growth in real earnings and a soaring stock market, led to improved sales of most goods and services.*

The average hourly and weekly earnings of production and nonsupervisory workers in the private economy increased between the fourth quarters of 1998 and 1999 by 3.7 percent and 3.4 percent, respectively, before adjustment for inflation. Increases in hourly earnings slowed from the pace set over the past 2 years, but remained higher than the average over the current expansion. Real earnings growth lost much of its momentum of the previous year, partly due to smaller wage gains, but even more so because the increase in consumer prices, while still small, was greater than in 1998. Real earnings have grown by 6 percent thus far during the current expansion, which began in 1991. In constant dollars, the over-the-year growth in fourth-quarter hourly earnings was 0.9 percent in 1999, compared with 2.4 percent during 1998. Nevertheless, *any* increase in inflation-adjusted earnings indicates that consumers are able to purchase more goods and services.

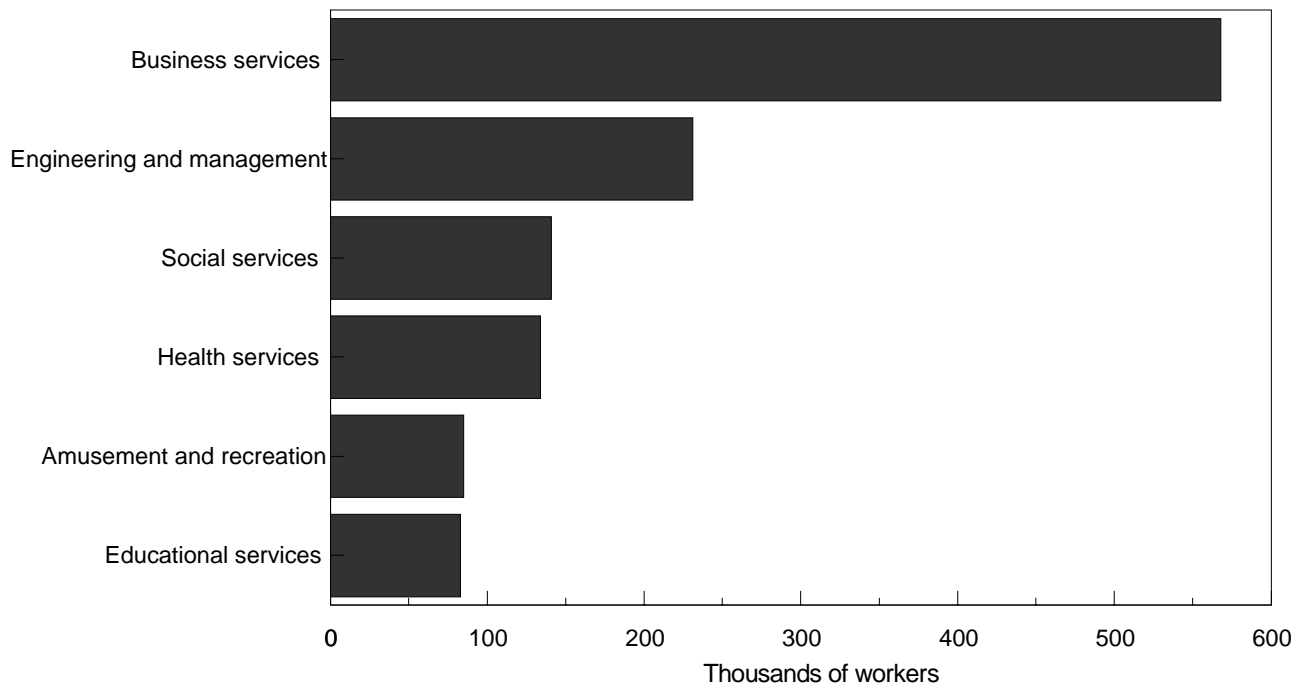
The continued growth in real earnings and the healthy gains in employment fueled consumer confidence,⁵ which improved markedly over the year. Naturally, the retail trade industry benefited from consumer spending, but some detailed components within retail did much better than others. The growth rate in retail trade employment in 1999 was slightly ahead of that

Chart 1. Change in employment, by industry division, 1999



SOURCE: Bureau of Labor Statistics, Current Employment Statistics survey.

Chart 2. Services industries with most jobs added, 1999



SOURCE: Bureau of Labor Statistics, Current Employment Statistics survey.

experienced in 1998. The gains were made despite a highly competitive labor market, which would tend to make recruitment in relatively low-paying retail jobs even more difficult. In fact, employment slowed in the fall of the year, suggesting that retailers were having to wrestle with the problems of a dwindling supply of workers.⁶

Within retail trade, *miscellaneous retail establishments*, a category that encompasses a variety of stores, such as drug-stores, liquor stores, and florists, as well as catalog companies and other nonstore retailers (including Internet companies), accounts for much of the improvement over 1998. The miscellaneous retail industry added 109,000 jobs during the year, twice as many as in 1998. Automotive dealerships, furniture and home furnishings stores, and apparel stores also exhibited much larger gains than in 1998. Employment growth in eating and drinking places, department stores, and food stores lagged behind that of 1998, bringing overall performance for retail trade to just below the average pace for the previous 5-year period.

Automotive dealerships reaped the benefits of strong consumption. Sales of motor vehicles in 1999 surpassed the record set in 1986, as income gains, low interest rates, and dealer incentives acted together to create a remarkably favorable climate for sales. A strong dollar also affected sales of motor vehicles, as cheaper imports prompted domestic manufacturers to offer discounts. Despite competition from on-line car sales, employment by new and used car dealers increased by 3.9 percent, the biggest rise since 1994.

Growth in *furniture and home furnishings stores* was led by *radio, television, and computer stores*. Consumers replaced computers with newer models that would provide uninterrupted use into the year 2000 and models that offered much-improved processing speeds. Competition in the computer market put downward pressure on prices in the industry in 1999, and many consumers took advantage of price reductions for computers and peripheral equipment.⁷ Manufacturers' rebates and discounts from on-line service providers were common, making 1999 a very good year for computer purchases.⁸ Reflecting this sales growth, employment in radio, television, and computer stores grew by over 6.3 percent in 1999, nearly matching the strong 6.7-percent average growth over the past 5 years.

Low interest rates benefited construction and related industries. *In the first quarter of 1999, the percentage of families able to buy American homes reached the highest level in recent history, as both low interest rates and healthy income gains helped make housing more affordable.⁹ Despite increasing mortgage rates during the second half of the year, sales of new homes were sustained at very high levels throughout 1999, even outpacing the sales records of 1998.*

Employment in many construction-related industries posted continued growth during 1999, but the building boom eventually resulted in shortages, not only of labor, but also of materi-

als.¹⁰ Most of the job growth in *construction* supported *residential building* and the contracting of *specialized trades* such as plumbing, painting, and carpentry services. General building contractors, which include residential construction firms, increased employment by 3.8 percent in 1999, compared with 5.4 percent in 1998. Job gains in all construction industries were weaker in 1999 than their average for the current expansion overall and also weaker than in 1998.

Industries that produced basic construction materials increased their payrolls as they stepped up production. Demand for *lumber and wood products* grew at a moderate pace, with job growth in that manufacturing industry slightly below that of 1998. Companies that manufacture *furniture and fixtures* also increased their payrolls, although the rate of growth declined somewhat following an unusually high rate of gain in 1998. Employment across all *construction-related manufacturing* industries grew by 1.4 percent in 1999, compared with a decline in overall manufacturing of 1.5 percent.

The momentum in construction also spilled over into some areas of *retail trade*. Strong growth was evident in stores that sell *building materials and garden supplies*, lending further credence to the importance of the construction industry in explaining overall employment growth. Consumers also frequented retail stores to make purchases for their residences, resulting in a healthy 5.3-percent job gain in *furniture and appliance stores*. Orders tracked by the American Furniture Manufacturers Association reflect increased purchases over 1998, as bedroom, dining room, and occasional furniture all registered moderate gains.¹¹

Agricultural services, which include *landscape services*, grew by 5.4 percent in 1999. The industry followed the pattern of the construction industry for the majority of the year. The contracting of agricultural services was in preparation for new-home sales, as well as for maintaining landscaping for existing homes and businesses.

Employment in *real estate and finance* continued to benefit from strong growth in the housing market, as job gains in *mortgage banks and brokerages, title insurance, and real estate agents* were robust through the first half of the year. However, employment related to refinancing slowed as interest rates increased, a trend that began early in the year. Declines in refinancing lowered the demand for mortgage bankers and brokers as the year progressed, and the industry shed jobs from June through the end of the year. Growth in the finance industries was dampened not only by these job losses, but also by continued consolidation among banks and savings institutions.

Industries that were affected by intense price competition and the weak world economy suffered in 1999. *Particularly affected by world economic conditions were industries that produced commodities rather than services. Most commodities underwent a slow price recovery from 1998 lows,¹² although overall, commodity prices remained below 1997 lev-*

els. While fuel prices rebounded strongly over the year, prices of many other goods were still making up for lost ground.

Employment in *mining* exhibited a weakness similar to that of a year earlier, as low oil prices continued through the first quarter of 1999. After plunging 32 percent in 1998, oil prices made nearly a full recovery by the fourth quarter of 1999. The recovery of employment, however, was only modest. (See chart 3.) *Oil and gas* companies continued to streamline operations. A number of mergers that took place in 1999 held employment gains to a minimum, as domestic companies strove to be more cost competitive with overseas suppliers.

The *steel*-producing industry also did not recover from 1998's price declines. While the bulk of the declines occurred in 1998, the recovery in prices has been slow. In mid-1999, steel production was almost unchanged over the year, and capacity utilization actually fell slightly. The U.S. International Trade Commission determined that domestic steel producers had been unfairly harmed by the flood of cheap imports, and then the United States negotiated agreements with Russia and Brazil to limit steel imports from those countries. Demand for domestically produced steel improved, and by the end of the year, both steel production and capacity utilization were up from 1998 levels. Employment in the primary metals industry recovered slightly over the fourth quarter, after declining by 14,000 during the first 9 months of the year.

Weakness in Southeast Asian and emerging economies reduced the demand for U.S. exports, particularly of industrial machinery, electrical equipment, and transportation equipment. These three industries account for 30 percent of manufacturing employment, so suppressed demand for their output has a large impact on overall manufacturing. An improvement in the performance of the Asian economies in 1999 coincided with a moderation in declines in monthly U.S. manufacturing employment by midyear. (See chart 4.) Employment declines in *electrical and electronic equipment* eased greatly in 1999 compared with 1998 (see chart 5), as job gains in the second half of the year nearly offset continued losses in the first half. In contrast, *apparel and other textile products* fared as poorly in 1999 as in 1998, losing another 9 percent of that industry's workforce and showing no signs of improvement. Employment declines accelerated in *industrial machinery*, with 3 times the number of jobs lost as in 1998; however, employment stabilized in the fourth quarter. *Aircraft and parts* also fared much worse in 1999, in part because of delayed or canceled orders from ailing countries in Southeast Asia. As was the case with the apparel industry, the job losses in aircraft continued throughout the year.

Special factors affected employment in 1999. *Two industries had unusual employment movements in 1999 that were unrelated to general economic trends: Federal payrolls benefited throughout the year from the preparation for the Census 2000, and, due to changes in legislation, the home health care in-*

dustry began to recover from steep job losses incurred in 1998.

Monthly swings in *Federal* employment in 1999 are largely explained by hiring for the Census 2000.¹³ Most of the hiring took place during three preparation phases that caused corresponding peaks in Federal Government employment. Over the course of the year, total nonfarm employment averaged 19,000 higher than it would have been without the decennial workers. Excluding census workers, the number of other Federal workers (which includes U.S. Postal Service workers and civilian employees of the Department of Defense) fell throughout the year, and the declines were more precipitous than in the past few years.

Early in 1999, the *home health care* industry began to recover from more than a year of declines. The turnaround was slow, however: after losing more than 8 percent of its workforce during 1998, the industry grew by just 1 percent in 1999. (See chart 6.) The weak gains coincided with incremental relief from medicare restrictions that were put in place in 1998. July 1, 1999, marked the end of "sequential billing," a Balanced Budget Act provision that seriously hurt cash flow for home health agencies. This provision required medicare claims to be submitted in chronological order; each claim would then have to be paid or denied before another one could be submitted. As a result, some agencies refocused their patients loads, shifting away from medicare and medicaid clients and toward private payers.

As the current economic expansion entered its 9th year in 1999, total civilian employment continued to increase and the unemployment rate continued to decline. *Workers in most major demographic groups benefited from the improvements in the job market.*

Data from the cps also depict a healthy job market in 1999. Employment grew by about 1.9 million, slightly more than in 1998.¹⁴ The percentage of the population that was employed (the employment-population ratio) reached a record-high 64.3 percent in the first quarter of 1999 and finished out the year at that level. The number of unemployed persons fell by about 390,000 in 1999, and the unemployment rate continued to decline, reaching 4.1 percent by the fourth quarter—a 30-year low. (See table 3 and chart 7.)

Among persons aged 20 and older, employment increased by almost 1.8 million in 1999, compared with an increase of 1.4 million in 1998. Women accounted for a disproportionately large share of the employment growth in 1999. Almost three-fifths of the growth occurred among adult women, although they make up less than half of total employment. This pattern has typified the current expansion, with women accounting for more than half of overall employment growth since 1991.¹⁵

The employment-population ratio for adult women reached record highs in 1999, ending the year at 58.5 percent. For men, the ratio was virtually unchanged over the year, at 74.0 percent. During the current expansion, the ratios for men and

Table 3. Employment status of the civilian noninstitutional population 16 years and older, by selected characteristics, quarterly averages, seasonally adjusted, 1998-99

[Numbers in thousands]

Characteristic	Fourth quarter, 1998	1999				Change, fourth quarter, 1998, to fourth quarter, 1999 ¹
		First quarter	Second quarter	Third quarter	Fourth quarter	
Total						
Civilian labor force	138,321	139,058	139,144	139,394	139,880	1,501
Participation rate	67.1	67.2	67.1	67.0	67.0	.0
Employed	132,208	133,077	133,214	133,526	134,153	1,889
Employment-population ratio	64.1	64.3	64.2	64.2	64.3	.2
Unemployed	6,114	5,981	5,930	5,868	5,727	-389
Unemployment rate	4.4	4.3	4.3	4.2	4.1	-.3
Men, 20 years and older						
Civilian labor force	70,013	70,082	70,029	70,245	70,419	629
Participation rate	76.8	76.9	76.6	76.6	76.6	-.1
Employed	67,519	67,642	67,559	67,805	68,044	730
Employment-population ratio	74.1	74.2	73.9	74.0	74.0	.0
Unemployed	2,494	2,440	2,470	2,440	2,375	-101
Unemployment rate	3.6	3.5	3.5	3.5	3.4	-.2
Women, 20 years and older						
Civilian labor force	59,979	60,612	60,820	60,872	61,054	819
Participation rate	60.5	60.8	60.8	60.7	60.7	.2
Employed	57,591	58,283	58,489	58,585	58,865	1,032
Employment-population ratio	58.1	58.4	58.5	58.4	58.5	.4
Unemployed	2,388	2,329	2,332	2,287	2,188	-214
Unemployment rate	4.0	3.8	3.8	3.8	3.6	-.5
Both sexes, 16 to 19 years						
Civilian labor force	8,329	8,363	8,295	8,277	8,407	53
Participation rate	52.7	52.5	51.8	51.5	52.2	-.5
Employed	7,098	7,151	7,166	7,137	7,243	124
Employment-population ratio	44.9	44.8	44.7	44.4	44.9	.1
Unemployed	1,232	1,212	1,128	1,141	1,164	-73
Unemployment rate	14.8	14.5	13.6	13.8	13.8	-1.1
White						
Civilian labor force	115,850	116,349	116,352	116,535	116,788	1,012
Participation rate	67.3	67.5	67.3	67.3	67.2	-.1
Employed	111,390	112,008	111,966	112,268	112,703	1,381
Employment-population ratio	64.7	64.9	64.8	64.8	64.9	.3
Unemployed	4,459	4,341	4,385	4,267	4,085	-367
Unemployment rate	3.8	3.7	3.8	3.7	3.5	-.3
Black						
Civilian labor force	16,171	16,273	16,295	16,387	16,503	286
Participation rate	65.9	65.9	65.7	65.8	66.0	.1
Employed	14,829	14,968	15,044	15,041	15,172	301
Employment-population ratio	60.5	60.6	60.7	60.4	60.6	.1
Unemployed	1,343	1,304	1,251	1,346	1,332	-15
Unemployment rate	8.3	8.0	7.7	8.2	8.1	-.2
Hispanic origin						
Civilian labor force	14,470	14,503	14,571	14,698	14,893	649
Participation rate	67.8	67.9	67.6	67.6	67.9	.6
Employed	13,406	13,561	13,590	13,750	13,984	792
Employment-population ratio	62.8	63.5	63.1	63.2	63.7	1.5
Unemployed	1,064	943	981	948	909	-142
Unemployment rate	7.4	6.5	6.7	6.4	6.1	-1.3

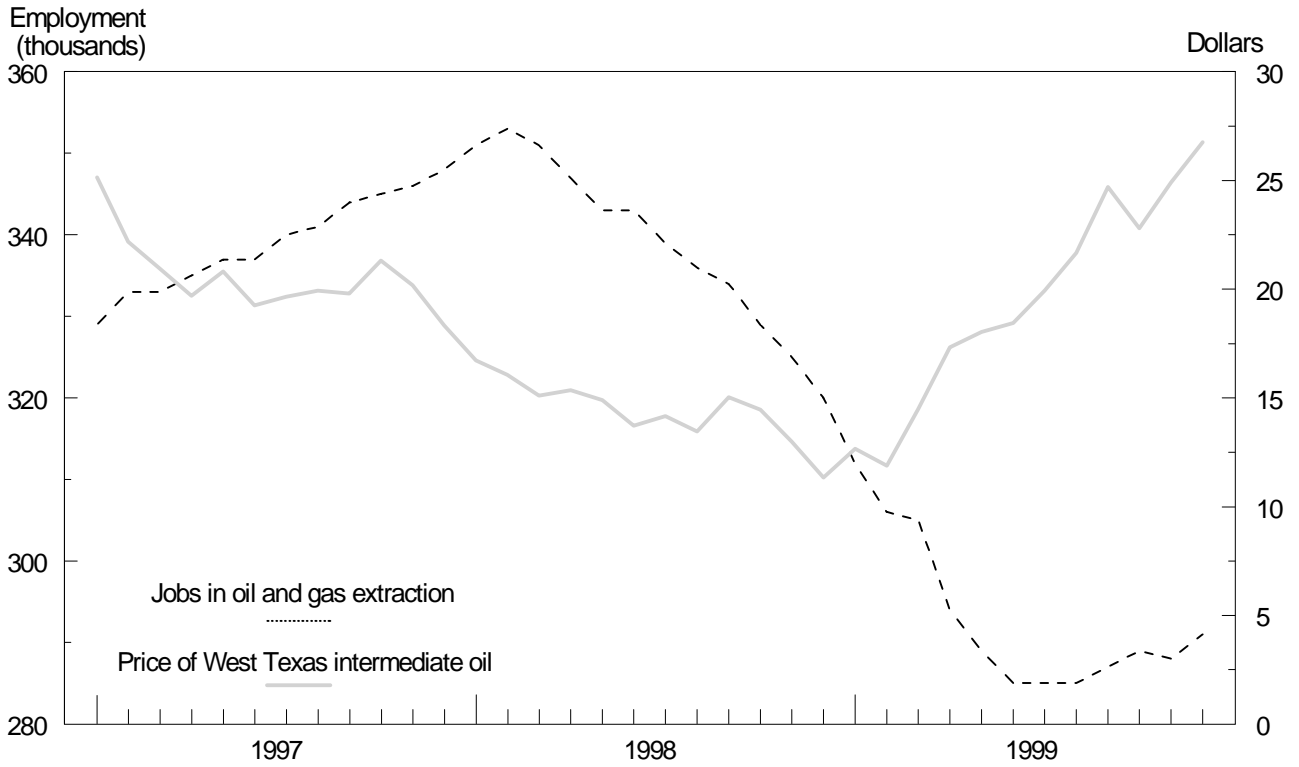
¹ Estimates of over-the-year changes have been adjusted to reflect revisions to population controls introduced in January 1999.

because data for the "other races" group are not presented and Hispanics are included in both the white and black population groups.

NOTE: Details for racial and Hispanic-origin groups will not sum to totals

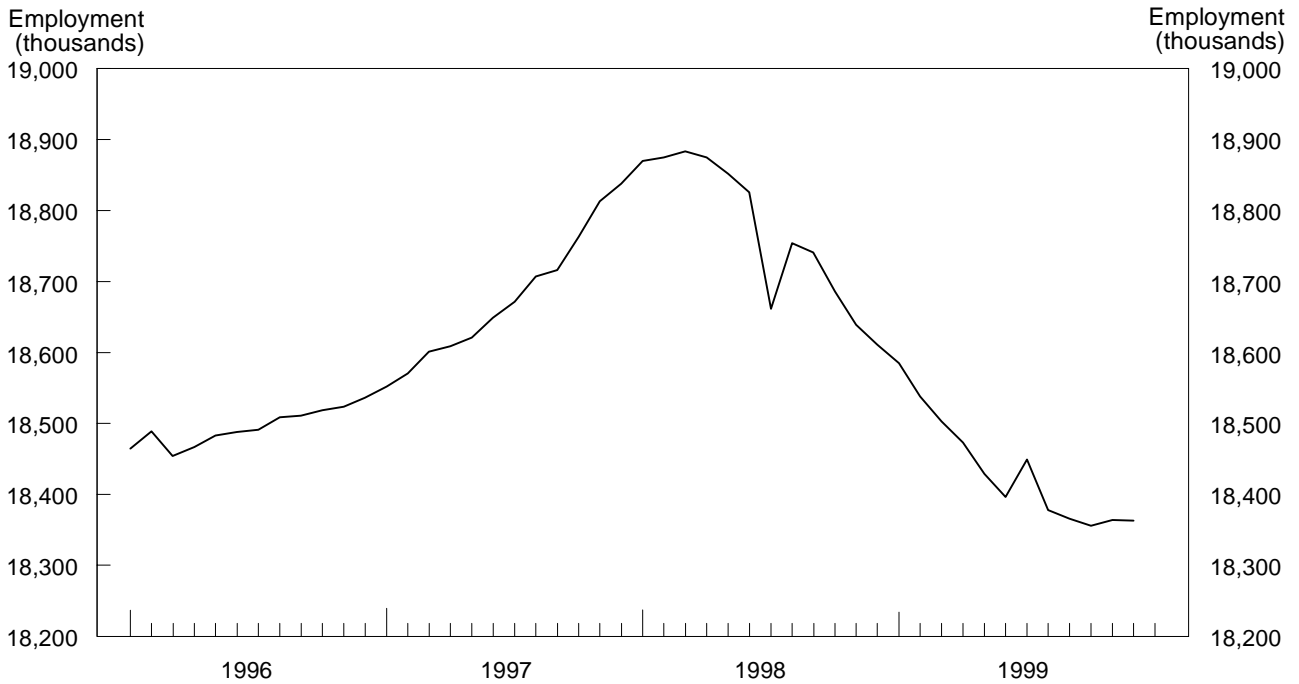
SOURCE: Bureau of Labor Statistics, Current Population Survey.

Chart 3. Employment in oil and gas extraction and oil prices, 1997-99, seasonally adjusted



SOURCE: Bureau of Labor Statistics, Current Employment Statistics survey.

Chart 4. Manufacturing employment, 1996-99, seasonally adjusted



SOURCE: Bureau of Labor Statistics, Current Employment Statistics survey.

women have continued the long-term pattern of convergence, with the women's ratio growing slightly faster than the men's. The number of unemployed adults decreased by about 320,000 in 1999. By the fourth quarter, the unemployment rate had edged down to 3.4 percent for adult men and 3.6 percent for adult women, the lowest rate in 26 years for men and in 31 years for women.

Women who maintained families showed marked improvement in their labor market situation in 1999. Employment for these women increased by about 450,000 over the year, to 8.4 million; this figure compares with an increase of about 200,000 in 1998.¹⁶ In 1999, the percentage of such women who were employed reached 65.6 percent, an over-the-year increase of 1.3 percentage points. The number of unemployed women maintaining families edged down to about 550,000 in 1999, and their unemployment rate declined to 6.1 percent.

The labor market situation changed little for teenagers (persons aged 16 to 19 years) in 1999. The unemployment rate of teens improved slightly, ending the year at 13.8 percent, a low rate not seen since the early 1970s. The size of the teenage labor force—the sum of those who were employed and those who were unemployed—was about about unchanged. The teenage labor force participation rate—the proportion of the popu-

lation that is in the labor force—was also about unchanged. During the current expansion, the teenage labor force participation rate has fluctuated, but shown no clear trend. However, the rate is down substantially from a historical peak of almost 59 percent in the late 1970s. The decrease reflects, in large part, a growing proportion of teens enrolled in school. In 1979, 67 percent of the teenage population was enrolled in school; by 1999, the ratio had risen to 77.4 percent.¹⁷ Teenagers who are attending school have a lower labor force participation rate than those who are not attending, so an increase in the proportion of persons enrolled in school is often associated with a lower overall labor force participation rate.

The labor force expanded in 1999 for whites, blacks, and Hispanics. Since the first quarter of 1991 (the final quarter of the 1990–91 recession, as officially defined), the Hispanic labor force has grown by 38 percent, largely a reflection of the group's strong population growth. This increase compares with a 20-percent increase in the size of the black labor force and a 9-percent increase in the white labor force. In 1999, the labor force participation rates were 67.9 percent for Hispanics, 67.2 percent for whites, and 66.0 percent for blacks.

The unemployment rate for whites ended the year at a three-decade low of 3.5 percent. Blacks and Hispanics both achieved

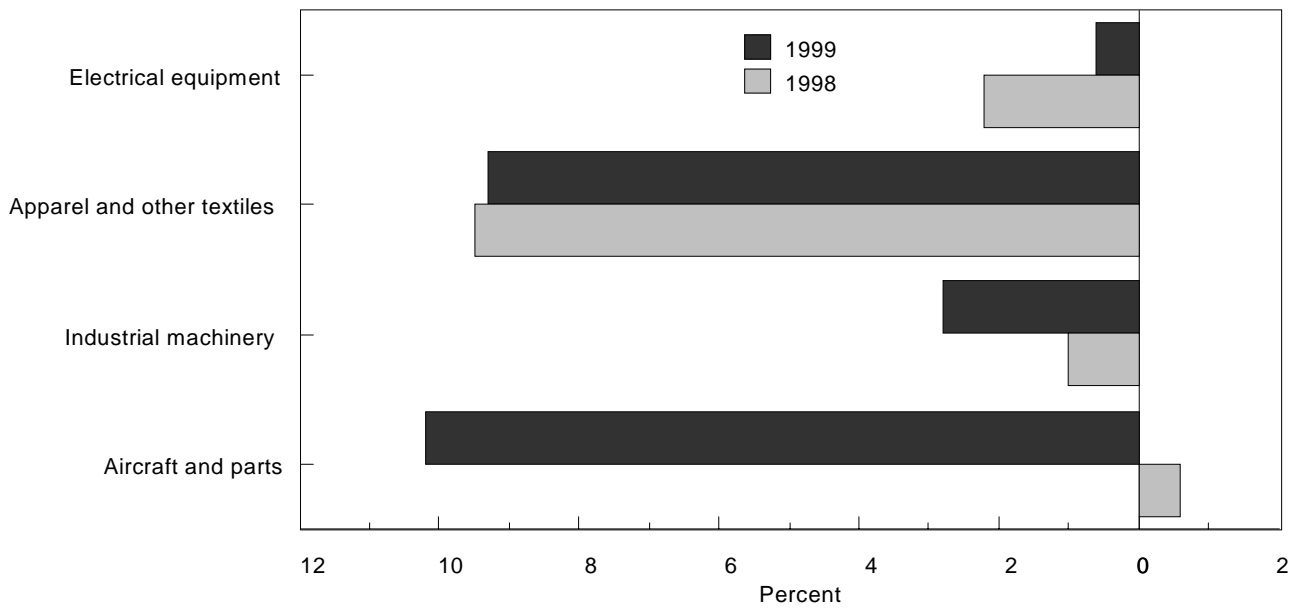
Table 4. Employment by occupation, sex, race, and Hispanic origin, fourth quarter, 1998–99, and median usual weekly earnings by occupation, annual average, 1999

Occupation	Median usual weekly earnings	Total			Men			Women		
		Fourth quarter, 1998	Fourth quarter, 1999 ¹	Change, fourth quarter, 1998, to fourth quarter, 1999 ¹	Fourth quarter, 1998	Fourth quarter, 1999 ¹	Change, fourth quarter, 1998, to fourth quarter, 1999 ¹	Fourth quarter, 1998	Fourth quarter, 1999 ¹	Change, fourth quarter, 1998, to fourth quarter, 1999 ¹
Total, aged 16 and older	\$549	132,578	134,534	1,956	71,135	71,774	639	61,443	62,760	1,317
Managerial and professional specialty	797	39,916	40,856	940	20,348	20,508	160	19,568	20,348	780
Executive, administrative, and managerial ..	792	19,496	19,700	204	10,828	10,684	-144	8,668	9,016	348
Professional specialty	800	20,420	21,156	736	9,520	9,824	304	10,900	11,332	432
Technical, sales, and administrative support ..	488	38,547	39,325	778	13,766	14,187	421	24,780	25,138	358
Technicians and related support	618	4,163	4,442	279	1,875	2,089	214	2,288	2,352	64
Sales occupations	523	16,107	16,427	320	7,915	8,035	120	8,192	8,393	201
Administrative support, including clerical	447	18,276	18,456	180	3,976	4,063	87	14,300	14,393	93
Service occupations	336	17,838	17,525	-313	7,215	6,899	-316	10,623	10,626	3
Private household	243	861	828	-33	45	36	-9	816	792	-24
Protective service	592	2,388	2,324	-64	1,955	1,864	-91	433	459	26
Service, except private household and protective	313	14,589	14,373	-216	5,216	4,998	-218	9,374	9,374	0
Precision production, craft, and repair	594	14,398	14,894	496	13,121	13,516	395	1,277	1,379	102
Mechanics and repairers	621	4,772	4,708	-64	4,595	4,468	-127	178	240	62
Construction trades	566	5,629	6,152	523	5,493	6,003	510	136	149	13
Other production, craft, and repair	588	3,996	4,035	39	3,033	3,045	12	963	990	27
Operators, fabricators, and laborers	429	18,475	18,678	203	13,915	14,027	112	4,560	4,651	91
Machine operators, assemblers, and inspectors	423	7,757	7,385	-372	4,910	4,517	-393	2,847	2,867	20
Transportation and material moving	513	5,516	5,803	287	4,948	5,186	238	569	618	49
Handlers, equipment cleaners, helpers, and laborers	363	5,201	5,490	289	4,057	4,324	267	1,145	1,166	21
Farming, forestry, and fishing	331	3,405	3,255	-150	2,771	2,637	-134	634	618	-16

¹ Over-the-year changes were not adjusted for revised population controls.

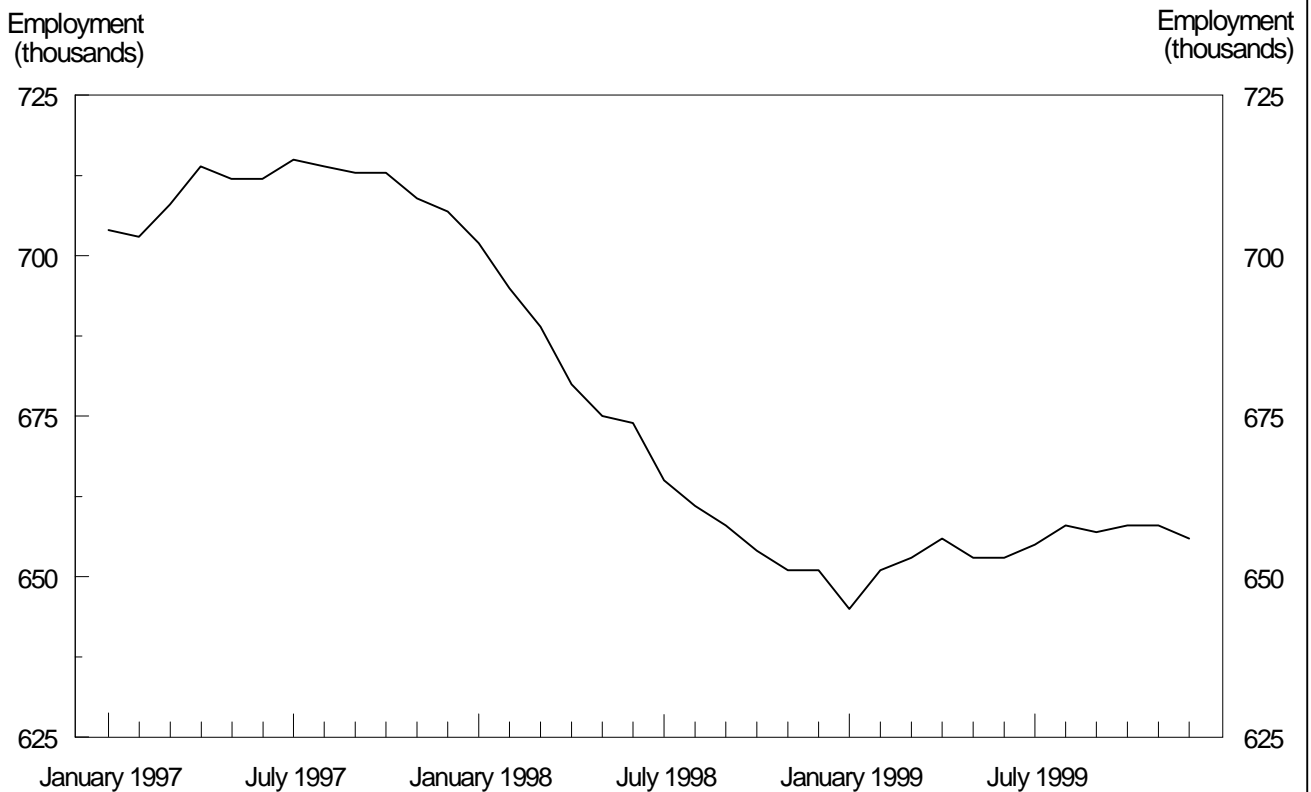
SOURCE: Bureau of Labor Statistics, Current Population Survey.

Chart 5. Percent change in employment for selected manufacturing industries, 1998 and 1999



SOURCE: Bureau of Labor Statistics, Current Employment Statistics survey.

Chart 6. Employment in home health care services, 1997-99, seasonally adjusted



SOURCE: Bureau of Labor Statistics, Current Employment Statistics survey.

record-low unemployment rates in 1999.¹⁸ The black unemployment rate finished the year at 8.1 percent, the lowest on record prior to 1999. For Hispanics, the unemployment rate reached a record low in the first quarter and continued to decline in the last half of the year, bottoming out at 6.1 percent in the fourth quarter. The unemployment rates for blacks and Hispanics remained higher than that for whites in 1999, although the gap narrowed slightly between Hispanics and whites; the gap between blacks and whites showed no improvement.

Employment grew faster for minority workers than for whites in 1999. The number of employed persons increased by about 2.0 percent for blacks, to 15.2 million; 6.0 percent for Hispanics, to 14.0 million; and 1.2 percent for whites, to 112.7 million. The number of persons employed as a percentage of the population reached record highs for whites, blacks, and Hispanics during

1999 and ended the year strong: 64.9 percent, 60.6 percent, and 63.7 percent, respectively. Since the beginning of the current expansion, the employment-population ratio has grown more for blacks and Hispanics than for whites.

Employment increased in 1999 for persons aged 25 and older who had attended college; employment was about unchanged for persons with no college experience.¹⁹ This difference continues the long-term trend in which the overall workforce is becoming more educated, reflecting a decline in the proportion of the population with no college experience. For example, since 1992,²⁰ the number of employed persons with less than a high school diploma decreased by about 159,000, to 11.3 million, while the number of employed persons with a college degree increased by 7.4 million, to 35.0 million. In 1999, the unemployment rate improved for work-

Table 5. Employment by occupation, sex, race, and Hispanic origin, fourth quarter, 1998-99

Occupation	Total			White			Black			Hispanic		
	Fourth quarter, 1998	Fourth quarter, 1999	Change, fourth quarter, 1998, to fourth quarter, 1999 ¹	Fourth quarter, 1998	Fourth quarter, 1999	Change, fourth quarter, 1998, to fourth quarter, 1999 ¹	Fourth quarter, 1998	Fourth quarter, 1999	Change, fourth quarter, 1998, to fourth quarter, 1999 ¹	Fourth quarter, 1999	Fourth quarter, 1999	Change, fourth quarter, 1998, to fourth quarter, 1999 ¹
Total, aged 16 and older	132,578	134,534	1,956	111,646	112,975	1,329	14,929	15,270	341	13,442	14,012	570
Managerial and professional specialty	39,916	40,856	940	34,774	35,384	610	3,086	3,333	247	1,932	2,009	77
Executive, administrative, and managerial	19,496	19,700	204	17,228	17,310	82	1,471	1,542	71	1,076	1,066	-10
Professional specialty occupations	20,420	21,156	736	17,546	18,074	528	1,615	1,791	176	856	944	88
Technical, sales, and administrative support	38,547	39,325	778	32,431	32,976	545	4,420	4,486	66	3,141	3,264	123
Technicians and related support	4,163	4,442	279	3,455	3,676	221	465	475	10	282	266	-16
Sales occupations	16,107	16,427	320	13,891	14,158	267	1,504	1,472	-32	1,260	1,281	21
Administrative support, including clerical	18,276	18,456	180	15,086	15,142	56	2,451	2,540	89	1,600	1,717	117
Service occupations	17,838	17,525	-313	13,723	13,415	-308	3,258	3,175	-83	2,706	2,714	8
Private households	861	828	-33	700	661	-39	134	125	-9	272	237	-35
Protective services	2,388	2,324	-64	1,907	1,812	-95	433	445	12	198	197	-1
Service, except private household and protective	14,589	14,373	-216	11,116	10,942	-174	2,691	2,605	-86	2,236	2,280	44
Precision production, craft, and repair	14,398	14,894	496	12,721	13,263	542	1,139	1,130	-9	1,872	2,034	162
Mechanics and repairers	4,772	4,708	-64	4,215	4,181	-34	392	368	-24	500	509	9
Construction trades	5,629	6,152	523	5,077	5,622	545	391	390	-1	808	991	183
Other production, craft, and repair	3,996	4,035	39	3,428	3,460	32	365	373	8	564	534	-30
Operators, fabricators, and laborers	18,475	18,678	203	14,856	14,915	59	2,852	2,993	141	2,995	3,222	227
Machine operators, assemblers, and inspectors	7,757	7,385	-372	6,147	5,816	-331	1,187	1,159	-28	1,347	1,403	56
Transportation and material moving	5,516	5,803	287	4,522	4,719	197	845	952	107	684	725	41
Handlers, equipment cleaners, helpers, and laborers	5,201	5,490	289	4,187	4,381	194	820	881	61	964	1,093	129
Farming, forestry, and fishing	3,405	3,255	-150	3,141	3,022	-119	174	153	-21	795	769	-26

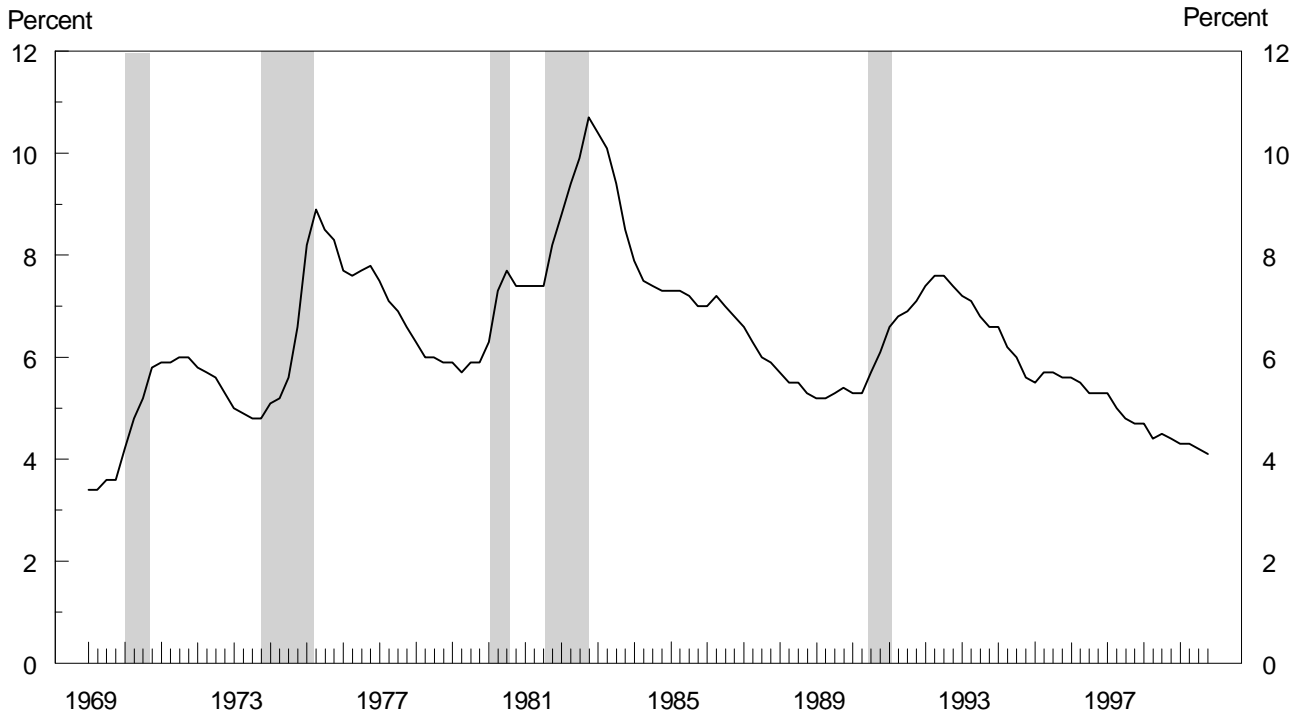
¹ Over-the-year changes were not adjusted for revised population controls.

included in both the white and black population groups.

NOTE: Details for racial and Hispanic-origin groups will not sum to totals because data for the "other races" group are not presented and Hispanics are

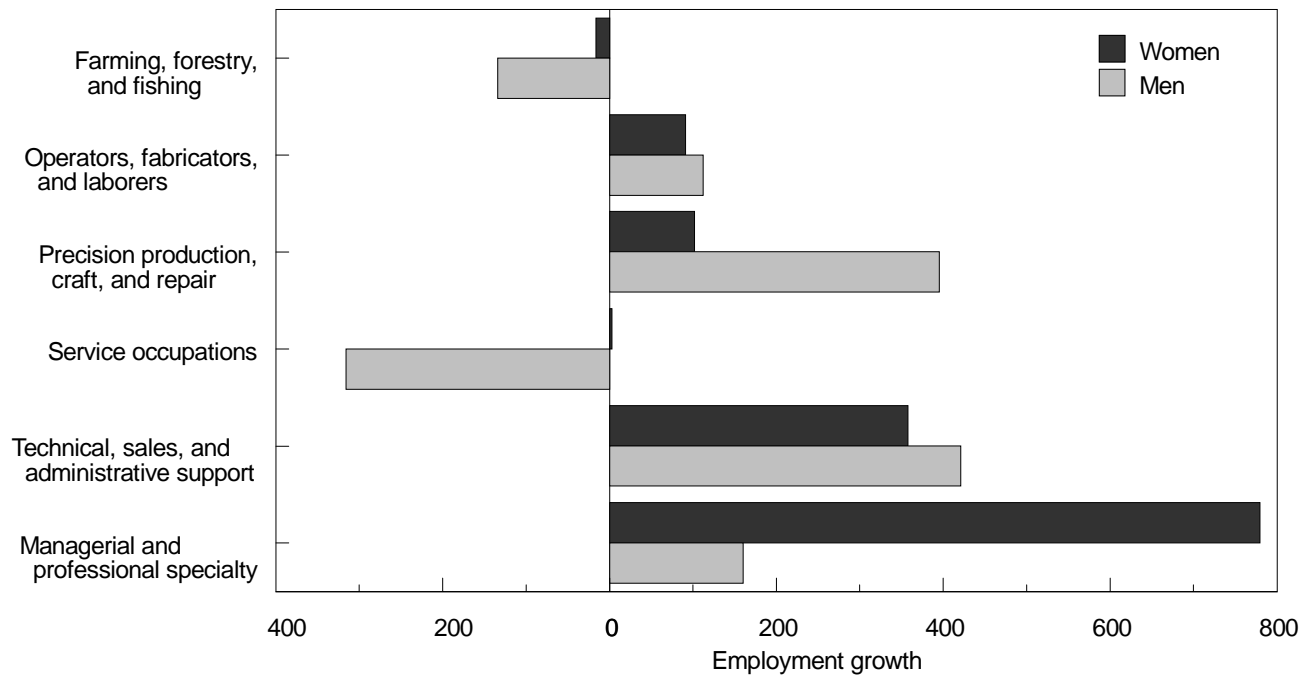
SOURCE: Bureau of Labor Statistics, Current Population Survey.

Chart 7. Unemployment rate, 1969-99, seasonally adjusted



NOTE: Shaded regions represent recessions as designated by the National Bureau of Economic Research. Data are quarterly.
 SOURCE: Bureau of Labor Statistics, Current Population Survey.

Chart 8. Over-the-year employment growth, by occupation and gender, fourth-quarter 1998-99



SOURCE: Bureau of Labor Statistics, Current Population Survey.

ers of all educational backgrounds, ending the year at 1.7 percent for college graduates, 2.6 percent for persons with some college experience, but less than a bachelor's degree, 3.3 percent for high school graduates, and 6.3 percent for persons with less than a high school diploma.

Nearly half of the total employment growth over the year was in the generally high-paying managerial and professional specialty occupations. *Growth in these fields was particularly strong for women and blacks. The strongest gains among men were in technical, sales, and administrative support occupations and in precision production, craft, and repair occupations.*

Employment in managerial and professional specialty occupations expanded by 940,000 in 1999, accounting for about half of total employment growth during the year.²¹ Employment growth in these occupations has been disproportionately strong for most of the current expansion. (Managerial and professional specialty occupations made up 30 percent of total employment in 1999.) Professional specialty occupations accounted for the majority of the growth in the managerial and professional specialty category in 1999. Notable employment gains occurred in many professional occupations, including computer systems analysts and computer scientists, schoolteachers, lawyers, and social workers. Technical, sales, and administrative support occupations also showed strong growth in 1999, accounting for two-fifths of total employment gains. (See table 4.)

For women, total employment grew by about 1.3 million in 1999. Nearly three-fifths of this net growth (780,000) was in the managerial and professional specialty fields. Employment growth in professional specialty occupations was slightly stronger than in managerial occupations. Among the professional occupations, female schoolteachers increased their numbers rapidly. (Women accounted for the majority of growth in this occupation.) Many women also found work in 1999 as registered nurses and social workers. Outside managerial and professional specialty occupations, most of the remaining employment gains among women were in the technical, sales, and administrative support occupations, particularly the lower paying sales and administrative support jobs. However, for every woman who found a job in these occupations, two found a job in managerial and professional specialty occupations. (See table 4 and chart 8.)

For men, employment expanded by about 640,000 over the year, with the largest gains in technical, sales, and administrative support occupations (420,000). Technicians and related support occupations, which tend to pay more than sales and administrative jobs, accounted for about half of these employment gains. Precision production, craft, and repair occupations accounted for the second-largest employment increase for men in 1999 (400,000), with most of the growth in construction trades. Among men, professional specialty occupations grew by about 300,000, although employment in execu-

tive, administrative, and managerial occupations decreased.

Employment in managerial and professional specialty occupations grew particularly rapidly for blacks in 1999, increasing by 8 percent, or 250,000. More than two-thirds of this growth was in the professional specialty fields and was well spread among the occupations. The number of blacks employed as operators, fabricators, and laborers also grew noticeably (140,000); much of the growth was among transportation and material moving workers. For blacks, the managerial and professional specialty and the operator, fabricator, and laborer occupations accounted for the majority of employment growth in 1999. (See table 5 and chart 9.)

For whites, employment in managerial and professional specialty occupations rose by about 610,000 in 1999, only slightly more than in technical, sales, and administrative support occupations (550,000) and precision production, craft, and repair occupations (540,000). Professional specialty jobs accounted for the vast majority of gains in the managerial and professional specialty group. Within the technical, sales, and administrative support category, growth was strongest for technicians and salesworkers. Construction trades accounted for nearly all of the employment gains in the precision production, craft, and repair field.

For Hispanics, there was comparatively little employment growth in managerial and professional specialty fields. Instead, employment growth was spread out among the remaining occupational categories. The number of Hispanics working as operators, fabricators, and laborers grew by about 230,000 in 1999, accounting for about two-fifths of the total employment gains among Hispanics. Within this broad "blue-collar" category, many Hispanics found jobs as handlers, equipment cleaners, helpers, and laborers. Precision production, craft, and repair occupations—particularly the construction trades—and technical, sales, and administrative support occupations—notably administrative support—contributed about half of total employment growth for Hispanics.

Demographic changes in the makeup of the labor force can affect various labor market indicators, including the unemployment rate. *Accordingly, it is important to take such changes into account in making comparisons across years. Among the demographic variables that can influence the unemployment rate over time are the age and sex compositions of the labor force. A simple exercise reveals that the unemployment rate would have been higher in 1999 had the composition of the labor force by age been the same as in past years (for example, 1969 and 1978).*

In 1999, the average unemployment rate was 4.2 percent,²² the lowest annual rate since 1969, when the rate averaged 3.5 percent for the year. Given that the jobless rate was at its lowest in 30 years, it is reasonable to ask whether major demographic changes over that period could be partly responsible for the improvement in unemployment. Age is a particularly

important variable in this regard, because the unemployment rates for young workers (aged 16 to 24 years) tend to be much higher than those for older workers. For example, the unemployment rates for workers in the 16-to-19- and 20-to-24-year age groups were 13.9 percent and 7.5 percent, respectively, in 1999; these figures compare with an average unemployment rate of 3.1 percent for workers aged 25 and older. Thus, a decrease in the percentage of young workers in the labor force would exert downward pressure on the unemployment rate,²³ all else remaining equal. Indeed, in 1999, persons aged 16 to 24 years made up about 16 percent of the labor force, the lowest proportion since the late 1950s; in 1969 they accounted for about 21 percent, and in 1978 the proportion of these individuals peaked at more than 24 percent.²⁴ If the age composition of the labor force in 1999 had been the same as in 1969, but each component age group retained its 1999 rate of unemployment, the overall unemployment rate in 1999 would have been about 0.4 percentage point higher. The unemployment rate would have been even higher—by about 0.7 percentage point—if the age composition in 1999 had been the same as in 1978.

The composition of the labor force by sex also can influence unemployment rates. This occurs when the unemployment rate for one gender is higher than for the other. For example, in 1969, the unemployment rate for women, 4.7 percent, was much higher than that for men, 2.8 percent. As long as the jobless rate for women was higher than that for men, the influx of women into the job market—which was quite pronounced during the 1970s—exerted upward pressure on the unemployment rate. However, the unemployment rates for men and women have been quite close for the past two decades, thus limiting the effects of the

changing composition of the labor force by sex.²⁵

After accounting for inflation, median weekly earnings of full-time wage and salary workers increased in 1999, marking the third consecutive year of gains in real earnings. Earnings increased slightly faster for women than for men. Earnings rose for whites, blacks, and Hispanics, and there were gains for adults of all educational backgrounds.

Median²⁶ usual weekly earnings of full-time wage and salary workers were \$549 in 1999, up 5.0 percent from \$523 in 1998.²⁷ The earnings gain was greater than the 2.2-percent rise in prices from 1998 to 1999, as measured by the Consumer Price Index for All Urban Consumers (CPI-U). In 1999, median weekly earnings for men who usually work full time were \$618, compared with \$473 for women. Earnings were up for both men and women, but the gain was slightly larger for women. The ratio of women's to men's earnings thus edged up slightly, to 76.5 percent.²⁸ Over the course of the current expansion, the ratio has increased by 2.3 percentage points. During the previous expansion,²⁹ the ratio of women's to men's earnings increased by 5.5 percentage points.

The continuing disparity in earnings between men and women reflects many different factors, only some of which are measurable. Variables include differences in educational attainment, length of experience in the workforce, and discrimination. In addition, part of the pay difference reflects the occupational makeup of the groups. For example, although women accounted for about half of total employment in managerial and professional specialty occupations in 1999, within that broad group, they were less likely than men to work in higher paying occupations. Men were more likely to be em-

Table 6. Quartiles and selected deciles of usual weekly earnings of full-time wage and salary workers, by educational attainment, annual averages, 1998–99

Educational attainment	Number of workers (in thousands)	Upper limit of—				
		First decile	First quartile	Second quartile (median)	Third quartile	Ninth decile
1999						
Total, 25 years and older	86,352	\$284	\$393	\$592	\$872	\$1,260
Less than a high school diploma	8,459	215	267	346	494	680
High school graduate, no college	27,314	270	349	490	688	932
Some college or associate's degree	23,949	300	404	580	798	1,079
College graduates, total	26,630	430	607	860	1,243	1,749
1998						
Total, 25 years and older	84,549	275	379	572	836	1,198
Less than a high school diploma	8,576	204	257	337	486	679
High school graduate, no college	27,131	259	338	479	667	899
Some college or associate's degree	23,210	291	391	558	774	1,040
College graduates, total	25,632	410	586	821	1,173	1,657

NOTE: Ten percent of all full-time wage and salary workers earn less than the upper limit of the first decile; 25 percent earn less than the upper limit of the first quartile; 50 percent earn less than the upper limit of the second quartile, or median; 75 percent earn less than the upper limit of the

third quartile; and 90 percent earn less than the upper limit of the ninth decile.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

Table 7. Unemployment rates for regions and divisions, quarterly averages, seasonally adjusted, 1998–99

Region and division	Fourth quarter, 1998	1999			
		First quarter	Second quarter	Third quarter	Fourth quarter
Northeast region	4.5	4.3	4.3	4.4	4.2
New England division	3.3	3.1	3.2	3.0	3.1
Middle Atlantic division	4.9	4.7	4.7	4.8	4.6
Midwest region	3.6	3.4	3.6	3.5	3.4
East North Central division	3.9	3.7	3.9	3.8	3.7
West North Central division	3.0	2.7	2.9	3.0	2.6
South region	4.3	4.2	4.1	4.0	4.0
South Atlantic division	3.9	3.8	3.7	3.7	3.7
East South Central division	4.3	4.3	4.2	4.1	4.2
West South Central division	4.9	4.7	4.6	4.4	4.4
West region	5.3	5.1	5.0	4.8	4.6
Mountain division	4.2	3.9	4.2	4.1	3.9
Pacific division	5.7	5.6	5.4	5.1	4.9

SOURCE: Bureau of Labor Statistics, Local Area Unemployment Statistics program.

ployed as engineers, mathematical and computer scientists, lawyers and judges, and physicians—some of the highest paid professional occupations. Women, on the other hand, were more likely to be employed in the lower paid professional occupations, such as schoolteachers, social workers, and registered nurses. Women accounted for three-fifths of the total employed in service occupations, which include some of the lowest paid workers. In the higher paying blue-collar fields—precision production, craft, and repair occupations—women accounted for only 9 percent of the employed.

Among the major racial and ethnic groups, median weekly earnings rose by 5.1 percent for whites in 1999, to \$573. Earnings rose by 4.5 percent for blacks, to \$445, and by 4.1 percent for Hispanics, to \$385. Differences in educational attainment, age, and experience—as well as discrimination in the workplace—are but a few of the possible reasons for variations in earnings between minorities and whites. As with men and women, the pay difference also reflects the occupational makeup of the groups. For example, in 1999, only 12 percent of whites were employed in the relatively low-paying service occupations, while 22 percent of blacks and 20 percent of Hispanics were employed in those occupations. Thirty-one percent of whites were employed in the managerial and professional specialty occupations, in which pay is relatively high; the corresponding figures were 21 percent for blacks and 15 percent for Hispanics.

Median weekly earnings increased for workers in all four major educational groups in 1999. However, median weekly earnings for those with a college degree increased the most, rising by 4.8 percent over the year, to \$860. Earnings for persons with some college experience or an associate's degree increased by 3.9 percent, to \$580, while earnings for persons with a high school diploma increased by 2.3 percent, to \$490,

and earnings for those with less than a high school diploma increased by 2.7 percent, to \$346. (See table 6.)

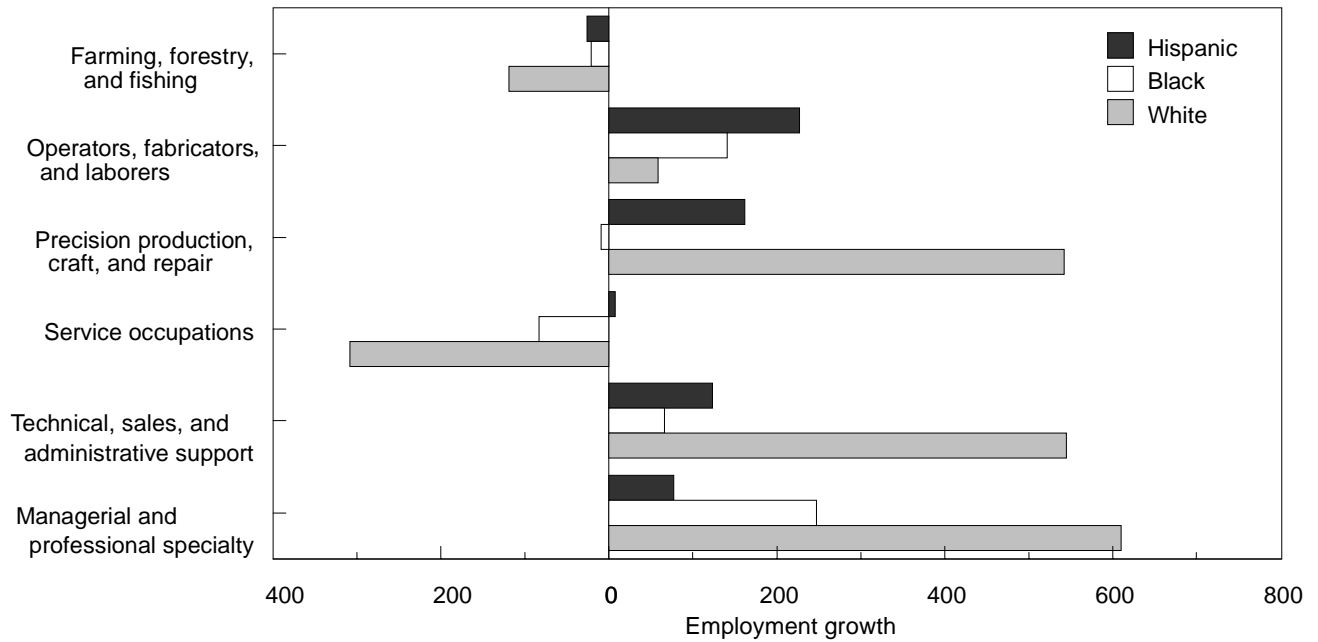
For the 3rd consecutive year, earnings for the lowest paid workers in all education groups increased. For persons with less than a high school diploma, earnings at the upper limit of the first decile³⁰ increased 5.4 percent, to \$215.³¹ Earnings at the upper limit of the first decile increased 4.2 percent for workers with a high school education, 3.1 percent for those with some college or an associate's degree, and 4.9 percent for college graduates.

The highest paid workers within most educational groups also saw earnings gains in 1999. The fastest earnings growth occurred for those with a college degree; earnings at the ninth decile increased by 5.6 percent for this group. Earnings at the ninth decile increased by 3.8 percent for those with some college or an associate's degree and by 3.7 percent for high school graduates. Weekly earnings at the ninth decile were essentially unchanged for workers with less than a high school education.

***With the unemployment rate remaining at low levels in 1999 and employment continuing to increase, many economists began looking closely for signs of tightness in the labor market.** Some concern arose as to whether the supply of workers would be adequate to meet demand. When employment growth did not result in marked earnings pressure, questions were raised regarding where the increase in workers came from over the year. The cps is able to provide information that can be used, in a limited way, as a measure of the potential supply of workers. It is also able to show, to some degree, where the newly employed came from in 1999.*

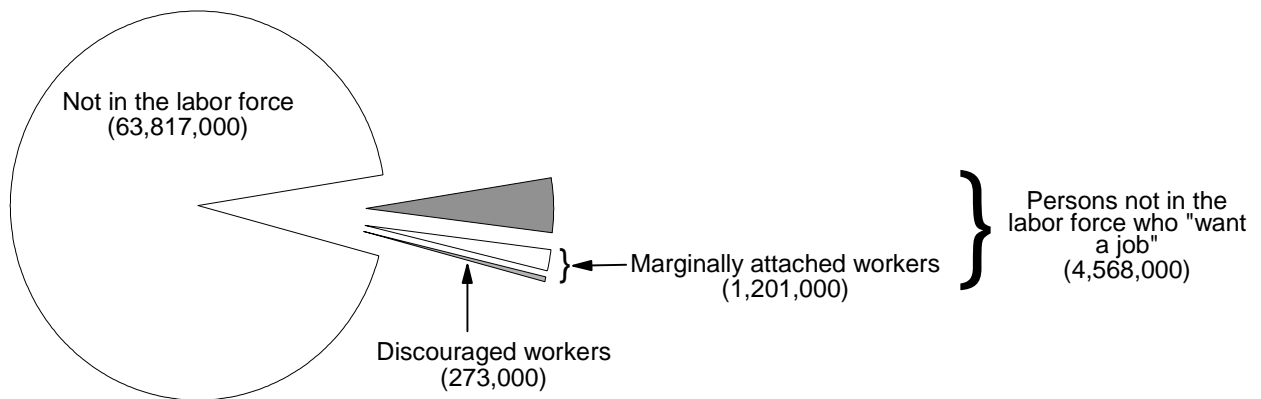
One widely used indicator of the potential supply of workers is the number of persons outside of the labor force who indicate that they currently want a job. In 1999, an average of

Chart 9. Over-the-year employment growth, by occupation and race or Hispanic origin, fourth quarter, 1998-99



SOURCE: Bureau of Labor Statistics, Current Population Survey.

Chart 10. Persons not in the labor force, annual average, 1999



NOTE: Persons not in the labor force who "want a job" are neither working nor currently looking for work, but have simply expressed a desire for a job. Marginally attached workers are persons who are not in the labor force, who want and are available for a job, and who have looked for work sometime in the past 12 months (or since the end of their last job if they held one within the past 12 months), but are not currently looking. Discouraged workers are a subset of the marginally attached who are not currently looking for work because they believe that no jobs are available or that there are none for which they would qualify.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

4.6 million persons who were not in the labor force reported that they indeed wanted a job.³² Of these workers, 1.2 million reported that they actually searched for work within the past 12 months and were available to take a job if one were offered. (This group is often referred to as those who are “marginally attached” to the labor force.) Among marginally attached workers, 273,000 had looked for work in the previous 12 months, but were not currently looking,³³ because they believed that no jobs were available for them or that there were none for which they would qualify. (This group is known as discouraged workers.)³⁴ (See chart 10.)

Since 1994,³⁵ the number of persons outside the labor force who want a job has declined by 27 percent. The number who were currently available, and actually looked, for work within 12 months of being surveyed fell by 34 percent over the period. The count of discouraged workers declined even more dramatically, by 45 percent between 1994 and 1999. These numbers suggest that there may have been significant movement into the labor force by those previously not participating.

The labor market is very dynamic, with changes in employment reflecting both changes in population and changes in the proportion of the population that is employed; the latter are largely tied to the performance of the economy. From 1998 to 1999, the civilian noninstitutional population increased by 2.2 million, and employment grew by about 2.0 million. Approximately three-fourths of net employment growth can be attributed to the growth in population. That is, if the proportion of the population employed had not changed, employment still would have increased by about 1.4 million. However, the percent of the population with jobs increased slightly, and that increase accounted for the balance (about 550,000, or one-fourth) of the total change in employment. The rise in the employment-population ratio reflected *net* declines in the proportions of the population who were unemployed or not in the labor force, but who wanted a job.³⁶

Strong job growth continued in the West and South, while already tight labor markets in the Midwest tightened even further.³⁷ *The decline in unemployment was widespread, with many States enjoying their lowest unemployment rates on record.*³⁸

Unemployment. All four regions had lower unemployment rates in 1999 than a year earlier. (See table 7.) The West, where the rate declined rather steadily all year, registered the largest decrease, -0.7 percentage point. Despite this improvement, the West had the highest jobless rate, 4.6 percent, for the eighth consecutive year. The Midwest had the lowest rate (3.4 percent), as it has in the fourth quarter of every year this decade. At year’s end, three regions had unemployment rates at historical lows. The exception was the Northeast, where the rate was only slightly above the 4.0 percent recorded during three

different quarters in 1988–89.

All nine geographic divisions experienced at least small unemployment rate declines in 1999. The largest decreases occurred in the Pacific (-0.8 percentage point) and West South Central (-0.5 percentage point) divisions. The West North Central registered the lowest jobless rate (2.6 percent) among all divisions for the 10th straight year, while the Pacific division reported the highest rate (4.9 percent) for the 8th year in a row. Only the Middle Atlantic division failed to equal or better its historical low unemployment rate during some quarter of 1999. Two-thirds of the States, including all those in the East North Central and East South Central divisions, established new low monthly unemployment rates in 1999.

Employment. Nonfarm payroll employment increased in all four census regions in 1999, with the most rapid expansions occurring in the West (2.5 percent) and South (2.2 percent). The Midwest, with its continuing low unemployment rate, high labor force participation rate, and high multiple-jobholding rate, had the slowest rate of increase (0.8 percent). Labor shortages may have curtailed job growth in this region. Among the nine geographic divisions, gains ranged from 0.7 percent in the East North Central to 2.7 percent in the Mountain division. The South Atlantic (2.6 percent), Pacific (2.4 percent), and West South Central (2.3 percent) divisions also had above-average growth rates. The following tabulation lists nonfarm payroll employment growth in 1999 (in thousands):

<i>Region</i>	<i>Number</i>	<i>Percent</i>
West	673	2.5
South	996	2.2
Northeast	357	1.5
Midwest	254	.8

In all major industries, except mining and manufacturing, every geographic region and division posted net job growth in 1999. In the two exceptions, the opposite was seen: widespread declines across the United States. As in most recent years, services accounted for the greatest number of new jobs in each region and geographic division. Trade ranked second in job creation in all regions and divisions. Meanwhile, construction had the highest growth rate in three regions (most notably, the West, at 6.4 percent) and in seven divisions. Both transportation and services grew at greater than a 3.0-percent pace in the West and South.

THE LABOR MARKET ENDED THE 20TH CENTURY ON a strong note. Employment grew by about 2 percent in 1999, with more than half of the growth in services; job gains were particularly robust in industries that provided services to other businesses. Construction, the industry with the highest percentage of job growth, benefited from the low interest rates that prevailed for much of the

year. Employment growth in retail trade, which was slightly ahead of that in 1998, was sustained by strong consumer spending. Although employment declined in manufacturing, the rate of decrease slowed in the second half of the year.

Adult women accounted for a disproportionately large share of employment growth in 1999, and the employment-population ratio for adult women reached a record high. Employment grew

faster for minority workers than for whites over the year; employment growth was the fastest for Hispanics. Overall, almost half of employment growth was in managerial and professional specialty occupations. The unemployment rate ended the year at 4.1 percent, the lowest level in 30 years; workers of all major demographic groups shared in the improvement, as did the four regions of the United States. □

Notes

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¹ See box on page 4 for an explanation of conceptual differences between the two surveys.

² "Surveys find more employers relying on staffing firms," *Staffing Industry Review*, May/June 1998, p. 42.

³ See "'Just in Time' Inventories and Labor: a Study of Two Industries, 1990–1998," *Report on the American Workforce* (U.S. Department of Labor, 1999).

⁴ Manpower, Inc., "No Relief of Labor-Shortage in New Year," *Employment Outlook Survey*, Nov. 22, 1999; on the Internet at <http://www.manpower.com/news/IQ00.htm> (visited December 1999).

⁵ The Conference Board, "The Conference Board's Consumer Confidence Climbs," press release, Nov. 30, 1999; on the Internet at <http://www.conference-board.org/products/frames.cfm?main=c-consumer.cfm> (visited December 1999).

⁶ Federal Reserve Board, *Beige Book Summary*, Sept. 22, 1999, December 1999; on the Internet at <http://www.bog.frb.fed.us/fomc/BeigeBook/1999/19990922/default.htm>.

⁷ The Consumer Price Index for personal computers and peripheral equipment declined from 78.2 in 1998 to 53.5 in 1999.

⁸ International Data Corporation, "IDC Forecasts Healthy Worldwide Q4 1999 PC Demand with 17% Unit Growth Over Q4 1998—Consumer Demand Offsets Quake and Y2K," Dec. 7, 1999; on the Internet at <http://www.idc.com/Data/Personal/content/PS120799PR.htm>.

⁹ "Housing Opportunity Index Hits Record High in This Year's First Quarter," June 17, 1999; on the Internet at <http://www.nahb.org/news/hoiqtr1.htm>. (no longer accessible). The index, computed from 524,324 closings of new and existing homes in 181 markets, was the highest since the National Association of Home Builders began tabulating it in 1992. Through the first quarter, families earning the median U.S. household income of \$47,800 could afford to buy an unprecedented 69.6 percent of homes sold nationwide.

¹⁰ Shortages of skilled labor, wallboard, brick, and insulation were reported by the National Association of Home Builders, and shortages of labor were also cited in various "Beige Book" reports by the Federal Reserve.

¹¹ Total orders were up 8.4 percent over the year. (See *Survey of Current Business*, August 1999 results, published Oct. 8, 1999.)

¹² Bureau of Labor Statistics, Producer Price Index. The index for fuel has caught up to 1997 levels, but prices of most other commodities have not.

¹³ See "Counting the Counters," this issue, pp. 24–29.

¹⁴ Effective with data for January 1999, revised population controls were introduced into the CPS. The revised controls resulted in an increase of 307,000 in the estimated size of the civilian noninstitutional population aged 16 and older. They also increased the estimated size of the civilian labor force and of employment by about 60,000 each, with more substantial, but offsetting, changes among population subgroups. Over-the-year

changes in this article, which are generally based on fourth-quarter-1998 to fourth-quarter-1999 comparisons, have been adjusted for the effects of these revised population controls, unless otherwise noted.

¹⁵ The National Bureau of Economic Research determined that the trough of the recession in the early 1990s occurred in March 1991; hence, the expansion of the 1990s officially began in that month and year. However, it should be noted that many labor market indicators showed weakness well into 1992. The unemployment rate, for example, did not peak until June 1992.

¹⁶ Over-the-year changes for women maintaining families were not adjusted for revised population controls because adjustment factors were not available for the group.

¹⁷ The figure for 1979 was taken from the October 1979 supplement to the CPS, from which information is obtained on school enrollment for teenagers. The figure for October 1999 is from data on school enrollment obtained in the basic CPS. October data are used because schools are usually in session that month.

¹⁸ Historical data on unemployment are available beginning in 1954 for whites, 1972 for blacks, and 1973 for Hispanics.

¹⁹ Over-the-year changes in employment status by educational attainment have not been adjusted to reflect revised population controls because adjustment factors were not available.

²⁰ Data on educational attainment for years prior to 1992 are not strictly comparable to data for 1992 and later years because of survey changes. Prior to 1992, the respondents were asked how many years of school they had completed. Beginning in 1992, respondents were asked instead about the highest degree they had obtained.

²¹ Over-the-year changes in this part of the article were not adjusted for revised population controls because adjustment factors were available neither for employment by race or Hispanic origin crossed by occupation nor by detailed occupation alone.

²² In this part of the article, all data are annual averages.

²³ The concept of a changing age distribution affecting unemployment rates has been considered on numerous occasions in the literature over the years; among the more recent contributions is an article by Lawrence F. Katz and Alan B. Krueger ("The High-pressure U.S. Labor Market of the 1990s," Working Paper #416 (Princeton, NJ, Princeton University, Industrial Relations Section, May 1999)), who found that the unemployment rate in 1998 would have been about 5.2 percent (as opposed to the official rate of 4.5 percent) if the age composition of the labor force had been the same as the average over the 1960–98 period.

²⁴ The year 1969 was chosen as a point of comparison because the unemployment rate in 1999 was the lowest since 1969, on an annual-average basis. The year 1978 was chosen as another point because in that year the proportion of young people in the labor force was the highest of all years over the 1948–99 period.

²⁵ Of course, age and sex are not the only variables that can exert an influence on unemployment rates. Other factors may be race and educational attainment. A more in-depth analysis would simultaneously take into account a wide range of variables affecting unemployment.

²⁶ The *median* (or upper limit of the second quartile) is the amount that

divides a given earnings distribution into two equal groups, one having earnings above the median and the other having earnings below the median.

²⁷ The data presented in this part of the article are annual averages, and changes are based on a comparison of 1998 and 1999 figures. Over-the-year changes in median weekly earnings were not adjusted for revised population controls because adjustment factors were not available.

²⁸ This aggregate ratio does not control for differences in many variables that may affect earnings. For more information on trends in the earnings of women, see Mary Bowler, "Women's earnings: an overview," *Monthly Labor Review*, December 1999, pp. 13–21.

²⁹ The National Bureau of Economic Research (NBER) determined that November 1982 was the trough of the 1981–82 recession and that the ensuing expansion peaked in July 1990. The NBER designated March 1991 as the trough of the 1990–91 recession. In this part of the article, the 1982–89 period is used to represent the expansion of the 1980s and the 1992–99 period is used for the expansion of the 1990s, because the cyclical low points in median weekly earnings prior to the two expansions (in constant dollars, using the CPI-U and CPI-U-X1) occurred in 1981 and 1991, respectively.

³⁰ At the upper limit of the *first decile*, 90 percent of workers have higher earnings, and 10 percent have lower earnings, than that limit. At the upper limit of the *ninth decile*, 90 percent of workers have lower earnings than that limit.

³¹ In the case of over-the-year earnings growth by educational attainment, the trends exhibited by the first decile are consistent with the observed trends at the first quartile. Likewise, the trends shown by the ninth decile are consistent with those at the third quartile. At the upper limit of the *first quartile*, 75 percent of workers have higher earnings, and 25 percent have lower earnings, than that limit. At the upper limit of the *third quartile*, 25 percent of workers have higher earnings than the limit.

³² The data in this part of the article are annual averages.

³³ *Currently looking* refers to job search activity conducted within the 4 weeks preceding the survey. Had these persons been looking within that period, they would have been counted as *unemployed* rather than *not in the labor force*.

³⁴ An analysis of data on persons *not* in the labor force, but who indicate that they want a job, reveals that their labor market attachment is generally weak. Specifically, Monica Castillo ("Persons outside the labor

force who want a job," *Monthly Labor Review*, July 1998, pp. 34–42) found that only 41 percent of persons not in the labor force in 1994 who said they wanted a job were actually in the labor force a year later. The percentage was slightly higher for marginally attached workers (48 percent). For discouraged workers, 45 percent were in the labor force in 1995.

³⁵ In 1994, a redesigned CPS was introduced in which some of the categories of persons not in the labor force were subject to major changes in definition. As a result, historical comparisons for these categories are possible only back to that year.

³⁶ To calculate the change in employment that is due to population growth, the employment-population ratio for the first period is applied to the population for the second, and the employment level that is derived is compared with the employment level for the first period. To calculate the change in employment due to shifts in the proportion of the population among the separate labor force categories, the change in the ratios for the other labor force categories is divided by the change in the employment-population ratio, and the change in employment not due to population growth is multiplied by the resulting distribution. The change that results is the *net* change between labor force categories, not the gross flows between categories.

³⁷ Estimates of both nonfarm employment and the labor force are the sum of State estimates and are not intended to add to national totals. In addition, both series are subject to revision resulting from reestimation and updated seasonal adjustment effective with the release of January 2000 data. The four regions and nine divisions are composed of the following States and the District of Columbia: *NORTHEAST: New England division*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; *Middle Atlantic division*—New Jersey, New York, Pennsylvania; *SOUTH: South Atlantic division*—Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia; *East South Central division*—Alabama, Kentucky, Mississippi, Tennessee; *West South Central division*—Arkansas, Louisiana, Oklahoma, Texas; *MIDWEST: East North Central division*—Illinois, Indiana, Michigan, Ohio, Wisconsin; *West North Central division*—Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; *WEST: Mountain division*—Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming; *Pacific division*—Alaska, California, Hawaii, Oregon, Washington.

³⁸ Monthly data for the West region, Pacific division, and California begin in 1980; the other regional, divisional, and State series begin in 1978.