

U.S. labor market in 2002: continued weakness

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The U.S. job market remained weak in 2002, in the wake of the marked deterioration that occurred in 2001. Nonfarm employment turned toward slow growth around mid-year, but still ended up at a lower level than a year earlier. The unemployment rate edged up during the year; by yearend, it was up just slightly from its level at the close of 2001.

These labor market indicators reflected broad uncertainties facing businesses and consumers. Early in the year, factors such as an uptick in industrial production and new orders, as well as rising consumer confidence, pointed toward an improvement in economic conditions; as the year progressed, some of this initial strengthening gave way. During the second half of the year, the business climate and consumers' attitudes were shaped by a number of events. These included heightened geopolitical concerns and weakening in the stock markets, which related in part to the revelation of accounting irregularities in several firms' financial statements and lapses in corporate governance.¹ Concern about the outlook for substantial economic recovery persisted through yearend.

Without a clear sign that the economy had returned to sustainable growth, most employers remained reluctant to hire. Nonfarm payroll employment declined by 424,000 in the first half of the year and rose by only 100,000 in the second half; altogether, employment contracted by 0.2 percent over the year. Manufacturing remained

weak, with a 3.7-percent employment decline, although the pace of job losses slowed considerably relative to 2001. Industries that are closely tied to manufacturing activity, such as wholesale trade and transportation, also remained weak. Despite low interest rates and a strong housing market, employment in construction fell by 1.4 percent; and although consumers continued to spend, retail trade employment fell by 0.8 percent. Services and government both added jobs throughout the year, as long-term demographic trends generated growth in health services and education.

Workers benefited from wage growth and low inflation, as their real average weekly earnings grew by 1.1 percent over the year. The length of the average workweek for private industry also increased in 2002, although only by 0.1 hour. This was the first time the average work week had expanded since reaching a high in 1997.

Both the number of unemployed persons and the jobless rate edged up in 2002. The unemployment rate was 5.9 percent in the fourth quarter of 2002, up 0.3 percentage point from the rate a year earlier, and the number of unemployed persons rose by nearly 500,000 to 8.4 million. These increases were much smaller than in 2001. With little growth in employment, however, those unemployed tended to stay without a job longer. The average (mean) duration of unemployment rose by 3.9 weeks to 17.9 weeks in the fourth quarter of 2002, while the number of persons un-

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Conceptual differences between employment estimates from establishment and household surveys

The Bureau of Labor Statistics produces two monthly employment series that are independently obtained: the estimate of total nonfarm jobs, derived from the Current Employment Statistics (CES or establishment) survey, and the estimate of total civilian employment, derived from the Current Population Survey (CPS or household survey).

The CES survey is an employer-based survey that provides data on the number of payroll jobs in nonfarm 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 characteristics. The surveys are largely complementary.

Employment estimates from the CPS include both agricultural and nonagricultural sectors and count persons in any type of work arrangement: wage and salary workers, self-employed persons, private household workers, and unpaid workers who worked 15 hours or more in an enterprise operated by a family member. Estimates from the CES survey refer only to persons on wage-and-salary payrolls and exclude private household workers. As a result, the count of employment from the CPS is larger than that of the CES survey.

Partially offsetting the higher estimates from the CPS is the fact that the CPS is a count of persons, and individuals are counted only once, regardless of the number of jobs they hold. In contrast, the CES 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. This includes persons 16 years of age and older residing in the United States who are not confined to institutions (for example, correctional, psychiatric, and long-term care facilities), 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 in the CES, and wage and salary civilian jobs held by uniformed military personnel are counted, and persons who commute into the United States from Mexico or Canada to work are counted as employed.

Effective with the release of data for January 2003, a number of changes affect estimates from the CPS. These changes were undertaken to benchmark the survey data to more current estimates of the U.S. population; to adopt new standards for data on race, ethnicity, industry, and occupation; and to improve seasonal adjustment procedures. The data included in this article do not reflect these changes, as they are based on the procedures and estimates that were in place at the end of 2002.

employed for 27 weeks or more increased by 705,000. Total civilian employment was up slightly over the year, entirely due to increases among adult women. The employment increase in service occupations was largely offset by widespread job losses, particularly in precision production, craft, and repair occupations, as well as in operator, fabricator, and laborer fields.

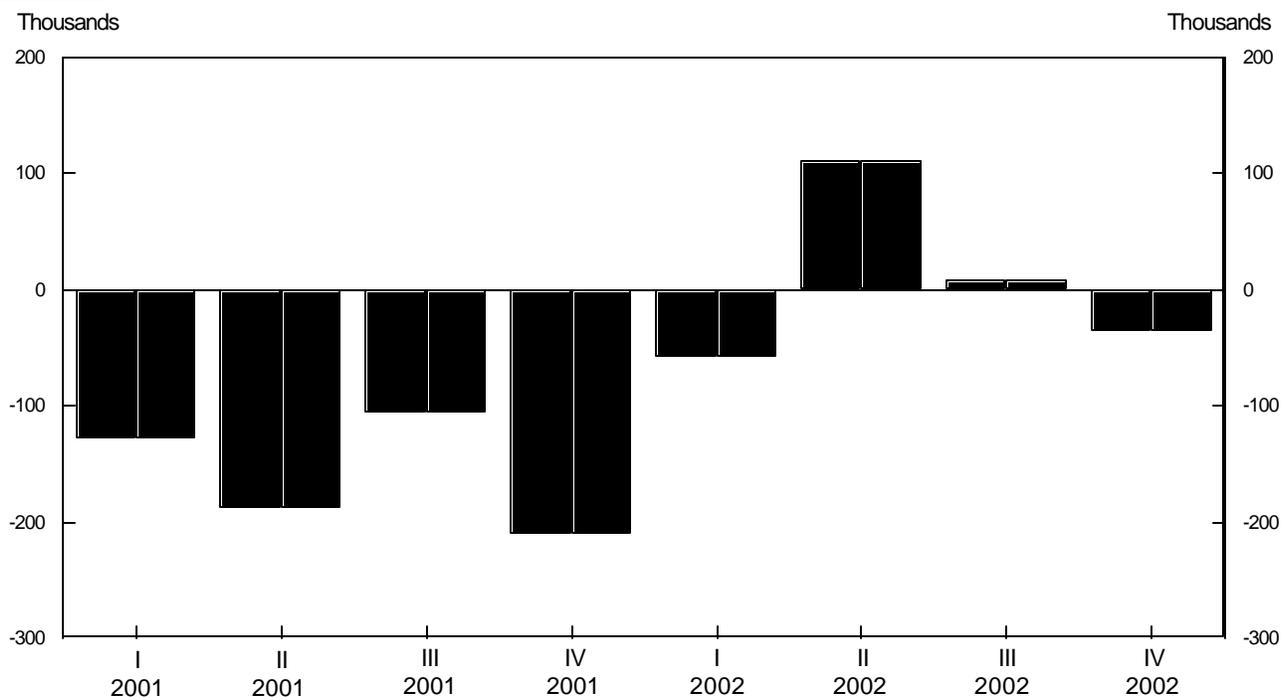
This article examines developments affecting U.S. labor markets in 2002. The data are primarily from the Current Employment Statistics (CES) survey, the Current Population Survey (CPS), and the Local Area Unemployment Statistics (LAUS) program. All three programs report data monthly, although quarterly averages are used in this analysis unless otherwise noted. Over-the-year comparisons measure changes from fourth quarter 2001 to fourth quarter 2002 unless otherwise noted. (See page 4 for an explanation of differences between the CES and CPS surveys.)

Many businesses were reluctant to add new employees in 2002, as they worked through problems of debt and excess capacity and remained conservative spenders.² The employment trend in the *help supply services* industry, which supplies personnel on a contract basis, illustrates

this reluctance well. Businesses sometimes contract for temporary employees if demand for the company's products or services is uncertain.³ The help supply services industry added 111,000 jobs in the second quarter of 2002, as economic conditions appeared to improve. This followed a loss of 745,000 jobs over the prior 6 quarters. As the year progressed, however, and the business environment remained uncertain, job growth in the help supply services industry stalled. (See chart 1.)

Besides their reluctance to hire new employees, businesses were also conservative spenders overall. Nonresidential private fixed investment shrank 1.9 percent in 2002. Most of this contraction occurred in the first quarter. From the second to fourth quarters, increased spending on equipment and software countered reduced spending on structures. Over the year, equipment and software expenditures rose 3.0 percent. This compares to average annual growth of 6.9 percent during the 1990s.⁴ Industrial production of business equipment, a measure of business spending on manufactured goods, declined 2.8 percent over the year.⁵ Despite improvement compared to 2001, these indicators nonetheless showed weak business spending in 2002.

Chart 1. Quarterly employment changes in help supply services, 2001-02



NOTE: Data are seasonally adjusted.
SOURCE: Bureau of Labor Statistics, Current Employment Statistics Survey.

The mild improvement in business spending on equipment and software aided the employment situation of several manufacturing industries, although this improvement often translated into a slowing of job losses rather than job gains. Over the year, manufacturing lost 642,000 jobs, as companies chose to draw down existing inventories even as new orders began to grow.⁶ (See table 1.) However, relative to 2001, the rate of factory job losses slowed by about half. Job losses in *electronic and other electrical equipment* as well as in *industrial machinery and equipment* slowed considerably in 2002 relative to the prior year. Still, in 2002, these two industries lost a total of 269,000 jobs, accounting for 42 percent of total job losses in manufacturing. Reduced foreign demand for electrical equipment and industrial machinery was one reason for the continued job losses, as exports of computer and electronic products fell 13.6 percent and exports of machinery fell 8.3 percent.⁷ One factor that influenced manufacturers' competitiveness abroad was the strong U.S. dollar, which made U.S.-produced goods relatively expensive. In 2002, the average monthly value of the dollar relative to the currencies of major U.S. trading partners reached its highest level since 1985.⁸

In recent years, *primary metal* industries have had difficulties competing with low-priced imports. Primary metals lost 44,000 jobs in 2002, although its employment decline slowed during the year as the enactment of temporary steel tariffs in March raised the relative price of steel imports and boosted demand for domestic steel. Although several steel firms filed for bankruptcy protection over the year,⁹ the industry's situation improved as the rate of job loss slowed and output grew 13.3 percent after having declined in each of the 2 prior years.¹⁰

In contrast, business spending on structures—which accounted for about 20 percent of all business investment in 2002—did not show relative improvement over the year, but continued its 2-year descent as businesses consolidated space and closed factories in order to eliminate excess capacity.¹¹ Thus, despite demand derived from a strong housing market, the construction industry lost 93,000 jobs. The job losses were predominately in *special trade contractors* (–75,000), especially in *electrical work*, and *heavy construction* (–39,000). Employment in *engineering and architectural services*, which sells its services primarily to the construction industry,¹² fell by 24,000 in 2002. This was the first year employment in this industry had contracted since 1991. Construction-related manufacturing industries¹³ such as *lumber and wood products*; *stone, clay, and glass products*; and *fabricated structural metal products* also weakened in 2002, and together they lost 31,000 jobs over the year.

Wholesale trade and *trucking and warehousing*, two industries that are closely tied to domestic manufacturing activity, also experienced relative improvement in their employ-

ment situation. The pace of job losses in wholesale trade slowed from 2.9 percent in 2001 to 0.9 percent in 2002. Paralleling the manufacturing industry, the job losses in wholesale trade were concentrated in *professional and commercial equipment*, *electrical goods*, and *machinery, equipment, and supplies*, which collectively lost 87,000 jobs in 2002. Employment in trucking and warehousing was essentially unchanged in 2002, after declining by 25,000 in the prior year; this reflected an increase of 8 percent in truck tonnage in the first 3 quarters, a sign of improved demand for trucking services.¹⁴

One area that experienced no relief from prior spending excesses was the *communications* industry, where the rate of job loss accelerated in 2002. Driven by high expectations of future demand, the communications industry had over-invested in fiber-optic networks and equipment in the 1990s. These expectations had not yet been realized by 2002 and infrastructural capacity continued to exceed demand, resulting in intense price competition and industry consolidation.¹⁵ Over the year, employment contracted by 6.3 percent as 106,000 jobs were lost; this compares with average annual job growth of 3.8 percent from 1992 through 2000. Manufacturers of *communications equipment* reduced their payrolls by 38,000 in 2002, and about matched the prior year's rate of decline.

Business investment in transportation equipment declined in 2002,¹⁶ mainly reflecting weak demand for civil aircraft in light of poor demand for air travel. Additionally, aircraft sales were increasingly split between U.S. and foreign manufacturers.¹⁷ Due to stiff competition and declining demand, domestic *aircraft and parts manufacturing* suffered from excess production capacity and weakening profits; over the year, the industry cut 62,000 jobs, amounting to 13.7 percent of its workforce. Aircraft and parts manufacturing was but one of several industries affected by reduced travel levels.

Travel-related industries faced challenging markets in 2002, as business travel remained depressed and the effects of the September 11, 2001, terrorist attacks continued to adversely affect business conditions.¹⁸ The effects were most visible in *transportation*, and especially in *transportation by air*. Transportation lost 84,000 jobs in 2002 after losing more than twice as many jobs the prior year. About half of these job losses occurred from the fourth quarter of 2001 to the first quarter of 2002, during the immediate aftermath of the September 11th tragedy. During the past 2 years, transportation by air accounted for the majority of the job losses in transportation.

Employment in air transportation began to fall early in 2001, as the industry experienced the effects of reduced levels of business travel. At that time, businesses were scrutinizing their financial statements and eliminating unnecessary expenses as the economy fell into recession. This frequently

Table 1. Employees on nonfarm payrolls by industry, seasonally adjusted quarterly averages, 1996–2002

[Numbers in thousands]

Industry	1996	2001	2002	Change, fourth quarter to fourth quarter					
				Average change 1996–2001		2000–2001		2001–2002	
				Thousands	Percent	Thousands	Percent	Thousands	Percent
	IV	IV	IV						
Total nonfarm	120,689	131,130	130,806	2,088	1.7	-1,055	-.8	-324	-.2
Total private	101,255	110,035	109,441	1,756	1.7	-1,516	-1.4	-594	-.5
Goods-producing	24,660	24,375	23,626	-57	-.2	-1,251	-4.9	-749	-3.1
Mining	583	566	552	-3	-.6	15	2.7	-14	-2.5
Metal mining	54	34	32	-4	-8.8	-6	-15.0	-2	-5.9
Oil and gas extraction	325	340	332	3	.9	18	5.6	-8	-2.4
Nonmetallic minerals, except fuels	107	110	109	1	.6	-3	-2.7	-1	-.9
Construction	5,548	6,635	6,542	217	3.6	-40	-.6	-93	-1.4
General building contractors	1,282	1,456	1,477	35	2.6	-36	-2.4	21	1.4
Heavy construction, except building	792	924	885	26	3.1	23	2.6	-39	-4.2
Special trade contractors	3,474	4,255	4,180	156	4.1	-27	-.6	-75	-1.8
Manufacturing	18,529	17,174	16,532	-271	-1.5	-1,226	-6.7	-642	-3.7
Durable goods	10,845	10,249	9,755	-119	-1.1	-882	-7.9	-494	-4.8
Lumber and wood products	784	773	761	-2	-.3	-41	-5.0	-12	-1.6
Furniture and fixtures	506	496	485	-2	-.4	-60	-10.8	-11	-2.2
Stone, clay, and glass products	550	561	555	2	.4	-17	-2.9	-6	-1.1
Primary metal industries	707	626	582	-16	-2.4	-69	-9.9	-44	-7.0
Fabricated metal products	1,460	1,443	1,401	-3	-.2	-98	-6.4	-42	-2.9
Industrial machinery and equipment	2,122	1,910	1,790	-42	-2.1	-214	-10.1	-120	-6.3
Computer and office equipment	363	325	294	-8	-2.2	-34	-9.5	-31	-9.5
Electronic and other electrical equipment	1,669	1,520	1,371	-30	-1.9	-236	-13.4	-149	-9.8
Electronic components and accessories	623	605	537	-4	-.6	-114	-15.9	-68	-11.2
Transportation equipment	1,799	1,719	1,647	-16	-.9	-106	-5.8	-72	-4.2
Motor vehicles and equipment	969	921	907	-10	-1.0	-80	-8.0	-14	-1.5
Aircraft and parts	471	453	391	-4	-.8	-7	-1.5	-62	-13.7
Instruments and related products	860	825	792	-7	-.8	-24	-2.8	-33	-4.0
Miscellaneous manufacturing industries	388	373	372	-3	-.8	-18	-4.6	-1	-.3
Nondurable goods	7,685	6,925	6,777	-152	-2.1	-344	-4.7	-148	-2.1
Food and kindred products	1,687	1,688	1,687	0	.0	2	.1	-1	-.1
Tobacco products	42	34	36	-2	-4.1	1	3.0	2	5.9
Textile mill products	621	453	425	-34	-6.1	-67	-12.9	-28	-6.2
Apparel and other textile products	851	540	509	-62	-8.7	-73	-11.9	-31	-5.7
Paper and allied products	685	626	611	-12	-1.8	-26	-4.0	-15	-2.4
Printing and publishing	1,542	1,453	1,399	-18	-1.2	-89	-5.8	-54	-3.7
Chemicals and allied products	1,032	1,015	1,007	-3	-.3	-15	-1.5	-8	-.8
Petroleum and coal products	142	127	125	-3	-2.2	1	.8	-2	-1.6
Rubber and miscellaneous plastics products	990	934	923	-11	-1.2	-66	-6.6	-11	-1.2
Leather and leather products	93	56	55	-7	-9.6	-11	-16.4	-1	-1.8
Service-producing	96,029	106,755	107,179	2,145	2.1	196	.2	424	.4
Transportation and public utilities	6,292	6,912	6,712	124	1.9	-202	-2.8	-200	-2.9
Transportation	4,042	4,375	4,291	67	1.6	-175	-3.8	-84	-1.9
Railroad transportation	229	232	224	1	.3	-6	-2.5	-8	-3.4
Local and interurban passenger transit	444	480	467	7	1.6	5	1.1	-13	-2.7
Trucking and warehousing	1,644	1,830	1,827	37	2.2	-25	-1.3	-3	-.2
Water transportation	175	190	191	3	1.7	-4	-2.1	1	.5
Transportation by air	1,110	1,194	1,147	17	1.5	-104	-8.0	-47	-3.9
Pipelines, except natural gas	14	15	15	0	1.4	0	.0	0	.0
Transportation services	426	435	421	2	.4	-41	-8.6	-14	-3.2
Communications and public utilities	2,250	2,537	2,421	57	2.4	-27	-1.1	-116	-4.6
Communications	1,375	1,688	1,582	63	4.2	-23	-1.3	-106	-6.3
Electric, gas, and sanitary services	875	849	839	-5	-.6	-4	-.5	-10	-1.2
Wholesale trade	6,549	6,708	6,646	32	.5	-197	-2.9	-62	-.9
Durable goods	3,849	3,963	3,886	23	.6	-155	-3.8	-77	-1.9
Nondurable goods	2,700	2,745	2,759	9	.3	-42	-1.5	14	.5
Retail trade	21,815	23,412	23,228	319	1.4	-31	-.1	-184	-.8
Building materials and garden supplies	917	1,050	1,077	27	2.7	24	2.3	27	2.6
General merchandise stores	2,714	2,873	2,834	32	1.1	-21	-.7	-39	-1.4
Department stores	2,377	2,537	2,495	32	1.3	-14	-.5	-42	-1.7
Food stores	3,466	3,440	3,377	-5	-.2	-34	-1.0	-63	-1.8

Table 1. Continued—Employees on nonfarm payrolls by industry, seasonally adjusted quarterly averages, 1996–2002

[Numbers in thousands]

Industry	1996	2001	2002	Change, fourth quarter to fourth quarter					
				Average 1996–2001		2000–2001		2001–2002	
				Thousands	Percent	Thousands	Percent	Thousands	Percent
	IV	IV	IV						
Automotive dealers and service stations	2,293	2,433	2,428	28	1.2	14	.6	-5	-.2
New and used car dealers	1,042	1,127	1,127	17	1.6	11	1.0	0	.0
Apparel and accessory stores	1,100	1,171	1,174	14	1.3	-19	-1.6	3	.3
Furniture and home furnishings stores	990	1,149	1,167	32	3.0	8	.7	18	1.6
Eating and drinking places	7,589	8,218	8,112	126	1.6	24	.3	-106	-1.3
Miscellaneous retail establishments	2,746	3,079	3,060	67	2.3	-26	-.8	-19	-.6
Finance, insurance, and real estate	6,976	7,747	7,810	154	2.1	127	1.7	63	.8
Finance	3,341	3,817	3,856	95	2.7	71	1.9	39	1.0
Depository institutions	2,019	2,066	2,080	9	.5	38	1.9	14	.7
Commercial banks	1,457	1,442	1,451	-3	-.2	20	1.4	9	.6
Savings institutions	262	259	262	-1	-.2	9	3.6	3	1.2
Nondepository institutions	543	746	802	41	6.6	59	8.6	56	7.5
Security and commodity brokers	567	743	710	35	5.6	-36	-4.6	-33	-4.4
Holding and other investment offices	212	261	263	10	4.2	8	3.2	2	.8
Insurance	2,236	2,376	2,373	28	1.2	26	1.1	-3	-.1
Insurance carriers	1,521	1,597	1,577	15	1.0	13	0.8	-20	-1.3
Insurance agents, brokers, and service	715	779	796	13	1.7	13	1.7	17	2.2
Real estate	1,398	1,554	1,582	31	2.1	30	2.0	28	1.8
Services ¹	34,964	40,880	41,419	1,183	3.2	38	.1	539	1.3
Agricultural services	642	861	877	44	6.0	41	5.0	16	1.9
Hotels and other lodging places	1,730	1,810	1,796	16	.9	-107	-5.6	-14	-.8
Personal services	1,185	1,274	1,288	18	1.5	12	1.0	14	1.1
Business services ¹	7,495	9,312	9,312	363	4.4	-599	-6.0	0	.0
Services to buildings	918	1,024	1,045	21	2.2	27	2.7	21	2.1
Personnel supply services	2,737	3,161	3,166	85	2.9	-701	-18.2	5	.2
Help supply services	2,428	2,829	2,853	80	3.1	-633	-18.3	24	.8
Computer and data processing services	1,289	2,224	2,191	187	11.5	52	2.4	-33	-1.5
Auto repair, services, and parking	1,100	1,257	1,264	31	2.7	14	1.1	7	.6
Miscellaneous repair services	373	375	378	0	.1	3	.8	3	.8
Motion pictures	533	575	588	8	1.5	-12	-2.0	13	2.3
Amusement and recreation services	1,500	1,689	1,642	38	2.4	-55	-3.2	-47	-2.8
Health services ¹	9,569	10,503	10,773	187	1.9	323	3.2	270	2.6
Offices and clinics of medical doctors	1,699	2,024	2,087	65	3.6	68	3.5	63	3.1
Nursing and personal care facilities	1,742	1,866	1,903	25	1.4	53	2.9	37	2.0
Hospitals	3,829	4,152	4,265	65	1.6	140	3.5	113	2.7
Home healthcare services	691	640	656	-10	-1.5	4	0.6	16	2.5
Legal services	932	1,049	1,079	23	2.4	33	3.2	30	2.9
Private schools and other educational services	2,058	2,458	2,572	80	3.6	96	4.1	114	4.6
Social services ¹	2,445	3,122	3,207	135	5.0	171	5.8	85	2.7
Child daycare services	568	722	728	31	4.9	17	2.4	6	.8
Residential care	691	888	912	39	5.1	62	7.5	24	2.7
Museums and botanical and zoological gardens	87	110	106	5	4.8	2	1.9	-4	-3.6
Membership organizations	2,226	2,473	2,478	49	2.1	7	.3	5	.2
Engineering and management services ¹	2,889	3,619	3,670	146	4.6	101	2.9	51	1.4
Engineering and architectural services	846	1,052	1,028	41	4.5	16	1.5	-24	-2.3
Management and public relations	894	1,181	1,229	57	5.7	47	4.1	48	4.1
Government	19,434	21,096	21,364	332	1.7	462	2.2	268	1.3
Federal	2,727	2,618	2,655	-22	-.8	-1	0.0	37	1.4
Federal, except Postal Service	1,874	1,777	1,847	-19	-1.1	18	1.0	70	3.9
State	4,581	4,927	4,960	69	1.5	121	2.5	33	.7
State government, except education	2,683	2,806	2,797	25	0.9	43	1.6	-9	-.3
State government education	1,898	2,121	2,163	45	2.2	78	3.8	42	2.0
Local	12,125	13,551	13,749	285	2.2	342	2.6	198	1.5
Local government, except education	5,320	5,842	5,923	104	1.9	133	2.3	81	1.4
Local government education	6,805	7,709	7,825	181	2.5	209	2.8	116	1.5

¹Includes other industries not shown separately.

meant fewer business trips, as some companies substituted lower-cost alternatives such as phone- and video-conferencing for face-to-face meetings. When business travel was necessary, some businesses reduced associated expenses by requiring employees to plan ahead, fly coach class or purchase tickets from discount airlines, and by limiting travel allowances.¹⁹ Except for discount airlines—which cater to leisure travelers—most major airlines traditionally have relied heavily on income generated from their sales of last-minute, unrestricted, business-class tickets. When businesses purchased cheaper, alternative tickets or avoided travel altogether, the airline industry was forced to respond with its own cutbacks.²⁰

The September 11, 2001, terrorist attacks further aggravated airlines' financial difficulties. After the attacks, fierce competition for passengers drove down ticket prices and revenues; competitive pricing from discount carriers helped keep ticket prices low in 2002. Additionally, after the terrorist attacks, passenger airlines lost a revenue source as new restrictions prevented them from carrying certain types of commercial cargo. Transport of U.S. mail, especially, declined.²¹ As these factors depressed airline revenues, the industry was forced to concentrate on filling a greater proportion of their seats in order to profit. In 2002, airlines needed to fill 80 percent of their seats to make a profit, whereas in 2000 they only needed to fill 70 percent.²² Faced with decreased demand for air travel and financial losses, nearly all airline companies scaled-down the size of their active fleets, stored unneeded planes, and cut jobs.

The *transportation services* and *hotel and other lodging places* industries also felt the effects of depressed levels of travel. Employment in transportation services, which includes travel agencies, contracted for the second consecutive year, with 14,000 jobs lost in 2002. Reduced demand from business travelers was an important factor driving this loss. The popularity of the Internet, which enables consumers to directly purchase tickets, and cutbacks in the commissions that airlines traditionally paid to agents, further hurt travel agencies.²³ Hotels and other lodging places lost 14,000 jobs in 2002. After reaching a high at the end of 2000, employment in the hotel industry declined 6.3 percent by the end of 2002. Similar to the airline industry, the downturn in lodging dates from early 2001. Reduced business travel was a primary reason for reduced revenues at hotels, although the industry suffered an additional blow as the September 11, 2001, terrorist attacks halted all types of travel across the Nation and further drove down room rates.

Eating and drinking places and *amusement and recreation services* are industries whose fortunes also rely somewhat on travelers' purchases. Eating and drinking places reduced their payrolls by 106,000 workers in 2002. Since reaching a peak in mid-2001, the industry has contracted 1.9 per-

cent. A wide range of establishments are classified in eating and drinking places, and it is difficult to know which factors drove the industry trend; however, reduced travel is certainly one negative factor that affected demand. Despite mild improvement in mid-2002, employment in amusement and recreation services ended the year down 47,000, declining for the second consecutive year.

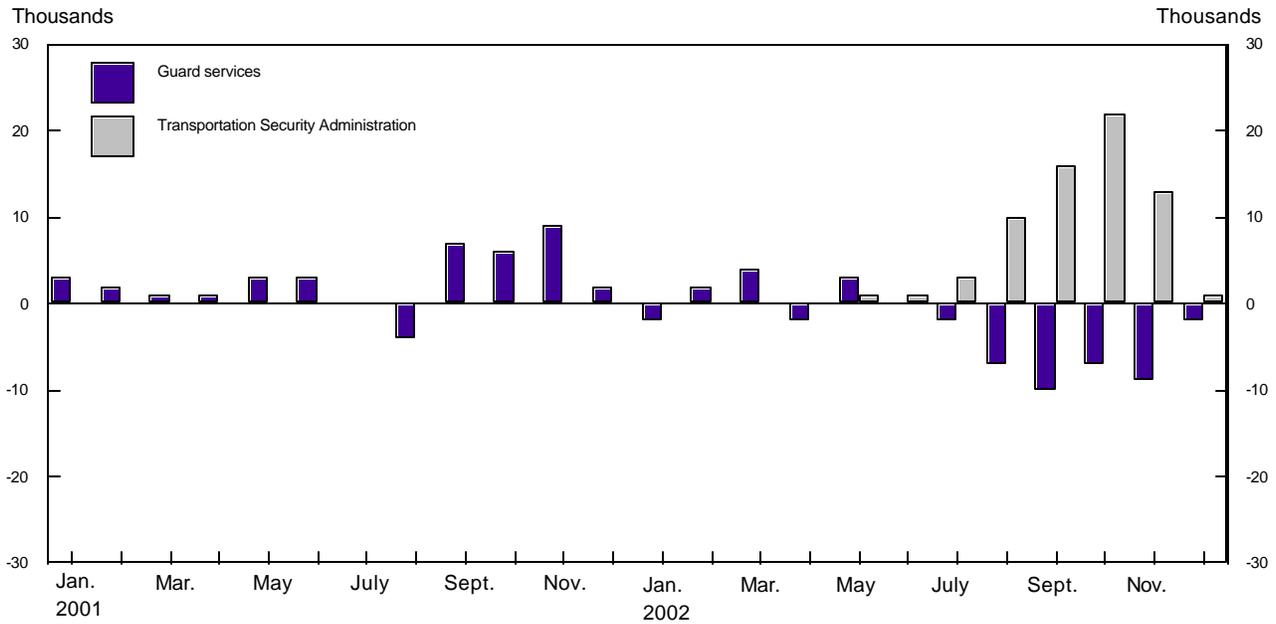
One additional result of the September 11, 2001, terrorist attacks was passage of the Aviation and Transportation Security Act in November 2001, which led to the creation a new Federal Government agency: the Transportation Security Administration (TSA). This agency is responsible for securing the Nation's transportation systems and, in 2002, it began the process of federalizing security at U.S. airports. The agency added 67,000 workers, the vast majority of whom are responsible for screening passengers and baggage.²⁴ Employment in *Federal Government, excluding the postal service*, reflected these job gains with an over-the-year increase of 70,000. As airport security jobs were federalized, private security firms lost contracts to provide security services at airports. Employment in detective, guard, and armored car services reflected these lost contracts, as this industry lost 24,000 jobs. (See chart 2.) Although the terrorist attacks profoundly impacted airport security and other travel-related industries, as well as consumers' willingness to spend money on travel, consumers remained steadfast spenders on other goods and services in 2002.

Low interest rates and growth in real earnings sparked consumer spending on certain big ticket items and drove employment gains in interest rate-sensitive industries. Interest rates began falling in 2001, as the Federal Reserve Bank lowered its target Federal funds rate and began expanding the money supply; for much of 2002, the Federal funds rate hovered near 1.75 percent.²⁵ Mortgage rates also began falling in 2000, and dipped to a 40-year low in 2002.²⁶

Low mortgage rates, coupled with real earnings growth, boosted housing affordability and the demand for housing.²⁷ Housing starts reached their highest level in more than 15 years,²⁸ and *residential general building contractors* added 36,000 workers, while *carpentry and floor work* added 9,000 workers to meet the increased demand for housing. Although these construction industries added workers in 2002, as mentioned earlier, they did not offset the decline in nonresidential building, and so the overall construction industry lost jobs.²⁹

Real estate gained 28,000 jobs, reflecting rising sales of both new and existing homes.³⁰ Minimal inflation, low mortgage rates, and appreciating home sales prices (up 7.1 percent over the year) likely inspired some investors to transfer funds from Wall Street to real estate.³¹ A bear market drove stock prices lower, and the Standard and Poor's 500 slipped 23 percent over the year. Employment in *security and commodity*

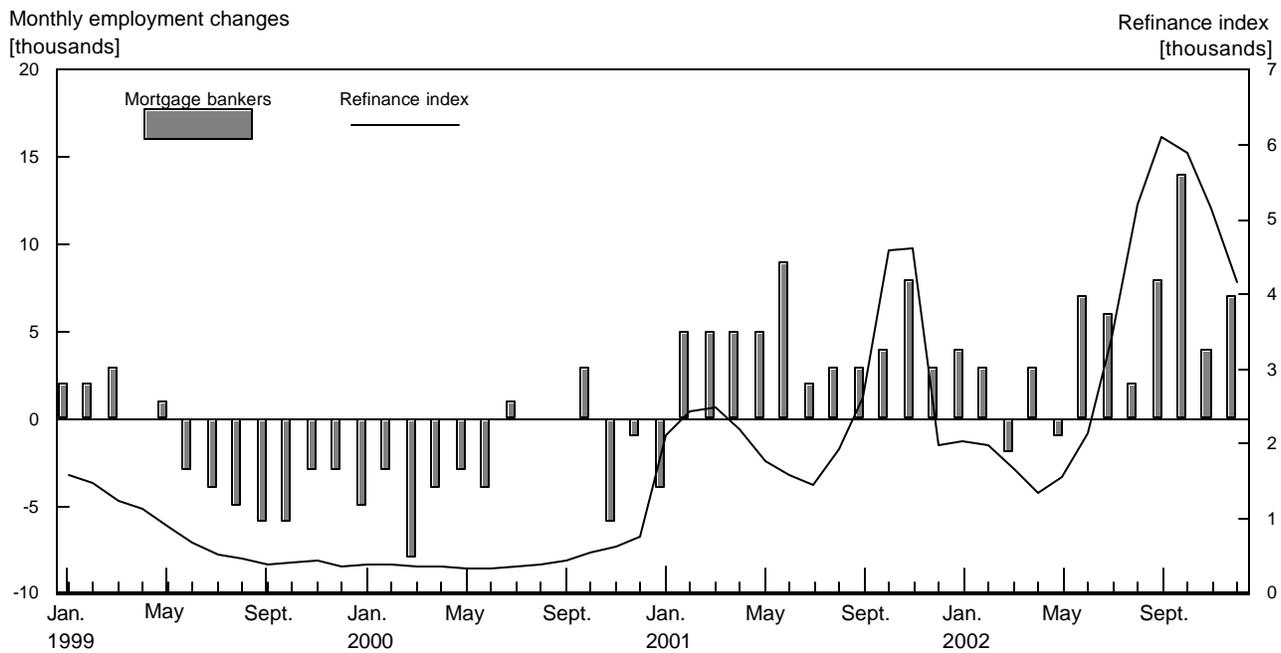
Chart 2. Monthly employment changes in detective, guard services, and the Transportation Security Administration, 2001-02



NOTE: Data are seasonally adjusted.

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

Chart 3. Employment in mortgage bankers and brokers and the average monthly Mortgage Bankers Association of America refinance index, 1999-2002



NOTE: Data are seasonally adjusted.

SOURCE: Bureau of Labor Statistics, Current Employment Statistics Survey, and the Mortgage Bankers Association of America.

brokers followed the market and declined by 33,000. Since reaching a high in 2001, employment in this industry has decreased 9.8 percent. While employment in security and commodity brokers contracted, *mortgage bankers and brokers* added 54,000 jobs over the year, driven by the historically low mortgage rates and an accompanying 35-percent surge in refinancing activity.³² (See chart 3.) Overall, the *finance, insurance, and real estate* industry added 63,000 jobs.

Refinancing activity sparked more than employment growth in mortgage bankers and brokers; it put extra money in consumers' pockets and, along with advances in real earnings, strengthened consumer spending. Consumer spending grew 2.5 percent in 2002. Expenditures on furniture and household equipment grew by more than 8 percent and helped slow the pace of job losses in *household furniture* manufacturing from 33,000 in 2001 to just 3,000 in 2002.³³

Consumer spending on motor vehicles and parts jumped in the fourth quarter of 2001, and remained high throughout 2002.³⁴ Auto dealers sold more than 17 million vehicles and recorded strong sales for the fourth consecutive year, due in part to consumer incentives, such as rebates and zero-percent financing, offered by auto manufacturers.³⁵ Despite strong sales, employment in *motor vehicles and equipment* manufacturing declined by 14,000. This loss was an improvement over 2001, when the industry lost 80,000 jobs.

The major domestic auto manufacturers operated on thin profit margins or losses partly as a result of competition from foreign brands, which continued to expand their U.S. production base; expenses related to retiree pension funds; and labor costs which, by contract, were essentially fixed. The labor contracts—which required that workers receive pay whether or not production lines were running—dissuaded the Big 3 from reducing output.³⁶ Meanwhile, the Big 3 automakers offered incentives to consumers in order to prop up sales and maintain market share.³⁷ Indeed, industrial production of motor vehicles and parts zoomed ahead 5.0 percent as domestic auto manufacturers produced on average 13,000 more autos per month in 2002 than the prior year.³⁸ Besides ramping up production, auto manufacturers reduced some of their variable costs by placing downward pressure on the prices they offered to suppliers.³⁹ In this way, auto producers transferred some of their industry's weakness to auto-related manufacturing industries, which produce vehicle inputs such as automotive stampings or electrical equipment for engines.⁴⁰ Collectively, these industries lost 15,000 jobs in 2002, about half the jobs they had lost in the prior year.

Total retail sales excluding motor vehicles and parts were also strong, as they rose 3.6 percent over the year. The retail trade industry, however, shed 184,000 jobs.⁴¹ Eating and drinking places accounted for the majority of job losses, although *department stores* lost 42,000 jobs and *food stores*

lost 63,000 jobs. In 2002, department stores continued to benefit from technological and managerial innovations that have improved their efficiency and reduced labor costs in recent years.⁴² Food stores benefited from recent innovations, too, although they also suffered as warehouse clubs and superstores provided fierce competition, and chipped away at food stores' traditional markets.⁴³

Demographic trends supported job growth in health services and education. *Health services* hired more workers (270,000) than any other industry in 2002, as its employment grew 2.6 percent. Aging baby-boomers, population growth, and technological advances generated increased demand for healthcare services. *Hospitals* accounted for the largest share of the job growth, with 113,000 hires, while *offices and clinics of medical doctors* added 63,000 workers to their payrolls. Employment in hospitals grew 2.7 percent in 2002, compared with average annual growth of 1.6 percent from 1996 to 2001. This accelerated growth is likely linked to a loosening of labor markets in 2001 and 2002. Acute shortages of workers—in both specialized and nonspecialized occupations—have plagued the industry in recent years, and the overall weakening of the labor market has allowed them to reduce the shortages.⁴⁴

As in health services, employment growth in public and private education was largely driven by demographic trends. Enrollment in public elementary and secondary schools has increased each year since 1985, as the baby-boom echo and immigration have added to the numbers of school-aged children.⁴⁵ In 2002, employment in *local government education* expanded by 1.5 percent, and *private elementary and secondary schools* employment grew by 1.9 percent.

Employment in higher education also expanded; *State Government education*, which consists largely of 2- and 4-year colleges, added 2.0 percent more jobs, whereas *private colleges and universities* added 6.6 percent more jobs. Although State Government education continued to expand in 2002, its rate of job growth slowed compared with its 2.2-percent average from 1996 to 2001. Many State colleges and universities faced severe budget crunches in 2002, as States collected fewer tax dollars and subsequently reduced funding for education.⁴⁶

Unemployment rose slightly in 2002. Data from the Current Population Survey (CPS) showed that a total of 8.4 million persons were unemployed at yearend, up by about one-half million over the year, and the national unemployment rate was 5.9 percent, 0.3 percentage point higher than in the fourth quarter of 2001. The unemployment rate trended upward fairly steadily following the onset of the recent recession in March 2001, and reached 5.9 percent in the second quarter of 2002. It then showed little definitive movement until late in the year. It

should be noted that at the end of 2002, the jobless rate was still relatively low in comparison to the rates reached during the labor market downturns of recent decades.⁴⁷ (See chart 4.)

Total employment, as measured in the household survey, fell in the first quarter of 2002, but subsequently rose slowly over the remainder of the year. The number of employed persons was slightly higher in the fourth quarter of 2002 than in the fourth quarter of 2001.⁴⁸ The rise in employment did not keep pace with the rise in the civilian noninstitutional population, and as a result, the employment-population ratio fell by 0.6 percentage point over the year to 62.5 percent.

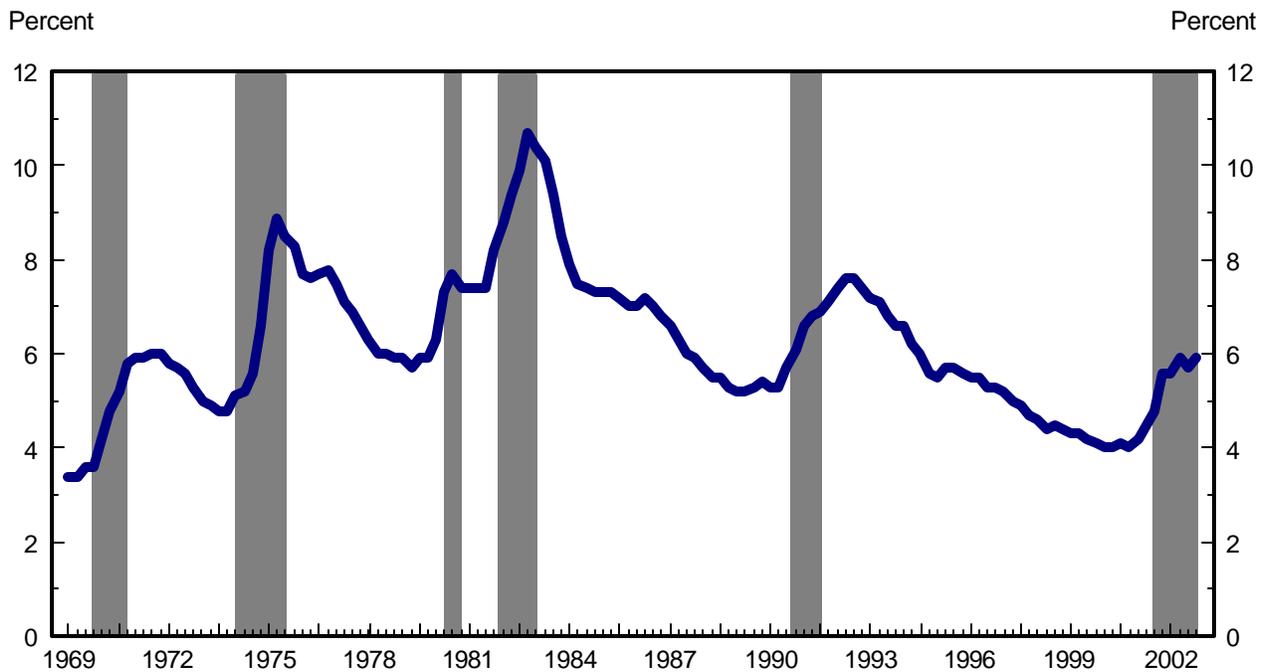
Adult women (those 20 years or older) fared somewhat better in the labor force than adult men or teenagers in 2002. Employment among adult women rose by nearly 500,000 over the year, while there was a decline of nearly 100,000 among adult men. (See table 2.) By the end of the year the number of unemployed adult women—those without a job but available and actively looking for work—had edged up by 166,000, but joblessness increased by more than twice this amount among adult men. While the jobless rate for adult women rose only slightly (0.2 percent), the rate for adult men rose by 0.5 percentage point over the year. The labor force participation rate for adult women remained unchanged in 2002; the participation rate for adult men dropped by 0.6 percentage point.

The rapidly deteriorating labor market conditions faced by teenagers in 2001 eased somewhat in 2002. The unemployment rate for teens reached 17.1 percent in the second quarter of the year, but then edged down to 15.8 percent in the fourth quarter, leaving the rate unchanged over the year.⁴⁹ The slight improvement in teenage joblessness in the second half of 2002 was tempered by the fact that fewer teens were engaged in labor market activity. The teenage civilian labor force decreased by 364,000 in 2002, and the teen labor force participation rate dropped by 2.0 percentage points to 47.1 percent. This is the lowest this rate has been among teenagers since the third quarter of 1965. Another sign of the difficult labor market conditions faced by teenagers is reflected in the change in the employment level for this group, which fell over the year, by some 311,000.

As with the overall labor market situation in 2002, the employment situation of whites, blacks, and Hispanics worsened just slightly over the year. Among blacks, unemployment rose by 167,000, and the unemployment rate for blacks rose by 0.9 percentage point to 10.8 percent in the fourth quarter of 2002. The labor force participation rate for blacks dropped by 0.4 percentage point to 64.7 percent.

Unemployment among whites rose by 255,000 in 2002, and their unemployment rate rose by 0.2 percentage point, to 5.1

Chart 4. Unemployment rate, seasonally adjusted, 1969–2002



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.

Table 2. Employment status of the civilian noninstitutional population 16 years and older, by selected characteristics, quarterly averages, seasonally adjusted, 1999–2002

[Numbers in thousands]

Characteristic	1999	2000	2001	2002				Change, IV 2001 to IV 2002
	IV	IV	IV	I	II	III	IV	
Total								
Civilian labor force	140,036	141,257	142,291	141,868	142,605	142,761	142,799	508
Participation rate	67.1	67.1	66.9	66.5	66.7	66.6	66.5	-.4
Employed	134,292	135,649	134,308	133,894	134,149	134,568	134,364	56
Employment-population ratio	64.4	64.4	63.1	62.8	62.8	62.8	62.5	-.6
Unemployed	5,744	5,609	7,983	7,975	8,456	8,193	8,436	453
Unemployment rate	4.1	4.0	5.6	5.6	5.9	5.7	5.9	.3
Men, 20 years and older								
Civilian labor force	70,481	71,230	71,954	71,658	72,271	72,283	72,198	244
Participation rate	76.6	76.6	76.5	76.0	76.5	76.3	75.9	-.6
Employed	68,099	68,803	68,322	67,996	68,410	68,521	68,226	-96
Employment-population ratio	74.0	73.9	72.6	72.1	72.4	72.3	71.7	-.9
Unemployed	2,382	2,427	3,632	3,662	3,861	3,762	3,972	340
Unemployment rate	3.4	3.4	5.0	5.1	5.3	5.2	5.5	.5
Women, 20 years and older								
Civilian labor force	61,173	61,703	62,357	62,360	62,601	62,767	62,985	628
Participation rate	60.8	60.8	60.9	60.8	60.8	60.8	60.9	.0
Employed	58,959	59,597	59,265	59,305	59,329	59,636	59,727	462
Employment-population ratio	58.6	58.7	57.9	57.8	57.6	57.8	57.7	-.2
Unemployed	2,214	2,106	3,092	3,054	3,272	3,131	3,258	166
Unemployment rate	3.6	3.4	5.0	4.9	5.2	5.0	5.2	.2
Both sexes, 16 to 19 years								
Civilian labor force	8,382	8,324	7,980	7,851	7,733	7,711	7,616	-364
Participation rate	52.0	52.1	49.1	48.2	47.7	47.6	47.1	-2.0
Employed	7,235	7,249	6,721	6,592	6,410	6,411	6,410	-311
Employment-population ratio	44.9	45.3	41.4	40.4	39.5	39.6	39.6	-1.8
Unemployed	1,147	1,075	1,259	1,258	1,323	1,300	1,206	-53
Unemployment rate	13.7	12.9	15.8	16.0	17.1	16.9	15.8	.0
White								
Civilian labor force	116,933	117,748	118,492	118,130	118,644	118,873	118,643	151
Participation rate	67.3	67.3	67.1	66.8	67.0	67.0	66.7	-.4
Employed	112,839	113,671	112,639	112,265	112,457	112,766	112,536	-103
Employment-population ratio	65.0	64.9	63.8	63.5	63.5	63.5	63.3	-.5
Unemployed	4,094	4,077	5,852	5,865	6,188	6,106	6,107	255
Unemployment rate	3.5	3.5	4.9	5.0	5.2	5.1	5.1	.2
Black								
Civilian labor force	16,504	16,700	16,756	16,758	16,883	16,808	16,906	150
Participation rate	66.0	65.8	65.1	64.9	65.2	64.6	64.7	-.4
Employed	5,175	15,460	15,102	15,073	15,080	15,179	15,085	-17
Employment-population ratio	60.7	60.9	58.7	58.4	58.2	58.4	57.8	-.9
Unemployed	1,329	1,239	1,654	1,685	1,803	1,629	1,821	167
Unemployment rate	8.1	7.4	9.9	10.1	10.7	9.7	10.8	.9
Hispanic origin								
Civilian labor force	14,896	15,566	15,967	15,969	16,129	16,279	16,275	308
Participation rate	67.9	68.6	68.2	67.7	67.8	67.8	67.3	-.9
Employed	13,994	14,697	14,776	14,770	14,933	15,058	15,001	225
Employment-population ratio	63.8	64.8	63.1	62.6	62.7	62.7	62.0	-1.1
Unemployed	902	869	1,191	1,199	1,196	1,221	1,273	82
Unemployment rate	6.1	5.6	7.5	7.5	7.4	7.5	7.8	.3

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

are included in both the white and black population groups.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

percent by the fourth quarter. Employment among whites decreased slightly over the year, due mainly to a decrease in employment of adult men (–169,000) and teenagers (–263,000).

The year 2002 marked a milestone of sorts for Hispanics in the U.S. labor force. Over the year, the number of employed Hispanics rose by 225,000 to 15 million. With this increase, Hispanic employment rose to about the same as the number of employed blacks.⁵⁰ The rise in Hispanic employment, driven by the long-term rise in the Hispanic population, was spread fairly evenly between adult men and adult women. There also were 82,000 additional unemployed Hispanics by the fourth quarter, however, and this corresponded with a 0.3-percentage point rise in their unemployment rate, which ended the year at 7.8 percent.

Workers at all education levels were affected by the recent labor market downturn, including those who have attained college-level training. During the 2001–02 labor market downturn, a great deal of media attention was focused on troubles in the “high tech” sector.⁵¹ This field typically employs more highly educated workers, leading to speculation that the recent recession may have had a greater effect on such workers than past recessionary periods. The data suggest that the full story is somewhat more complex than indicated by some news stories.⁵² The rise in the unemployment rate among more highly educated workers during the recent recession largely resembles that of past recessions.⁵³ However, when compared with the somewhat milder changes in the unemployment rates of less well-educated groups, it appears that workers with more education did fare *relatively* worse in the most recent downturn.

Since the start of the recent recession in the first quarter of 2001, the unemployment rate for those with less than a high school education increased by 2.1 percentage points to 9.1 percent. At the same time, the unemployment rate for those with a high school education but no college training rose 1.3 percentage points to 5.1 percent. These changes represented unemployment rate increases of about one-third since the first quarter of 2001. In contrast, during the same period, the unemployment rate of those with some college training expanded by more than two-thirds, increasing by 1.9 percentage points to 4.7 percent, while the rate for college graduates almost doubled, adding 1.3 percentage points by the end of 2002, reaching 3.0 percent. (See table 3.)

The comparatively moderate unemployment rate change among workers with less education is consistent with the relatively “mild” nature of the recent downturn.⁵⁴ This is particularly noteworthy, given the low unemployment rates for the less educated when the recession began. The strong job markets of the late 1990s had brought rates for the less educated close to record lows. The small rise in the jobless rates during the subsequent labor market slowdown suggests that

success in the job market during the expansion among at least some of the less educated may have had some staying power. (See chart 5.)

Employment growth occurred among those in service occupations; these gains were substantially offset by losses, particularly among operators, fabricators, and laborers as well as those in precision production, craft, and repair jobs. Employment in service occupations rose by 741,000 over the year, concentrated mainly in the health services and food preparation fields. Women accounted for the majority of the increase in these fields. Employment in farming, forestry, and fishing also rose, with 205,000 jobs added in 2002, mostly in farming. Most of this increase was among men. Hispanics account for a disproportionately large portion of farm workers (20.4 percent in the fourth quarter of 2002), and over the year, they made up roughly two-fifths of the employment increase in this category. (See table 4.)

Employment declined over the year among operators, fabricators, and laborers (–323,000) as well as within precision production, craft, and repair occupations (–389,000). Most of the job losses in these fields were among men. Declines within operator, fabricator, and laborer occupations were concentrated among machine operators, assemblers, and inspectors (–272,000) and handlers, equipment cleaners, helpers, and laborers (–169,000). Employment also fell in technical, sales, and administrative support occupations (–137,000). Employment losses in this area were concentrated among women, who shed 475,000 jobs in administrative support, including clerical occupations.

Unemployment: why and how long? The number of people who were unemployed because they had lost their jobs (as opposed to those who have recently entered the job market or those who have quit their jobs) rose between the fourth quarters of 2001 and 2002, by 244,000. The increase in job losers reflects the net effect of a 370,000 rise in the number of those whose job loss was thought to be permanent, and a 127,000 decline among workers on temporary layoff. The recession of the early 1990s was the first downturn in which the portion of the increase in job losers due to permanent job loss was dramatically larger than the portion due to temporary layoff. This pattern continued in the recent labor market downturn, with the disparity becoming even more striking.⁵⁵

The number of unemployed who newly entered the labor force remained little changed over the year, a sign that difficult labor market conditions may have encouraged many, especially youth, to otherwise occupy themselves for the time being.⁵⁶ Many were unable to delay the pursuit of employment, however, as evidenced by the number of unemployed reentrants—persons who previously worked but were out of the labor force prior to beginning their job search—which

Table 3. Employment status of the civilian noninstitutional population 25 years and older by educational attainment, quarterly averages, seasonally adjusted, 1999–2002

[Numbers in thousands]

Educational attainment	1999	2000	2001	2002				Change, IV 2001 to IV 2002
	IV	IV	IV	I	II	III	IV	
Total civilian noninstitutional population	174,456	175,921	177,481	177,822	178,290	178,738	179,228	1,747
Less than a high school diploma								
Civilian noninstitutional population ¹	28,206	27,825	27,548	27,785	28,111	26,953	27,069	-479
Percent of total population	16.2	15.8	15.5	15.6	15.8	15.1	15.1	-.4
Civilian labor force	12,103	12,033	12,123	12,157	12,340	11,777	11,920	-203
Percent of population	42.9	43.2	44.0	43.8	43.9	43.7	44.0	.0
Employed	11,332	11,256	11,126	11,165	11,297	10,796	10,830	-296
Employment-population ratio	40.2	40.5	40.4	40.2	40.2	40.1	40.0	-.4
Unemployed	770	777	997	991	1,043	981	1,090	93
Unemployment rate	6.4	6.5	8.2	8.2	8.5	8.3	9.1	.9
High school graduates, no college²								
Civilian noninstitutional population(1)	57,551	57,609	57,380	57,432	57,012	57,629	58,169	789
Percent of total population	33.0	32.7	32.3	32.3	32.0	32.2	32.5	.2
Civilian labor force	37,428	37,159	36,829	36,710	36,644	37,295	37,214	385
Percent of population	65.0	64.5	64.2	63.9	64.3	64.7	64.0	-.2
Employed	36,180	35,860	35,044	34,766	34,580	35,414	35,301	257
Employment-population ratio	62.9	62.2	61.1	60.5	60.7	61.5	60.7	-.4
Unemployed	1,247	1,299	1,785	1,944	2,064	1,881	1,913	128
Unemployment rate	3.3	3.5	4.8	5.3	5.6	5.0	5.1	.3
Less than a bachelor's degree³								
Civilian noninstitutional population ¹	43,975	44,711	45,395	45,173	44,703	45,525	45,979	584
Percent of total population	25.2	25.4	25.6	25.4	25.1	25.5	25.7	.1
Civilian labor force	32,402	32,955	33,438	33,098	32,865	33,315	33,455	17
Percent of population	73.7	73.7	73.7	73.3	73.5	73.2	72.8	-.9
Employed	31,554	32,117	32,054	31,714	31,303	31,816	31,880	-174
Employment-population ratio	71.8	71.8	70.6	70.2	70.0	69.9	69.3	-1.3
Unemployed	848	838	1,384	1,384	1,561	1,499	1,576	192
Unemployment rate	2.6	2.5	4.1	4.2	4.8	4.5	4.7	.6
College graduates								
Civilian noninstitutional population ¹	44,724	45,776	47,158	47,432	48,464	48,632	48,011	853
Percent of total population	25.6	26.0	26.6	26.7	27.2	27.2	26.8	.2
Civilian labor force	35,609	36,188	37,194	37,577	38,279	37,947	37,763	569
Percent of population	79.6	79.1	78.9	79.2	79.0	78.0	78.7	-.2
Employed	34,992	35,621	36,112	36,509	37,149	36,873	36,630	518
Employment-population ratio	78.2	77.8	76.6	77.0	76.7	75.8	76.3	-.3
Unemployed	617	567	1,082	1,068	1,130	1,074	1,132	50
Unemployment rate	1.7	1.6	2.9	2.8	3.0	2.8	3.0	.1

¹ The population figures are not adjusted for seasonal variation.

² Includes high school diploma or equivalent.

³ Includes the categories some college, no degree, and associate degree.

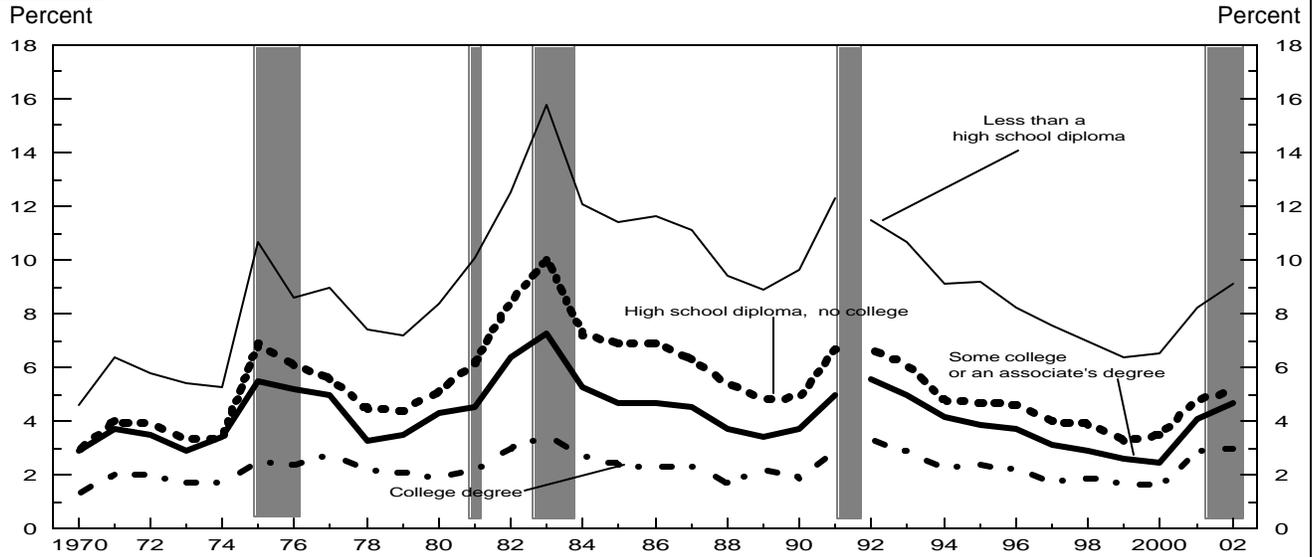
SOURCE: Bureau of Labor Statistics, Current Population Survey.

rose by 174,000 to 2.4 million. Unemployment among those who voluntarily left their jobs changed little over the year. (See table 5.)

Because the job market remained slack during 2002, many people were unemployed for long periods of time. The average (mean) duration of unemployment rose by 3.9 weeks between the fourth quarter of 2001 and the fourth quarter of 2002, to 17.9 weeks. The number of people who had been unemployed for 27 weeks or more rose to 1.7 million from 1 million.

Alternative measures of labor market underutilization indicated modest change in other types of labor market difficulties during the year. The official unemployment rate is not the only measure of the extent to which labor resources are being underutilized. The Bureau of Labor Statistics has developed a range of alternative measures of labor underutilization that can be used to supplement the jobless rate and shed further light on the extent to which labor resources are being utilized. Table 6 shows alternative measures U-1 through U-6 over the past year. Like the official unemployment rate (U-3, not sea-

Chart 5. Unemployment rates of persons ages 25 to 64 by educational attainment, 1970–2002



NOTE: Since 1992, data on educational attainment have been based on the "highest diploma or degree received" rather than the "number of years of school completed." Data from 1994 forward are not directly comparable with data for 1993 and earlier years due to the CPS redesign. Data for 1970–1991 are from the March supplement to the CPS. Data from 1992–2002 are fourth-quarter data. Shaded regions represent recessions as designated by the National Bureau of Economic Research.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

Table 4. Employment by occupation and sex, fourth quarter, 2001–02, and median usual weekly earnings by occupation, annual average, 2002

[Employment in thousands]

Occupation	Median usual weekly earnings	Total			Men			Women		
		2001 IV	2002 IV	Change, IV 2001 to IV 2002	2001 IV	2002 IV	Change, IV 2001 to IV 2002	2001 IV	2002 IV	Change, IV 2001 to IV 2002
Total, 16 years and older	\$610	134,497	134,609	112	71,595	71,432	-163	62,903	63,178	275
Managerial and professional specialty	884	42,044	42,058	14	20,814	20,661	-153	21,230	21,397	167
Executive, administrative, and managerial	891	20,250	20,266	16	10,807	10,923	116	9,443	9,343	-100
Professional specialty	879	21,794	21,793	-1	10,007	9,739	-268	11,787	12,054	267
Technical, sales, and administrative support	551	38,687	38,550	-137	13,919	14,025	106	24,767	24,525	-242
Technicians and related support	693	4,416	4,558	142	1,985	2,078	93	2,431	2,480	49
Sales occupations	602	15,926	16,169	243	8,032	8,090	58	7,894	8,079	185
Administrative support, including clerical	503	18,345	17,823	-522	3,903	3,857	-46	14,442	13,967	-475
Service occupations	385	18,305	19,046	741	7,320	7,540	220	10,985	11,506	521
Private household	277	707	772	65	19	43	24	688	729	41
Protective service	647	2,531	2,627	96	2,000	2,087	87	531	541	10
Service, except private household and protective service	355	15,067	15,646	579	5,301	5,410	109	9,766	10,236	470
Precision production, craft, and repair ..	633	14,683	14,294	-389	13,445	13,153	-292	1,238	1,141	-97
Operators, fabricators, and laborers	484	17,632	17,309	-323	13,596	13,354	-242	4,036	3,955	-81
Machine operators, assemblers, and inspectors	476	6,530	6,258	-272	4,265	4,094	-171	2,265	2,164	-101
Transportation and material moving	581	5,609	5,728	119	5,029	5,088	59	580	640	60
Handlers, equipment cleaners, helpers, and laborers	401	5,493	5,324	-169	4,301	4,172	-129	1,192	1,151	-41
Farming, forestry, and fishing	364	3,147	3,352	205	2,501	2,699	198	646	653	7

SOURCE: Bureau of Labor Statistics, Current Population Survey.

Table 5. Unemployed persons by reason for and duration of unemployment, quarterly averages, seasonally adjusted, 1999–2002

[Numbers in thousands]

Reason and duration	1999 IV	2000 IV	2001 IV	2002				Change, IV 2001 to IV 2002
				II	II	III	IV	
Reason for unemployment								
Job losers and persons who completed temporary jobs	2,495	2,508	4,430	4,317	4,567	4,559	4,674	244
On temporary layoff	817	881	1,184	1,099	1,082	1,125	1,057	-127
Not on temporary layoff	1,677	1,628	3,246	3,218	3,485	3,434	3,616	370
Job leavers	802	772	879	873	918	808	843	-36
Reentrants	1,984	1,899	2,224	2,310	2,414	2,302	2,398	174
New entrants	468	433	486	507	534	572	524	38
Duration of unemployment								
Less than 5 weeks	2,593	2,497	3,066	2,961	2,800	2,828	2,801	-265
5 to 14 weeks	1,748	1,772	2,606	2,504	2,711	2,469	2,486	-120
15 weeks and over	1,383	1,306	2,256	2,598	2,970	2,855	3,076	820
15 to 26 weeks	691	689	1,213	1,386	1,370	1,324	1,327	114
27 weeks and over	692	617	1,044	1,213	1,600	1,531	1,749	705
Average (mean) duration, in weeks	13.0	12.4	14.0	15.0	17.0	16.8	17.9	3.9
Median duration, in weeks	6.1	6.0	7.7	8.3	10.1	8.8	9.5	1.8

SOURCE: Bureau of Labor Statistics, Current Population Survey.

Table 6. Range of alternative measures of labor underutilization, quarterly averages, not seasonally adjusted, 1999–2002

Measure	1999	2000	2001	2002				Change, IV 2001 to IV 2002
	IV	IV	IV	I	II	III	IV	
U-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force9	.9	1.5	2.0	2.1	1.9	2.0	0.5
U-2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force	1.7	1.6	2.9	3.6	3.0	3.0	3.1	.2
U-3 Total unemployed, as a percent of the civilian labor force (official unemployment rate)	3.8	3.7	5.2	6.2	5.8	5.7	5.6	.4
U-4 Total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers	4.0	3.9	5.5	6.4	6.0	5.9	5.8	.3
U-5 Total unemployed, plus discouraged workers, plus all other marginally attached workers, as a percent of the civilian labor force plus all marginally attached workers	4.6	4.4	6.1	7.1	6.7	6.6	6.5	.4
U-6 Total unemployed, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers ...	6.8	6.6	9.0	10.1	9.5	9.5	9.3	.3

SOURCE: Bureau of Labor Statistics, Current Population Survey.

sonally adjusted), most of these measures pointed to only modest worsening in labor market conditions over the year. The measure that showed the most sizeable increase was U-1, which shows persons unemployed 15 weeks or more as a percent of the civilian labor force. The rise in this measure, combined with the relatively stable number of unemployed persons, indicated that, as noted earlier, although unemploy-

ment rose only slightly in 2002, the weakness in the job market made it increasingly difficult for those who do not have jobs to find work. (See table 6.)

During 2002, the median weekly earnings of full-time wage and salary workers rose only slightly more than consumer prices. During most of the 1990s expansion,

real earnings increased for most worker groups. With the onset of the recession in 2001, earnings increases slowed somewhat. Earnings gains were even smaller in 2002. Over the year, the median weekly earnings of full-time wage and salary workers, as derived from the CPS, were \$610, representing an increase of 2.2 percent from a year earlier.⁵⁷ This was slightly higher than the 1.6-percent rise in the Consumer Price Index for All Urban Consumers (CPI-U) over the same period. (See table 7.)

Median weekly earnings of women increased at a faster pace than those of men in 2002—3.9 versus 1.9 percent. Over the year, the ratio of women's earnings to men's increased to 78 percent, up from 76 percent a year earlier. Since 1979, when the Bureau of Labor Statistics began regularly collecting information on usual median weekly earnings in the CPS, the ratio of women's to men's earnings has increased by 15 percentage points. It is important to remember that many factors may underlie the disparity between the earnings of men and women: differences in work schedules, educational attainment, length

of experience in the workforce, occupational and industry makeup of each group, and discrimination, for example.

Among the race and ethnic groups, earnings increased by about the same degree for each group. Between 2001 and 2002, median weekly earnings for blacks rose by 2.5 percent to \$499, and whites' earnings increased by 2.5 percent over the year to \$627. Hispanic earnings grew by 2.4 percent over the year, to \$424.

Median weekly earnings increased for workers in all four major educational groups in 2002, although earnings growth was comparably slower for workers who had at least some college education. Earnings increased the most (3.5 percent) among high school graduates with no college training, whose earnings reached \$538 in 2002. Median weekly earnings among persons with less than a high school education rose by 2.6 percent, ending the year at \$388. Earnings among workers with some college experience or an associate's degree roughly kept pace with inflation in 2002, rising by 1.6 percent to \$631, while college graduates' earnings increased by 2.1 percent to \$943.

During the expansion of the 1990s, earnings expanded at a brisk rate for many worker groups.⁵⁸ Even low-paid workers saw their earnings improve, especially during the latter part of the expansion. Between 1996 and 1999, the weekly earnings of full-time workers with earnings near the bottom of the distribution—those with earnings at the first decile—grew by an average of about 3.0 percent per year (after adjusting for inflation) over that 3-year period.⁵⁹ This was roughly in line with the earnings growth experienced by those near the top of the distribution of weekly earnings—those with earnings at the ninth decile. Between 1999 and 2002, however, the rate of growth for the low-paid workers slowed to a standstill, undoubtedly reflecting the onset of the recession in 2001. Earnings advances among highly-paid workers also slowed over this period, though the weekly earnings of those at the ninth decile continued to grow through 2002. (See table 8.)

Table 7. Median usual weekly earnings of full-time wage and salary workers by selected characteristics, annual averages 2001–02

Characteristic	2001	2002	Percent change, 2001–02
Total, 16 years and older ¹	\$597	\$610	2.2
Executive, administrative, and managerial occupations	867	891	2.8
Professional specialty occupations	854	879	2.9
Technicians and related support	673	693	3.0
Sales occupations	574	602	4.9
Administrative support, including clerical	486	503	3.5
Private household workers	255	277	8.6
Protective service occupations	629	647	2.9
Service, except private household and protective	349	355	1.7
Precision production, craft, and repair	629	633	0.6
Machine operators, assemblers, and inspectors	457	476	4.2
Transportation and material moving occupations	573	581	1.4
Handlers, equipment cleaners, helpers, and laborers	389	401	3.1
Farming, forestry, and fishing occupations	354	364	2.8
Men	672	685	1.9
Women	511	531	3.9
White	612	627	2.5
Men	694	709	2.2
Women	521	550	5.6
Black	487	499	2.5
Men	518	524	1.2
Women	451	474	5.1
Hispanic origin	414	424	2.4
Men	438	453	3.4
Women	385	396	2.9
Less than a high school diploma ¹	378	388	2.6
High school graduates, no college ¹	520	538	3.5
Some college or associate degree ¹	621	631	1.6
College graduates, total ¹	924	943	2.1

¹ Earnings figures by educational attainment pertain to persons age 25 and older.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

Local Area Unemployment Statistics (LAUS) program methodologies

The Local Area Unemployment Statistics (LAUS) program uses multiple methodologies to produce monthly estimates of civilian labor force, employment, unemployment, and unemployment rate for areas below the national level, including census regions and divisions, the States and the District of Columbia, and metropolitan areas. The same concepts that are used in the Current Population Survey (CPS) for the Nation as a whole are applied in the LAUS methodologies, so that data are comparable across geographic levels.

The LAUS methodologies vary by the availability of inputs, which tends to reflect differences in geographic level. A signal-plus-noise modeling approach is used for areas where data from the

CPS can reliably serve as inputs. Model-based areas include the States and the District of Columbia. Estimates for regions and divisions are aggregated from the model-based estimates for their constituent States. Due to the methodological differences, estimates for regions and divisions may not sum to those for the United States. Metropolitan area estimates are developed through a building block approach where categories of unemployed workers are classified based on their previous status with respect to the labor force, and controlled to State totals. Both the model and building block approaches incorporate administrative data from the Unemployment Insurance (UI) systems and establishment payroll data produced by other BLS programs.

Table 8. Quartiles and selected deciles of usual weekly earnings of full-time wage and salary workers 16 years and older, annual averages 1992–2002

[In constant 2002 dollars]

Year	Upper limit of:				
	First decile	First quartile	Second quartile (median)	Third quartile	Ninth decile
1992	271	374	554	828	1,174
1993	273	373	564	837	1,200
1994	264	368	561	843	1,196
1995	266	366	562	843	1,198
1996	266	364	559	843	1,209
1997	270	368	562	849	1,239
1998	282	382	576	870	1,273
1999	290	394	593	892	1,307
2000	292	397	602	900	1,322
2001	295	402	606	912	1,367
2002	296	406	610	926	1,381

NOTE: The Consumer Price Index research series using current methods (CPI-U-RS) is used to convert dollars to constant dollars. 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. This chart provides data for 1992 forwards because the labor market difficulties of the early 1990s tapered off in 1992 and the job market expansion of the 1990s began that year. Data for years prior to 1994 are not strictly comparable, due to the 1994 redesign of the Current Population Survey.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

Jobless rates continued to climb in most parts of the country in 2002, while falling in some parts. In the places where they rose, the increases were generally more moderate than in 2001. Unemployment rates moved upward, on net, in 6 of the 9 census geographic divisions in 2002.⁶⁰ (See table 9.) However, for no division was the jobless rate increase larger than it had been in 2001. The most marked improvement relative to the previous year came in the most populous division—the South Atlantic—where the 2002 decline of 0.2 percentage point followed a 2001 rise of 1.5 points. The relative improvement was least in the Middle Atlantic division, where the 0.6-percentage point increase in 2002 followed a full-point rise in 2001.

Almost all geographic divisions saw their payroll employment decline in 2002. However, job losses were relatively more severe for the divisions in the Midwest and Northeast than those in the South and West. The Middle Atlantic and New England divisions experienced the largest unemployment rate increases, 0.6 percentage point each, while shedding jobs at rates of 0.5 and 0.6 percent, respectively. Meanwhile, the most sizeable unemployment rate decline, –0.4 percentage point in the East South Central division, was associated with the only divisional employment gain, however slight.

The Pacific continued to report the highest divisional unemployment rate, 6.6 percent in the fourth quarter of 2002, as it has for 11 consecutive years. The West North Central divi-

Table 9. Unemployment rates for regions and divisions, seasonally adjusted quarterly averages, 2001–02

Region and division	2001 IV	2002 ¹				Over-the- year change ²
		I	II	III	IV	
Northeast region	5.0	5.2	5.4	5.3	5.5	.5
New England division	4.2	4.1	4.3	4.6	4.8	.6
Middle Atlantic division	5.2	5.6	5.8	5.6	5.8	.6
Midwest region	5.0	5.2	5.4	5.3	5.2	.2
East North Central division	5.4	5.7	5.8	5.8	5.7	.3
West North Central division	4.1	4.2	4.3	4.3	4.2	.1
South region	5.4	5.4	5.5	5.4	5.4	.0
South Atlantic division	5.2	5.2	5.3	5.1	5.0	-.2
East South Central division	5.7	5.6	5.5	5.3	5.3	-.4
West South Central division	5.5	5.5	5.8	5.8	5.9	.4
West region	6.0	6.3	6.2	6.2	6.2	.2
Mountain division	5.3	5.6	5.4	5.3	5.3	.0
Pacific division	6.3	6.5	6.6	6.5	6.6	.3

¹ Data for 2002 have not been benchmarked.

² Weighted changes for divisions within regions may not average to

regional changes due to independent rounding.

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

sion had the lowest rate, 4.2 percent, followed by New England, 4.8 percent. With the exception of 9 quarters in the early 1980s, one or both of these have posted the lowest divisional unemployment rate.⁶¹ All other divisions recorded rates between 5.0 and 5.9 percent at the close of 2002.

All geographic divisions continued to register sizeable over-the-year job losses in manufacturing employment in 2002. However, the smallest relative contractions occurred in the East North Central and East South Central divisions, where the manufacturing industry accounts for the greatest shares of total employment, while the largest decline occurred in the Mountain division, where the manufacturing industry accounts for the least share of total employment. For all divisions but the East South Central, the decline in *durable goods manufacturing* was steeper than the decline in *non-durable goods manufacturing*. Every division reported job losses in transportation and public utilities, and three of the nine divisions experienced sharper declines in this sector than in manufacturing. For most divisions, employment was down more severely in *communications and public utilities* than in *transportation*. Wholesale trade continued to contract in every division, but most slightly in the Pacific.

The healthy construction employment advances in the East South Central and Middle Atlantic contrasted with the steep declines for that sector in the Mountain, Pacific, South Atlantic, and West North Central divisions, while the growth in retail trade in the Pacific contrasted with the large losses in the East North Central and South Atlantic divisions. Services, which accounts for by far the largest share of jobs, grew at least somewhat in all divisions, including brisk advances in the East South Central, Mountain, and South Atlantic. Government—particularly at the local level—also added

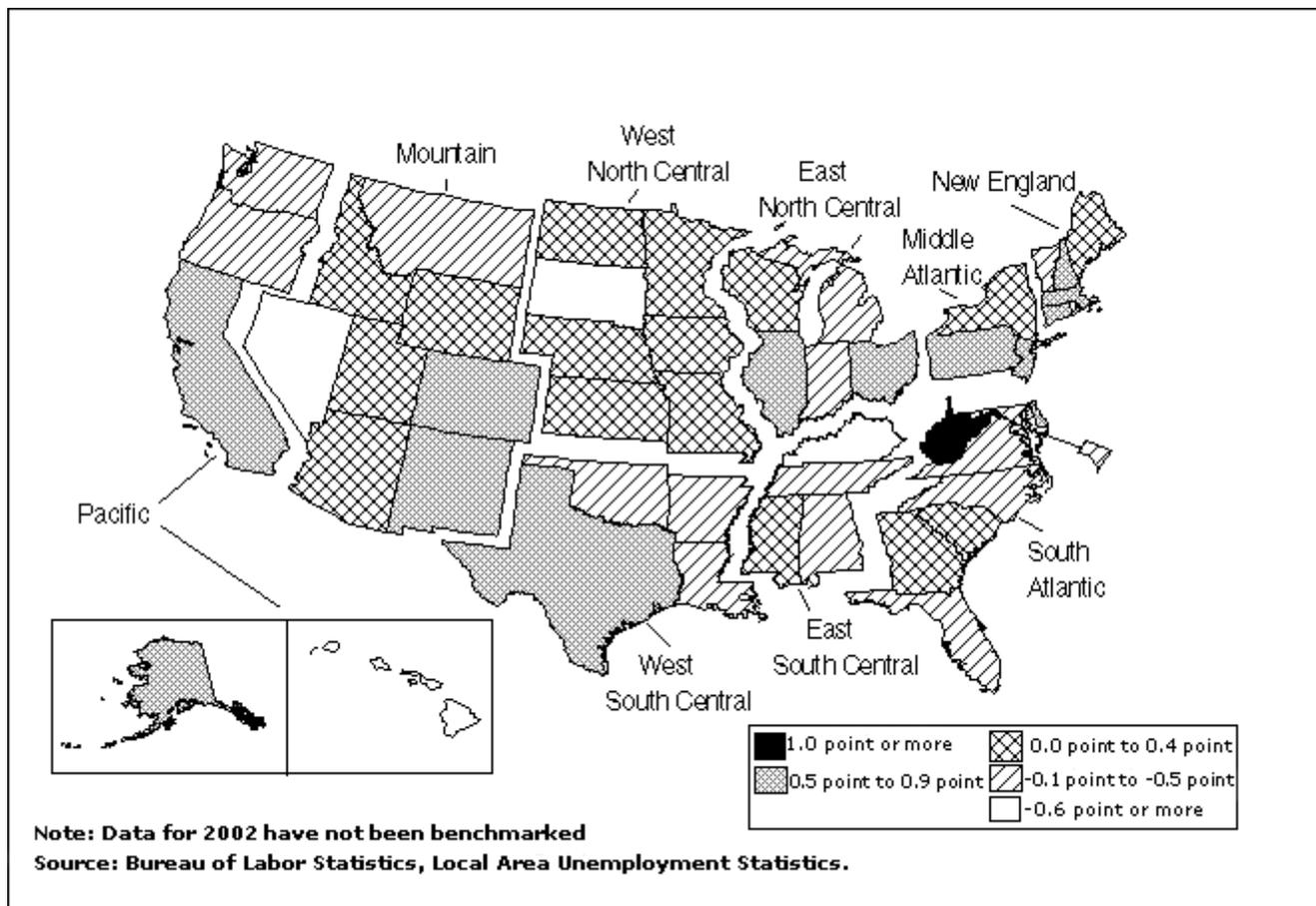
jobs across all geographic divisions, most rapidly in those of the South and West.

States. On net, joblessness was up over the year in 28 States, down in 19 States and the District of Columbia, and unchanged in 3 States. (See chart 6.) Only 14 States experienced unemployment rate increases of 0.5 percentage point or more, compared with 38 States over the year ending in the fourth quarter of 2001. The steepest rate climb, 1.4 percentage points, came in West Virginia, which had posted the largest decline in unemployment among States in 2001, settling at its historical low rate of 4.6 percent in the fourth quarter of that year. No other State recorded an unemployment rate increase as large as a full percentage point in 2002.

Nevada experienced the largest jobless rate decline among States in 2002, -2.0 percentage points. This constituted the most marked unemployment trend reversal for a State, as it followed an increase of 2.4 percentage points in 2001. Nevada also registered the most rapid payroll employment growth over the year. Some of the turnaround there could be attributed to the partial return to normalcy in tourism following the terrorist attacks of September 11, 2001, but much of the job growth was population-driven. Three other States—Hawaii, Kentucky, and South Dakota—reported jobless rate declines of a full percentage point or more. Hawaii and Kentucky were also among the 5 States with the most rapid payroll employment growth in 2002.

Four of the six States with the highest relative joblessness at the end of 2002 were located in the Pacific division. Oregon continued to post the highest unemployment rate, 7.1 percent, followed closely by Alaska at 7.0 percent. Conditions in Oregon were actually much improved over the year. The

Chart 6. Over-the-year change in unemployment rates by State, seasonally adjusted, fourth quarter 2001–02



State's unemployment-rate decline of 0.5 percentage point in 2002 followed a 2.8-point rise in 2001. Oregon also posted a small increase in payroll employment in 2002—a marked improvement from the more than 2-percent contraction during the previous year. In Alaska, the 0.9-percentage point increase in joblessness was among the largest for any State, and came in spite of continued healthy payroll employment growth.

Three additional States—Illinois, Mississippi, and Washington—also had unemployment rates above 6.5 percent at the end of 2002. While Mississippi experienced small employment growth, Illinois and Washington each continued to shed relatively large numbers of payroll jobs. In Illinois, the losses were broad-based, as job declines came in every major industry group except construction. In Washington, by contrast, almost all of the net employment loss came in manufacturing, with about 50 percent of the decline attributable to *aircraft and parts manufacturing*.

The two most populous States—California and Texas—and the District of Columbia, Louisiana, and North Carolina also had unemployment rates of more than 6 percent in the fourth quarter of 2002. In California, heavy over-the-year job

losses in *business services* and IT-related manufacturing were balanced by strong growth in *local government* and *retail trade*. In Texas, the net effect of employment declines across most major industry groups was lessened by the rapid expansion of *local government*.

Five of the 10 States with unemployment rates of 4.0 percent or less in the fourth quarter of 2002 were located in the West North Central division. South Dakota recorded the lowest rate, 2.8 percent, followed by Nebraska and North Dakota, 3.3 percent each. None of these States experienced appreciable changes in payroll employment over the year. Meanwhile, one of the remaining lowest unemployment-rate States in the fourth quarter—Delaware, at 4.0 percent—shed jobs at the most rapid pace in 2002. Montana posted its historical low unemployment rate in the third quarter, 4.2 percent, having experienced relatively robust employment growth in 2002.

Metropolitan areas.⁶² More than two-thirds of the large metropolitan areas saw their unemployment rates move upward in 2002.⁶³ However, for most of these 35 areas with unemployment rate increases, the rise in joblessness was less than it had been in 2001. (See table 10.) San Jose, CA, once again

Table 10. Changes in fourth quarter unemployment rates for select large metropolitan areas, not seasonally adjusted, 2001–02

Metropolitan area	Fourth quarter, 2001		Fourth quarter, 2002	
	Unemployment rate	Over-the-year change	Unemployment rate	Over-the-year change
Atlanta, GA	4.1	1.4	4.7	.6
Baltimore, MD	4.7	.3	4.3	-.4
Bergen-Passaic, NJ	4.7	1.3	5.2	.5
Boston, MA-NH	3.7	1.8	4.5	.8
Buffalo-Niagara Falls, NY	5.4	.7	5.4	.0
Charlotte-Gastonia-Rock Hill, NC-SC	5.7	1.9	5.7	.0
Chicago, IL	5.7	1.6	6.4	.7
Cincinnati, OH-KY-IN	4.1	.7	4.2	.1
Cleveland-Lorain-Elyria, OH	5.2	1.2	5.8	.6
Columbus, OH	3.1	.9	4.2	1.1
Dallas, TX	5.9	3.1	6.4	.5
Denver, CO	4.7	2.5	5.3	.6
Detroit, MI	5.4	2.3	5.3	-.1
Fort Lauderdale, FL	6.0	2.4	5.8	-.2
Fort Worth-Arlington, TX	4.8	1.9	5.7	.9
Greensboro—Winston-Salem—High Point, NC	5.6	2.4	5.7	.1
Hartford, CT	3.4	1.6	4.3	.9
Houston, TX	4.5	1.0	5.6	1.1
Indianapolis, IN	4.0	1.9	4.5	.5
Kansas City, MO-KS	4.5	.9	5.0	.5
Los Angeles-Long Beach, CA	6.1	1.2	6.0	-.1
Memphis, TN-AR-MS	4.7	.8	4.6	-.1
Miami, FL	8.1	2.7	7.1	-1.0
Middlesex-Somerset-Hunterdon, NJ	3.7	1.2	4.4	.7
Milwaukee-Waukesha, WI	4.7	1.3	5.1	.4
Minneapolis-St. Paul, MN-WI	3.5	1.0	3.5	.0
Nassau-Suffolk, NY	3.7	1.0	3.8	.1
New Orleans, LA	5.6	.5	5.3	-.3
New York, NY	6.5	1.6	7.3	.8
Newark, NJ	4.8	1.4	5.6	.8
Norfolk-Virginia Beach-Newport News, VA-NC	4.1	1.6	3.9	-.2
Oakland, CA	4.9	2.5	5.9	1.0
Orange County, CA	3.5	1.3	3.9	.4
Orlando, FL	5.5	3.0	4.8	-.7
Philadelphia, PA-NJ	4.4	.7	5.2	.8
Phoenix-Mesa, AZ	5.1	2.5	5.2	.1
Pittsburgh, PA	4.2	.4	5.0	.8
Portland-Vancouver, OR-WA	7.2	3.5	7.0	-.2
Providence-Fall River-Warwick, RI-MA	4.5	.9	5.0	.5
Riverside-San Bernardino, CA	5.1	.4	5.8	.7
Rochester, NY	5.1	1.5	5.4	.3
Sacramento, CA	4.3	.7	5.3	1.0
St. Louis, MO-IL	4.9	.9	5.0	.1
Salt Lake City-Ogden, UT	4.6	1.6	4.9	.3
San Antonio, TX	4.4	1.3	4.9	.5
San Diego, CA	3.6	1.0	4.2	.6
San Francisco, CA	4.8	2.9	5.3	.5
San Jose, CA	6.7	5.2	7.9	1.2
Seattle-Bellevue-Everett, WA	6.2	2.4	6.2	.0
Tampa-St. Petersburg-Clearwater, FL	4.4	1.8	4.4	.0
Washington, DC-MD-VA-WV	3.7	1.4	3.2	-.5

NOTE: Data for 2002 have not been benchmarked.

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

recorded the largest unemployment rate increase, 1.2 percentage points. Columbus, OH—which had registered the lowest unemployment rate at the end of 2001—and Houston, TX, closely followed with increases of 1.1 percentage points each. Increases of a full percentage point were also registered for two other areas in California—Oakland and Sacramento.

Eight of the 11 large metropolitan areas with decreasing unemployment rates in 2002 were located in the South. Miami, FL, which had recorded the highest unemployment rate among these areas at the end of 2001, experienced the most sizeable rate decline in 2002, -1.0 percentage point. Another Florida area—Orlando—followed with a rate decline of 0.7 percentage point. The Miami area added payroll jobs at a much accelerated pace in 2002, as compared with 2001, while the Orlando area added a small number of jobs in 2002 following a substantial employment contraction in the previous year. Washington, DC-MD-VA-WV, was the only other large metropolitan area to post an over-the-year unemployment rate drop as large as 0.5 percentage point.

In the fourth quarter of 2002, San Jose, CA, recorded the highest unemployment rate, 7.9 percent, among the large metropolitan areas. This area continued to experience the sharpest payroll employment decline in 2002. New York, NY, and Miami, FL, had the next highest jobless rates (7.3 and 7.1 percent, respectively), followed by Portland-Vancouver, OR-WA, 7.0 percent. For the New York area, the annual rate of employment contraction decreased notably from 2001 to 2002. The continued job growth in the Miami area has already been noted. Meanwhile, broad-based job losses persisted in the Portland-Vancouver area in 2002, although they were far less severe than in 2001.

Washington, DC-MD-VA-WV, recorded the lowest unemployment rate among the large metropolitan areas, 3.2 percent

in the fourth quarter of 2002, despite a considerable loss of jobs over the year. Four additional areas—Minneapolis-St. Paul, MN-WI, Nassau-Suffolk, NY, Norfolk-Virginia Beach-Newport News, VA-NC, and Orange County, CA—also registered rates below 4.0 percent. None of these four areas experienced a substantial change in their unemployment rate from the fourth quarter of 2001, while only Norfolk-Virginia Beach-Newport News reported an over-the-year payroll employment change in excess of one-half percent.

Labor market conditions remained weak in 2002, following a more marked deterioration after the start of the recession in 2001. The unemployment rate edged up during the year, averaging 5.9 percent in the fourth quarter. Job losses were spread throughout most of the occupational groups, particularly in the precision production, craft, and repair fields as well as among operators, fabricators, and laborers. Service occupations were the only major occupational group to show a definitive increase in employment over the year. The earnings of most groups increased only slightly in 2002, after accounting for inflation. Earnings growth had begun slowing from the pace reached in the late 1990s with the onset of the recession in 2001. Nonfarm employment declined for the second consecutive year, although the job loss in 2002 was much smaller than in 2001. Job losses in 2002 were concentrated in manufacturing, retail trade, and communications. Health services and government were the main sources of job growth in 2002.

Local labor markets also continued to deteriorate in 2002, with rising jobless rates and declining payrolls widespread throughout the country. The pace of deterioration abated from 2001 for most local markets, and even gave way to conditions consistent with economic growth for some. □

Notes

¹ See “Testimony of Chairman Alan Greenspan,” before the Joint Economic Committee, U.S. Congress, Nov. 13, 2002, available on the Internet at <http://www.federalreserve.gov> (visited Nov. 2002).

² Clare Ansberry, “On a Budget/A Cloud over the Recovery: Businesses’ New Frugal Ways/After 1990s Investment Spree, Corporations are Trying To Do More With Less,” *The Wall Street Journal*, Oct. 16, 2002; and Steve Pearlstein, “Too Much Supply, Too Little Demand,” *The Washington Post*, Aug. 25, 2002, p. A1.

³ See Katherine Abraham, “The Role of Flexible Staffing Arrangements in Short Term Workforce Adjustment Strategies,” in Robert Hart, ed., *Employment, Unemployment and Hours of Work* (London, George Allen and Unwin, 1998); *Report on the American Workforce* (U.S. Department of Labor, 1999), pp. 18–24; and Rachel Krantz, “Employment in business services: a year of unprecedented decline,” *Monthly Labor Review*, April 2002, pp. 17–24.

⁴ Real private fixed investment data are published by the Bureau of Economic Analysis on the Internet at <http://www.bea.gov/bea/dn/nipaweb/TableViewFixed.asp#Mid> (visited Feb. 2003).

⁵ Industrial production data are published by the Federal Reserve on the Internet at <http://www.federalreserve.gov/releases/g17> (visited Feb. 2003).

⁶ Total manufacturers’ inventories were down 2.6 percent for the year (through Nov. 2002). Inventories data are published by the U.S. Census Bureau on the Internet at <http://www.census.gov/mtis/www/mtis.html> (visited Feb. 2003). New orders data are published by the U.S. Census Bureau online at <http://www.census.gov/indicator/www/m3/> (visited Dec. 2002).

⁷ Trade data are published by NAICS codes, which do not directly correspond with SIC classifications. Figures are comparisons of the period January through November for the years 2001 and 2002; at publishing time, these were the latest available data. Trade data are available from the U.S. International Trade Commission’s interactive tariff and trade dataweb, <http://dataweb.usitc.gov> (visited Feb. 2003).

⁸ This comparison uses the broad dollar index, which measures exchange values of the U.S. dollar against the currencies of a large group of major U.S. trading partners. Data on exchange rates are

published by the Federal Reserve on the Internet at <http://www.federalreserve.gov> (visited Feb. 2003).

⁹ United Steelworkers Association at <http://www.uswa.org/sra/facts.html> (visited Dec. 2002).

¹⁰ Industrial production data are published by NAICS codes, which do not directly correspond with SIC classifications. Industrial production data are published by the Federal Reserve on the Internet at <http://www.federalreserve.gov/releases/g17> (visited Feb. 2003).

¹¹ Real private fixed investment data are published by the Bureau of Economic Analysis on the Internet at <http://www.bea.gov/beatable/nipaweb/TableViewFixed.asp#Mid> (visited Feb. 2003).

¹² Data are from the input-output tables produced by Bureau of Labor Statistics Employment Projections program. They are available on the Internet at <http://www.bls.gov/emp/home.htm> (visited Nov. 2002).

¹³ Construction-related manufacturing includes various industries by four-digit SIC within lumber products; stone, clay, and glass products; fabricated metals; rubber and other plastic products; and chemicals.

¹⁴ Data on truck tonnage are available, by subscription, from the American Trucking Associations.

¹⁵ See “No end in sight—The telecoms slump,” *The Economist*, May 4, 2002; Pascal Aguirre and Glen Macdonald, “Manager’s Journal: Accounting for Telecom’s Failures,” *The Wall Street Journal*, Sept. 3, 2002; and “Too many debts—too few calls—The telecoms crisis—The telecoms industry is in a mess. What went wrong, and how can it be fixed?,” *The Economist*, July 20, 2002.

¹⁶ Real private fixed investment data are published by the Bureau of Economic Analysis on the Internet at <http://www.bea.gov/beatable/nipaweb/TableViewFixed.asp#Mid> (visited Feb. 2003).

¹⁷ See Daniel Michaels and J. Lynn Lunsford, “Leading the News: Airbus is Awarded easyJet Order for 120 New Planes Over Boeing,” *The Wall Street Journal*, Oct. 15, 2002.

¹⁸ On Sept. 11, 2001, terrorists attacked three locations in the United States. Terrorists hijacked commercial jetliners and crashed them into each of the twin towers of the World Trade Center in New York City, and into the Pentagon, in Arlington, Virginia. A fourth jetliner that had been hijacked crashed in a field in Pennsylvania.

¹⁹ See Melanie Trotman and Scott McCartney, “Executive flight: The age of ‘Wal-Mart’ airlines crunches the biggest carriers—Low-cost rivals win converts as business travelers seek alternatives to lofty fares—The high cost of convenience,” *The Wall Street Journal*, June 18, 2002; Elisabeth Goodridge, “Virtual meetings yield real results,” *InformationWeek*, Oct. 22, 2001; Anthony L. Velocci, Jr., “Can Majors Shift Focus Fast Enough to Survive?,” *Aviation Week and Space Technology*, Nov. 18, 2002; and Tom Belden, “Businesses can save on travel and still keep employees flying,” *The Milwaukee Journal Sentinel*, June 4, 2001.

²⁰ Melanie Trotman and Scott McCartney, “Executive flight: The age of ‘Wal-Mart’ airlines crunches the biggest carriers...”

²¹ Kristin S. Krause, “Airlines Burn Million\$,” *Traffic World*, Nov. 4, 2002; Stephen Power and Rick Brooks, “Health Systems on Alert: Post Office Shifts Mail off Passenger Jets,” *The Wall Street Journal*, Oct. 16, 2001.

²² The 2002 figure is forecasted. See “State of the U.S. Airline Industry: A Report on Recent Trends for U.S. Air Carriers 2002–2003,” published by the Air Transport Association, Nov. 25, 2002, and available on the Internet at <http://www.airlines.org/> (visited Jan. 2003).

²³ Darren Shannon, “GDS woes highlighted as agents explain zero commissions effects,” *Travel Agent*, May 6, 2002.

²⁴ For more information on the Transportation Security Administration, see <http://www.tsa.gov>.

²⁵ For more information on how the Federal Reserve Bank is able to influence economy-wide interest rates by changing its target Federal funds rate, see <http://www.ny.frb.org/pihome/educator/fed/tools.html>.

²⁶ Federal funds rates and mortgage rates are both available from the Federal Reserve on the Internet at <http://www.federalreserve.gov> (visited Feb. 2003).

²⁷ Housing affordability data are published by the National Association of Realtors on the Internet at <http://www.realtor.org> (visited Feb. 2003).

²⁸ Housing starts are published by the U.S. Census Bureau on the Internet at <http://www.census.gov/const/www/newresconstindex.html> (visited Feb. 2003).

²⁹ The SIC system does not divide *special trade contractors* into residential and nonresidential construction components.

³⁰ Existing home sales data are published by the National Association of Realtors on the Internet at <http://www.realtor.org> (visited Feb. 2003); new home sales data are published by the U.S. Census Bureau on the Internet at <http://www.census.gov/const/www/newresalesindex.html> (visited Feb. 2003).

³¹ Data on home sales prices are published by the National Association of Realtors on the Internet at <http://www.realtor.org> (visited Feb. 2003); see Patrick Barta, “The Economy: Housing Boom Softens Stock Blow—Amid Shrinking Portfolios, Home Values Have Risen About 5% Through August,” *The Wall Street Journal*, Sept. 9, 2002; Ray A. Smith, “Is Now the Time to Invest in Real Estate?—As Stock Market Stumbles, Funds Pour Into Properties, Finding the Right Investment,” *The Wall Street Journal*, July 3, 2002; and Ray A. Smith, “Real Estate Offers Steadier Returns Than Stock,” *The Wall Street Journal*, Jan. 28, 2002.

³² The Mortgage Refinance Index is published by the Mortgage Bankers Association of America, on the Internet at <http://www.mbaa.org/> (visited Jan. 2003).

³³ Consumer spending data are published by the Bureau of Economic Analysis on the Internet at <http://www.bea.gov/beatable/nipaweb/TableViewFixed.asp> (visited Feb. 2003).

³⁴ *Ibid.*

³⁵ Vehicle sales data are published by the Bureau of Economic Analysis on the Internet at <http://www.bea.gov/beatable/dn1.htm> (visited Feb. 2003).

³⁶ Michael Munley and William A. Strauss, “Auto experts look forward amid concerns about costs,” *Chicago Fed Letter*, July 2002.

³⁷ See Karen Lundegaard, “While U.S. Auto Makers Sputter, Their dealers go full throttle,” *Asian Wall Street Journal*, Sept. 10, 2002; and Norihiko Shirouzu, “As Foreign Car Makers Expand in U.S., Glut threatens the Big 3,” *Asian Wall Street Journal*, July 11, 2002.

³⁸ Industrial production data are published by the Federal Reserve on the Internet at <http://www.federalreserve.gov> (visited Feb. 2003). Domestic auto production data are published by the Bureau of Economic Analysis on the Internet at <http://www.bea.gov/beatable/dn1.htm> (visited Feb. 2003).

³⁹ Michael Munley and William A. Strauss, “Auto experts look forward amid concerns...”

⁴⁰ Auto-related manufacturing industries include automotive and apparel trimmings (SIC 2396); flat glass (SIC 3211); automobile stampings (SIC 3465); carburetors, pistons, rings, valves (SIC 3592); vehicular lighting equipment (SIC 3647); and engine electrical equipment (SIC 3694).

⁴¹ Data compare the periods January to November in the years 2001 and 2002; at publishing time, these were the latest available data. Retail sales data are published by the U.S. Census on the Internet at <http://www.census.gov/econ/www/retmenu.html> (visited Feb. 2003).

⁴² See James K. Glassman, “Retail’s Surprising Shelf Life,” *The Washington Post*, Oct. 27, 2002; and Amy Tsao, “Will Wal-Mart Take Over the World? First it gobbled the mom-and-pops, then mauled discount department stores. What’s the insatiable chain’s next target?” *BusinessWeek Online*, Dec. 2, 2002.

⁴³ See “1992 to 2002: The Supercenter era,” *DSN Retailing Today*, Aug. 2002; Mike Duff, “Supercenters take lead in food retailing,” *DSN Retailing Today*, May 6, 2002.

⁴⁴ In recent years, the healthcare industry has been experiencing shortages of nurses, pharmacists, IT workers, emergency room workers, imaging technicians, nursing assistants, homecare aides, and other types of workers. While it is difficult to rapidly acquire the skills needed for many healthcare occupations, not all of these occupations require extensive education and training. With a loosening of labor market conditions, it is likely the lower-skilled positions became more attractive to displaced workers. Additionally, evidence suggests that a loosening of labor market conditions lured IT workers to healthcare. For more information, see Phillip Dunn, "No job vacancy," *Hospitals and Health Networks*, Mar. 2002; Jeff Tieman, "A grim outlook," *Modern Healthcare*, Feb. 4, 2002; and "Initiative addresses shortage of long-term care paraprofessionals," *Health Care Financing Review*, spring 2002.

⁴⁵ The "baby boom echo" refers to Americans born during a period of increased birth rates which began in the mid-1970s and peaked in 1990. See "The Condition of Education 2002" (U.S. Department of Education, National Center for Education Statistics, 2002–025), Washington, DC. Note that enrollment data for 2002 are projections.

⁴⁶ Anne Marie Chaker, "State Schools Plan Big Tuition Jumps," *The Wall Street Journal*, June 20, 2002.

⁴⁷ The unemployment rate reached a high of 10.7 percent in the fourth quarter of 1982 and 6.6 percent in the first quarter of 1991 (though the rate rose even after the recession officially ended, to 7.6 percent in the second quarter of 1992).

⁴⁸ Employment estimates referenced in this section are from the CPS. CPS data may differ significantly from CES data, mainly due to conceptual differences between the surveys. See the box note on page 4 for more details on the conceptual differences between employment estimates from the two surveys.

⁴⁹ The unemployment rate of 17.1 was the highest rate since the first quarter of 1996.

⁵⁰ The results of the 2000 Census revealed that the population estimates, based on the 1990 Census, were too low. The revised population controls, based on the 2000 Census and published in January 2003, show that Hispanics have surpassed Blacks not only in employment levels but also in population size.

⁵¹ See Reuters, "High-Tech Silicon Valley's Jobless Rate 7.9 Percent," *Forbes.com*, Nov. 9, 2002, available on the Internet at <http://www.forbes.com/newswire/2002/11/09/rtr789864.html> (visited Dec. 2002). Also, see Anthony DePalma, "White-Collar Layoffs, Downsized Dreams," *The New York Times*, Dec. 5, 2002, available on the Internet at <http://www.nytimes.com/2002/12/05/nyregion/05DREA.html> (visited Dec. 2002).

⁵² See Michael J. Mandel, et al., "The Educated Unemployed," *Business Week Online*, Sept. 30, 2002, available on the Internet at http://www.businessweek.com/magazine/content/02_39/b3801049.htm (visited Dec. 2002). Also, see Rachel Konrad, "From High-Tech to Blue Collar," *News.com*, Feb. 8, 2002, available on the Internet at <http://news.com.com/2100-1017-832553.html> (visited Dec. 2002).

⁵³ Chart 5 provides an interesting perspective on this situation. In the past three recessions, the unemployment rate for workers with at

least a bachelor of arts degree consistently rises from around the 1.9 percent range to between 3 and 3.5 percent. The unemployment rate for workers with some college or an associate degree is not as consistent, but the rate increases from less than 4 percent to near the 5-percent range or more in each of the three most recent recessions.

⁵⁴ For example, chart 5 shows that the unemployment rate for workers with less than a high school diploma rose from the 8-percent range to the 16-percent range in the 1980s and from around 9 percent to more than 12 percent in the 1990s. This contrasts with the current rise from slightly more than 6 percent to around 9 percent. Workers with a high school diploma, no college also experienced a relatively mild unemployment rate increase during the recent downturn.

⁵⁵ For a more detailed discussion of this trend, see David S. Langdon, Terence M. McMnaman, and Thomas J. Krolik, "U.S. labor market in 2001: economy enters a recession," *Monthly Labor Review*, Feb. 2002, pp. 26–27. Between the beginning of the recent recession as determined by the National Bureau of Economic Research (the first quarter of 2001) and the fourth quarter of 2002, more than 9 out of 10 persons who became unemployed job losers (on net) believed their job loss was permanent.

⁵⁶ See Davide Dukcevic, "Strayer Gains As Unemployment Rises," *Forbes.com*, May 3, 2002, available on the Internet at <http://forbesbest.com/2002/05/03/0503strayer.html> (visited Dec. 2002).

⁵⁷ Data in this section of the article are annual averages.

⁵⁸ The earnings data discussed in this section have been adjusted for inflation.

⁵⁹ Ten percent of all full-time wage and salary workers earn less than the upper limit of the first decile, and 90 percent earn less than the upper limit of the ninth decile.

⁶⁰ The four census 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; Midwest: *East North Central division*—Illinois, Indiana, Michigan, Ohio, Wisconsin; *West North Central division*—Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; 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; West: *Mountain division*—Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming; *Pacific division*—Alaska, California, Hawaii, Oregon, Washington.

⁶¹ Quarterly series for the West region, the Pacific division, and California begin in 1980. Series for other regions, divisions, and States begin in 1978.

⁶² The analysis of metropolitan area data is limited to the 51 areas with a 1990 census population of 1 million or more.

⁶³ Neither unemployment nor payroll employment data are available on a seasonally adjusted basis at the metropolitan area level. The estimates presented here are not seasonally adjusted quarterly data, which preclude analysis of over-the-quarter changes.