The U.S. labor market in 2003: signs of improvement by year's end

Job losses eased in 2003, and the unemployment rate edged down in the second half of the year

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In 2003, total nonfarm employment continued to decline until late in the year. The unemployment rate rose during the first half of the year and then fell, ending the year about where it started.

Several factors affected employment trends last year. Lingering effects from both the late-1990s technology bubble and the 2001 recession, as well as related State and local government budget crises, led to continued job losses or to rates of employment growth slower than those seen in recent years. Strongly competitive markets drove ongoing structural change in several industries, while lackluster tourism translated into little or no growth in some tourism-related industries. In contrast to an otherwise weak labor market, historically low interest rates were a catalyst to job growth in interest-rate-sensitive industries. The data in this article are primarily from the Current Employment Statistics (CES) survey, the Current Population Survey (CPS), and the local Area Unemployment Statistics (LAUS) program. (See page 4 for an explanation of differences between the CES survey and the CPS.)

Total nonfarm employment declined through the first three quarters of the year and then registered small gains. Over the year, net payroll employment was down by 243,000. Manufacturing lost 642,000 jobs, the largest drop of any sector. Information, transportation and warehousing, and wholesale trade also posted employment declines. Job losses were not unique to private industry: government employment contracted for the first time since 1982. Private education and health services added 329,000 workers in 2003, more than any other sector, although the rate of growth slowed relative to the rate in recent years. Employment in professional and business services, financial activities, and construction grew faster in 2003 than 2002. Largely on the basis of strength in food services, the leisure and hospitality sector also added workers, while retail trade and the natural resources and mining sector showed little change in employment.

Although the 2001 recession had ended, many of the payroll survey's most sensitive cyclical series did not show signs of improvement until late 2003. While real gross domestic product, consumer and business spending, and the stock markets each grew at an accelerated pace after the 2001 recession, total nonfarm employment continued to contract through the third quarter of 2003. The lack of job growth contributed to a sense of uncertainty regarding the strength of the recovery from the recession by raising concerns about consumers' ability to continue spending.[1] Earnings growth slowed over the year, while average weekly hours for all private industry dipped to an all-time low in mid-2003 and ended the year flat relative to 2002.

Worker hours in manufacturing often lead the business cycle. Average weekly hours in manufacturing hovered near a recession low for much of 2003 before lengthening in the last quarter. Weekly overtime hours in manufacturing had bottomed out at the end of 2001, but growth in overtime stalled in mid-2002, and the workweek did not lengthen again until the end of 2003. Over the year, the manufacturing workweek expanded by 0.2 hour and overtime by 0.3 hour.

The *temporary help services* industry supplies labor to a wide variety of industries, and its employment trend is often considered a leading indicator of payroll employment. Employers who face uncertain demand frequently hire temporary workers before hiring permanent workers. The temporary help industry showed clear signs of recovery in 2003 as its employment began to expand in the second quarter. Over the year, the industry added 133,000 workers.

Trucking activity is often considered a cyclical indicator, because it fluctuates with the demand for goods. Truck tonnage is an important measure of the quantity of goods shipped via truck, while employment in *truck transportation* reflects the industry's labor needs. Although tonnage remained below its long-run growth trend in 2003, it strengthened relative to its recent recession levels.[2] Despite some recovery in employment during the second half, employment in truck transportation was flat over the year.

Activity in *machinery* manufacturing also is considered a cyclical indicator, because the industry sells its products to other manufacturers and its expansion generally coincides with increased capital investment. Industrial production of machinery grew in the last quarter of 2003.[3] Over the year, activity was up slightly. Despite the upturn in output, employment in *machinery* declined through the fourth quarter of 2003. The industry lost 59,000 jobs in 2003, although the pace of job loss slowed as the year progressed.

The job situation in the highly cyclical securities industry also showed relative improvement. After contracting by 44,000 jobs in 2002, *securities, commodity contracts, and investments* employment leveled out in 2003. (See table 1.) Demand for financial services corresponded with strengthening in the U.S. stock markets; the Standard and Poor's 500 bottomed out early in the year.

It was not until the final quarter of 2003 that payroll indicators aligned more clearly and hinted at a labor-market recovery. After falling in each of the first three quarters, total nonfarm employment edged up in the fourth. (See chart 1.) Promisingly, the job gains were spread among a number of industries.[4] Aggregate weekly hours for total private industry also appeared to have bottomed out in the third quarter. Another positive factor was relative improvement in manufacturing employment: although job losses in the industry continued through the fourth quarter, the pace and scope diminished in the second half of the year. (See chart 2.) In particular, job losses in durable goods manufacturing slowed dramatically in the fourth quarter; on average, industries in this sector lost 133,000 jobs each of the first three quarters, compared with 23,000 jobs lost in the fourth quarter.

Lingering effects from both the 1990s technology bubble and the 2001 recession continued to influence the employment situation in 2003. Telecommunications and information-technology-related industries continued to deal with overcapacity, while industries associated with commercial construction suffered from lackluster spending. All of these industries shed workers in 2003.

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, based on 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 furnishes data on the labor force status (employed, unemployed, or not in the labor force) of individuals and that 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 from the CES survey.

Partially offsetting the higher estimates from the CPS is the fact that that survey 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 an estimate of jobs and counts each job for persons who work in more than one establishment.

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

The "universe" for the CPS is the civilian noninstitutional population, which comprises persons 15 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. (Data are published for those aged 16 and older.) In this regard, the coverage of the CES survey is broader: the survey has no age restriction, wage and salary civilian jobs held by uniformed military personnel are counted, and persons who commute to the United States from Mexico or Canada to work are classified 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 population benchmark created a break in the CPS employment series between December 2002 and January 2003. Where possible, data in this article were adjusted to control for the resulting increase in the employment level of 576,000 in January 2003. The method used to "smooth" the employment series is discussed in Marisa Di Natale, "Creating Comparability in CPS Employment Series," on the Internet at **http://www.bls.gov/cps/cpscomp.pdf**.

Table 1. Employees on nonfarm payrolls by industry, seasonally adjusted quarterly averages, 1997–2003

[Numbers in thousands]

Industry	Fourth quarter				Change, fourth quarter to fourth quarter					
	1997	2001	2002	2003	Average change, 1997–2001		2001–02		2002–03	
					Number	Percent	Number	Percent	Number	Percent
Total nonfarm	124,060	130,911	130,248	130,005	1,713	1.4	–663	–0.5	–243	–0.2
Total private	104,305	109,588	108,654	108,457	1,321	1.2	–934	–.9	–197	–.2
Goods producing	24,116	23,222	22,252	21,677	–224	–.9	–970	–4.2	–575	–2.6
Natural resources and mining	657	599	575	570	–15	–2.3	–24	–4.0	–5	–.9
Logging	82	72	70	67	–3	–3.2	–2	–2.8	–3	–4.3
Mining	575	527	505	503	–12	–2.2	–22	–4.2	–2	–.4
Oil and gas extraction	143	124	120	124	–5	–3.5	–4	–3.2	4	3.3
Mining, except oil and gas	247	218	206	202	–7	–3.1	–12	–5.5	–4	–1.9
Coal mining	88	77	73	70	–3	–3.3	–4	–5.2	–3	–4.1
Support activities for mining	185	186	179	177	0	.1	–7	–3.8	–2	–1.1
Construction	5,907	6,792	6,698	6,770	221	3.6	–94	–1.4	72	1.1
Construction of buildings	1,454	1,585	1,576	1,584	33	2.2	–9	–.6	8	.5
Heavy and civil engineering construction	832	953	915	918	30	3.5	–38	–4.0	3	.3
Specialty trade contractors	3,621	4,255	4,207	4,268	159	4.1	–48	–1.1	61	1.4
Manufacturing	17,552	15,831	14,979	14,337	–430	–2.5	–852	–5.4	–642	–4.3
Durable goods	10,842	9,898	9,286	8,864	–236	–2.3	–612	–6.2	–422	–4.5
Wood products	600	564	547	535	–9	–1.5	–17	–3.0	–12	–2.2
Nonmetallic mineral products	528	532	507	488	1	.2	–25	–4.7	–19	–3.7
Primary metals	643	538	499	464	–26	–4.4	–39	–7.2	–35	–7.0
Fabricated metal products	1,722	1,604	1,525	1,467	–30	–1.8	–79	–4.9	–58	–3.8
Machinery	1,512	1,296	1,199	1,140	–54	–3.8	–97	–7.5	–59	–4.9
Computer and electronic products[1]	1,836	1,634	1,443	1,333	–51	–2.9	–191	–11.7	–110	–7.6
Computer and peripheral equipment	323	267	242	219	–14	–4.6	–25	–9.4	–23	–9.5
Communications equipment	247	213	171	154	–9	–3.6	–42	–19.7	–17	–9.9
Semiconductors and electronic components	658	585	493	451	–18	–2.9	–92	–15.7	–42	–8.5
Electronic instruments	498	467	441	425	–8	–1.6	–26	–5.6	–16	–3.6
Electrical equipment and appliances	588	527	482	451	–15	–2.7	–45	–8.5	–31	–6.4
Transportation equipment	2,062	1,886	1,810	1,765	–44	–2.2	–76	–4.0	–45	–2.5
Furniture and related products	623	618	591	569	–1	–.2	–27	–4.4	–22	–3.7
Miscellaneous manufacturing	727	700	682	653	–7	–.9	–18	–2.6	–29	–4.3
Nondurable goods	6,710	5,933	5,693	5,473	–194	–3.0	–240	–4.0	–220	–3.9
Food manufacturing	1,558	1,540	1,518	1,514	–5	–.3	–22	–1.4	–4	–.3
Beverages and tobacco products	208	207	205	199	0	–.1	–2	–1.0	–6	–2.9
Textile mills	435	310	282	244	–31	–8.1	–28	–9.0	–38	–13.5
Textile product mills	217	199	192	174	–5	–2.1	–7	–3.5	–18	–9.4
Apparel	683	388	346	298	–74	–13.2	–42	–10.8	–48	–13.9
Leather and allied products	88	53	49	44	–9	–11.9	–4	–7.5	–5	–10.2
Paper and paper products	630	562	537	512	–17	–2.8	–25	–4.4	–25	–4.7
Printing and related support activities	825	742	690	672	–21	–2.6	–52	–7.0	–18	–2.6
Petroleum and coal products	137	121	117	112	–4	–3.1	–4	–3.3	–5	–4.3
Chemicals	991	944	921	898	–12	–1.2	–23	–2.4	–23	–2.5
Plastics and rubber products	940	867	837	806	–18	–2.0	–30	–3.5	–31	–3.7
Service providing	99,944	107,689	107,995	108,328	1,936	1.9	306	.3	333	.3
Private service-providing	80,189	86,366	86,402	86,780	1,544	1.9	36	.0	378	.4
Trade, transportation, and utilities	24,924	25,690	25,403	25,250	192	.8	–287	–1.1	–153	–.6
Wholesale trade	5,722	5,708	5,634	5,592	–4	–.1	–74	–1.3	–42	–.7
Durable goods	3,107	3,069	2,986	2,942	–10	–.3	–83	–2.7	–44	–1.5
Nondurable goods	2,024	2,022	2,008	1,991	–1	.0	–14	–.7	–17	–.8

See footnote at end of table.

Table 1. Continued—Employees on nonfarm payrolls by industry, seasonally adjusted quarterly averages, 1997–2003

[Numbers in thousands]

Industry	Fourth quarter 1997	Fourth quarter 2001	Fourth quarter 2002	Fourth quarter 2003	Average change, 1997–2001 Number	Average change, 1997–2001 Percent	2001–02 Number	2001–02 Percent	2002–03 Number	2002–03 Percent
Electronic markets and agents and brokers	591	617	639	659	7	1.1	22	3.6	20	3.1
Retail trade	14,503	15,126	14,959	14,917	156	1.1	–167	–1.1	–42	–.3
Motor vehicle and parts dealers[1]	1,728	1,863	1,884	1,892	34	1.9	21	1.1	8	.4
Automobile dealers	1,136	1,234	1,258	1,259	25	2.1	24	1.9	1	.1
Furniture and home furnishings stores	490	536	545	544	12	2.3	9	1.7	–1	–.2
Electronics and appliance stores	502	545	521	511	11	2.1	–24	–4.4	–10	–1.9
Building material and garden supply stores	1,045	1,161	1,177	1,208	29	2.7	16	1.4	31	2.6
Food and beverage stores	2,960	2,933	2,866	2,823	–7	–.2	–67	–2.3	–43	–1.5
Health and personal care stores	864	950	934	951	22	2.4	–16	–1.7	17	1.8
Gasoline stations	962	918	888	873	–11	–1.2	–30	–3.3	–15	–1.7
Clothing and clothing accessories stores	1,256	1,302	1,316	1,299	12	.9	14	1.1	–17	–1.3
Sporting goods, hobby, book, and music stores	642	661	649	640	5	.7	–12	–1.8	–9	–1.4
General merchandise stores[1]	2,680	2,827	2,792	2,824	37	1.3	–35	–1.2	32	1.1
Department stores	1,674	1,749	1,653	1,616	19	1.1	–96	–5.5	–37	–2.2
Miscellaneous store retailers	927	979	950	929	13	1.4	–29	–3.0	–21	–2.2
Nonstore retailers	447	452	438	422	1	.3	–14	–3.1	–16	–3.7
Transportation and warehousing	4,083	4,257	4,220	4,163	44	1.0	–37	–.9	–57	–1.4
Air transportation	549	577	566	510	7	1.3	–11	–1.9	–56	–9.9
Rail transportation	222	224	216	215	1	.2	–8	–3.6	–1	–.5
Water transportation	50	53	53	51	1	1.5	0	.0	–2	–3.8
Truck transportation	1,326	1,363	1,334	1,334	9	.7	–29	–2.1	0	.0
Transit and ground passenger transportation	354	367	379	387	3	.9	12	3.3	8	2.1
Pipeline transportation	49	45	41	39	–1	–2.1	–4	–8.9	–2	–4.9
Scenic and sightseeing transportation	25	28	25	29	1	2.9	–3	–10.7	4	16.0
Support activities for transportation	481	528	525	513	12	2.4	–3	–.6	–12	–2.3
Couriers and messengers	561	569	559	564	2	.4	–10	–1.8	5	.9
Warehousing and storage	467	503	524	521	9	1.9	21	4.2	–3	–.6
Utilities	616	599	591	579	–4	–.7	–8	–1.3	–12	–2.0
Information	3,134	3,538	3,321	3,171	101	3.1	–217	–6.1	–150	–4.5
Publishing industries, except Internet	966	995	952	918	7	.7	–43	–4.3	–34	–3.6
Motion picture and sound recording industries	361	377	392	380	4	1.1	15	4.0	–12	–3.1
Broadcasting, except Internet	315	342	332	327	7	2.1	–10	–2.9	–5	–1.5
Internet publishing and broadcasting	25	40	31	30	4	12.5	–9	–22.5	–1	–3.2
Telecommunications	1,080	1,269	1,141	1,063	47	4.1	–128	–10.1	–78	–6.8
ISPs, search portals, and data processing	346	469	426	403	31	7.9	–43	–9.2	–23	–5.4
Other information services	41	45	48	48	1	2.4	3	6.7	0	.0
Financial activities	7,281	7,836	7,893	7,985	139	1.9	57	.7	92	1.2
Finance and insurance	5,388	5,803	5,858	5,923	104	1.9	55	.9	65	1.1
Monetary authorities, central bank	22	23	23	22	0	1.1	0	.0	–1	–4.3
Credit intermediation and related activities[1]	2,470	2,635	2,731	2,791	41	1.6	96	3.6	60	2.2
Depository credit intermediation[1]	1,705	1,720	1,738	1,758	4	.2	18	1.0	20	1.2
Commercial banking	1,285	1,273	1,277	1,281	–3	–.2	4	.3	4	.3
Securities, commodity contracts, investments	655	818	774	769	41	5.7	–44	–5.4	–5	–.6
Insurance carriers and related activities	2,168	2,238	2,246	2,260	18	.8	8	.4	14	.6

See footnote at end of table.

Table 1. Continued—Employees on nonfarm payrolls by industry, seasonally adjusted quarterly averages, 1997–2003

[Numbers in thousands]

Industry	Fourth quarter				Change, fourth quarter to fourth quarter					
	1997	2001	2002	2003	Average change, 1997–2001		2001–02		2002–03	
					Number	Percent	Number	Percent	Number	Percent
Funds, trusts, and other financial vehicles	72	89	84	80	4	5.4	–5	–5.6	–4	–4.8
Real estate and rental and leasing	1,893	2,033	2,035	2,063	35	1.8	2	.1	28	1.4
Real estate	1,250	1,346	1,368	1,394	24	1.9	22	1.6	26	1.9
Rental and leasing services	619	659	641	639	10	1.6	–18	–2.7	–2	–.3
Lessors of nonfinancial intangible assets	24	29	27	30	1	4.8	–2	–6.9	3	11.1
Professional and business services	14,662	16,137	15,926	16,114	369	2.4	–211	– 1.3	188	1.2
Professional and technical services[1]	5,793	6,812	6,644	6,648	255	4.1	–168	–2.5	4	.1
Legal services	997	1,102	1,129	1,142	26	2.5	27	2.5	13	1.2
Accounting and bookkeeping services	778	873	816	811	24	2.9	–57	–6.5	–5	–.6
Architectural and engineering services	1,082	1,263	1,240	1,234	45	3.9	–23	–1.8	–6	–.5
Computer systems design and related services	874	1,237	1,128	1,106	91	9.1	–109	–8.8	–22	–2.0
Management and technical consulting services	591	737	740	760	37	5.7	3	.4	20	2.7
Management of companies and enterprises	1,742	1,749	1,687	1,670	2	.1	–62	–3.5	–17	–1.0
Administrative and waste services	7,126	7,576	7,596	7,796	113	1.5	20	.3	200	2.6
Administrative and support services[1]	6,833	7,257	7,278	7,475	106	1.5	21	.3	197	2.7
Employment services[1]	3,048	3,222	3,245	3,427	44	1.4	23	.7	182	5.6
Temporary help services	2,137	2,174	2,185	2,318	9	.4	11	.5	133	6.1
Business support services	752	775	752	748	6	.8	–23	–3.0	–4	–.5
Services to buildings and dwellings	1,436	1,601	1,620	1,640	41	2.8	19	1.2	20	1.2
Waste management and remediation services	292	319	318	321	7	2.2	–1	–.3	3	.9
Education and health services	14,232	15,873	16,377	16,706	410	2.8	504	3.2	329	2.0
Educational services	2,185	2,560	2,669	2,722	94	4.0	109	4.3	53	2.0
Health care and social assistance	12,046	13,313	13,708	13,984	317	2.5	395	3.0	276	2.0
Ambulatory health care services[1]	4,134	4,520	4,704	4,820	97	2.3	184	4.1	116	2.5
Offices of physicians	1,683	1,934	1,985	2,024	63	3.5	51	2.6	39	2.0
Outpatient care centers	356	405	420	424	12	3.3	15	3.7	4	1.0
Home health care services	703	652	701	738	–13	–1.9	49	7.5	37	5.3
Hospitals	3,844	4,097	4,201	4,277	63	1.6	104	2.5	76	1.8
Nursing and residential care facilities[1]	2,465	2,712	2,763	2,794	62	2.4	51	1.9	31	1.1
Nursing care facilities[1]	1,483	1,561	1,579	1,584	20	1.3	18	1.2	5	.3
Social assistance	1,603	1,985	2,040	2,093	96	5.5	55	2.8	53	2.6
Child day care services	581	727	745	768	37	5.8	18	2.5	23	3.1
Leisure and hospitality	11,074	11,979	12,086	12,173	226	2.0	107	.9	87	.7
Arts, entertainment, and recreation	1,611	1,818	1,812	1,798	52	3.1	–6	–.3	–14	–.8
Performing arts and spectator sports	352	380	377	371	7	1.9	–3	–.8	–6	–1.6
Museums, historical sites, zoos, and parks	95	115	114	113	5	4.9	–1	–.9	–1	–.9
Amusements, gambling, and recreation	1,165	1,323	1,320	1,314	40	3.2	–3	–.2	–6	–.5
Accommodations and food services	9,463	10,160	10,275	10,374	174	1.8	115	1.1	99	1.0
Accommodations	1,741	1,788	1,801	1,748	12	.7	13	.7	–53	–2.9
Food services and drinking places	7,722	8,372	8,473	8,626	163	2.0	101	1.2	153	1.8
Other services	4,882	5,314	5,395	5,381	108	2.1	81	1.5	–14	–.3
Repair and maintenance	1,178	1,251	1,243	1,235	18	1.5	–8	–.6	–8	–.6
Personal and laundry services	1,185	1,254	1,258	1,252	17	1.4	4	.3	–6	–.5

See footnote at end of table.

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[Numbers in thousands]

Industry	Fourth quarter				Change, fourth quarter to fourth quarter					
	1997	2001	2002	2003	Average change, 1997–2001		2001–02		2002–03	
					Number	Percent	Number	Percent	Number	Percent
Membership associations and organizations	2,519	2,808	2,893	2,895	72	2.8	85	3.0	2	.1
Government	19,755	21,323	21,593	21,548	392	1.9	270	1.3	–45	–.2
Federal	2,792	2,754	2,778	2,727	–10	–.3	24	.9	–51	–1.8
Federal, except U.S. Postal Service	1,921	1,891	1,958	1,929	–8	–.4	67	3.5	–29	–1.5
U.S. Postal Service	871	863	820	798	–2	–.2	–43	–5.0	–22	–2.7
State government	4,583	4,979	5,024	5,024	99	2.1	45	.9	0	.0
State government education	1,906	2,176	2,246	2,284	68	3.4	70	3.2	38	1.7
State government, excluding education	2,677	2,803	2,778	2,740	32	1.2	–25	–.9	–38	–1.4
Local government	12,380	13,590	13,791	13,797	303	2.4	201	1.5	6	.0
Local government education	6,828	7,560	7,697	7,686	183	2.6	137	1.8	–11	–.1
Local government, excluding education	5,551	6,030	6,095	6,111	120	2.1	65	1.1	16	.3

[1] Includes other industries not shown separately.

Driven by high expectations of growth in demand, telecommunications companies quickly expanded their transmission capacity during the 1990s. When it later became clear that these expectations would not be met, companies speedily cut their prices to capture as much demand—and revenue—as possible. Facing stiff competition and hefty debts, telecommunications companies also shed workers as they struggled to profit.[5] Employment in *telecommunications* reached a peak in the first quarter of 2001 and shrank 19.9 percent through 2003. The industry lost 78,000 jobs in 2003, the largest portion of job losses in the information sector. While the job situation in telecommunications continued to weaken in 2003, the pace of job loss slowed over the year. Employment declines were concentrated in *wired telecommunications carriers*—an industry which includes companies that facilitate communications via landlines—and in *telecommunications resellers*.

Spurred by the popularity of Internet and e-mail applications, as well as by concerns of a year-2000 computer glitch, investment and spending on information processing equipment and software grew an average of 20 percent per year between 1995 and 2000. The information-technology-related components of manufacturing, namely, *computer and peripheral equipment*, *communications equipment*, and *semiconductors and electronic components*, together averaged 2.4-percent annual employment growth over the 5-year span. Spending on information processing equipment reached a high in the last quarter of 2000 and contracted each quarter of the next year.[6] The peak in information-technology-related manufacturing employment lagged spending by one quarter, although the industry continued to shed workers through 2003, 2 years after spending had begun to recover. Employment did show relative improvement in 2003, as the pace of job loss slowed by one-third compared with 2002.

The job situation in *computer systems design and related services* also mirrored the technology bubble's expansion and contraction. After reaching a high in the first quarter of 2001, employment in computer systems design fell 17.5 percent from the second quarter of 2001 to the end of 2003. The pace of job loss moderated over the year, although the industry still lost 22,000 jobs. The practice of outsourcing computer-related jobs offshore is yet another factor underlying the industry's weak employment situation.[7]

The technology bust and the 2001 recession were characterized by cutbacks in business spending. Besides slashing spending on information processing equipment and software, businesses reduced their investment in structures. The rate of expansion of telecommunications infrastructure dropped once the industry revised its expectations of future demand. Employment in *utility system construction*, which includes construction of communication lines and related structures, followed this boom and bust: from the second quarter of 2001 through mid-2003, the industry shed 30,000 jobs; after that, construction improved somewhat. The result was that, over the year, employment was flat.

Architectural and structural metals manufacturing, which produces materials such as prefabricated metal buildings and concrete-reinforcing bars for commercial construction projects, shed 13.4 percent of its workforce from 2000 through mid-2003. Job losses moderated in 2003, although the industry still shed 10,000 jobs over the year. Employment in *commercial building construction* contracted 7.1 percent from mid-2001 through 2003 and declined by 16,000 over the year. Employment in *industrial building construction* dropped by 8,000 in 2003, marking the industry's third consecutive year of decline.

Long-term structural change driven by foreign and domestic competition, as well as technological advances, led to continued job losses. Manufacturing employment declined by 4.3 percent over the year. Until the fourth quarter, the losses were more severe in durable goods manufacturing; for the year, the pace of job loss exceeded 3 percent in both durable and nondurable manufacturing. In recent years, cyclical factors exacerbated manufacturing's long-run employment decline, and the pace of job loss accelerated, with the industry having lost 2.9 million jobs since 2000. Foreign competition has played an important role, both in driving the adoption of laborsaving technologies in the United States and in moving manufacturing jobs offshore. This relationship is evidenced by the long-run growth of both manufactured imports and industrial production, coupled with manufacturing's downward trend in employment.[8]

Primary metals manufacturing lost 35,000 jobs in 2003, continuing an employment slide that accelerated markedly in 2001. Intense competition among U.S. and foreign competitors has forced the steel industry to consolidate in recent years by shedding excess capacity and workers. In March 2002, steel tariffs were implemented in order to protect the industry from foreign competition while it underwent major restructuring. After the tariffs took effect, the industry's pace of job loss slowed from 12.6 percent in 2001 to 7.2 percent, on average, in 2002 and 2003.[9] In December 2003, the tariffs were lifted, reducing the likelihood of retaliatory trade actions from foreign steel-producing countries.

Although conditions in the steel industry improved after the tariffs were put into place, *motor vehicle parts* manufacturers were hurt by higher steel input prices. With profits squeezed between higher steel costs and automobile producers' demands for low-priced parts, the industry shed 30,000 jobs in 2003. Data on producer prices illustrate this constriction well: the cost of steel mill products rose 11.3 percent from 2001 to 2003, while prices received by producers of motor vehicle parts and accessories shrank 1.3 percent over the same period.[10]

In contrast to motor vehicle parts manufacturers, *motor vehicles* manufacturing *added* 7,000 workers over the year, after shedding employees the previous 2 years. Before the labor negotiations that began in July 2003, the "Big 3" auto producers were locked into contracts that restricted them from closing plants. Suffering from overcapacity, high retiree health and pension costs, and a shrinking market share, the Big 3 convinced the United Auto Workers labor union of the need for closings. New contracts were ratified in September 2003, and the first of several plant closings occurred the following month.[11] While the traditional automobile industry struggled in 2003, foreign automobile producers expanded their market share and production in North America.[12]

Apparel, textile, and leather products manufacturing industries have each been shedding workers for several decades. *Apparel* shed 48,000 workers, and *textile mills*, which manufacture basic fibers into products such as yarn and fabric, lost 38,000 jobs over the year. *Textile product mills*, which purchase primary textiles and manufacture nonapparel textile products such as sheets and towels, also shrank in 2003, as the industry cut 9.4 percent of its workforce. Employment in *leather and allied products* decreased by 5,000 in 2003, a decline that was part of an ongoing contraction that has separated about two-thirds of the industry's workers since 1990.

Competition from foreign producers is one factor that has led to the employment declines. Indeed, U.S. industrial production of textiles contracted each year from 2000 to 2003, and the production of apparel and leather goods declined each year from 1997 to 2003.[13] Also in recent years, imports of textiles and of leather and allied products have grown.[14] Automation is yet another factor affecting employment trends in these industries.[15]

Paper and paper products manufacturing lost 25,000 jobs over the year, and employment in the industry has fallen by 129,000 since 1994. Over the long term, the industry has struggled with overcapacity and increased global competition and has shed jobs through consolidation. The pace of job loss accelerated during the 2001 recession.[16]

The *U.S. Postal Service*, too, has closed and consolidated several facilities in recent years. Since mid-1999, the Postal Service has cut 10.9 percent of its workforce. In 2003, employment declined by 22,000 workers. In recent years, the Postal Service has reduced its labor needs by adopting technologies that facilitate automated mail sorting. Decreased mail volume also has reduced the need for workers. Mail volume has shrunk due to the popularity of on-line bill paying, e-mail, increased competition, and economic "softness."[17] *Couriers*, an industry that includes private parcel delivery, has also become more automated in recent years. This industry has shed 58,000 workers since 2000, although, in 2003, employment was flat.

Automation, such as self-scanning equipment at checkout counters, has become more prevalent in *food and beverage stores* in recent years and is one factor behind the industry's job decline.[18] Fierce competition is another factor. Employment in food and beverage stores has contracted by 180,000 since reaching a peak in mid-2000; employment fell by 43,000 in 2003. Shrinking employment in *grocery stores* has driven the decline, although *specialty food stores* also have shed workers in recent years. Warehouse clubs and supercenters, which sell groceries as well as general merchandise, have captured a large portion of grocery stores' traditional markets.[19]

Employment in *warehouse clubs and supercenters* expanded by 63,000 over the year. Bargain-hunting and convenience-seeking consumers have supported growth in this industry by increasingly shopping at warehouse stores and supercenters, rather than at more traditional stores. Indeed, warehouse clubs and supercenters have registered double-digit sales growth in recent years, while traditional-style department stores have struggled to compete.[20] The job situation in *department stores, except discount stores* reflects the woes of traditional-style department stores, as 55,000 jobs were lost over the year. Since reaching a high in mid-2001, employment in the industry has contracted by 17.3 percent. Over the same time span, employment in *discount department stores* has been relatively flat. Unlike traditional-style department stores, discounters generally have cashiers located at stores' exits; they differ from warehouse clubs and supercenters because they do not sell groceries. Despite dynamic job trends within the retail trade sector, overall retail employment was essentially flat in 2003.

The public sector was not immune to the weakening job situation in 2003, and government employment contracted for the first time in more than two decades. (See chart 3.) Although cutbacks by the U.S. Postal Service account for a portion of the job decline, employment in the *Federal Government, except U.S. Postal Service* also fell over the year. Job growth stalled in *State government* and *local government*.

Strong tax revenues during the 1990s facilitated escalated government spending. However, when the 2001 recession hit, tax revenues shrank considerably and pushed government budgets out of balance. State governments also were saddled with growing unemployment compensation and Medicaid costs, while both State and local governments were burdened by increased security costs.[21] In addition, nearly all State and local governments are required, by law, to balance their annual budgets.[22]

One-time accounting fixes that shifted spending from one fiscal year to the next, increased fees, and tobacco settlement funds helped States avoid job cutbacks overall in 2002.[23] With continued budget woes in 2003, however, States were forced to make difficult spending decisions. In *State government, excluding education*, the rate of job loss accelerated over the year and employment declined by 38,000. Appreciating property values drove local tax revenues and helped local governments balance cutbacks in State aid. Still, employment in *local government, excluding education* grew only 16,000 over the year, compared with an average growth of 120,000 workers per year from 1997 to 2001.

Job growth in education, both public and private, slowed in 2003. Employment in *local government education* was flat over the year, after adding an average of 183,000 jobs per year from 1997 to 2001. Employment in *State government education*, which includes mostly public universities and colleges, grew by 38,000 over the year, compared with an average growth of 68,000 per year from 1997 to 2001. Employment in private *educational services* grew by 53,000 in 2003, about one-half of the category's growth in 2002; both primary and secondary schools, as well as private colleges, experienced slower growth over the year. Private colleges suffered from shrunken endowments and cutbacks in donation levels, while public universities and colleges faced reductions in government funding.[24]

Health care and social assistance services also rely on government support, and in recent years health-care-related industries have faced cuts in Medicare and Medicaid reimbursement rates. The reduced benefits to these industries coincided with increased spending on liability insurance and disaster readiness and also with slower employment growth.[25] *Social assistance* maintained its 2002 rate of growth in 2003, adding 53,000 jobs over the year. Overall, the pace of job growth in health care and social assistance slackened in 2003, but the industry still experienced considerable growth and added more jobs than any other industry.

Tourism remained muted in 2003, as did employment in related industries. *Transportation and warehousing* shed 57,000 workers over the year, with *air transportation* accounting for the majority of the decline. Airlines continued to struggle with overcapacity in 2003. Geopolitical and terrorist concerns played a role in the lackluster demand for air travel, especially in the first half of the year. Beginning in 2001, reduced business travel crimped the airlines' revenues. A sharp decline in air travel after September 11, 2001, further intensified the airlines' difficulties. With its customers financially distressed, *aerospace product and parts* manufacturers shared the airlines' pain,[26] shedding 26,000 jobs in 2003. Overall, the industry has lost 83,000 jobs since the third quarter of 2001.

Leisure and hospitality added 87,000 workers over the year, with strength in food services bolstering weakness in accommodations and entertainment. Employment growth in *food services and drinking places* corresponded with strong sales in the industry.[27] However, with business and leisure travel in a slump, the job situation in *hotels and motels, except casino hotels* remained lackluster. Since reaching a peak in 2000, employment in this industry has decreased by 137,000—55,000 alone in 2003. *Arts, entertainment, and recreation* shed workers, too, and reduced its employment by 14,000 over the year.

Low long-term interest rates fueled employment growth in mortgage- and housing-related industries, generating a pocket of contrast to an otherwise weak employment situation in 2003. Housing became more affordable as mortgage rates dipped to record lows that spurred both sales and refinancing activity.[28]

In 2003, housing starts increased from already high levels and drove job growth in *construction*. An employment increase of 61,000 in *specialty trade contractors* reflected greater demand for residential construction. The pace of new- and existing-home sales accelerated over the year and drove employment growth in *real estate*.[29] The job situation in *building material and garden supply stores* also reflected the housing market's strength. The industry's employment expanded by 31,000 over the year, marking the 12th consecutive year of job growth. Sales at building material and garden supply stores accelerated slightly in each of the last 3 years, reaching 6.6 percent in 2003.[30]

Refinancing activity reached historically high levels as homeowners took advantage of low mortgage rates. *Credit intermediation and related activities* added workers to meet the increased demand for refinancing, and employment swelled by 60,000 over the year. All of the industry's growth occurred in the first three quarters of the year; by the final quarter of 2003, refinancing activity had slowed somewhat, and the credit intermediation industry cut back its workforce.

Unemployment rose in mid-2003, but began to decline at year's end. Estimates from the CPS showed that the unemployment rate in the fourth quarter of 2003, 5.9 percent, was unchanged from the jobless rate in the fourth quarter of 2002. After having ticked up to 6.1 percent during the second quarter of the year, the unemployment rate began a slight downward movement during the last half of the year. (See chart 4.) Unemployment rates for all the major demographic groups—adult men, adult women, teens, whites, blacks, and Hispanics—peaked at midyear and then declined to their 2002 levels, or below in the case of Hispanics. (See table 2.) The unemployment level also was little changed, on net, over the year, and the number of unemployed persons totaled 8.6 million by year's end.

The number of employed persons rose fairly steadily by 1 million in 2003. Employment growth, however, was slower than population growth, and the employment-population ratio fell by 0.2 percentage point from the fourth quarter of 2002. The employment-population ratio declined throughout 2003, to a rate of 62.3 percent in the fourth quarter, the lowest level in 10 years. Since the end of the recession in the fourth quarter of 2001, the employment-population ratio has declined by 0.7 percentage point.

The labor force grew by 1 million from the fourth quarter of 2002 to the fourth quarter of 2003, due mainly to the increase in employment over the year. The labor force participation rate fell during the year from 66.5 percent in the fourth quarter of 2002 to 66.1 percent in the fourth quarter of 2003. The drop was caused by population growth that outpaced the growth in the labor force.

Adult women and men (those aged 20 years and older) fared somewhat better than teenagers during 2003. The unemployment levels of both men and women did not increase significantly over the year, and the unemployment rates for both sexes were unchanged as well, at 5.5 percent and 5.1 percent, respectively. Nor did labor force participation rates or employment-population ratios change much for both men and women over the year. The participation rate for women was 60.5 percent in the fourth quarter of 2003, and the rate for men was 76.0 percent. After a half century of relatively steady growth, women's labor force participation has moved little since 1998. Employment for adult women increased by 505,000 over the year, while that for men increased by 858,000, largely on the strength of the fourth quarter.

Continuing a declining trend, the number of teenagers in the labor force fell by 418,000 over the year, to a level of 7.0 million, and the labor force participation rate of teenagers declined by 3.2 percentage points, to 43.6 percent, close to the lowest ever recorded for this group. Teenagers are less likely to participate in the labor force during economic contractions, and the teen labor force participation rate had been declining since the mid-1990's, due at least in part to increased rates of school enrollment.[31] The employment level for teenagers declined by 349,000 over the year, to 5.9 million, and the group's employment-population ratio declined by 2.6 percentage points, to 36.5 percent. At 1.1 million, the unemployment level for those aged 16 to 19 was about unchanged over the year. The unemployment rate for teenagers peaked at 18.3 percent in the second quarter of 2003. This was the highest unemployment rate for the group since the second quarter of 1993. The rate began falling in the third quarter of 2003 and ended the year at 16.3 percent, the same as in 2002.

Among the major racial and ethnic groups, Hispanics saw improvements in their unemployment level and rate, while the levels and rates for whites and blacks were little changed over the year. By year's end, the number of unemployed blacks was 1.8 million, and their unemployment rate was 10.7 percent, both measures little changed from 2002. The black unemployment rate was more than double the unemployment rate for whites. The number of employed blacks edged down by 126,000 over the year, to 14.7 million, and the employment-population ratio for the group fell from 57.7 percent to 57.0 percent. While the employment level for whites was unchanged over the year, Hispanics saw an increase of 523,000. Still, at 63.1 percent, the Hispanic employment-population ratio was little changed over the year. Unemployment levels for whites were about unchanged over the year, while the un-

Table 2. Employment status of the civilian noninstitutional population 16 years and older, by selected characteristics, quarterly averages, seasonally adjusted, 2000–03

[Numbers in thousands]

Characteristic	Fourth quarter			2003				Change, fourth quarter, 2002, to fourth quarter, 2003[1]	Change adjusted for population revisions
	2000	2001	2002	Quarter I	Quarter II	Quarter III	Quarter IV		
Total									
Civilian labor force	142,965	144,265	145,236	145,864	146,585	146,628	146,986	1,750	1,045
Participation rate	66.9	66.8	66.5	66.3	66.4	66.2	66.1	–.4	…
Employed	137,357	136,253	136,694	137,355	137,585	137,647	138,369	1,675	1,012
Employment-population ratio	64.3	63.0	62.5	62.4	62.3	62.1	62.3	–.2	…
Unemployed	5,608	8,011	8,542	8,509	9,000	8,981	8,616	74	33
Unemployment rate	3.9	5.6	5.9	5.8	6.1	6.1	5.9	.0	…
Men, 20 years and older									
Civilian labor force	72,307	73,187	73,775	74,155	74,569	74,749	75,058	1,283	910
Participation rate	76.6	76.5	76.1	75.9	76.0	75.9	76.0	–.1	…
Employed	69,870	69,539	69,719	70,109	70,221	70,396	70,930	1,211	858
Employment-population ratio	74.0	72.7	71.9	71.7	71.6	71.5	71.8	–.1	…
Unemployed	2,437	3,648	4,055	4,046	4,349	4,353	4,128	73	53
Unemployment rate	3.4	5.0	5.5	5.5	5.8	5.8	5.5	.0	…
Women, 20 years and older									
Civilian labor force	62,457	63,268	64,007	64,446	64,773	64,760	64,887	880	558
Participation rate	60.5	60.6	60.6	60.6	60.8	60.5	60.5	–.1	…
Employed	60,351	60,175	60,736	61,238	61,450	61,379	61,547	811	505
Employment-population ratio	58.4	57.6	57.5	57.6	57.6	57.4	57.4	–.1	…
Unemployed	2,106	3,092	3,271	3,208	3,323	3,381	3,340	69	53
Unemployment rate	3.4	4.9	5.1	5.0	5.1	5.2	5.1	.0	…
Both sexes, 16 to 19 years									
Civilian labor force	8,201	7,810	7,454	7,263	7,243	7,119	7,040	–414	–418
Participation rate	51.7	48.8	46.8	45.3	45.1	44.2	43.6	–3.2	…
Employed	7,137	6,539	6,239	6,008	5,914	5,872	5,892	–347	–349
Employment-population ratio.	45.0	40.9	39.1	37.5	36.8	36.4	36.5	–2.6	…
Unemployed	1,064	1,271	1,215	1,255	1,328	1,248	1,148	–67	–69
Unemployment rate	13.0	16.3	16.3	17.3	18.3	17.5	16.3	.0	…
White									
Civilian labor force	118,845	119,814	120,249	120,195	120,600	120,571	120,842	593	64
Participation rate	67.1	67.0	66.6	66.6	66.6	66.4	66.4	–.2	…
Employed	114,753	133,923	114,063	114,053	114,140	114,085	114,665	602	101
Employment-population ratio	64.8	63.7	63.2	63.2	63.1	62.9	63.0	–.2	…
Unemployed	4,092	5,891	6,187	6,142	6,460	6,486	6,177	–10	–37
Unemployment rate	3.4	4.9	5.1	5.1	5.4	5.4	5.1	.0	…
Black									
Civilian labor force	16,327	16,440	16,627	16,406	16,597	16,608	16,493	–134	–139
Participation rate	65.6	64.9	64.6	64.3	64.8	64.5	63.8	–.8	…
Employed	15,125	14,824	14,850	14,687	14,769	14,775	14,729	–121	–126
Employment-population ratio	60.8	58.6	57.7	57.6	57.6	57.4	57.0	–.7	…
Unemployed	1,202	1,615	1,776	1,720	1,828	1,834	1,764	–12	–13
Unemployment rate	7.4	9.8	10.7	10.5	11.0	11.0	10.7	.0	…
Hispanic origin									
Civilian labor force	16,943	17,607	18,150	18,595	18,794	18,830	19,033	883	198
Participation rate	69.7	69.5	68.9	68.6	68.6	68.0	67.9	–1.0	…
Employed	15,996	16,303	16,724	17,151	17,296	17,362	17,683	959	523
Employment-population ratio.	65.8	64.4	63.5	63.3	63.1	62.7	63.1	–.4	…
Unemployed	947	1,304	1,426	1,444	1,498	1,468	1,350	–76	–326
Unemployment rate	5.6	7.4	7.9	7.8	8.0	7.8	7.1	–.8	…

[1] Data in this column may differ from data in the text because the data in the text were "smoothed" to adjust for revisions to population controls in January 2003 and January 2004. The technique used to smooth these series is discussed in Marisa Di Natale, "Creating Comparability in CPS Employment Series," unpublished paper appearing on the BLS website, **http://www.bls.gov/cps/cpscomp.pdf**, December 2003.

NOTE: Beginning in 2003, data reflect revised population controls. Details 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.

employment level for Hispanics dropped by 326,000. The unemployment rate for Hispanics fell by 0.8 percentage point, to 7.1 percent, between the third and fourth quarters of 2003, after having stayed flat throughout the first three quarters of the year. The unemployment rate for whites was about unchanged over the year and stood at 5.1 percent in the fourth quarter.

The labor force participation rates for most of the major age groups dropped markedly during the latest recession and during the initial recovery, relative to the previous recession in the early 1990s.[32] (See chart 5.) The sharpest decline in the participation rate during the most recent period occurred among youths 16 to 24 years of age. Women in the prime working-age group, 25 to 54 years, also experienced a large decline in their participation rate relative to their change in participation during the early 1990s. The labor force participation rate for women in that age group increased during the previous downturn of 1990–92 and decreased during the most recent recession and recovery period.[33]

These data are supported by Social Security Administration data which show that the number of women under age 55 who received Social Security disability benefits more than doubled over the same period.

For further discussion of these women's declining participation rates, see Steven Hipple, "Labor Force Participation during Recent Labor Market Downturns, "*Issues in Labor Statistics*, Summary 03–03, September 2003.

The lone exception to the trend of declining labor force participation has been among persons aged 55 and older. This group's participation rate increased by 3.2 percentage points over the most recent period, compared with a decrease of 0.7 percentage point during the previous recession.

Workers at most education levels experienced little change in their unemployment rates over the year, except for high school graduates without college-level training.[34] At 8.5 percent, the unemployment rate of persons with less than a high school diploma was higher than that of persons with more education. (See chart 6.) In the fourth quarter of 2003, persons with a bachelor's degree or higher had an unemployment rate of 3.0 percent, a figure that was unchanged over the year after having doubled between 2000 and 2002. The 4.7-percent unemployment rate of those with some college training, but without a degree, also was little changed over the year. The only group for whom the unemployment rate rose over the year—by 0.3 percentage point, to 5.5 percent—was high school graduates with no college. The rate for this group reached a peak of 5.6 percent during the second quarter of 2003. (See table 3.)

Large employment gains in professional occupations and in installation, maintenance, and repair occupations accounted for much of the employment growth over the year. Employment in professional and related occupations grew by 840,000 during 2003.[35] (See table 4.) The occupations within this category that experienced the largest employment increases were education, training, and library occupations and health-care practitioner and technical occupations. The gains in these occupations were shared by both women and men. Life, physical, and social science occupations also saw small increases in employment. The other occupations within the professional category were little changed over the year.

Natural resources, construction, and maintenance occupations posted an over-the-year employment increase of 693,000. While all the components of this group rose over the year, about three-fifths of the gain occurred in installation, maintenance, and repair occupations.

The gains described for the preceding occupation groups were partly offset by relatively small employment declines in production, transportation, and material moving occupations. The number of persons employed in production occupations fell over the year, accounting for more than two-thirds of the overall decline in the broad group. The majority of persons employed in production occupations work in the manufacturing industry, which continued to experience substantial job losses in 2003. Employment in transportation and material moving occupations also declined over the year. Most of these workers are employed in the transportation industry, a cyclical industry that is still recovering from the 2001 recession. Employment in service occupations and in sales and office occupations was flat over the year.

The number of self-employed persons in nonagricultural industries rose by 312,000 over the year, to 9.5 million. Since the official end of the recession in the fourth quarter of 2001, self-employment has risen by 567,000, or 6 percent. In the recession of 1990–91, by contrast, self-employment was unchanged 2 years after the official end of the recession in the first quarter of 1991. (See chart 7.)

The number of persons working part time involuntarily increased in the second half of 2003, pointing to labor underutilization other than unemployment. One measure of underutilized labor is the number of persons who are working part time involuntarily, also referred to as those working part time for economic reasons. These individuals are persons who prefer a full-time job, but who cannot work full time due to slack work or business conditions or because they can find only part-time work. Over the year, the number of persons who were working part time for economic reasons increased by 480,000, to a level of 4.8 million. (See chart 8.) This number has increased by 1.5 million since the fourth quarter of 2000. The measure of persons working part time involuntarily is sensitive to business cycles, and the level increased more, proportionately, during the recession of 2001 than in the previous recession.

Table 3. Employment status of the civilian noninstitutional population 25 years and older, by educational attainment, quarterly averages, seasonally adjusted, 2000–03

[Numbers in thousands]

Educational attainment	Fourth quarter			2003				Change, fourth quarter, 2002, to fourth quarter, 2003
	2000	2001	2002	Quarter I	Quarter II	Quarter III	Quarter IV	
Total civilian noninstitutional population[1]	179,144	181,025	183,049	184,373	184,927	185,572	186,210	3,161
Less than a high school diploma:								
Civilian noninstitutional population[1]	28,580	28,402	27,989	28,490	28,303	27,808	28,021	32
Percent of total population	16.0	15.7	15.3	15.5	15.3	15.0	15	–.2
Civilian labor force	12,531	12,666	12,530	12,678	12,629	12,572	12,716	186
Percent of population	43.8	44.6	44.8	44.5	44.6	45.2	45.4	.6
Employed	11,742	11,655	11,415	11,574	11,494	11,449	11,635	220
Employment-population ratio	41.1	41.0	40.8	40.6	40.6	41.2	41.5	.7
Unemployed	789	1,011	1,115	1,104	1,135	1,123	1,081	–34
Unemployment rate	6.3	8.0	8.9	8.7	9.0	8.9	8.5	–.4
High school graduate, no college:[2]								
Civilian noninstitutional population[1]	58,728	58,616	59,497	59,422	59,220	59,432	59,844	347
Percent of total population	32.8	32.4	32.5	32.2	32.0	32.0	32.1	–.4
Civilian labor force	37,703	37,424	37,900	37,794	37,943	37,931	38,029	129
Percent of population	64.2	63.8	63.7	63.6	64.1	63.8	63.5	–.2
Employed	36,378	35,590	35,934	35,771	35,803	35,881	35,951	17
Employment-population ratio	61.9	60.7	60.4	60.2	60.5	60.4	60.1	–.3
Unemployed	1,326	1,834	1,966	2,023	2,140	2,050	2,077	111
Unemployment rate	3.5	4.9	5.2	5.4	5.6	5.4	5.5	.3
Less than a bachelor's degree:[3]								
Civilian noninstitutional population[1]	45,266	46,036	46,648	46,641	46,572	46,974	46,777	129
Percent of total population	25.3	25.4	25.5	25.3	25.2	25.3	25.1	–.4
Civilian labor force	33,258	33,818	33,995	34,122	34,181	34,066	33,834	–161
Percent of population	73.5	73.5	72.9	73.2	73.4	72.5	72.3	–.6
Employed	32,402	32,398	32,367	32,493	32,534	32,420	32,245	–122
Employment-population ratio	71.6	70.4	69.4	69.7	69.9	69.0	68.9	–.5
Unemployed	856	1,421	1,628	1,629	1,647	1,646	1,588	–40
Unemployment rate	2.6	4.2	4.8	4.8	4.8	4.8	4.7	–.1
College graduate:								
Civilian noninstitutional population[1]	46,570	47,971	48,914	49,820	50,832	51,358	51,568	2,654
Percent of total population	26.0	26.5	26.7	27.0	27.5	27.7	27.7	1.0
Civilian labor force	36,866	37,898	38,535	39,147	39,647	39,861	40,518	1,983
Percent of population	79.2	79.0	78.8	78.6	78.0	77.6	78.6	–.2
Employed	36,299	36,817	37,389	37,968	38,426	38,615	39,283	1,894
Employment-population ratio	77.9	76.7	76.4	76.2	75.6	75.2	76.2	–.2
Unemployed	567	1,081	1,145	1,179	1,221	1,246	1,235	90
Unemployment rate	1.5	2.9	3.0	3.0	3.1	3.1	3.0	.0

[1] The population figures are not adjusted for seasonal variation. Beginning in 2003, data reflect revised population controls.

[2] Includes high school diploma or equivalent.

[3] Includes the categories of some college, no degree; and associate's degree.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

Broad measures of underutilization changed little over the year; the numbers of marginally attached and discouraged persons, rose in early 2003, but declined by year's end. In addition to estimating the number of persons who are employed and the number who are unemployed, the CPS provides data on persons who are not in the labor force, but who have some attachment to the job market. The labor force is defined as the sum of those who are employed and those who are unemployed, but who are actively seeking work. All other persons are considered to be outside of the labor force. Among these persons are some who indicate that they want a job, but who were not actively searching for work or were unavailable to take work. The number of persons outside the labor force who said they wanted a job was little changed over the year, at about 4.4 million. Another measure of underutilized labor is the number of persons who are marginally attached to the labor force. Marginally attached persons, a subset of those who say they want a job, are those who looked for a job sometime during the year prior to the survey and who would be available to take a job if one were offered to them. At 1.5 million, the number of marginally attached persons was up by 98,000 over the year.[36] Discouraged workers, a subset of the marginally attached, are persons who have given up searching for work specifically because they believe that no jobs are

Table 4. Median usual weekly earnings of full-time wage and salary workers by occupation, annual average, 2003, and employment by occupation, fourth quarter, not seasonally adjusted, 2002–03

[Employment in thousands]

Occupation	Median usual weekly earnings	Total				Men				Women			
		Fourth quarter		Change, fourth quarter, 2002, to fourth quarter, 2003[1]	Change adjusted for popula-tion revisions	Fourth quarter		Change, fourth quarter, 2002, to fourth quarter, 2003[1]	Change adjusted for popula-tion revisions	Fourth quarter		Change, fourth quarter, 2002, to fourth quarter, 2003[1]	Change adjusted for popula-tion revisions
		2002	2003			2002	2003			2002	2003		
Total, 16 years and older	$620	136,945	138,625	1,680	1,512	72,889	73,925	1,036	932	64,056	64,700	644	580
Management, professional, and related occupations	887	47,142	48,182	1,040	930	23,381	23,756	375	335	23,761	24,426	665	595
Management, business, and financial operations occupations	961	19,586	19,725	139	90	11,420	11,420	0	0	8,166	8,305	139	90
Professional and related occupations	845	27,556	28,457	901	840	11,961	12,336	375	350	15,596	16,121	525	490
Service occupations	403	21,985	21,751	–234	–229	9,538	9,259	–279	–274	12,447	12,491	44	43
Sales and office occupations	545	35,433	35,765	332	263	12,691	13,017	326	259	22,742	22,749	7	6
Sales and related occupations	598	16,071	16,313	242	200	8,134	8,270	136	112	7,937	8,044	107	88
Office and administrative support occupations	523	19,362	19,452	90	64	4,557	4,747	190	134	14,805	14,705	–100	–71
Natural resources, construction, and maintenance occupations	608	13,960	14,671	711	693	13,282	13,993	711	693	678	678	0	0
Farming, fishing, and forestry occupations	369	987	1,078	91	97	764	853	89	95	223	225	2	2
Construction and extraction occupations	599	8,138	8,355	217	207	7,893	8,123	230	219	245	232	–13	–12
Installation, maintenance, and repair occupations	673	4,835	5,238	403	389	4,625	5,017	392	378	210	221	11	11
Production, transportation, and material moving occupations	519	18,424	18,256	–168	–144	13,997	13,900	–97	–83	4,427	4,356	–71	–61
Production occupations	519	9,896	9,754	–142	–122	6,808	6,740	–68	–58	3,087	3,014	–73	–63
Transportation and material moving occupations	520	8,528	8,502	–26	–21	7,189	7,160	–29	–23	1,340	1,342	2	2

[1] Data in this column may differ from data in the text because the data in the text were "smoothed" to adjust for revisions to population controls in January 2003 and January 2004. The technique used to smooth these series is discussed in Marisa Di Natale, "Creating Comparability in CPS Employment Series," unpublished paper appearing on the BLS website, **http://www.bls.gov/cps/cpscomp.pdf**, December 2003.

NOTE: Occupations reflect the introduction of the 2002 Census occupational classification system derived from the 2000 Standard Occupational Classification system into the Current Population Survey. Beginning in 2003, data reflect revised population controls.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

available for them. The number of discouraged workers rose sharply in the first quarter of 2003, but then remained at about 450,000 throughout the year, about 69,000 higher than at the end of 2002. (See table 5.)

The majority of the unemployed had lost their jobs, although the number of job losers did not increase over the year. Those who were unemployed found it increasingly difficult to find work in 2003, as the average duration of unemployment was up over the year. The number of newly unemployed persons (those unemployed for 5 or fewer weeks) continued a downward trend that began in 2002. (See chart 9.) By the fourth quarter, the number of newly unemployed was 2.7 million, down 200,000 from a year earlier. This group made up just under one-third of total unemployment at the end of the year.

Table 5. Persons not in the labor force, quarterly averages, not seasonally adjusted, 2000–03

[In thousands]

Category	Fourth quarter 2000	Fourth quarter 2001	Fourth quarter 2002	2003 Quarter I	2003 Quarter II	2003 Quarter III	2003 Quarter IV	Change, fourth quarter, 2002, to fourth quarter, 2003
Total not in the labor force	70,697	72,082	73,549	74,511	74,071	74,527	75,523	1,974
Persons who currently want a job	4,104	4,383	4,276	4,679	4,980	4,874	4,372	96
Marginally attached[1]	1,090	1,353	1,416	1,588	1,432	1,591	1,514	98
Reasons not currently looking:								
Discouragement over job prospects[2]	246	336	382	458	466	454	451	69
Reasons other than discouragement[3]	845	1,018	1,034	1,131	966	1,138	1,064	30

[1] Data refer to persons who searched for work during the previous 12 months and were available to take a job during the reference week.

[2] Includes "Thinks no work available," "Could not find work," "Lacks schooling or training," "Employer thinks too young or old," and "Other types of discrimination."

[3] Includes those who did not actively look for work in the previous 4 weeks for such reasons as childcare and transportation problems, as well as a small number for which the reason for nonparticipation was not determined.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

The number of persons who are newly unemployed typically rises at the beginning of a recession, when job losses start accumulating. After the recession is underway, unemployed persons who are unable to find work swell the ranks of the long-term unemployed.

The number of persons unemployed for 15 or more weeks increased by 292,000 over the year, to 3.5 million; the group made up about 40 percent of the unemployed. A subset of this group, the long-term unemployed (those unemployed for 27 or more weeks), increased by 197,000 over the year, to 2 million, and made up 23 percent of total unemployment. The 23-percent figure is the highest proportion of total unemployment that the long-term unemployed have been since the third quarter of 1983. The average number of weeks unemployed for all unemployed groups combined rose by 1.7 weeks over the year, to 19.7 weeks. (See table 6.)

The reasons persons are unemployed afford interesting insights into the labor market. Historically, most of the unemployed have been persons who have lost their jobs. Since this series began in 1967, job losers have made up roughly half of the unemployed. The series is sensitive to business cycles and has tended to peak during recessions. The proportion of the unemployed who had lost a job began trending upward in the second quarter of 2000 and continued this upward trend until the fourth quarter of 2001, when the percentage peaked at 55 percent. The proportion has remained at that level since then. (See chart 10.) By contrast, the number of persons who were unemployed because they left their jobs is negatively correlated with business cycles. Workers are less likely to leave a job when the prospect of finding a new one is more uncertain. Reentrants follow the same cyclical pattern as job leavers do over recessions, and new entrants have a weaker relationship to business cycles. At 2.4 million, the number of reentrants to the labor force was about unchanged, and the number of new entrants increased by 111,000 over the year, to 655,000.[37] (See table 6.) Reentrants made up 28 percent of total unemployment, and new entrants constituted 7.6 percent. The number of persons unemployed because they had left a job was 835,000, and these job leavers made up about 10 percent of the unemployed.

The median usual weekly earnings of full-time wage and salary workers rose over the year, but the increase was offset by rises in consumer prices.[38] From 2002 to 2003, median weekly earnings for all workers, as measured by the CPS, rose to $620, an increase of 2.0 percent. However, over the same period, the Consumer Price Index for All Urban Consumers (CPI-U) increased by 2.3 percent. Women's median earnings rose 4.3 percent over the year, faster than the men's 2.4-percent increase; still, women's earnings were $552, compared with $695 for men. Over the year, the ratio of women's earnings to men's earnings rose to 79.4 percent, up from 77.9 percent in 2002. Since 1979, the year the Bureau began collecting data on usual weekly earnings, the ratio of women's to men's earnings has increased by 16 percentage points. (Note that the comparisons of earnings set forth in this section are on a broad level and do not control for many factors that can be significant in explaining earnings differences.[39])

All the major demographic groups saw earnings growth over the year, and all groups' earnings growth outpaced the rise in consumer prices, except for white men's. Among women, blacks had the largest earnings growth, 3.8 percent, followed by whites, at 3.7 percent. Hispanic women experienced a slightly lower earnings growth of 3.3 percent. Black men's earnings grew by 5.9 percent over the year, the largest increase in earnings among all the demographic groups. His-

Table 6. Unemployed persons by reason for, and duration of, unemployment, quarterly averages, seasonally adjusted, 2000–03

[In thousands]

Reason and duration	Fourth quarter 2000	Fourth quarter 2001	Fourth quarter 2002	2003 Quarter I	2003 Quarter II	2003 Quarter III	2003 Quarter IV	Change, fourth quarter, 2002, to fourth quarter, 2003
Reason for unemployment								
Job losers and persons who completed temporary jobs	2,532	4,441	4,785	4,737	4,948	4,944	4,738	–47
On temporary layoff	896	1,212	1,101	1,129	1,162	1,125	1,071	–30
Not on temporary layoff	1,636	3,229	3,685	3,608	3,786	3,819	3,667	–18
Job leavers	772	879	847	803	829	808	835	–12
Reentrants	1,905	2,239	2,413	2,401	2,556	2,496	2,441	28
New entrants	438	502	544	605	637	665	655	111
Duration of unemployment								
Less than 5 weeks	2,498	3,079	2,861	2,788	2,928	2,741	2,661	–200
5 to 14 weeks	1,784	2,637	2,547	2,563	2,676	2,688	2,530	–17
15 or more weeks	1,330	2,299	3,163	3,173	3,374	3,544	3,455	292
15 to 26 weeks	708	1,246	1,379	1,358	1,426	1,532	1,474	95
27 or more weeks	623	1,053	1,784	1,815	1,948	2,012	1,981	197
Average (mean) duration, in weeks	12.5	14.0	18.0	18.4	19.4	19.4	19.7	1.7
Median duration, in weeks	6.1	7.7	9.5	9.6	10.6	10.1	10.4	.9

SOURCE: Bureau of Labor Statistics, Current Population Survey.

panic men's earnings grew by 2.9 percent, higher than the white men's rate of 1.9 percent.

Workers in management, business, and financial operations occupations continued to have the highest median earnings of any intermediate occupation group, $961 per week in 2003. The group also had the second-highest earnings growth rate over the year, 4.2 percent. Professional and related occupations continued to be the second-highest paid group, with weekly earnings of $845 in 2003; the group's earnings increased at a rate of 2.7 percent. All the other occupation groups had earnings growth rates lower than the increase in consumer prices. The smallest growth rate in earnings, 1 percent, was among sales and related occupations. (See table 7.)

Among the four major educational attainment groups, high school graduates with no college and workers with a bachelor's degree or higher had earnings growth of 3.4 percent and 2.4 percent, respectively, both figures outpacing the increase in consumer prices.

Labor market conditions were little changed throughout much of the country in 2003. All four census regions and about two-thirds of the States and the District of Columbia recorded unemployment rate shifts of one-half percentage point or less between the fourth quarters of 2002 and 2003.[40] (See box on page 21 for information on the methodologies used to develop unemployment data for local areas.) Among the census regions, jobless rates in the Northeast, South, and West were little changed or down slightly, following 2 years of increases. (See table 8.) In the Midwest, though, the unemployment rate ticked up again in 2003. The Midwest has been the region hardest hit by manufacturing job losses in recent years, and 2003 marked the fourth consecutive year during which its unemployment rate rose. In the fourth quarter of 2003, the South registered the lowest regional jobless rate. At the same time, the West continued to post the highest rate, for the 12th straight year.

States. Over the year, unemployment rates were up in 26 States and the District of Columbia, down in 20 States, and unchanged in 4 States. (See chart 11.) Michigan and Tennessee experienced the most marked increases in joblessness, 1.2 percentage points and 1 point, respectively. For 10 States, 2003 was the fourth consecutive year during which the unemployment rate increased relative to the previous year on a fourth-quarter-to-fourth-quarter basis. Half of these 10 States were located in the Midwest, including Michigan, where the jobless rate cumulatively more than doubled during the 4-year period. The most sizeable unemployment rate *decreases* in 2003 were reported by Mississippi and Arizona, 1.1 percentage points and 1 percentage point, respectively.

In the fourth quarter of 2003, Alaska recorded the highest unemployment rate, 8.1 percent. Michigan, Oregon, and

Table 7. Median usual weekly earnings of full-time wage and salary workers by selected characteristics, annual averages, 2002–03

Characteristic	2002	2003	Percent change
Total, 16 years and older	$608	$620	2.0
Management, business, and financial operations occupations	922	961	4.2
Professional and related occupations	823	845	2.7
Service occupations	396	403	1.8
Sales and related occupations	592	598	1.0
Office and administrative support occupations	511	523	2.3
Farming, fishing, and forestry occupations	340	369	8.5
Construction and extraction occupations	589	599	1.7
Installation, maintenance, and repair occupations	663	673	1.5
Production occupations	508	519	2.2
Transportation and material moving occupations	514	520	1.2
Men	679	695	2.4
Women	529	552	4.3
White	623	636	2.1
Men	702	715	1.9
Women	547	567	3.7
Black	498	514	3.2
Men	524	555	5.9
Women	473	491	3.8
Hispanic origin	424	440	3.8
Men	451	464	2.9
Women	397	410	3.3
Less than a high school diploma	388	396	2.1
High school graduate, no college	536	554	3.4
Some college or associate's degree	629	639	1.6
Bachelor's degree or higher	941	964	2.4

NOTE: Earnings figures by educational attainment pertain to persons aged 25 and older.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

Table 8. Unemployment rates for regions and divisions, seasonally adjusted quarterly averages, 2002–03

[Rates in percent]

Region and division	Fourth quarter, 2002	2003				Over-the-year change
		Quarter I	Quarter II	Quarter III	Quarter IV	
Northeast region	5.8	5.9	5.9	5.9	5.7	–.1
New England division	5.1	5.4	5.4	5.5	5.4	.3
Middle Atlantic division	6.0	6.1	6.0	6.0	5.8	–.2
Midwest region	5.6	5.8	5.9	6.0	5.9	.3
East North Central division	6.0	6.2	6.3	6.4	6.4	.4
West North Central division	4.7	4.8	5.0	5.1	5.0	.3
South region	5.7	5.7	5.9	5.8	5.6	–.1
South Atlantic division	5.3	5.3	5.3	5.3	5.0	–.3
East South Central division	5.7	5.8	6.1	6.1	5.9	.2
West South Central division	6.3	6.5	6.7	6.7	6.5	.2
West region	6.5	6.6	6.7	6.6	6.3	–.2
Mountain division	5.7	5.7	5.8	5.7	5.4	–.3
Pacific division	6.8	6.9	7.0	7.0	6.8	.0

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

Table 9. Unemployment rates and changes in rates for selected large metropolitan areas, not seasonally adjusted, fourth quarter, 2002–03

[Rates in percent]

Metropolitan area	2002 Unemployment rate	2002 Over-the-year change	2003 Unemployment rate	2003 Over-the-year change
Los Angeles-Long Beach, CA	6.3	.1	6.6	.3
New York, NY	7.6	1.1	7.3	–.3
Chicago, IL	6.5	.8	6.4	–.1
Philadelphia, PA-NJ	5.4	.9	5.1	–.3
Washington, DC-MD-VA-WV	3.4	–.2	3.1	–.3
Detroit, MI	5.7	.5	6.8	1.1
Houston, TX	5.8	1.2	6.2	.4
Atlanta, GA	5.3	1.1	4.2	–1.1
Dallas, TX	6.7	.7	6.2	–.5
Boston, MA-NH	4.7	.9	4.7	.0
Riverside-San Bernardino, CA	6.0	.8	5.7	–.3
Phoenix-Mesa, AZ	5.5	.3	4.2	–1.3
Minneapolis-St. Paul, MN-WI	3.8	.2	4.2	.4
Orange County, CA	4.1	.6	3.6	–.5
San Diego, CA	4.4	.8	4.0	–.4
Nassau-Suffolk, NY	4.1	.3	4.0	–.1
St. Louis, MO-IL	5.5	.5	5.3	–.2
Baltimore, MD	4.6	–.1	4.6	.0
Seattle-Bellevue-Everett, WA	6.4	.3	6.3	–.1
Tampa-St. Petersburg-Clearwater, FL	4.5	.2	4.0	–.5
Oakland, CA	6.2	1.2	5.6	–.6
Pittsburgh, PA	5.3	1.0	4.7	–.6
Miami, FL	7.3	–.8	6.5	–.8
Cleveland-Lorain-Elyria, OH	6.0	.6	5.9	–.1
Denver, CO	5.8	.9	5.8	.0
Newark, NJ	6.0	1.0	5.5	–.5
Portland-Vancouver, OR-WA	7.3	.0	7.2	–.1
Kansas City, MO-KS	5.8	1.1	5.3	–.5
San Francisco, CA	5.8	.7	4.9	–.9
Fort Worth-Arlington, TX	5.8	.9	5.5	–.3
San Jose, CA	8.7	1.7	7.1	–1.6
Cincinnati, OH-KY-IN	4.3	.1	4.5	.2
Orlando, FL	4.9	–.5	4.6	–.3
Sacramento, CA	5.4	1.1	5.4	.0
Fort Lauderdale, FL	5.8	–.2	5.1	–.7
Indianapolis, IN	4.5	.6	4.6	.1
San Antonio, TX	5.1	.6	5.0	–.1
Norfolk-Virginia Beach-Newport News, VA-NC	3.8	.0	3.8	.0
Las Vegas, NV-AZ	5.0	–1.9	4.6	–.4
Columbus, OH	4.3	1.1	4.2	–.1
Milwaukee-Waukesha, WI	5.6	.8	5.2	–.4
Charlotte-Gastonia-Rock Hill, NC-SC	6.1	.4	6.6	.5

NOTE: Data for 2003 have not been benchmarked. Areas are listed in descending order of population as of July 1, 2002.

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

Washington also posted rates of more than 7 percent. Unemployment rates were little changed or unchanged over the year in the three Pacific division States (Alaska, Oregon, and Washington), in contrast to the notable increase in Michigan. The lowest jobless rates at the close of 2003 were reported by North Dakota and South Dakota, 3.8 percent each, followed closely by Virginia and Nebraska, 3.9 and 4 percent, respectively.

Total nonfarm employment increased in 28 States and decreased in 22 States and the District of Columbia in 2003.[41] (See chart 12.) Florida added the most jobs over the year (131,900). Nevada and Arizona recorded the next-largest job increases (40,600 and 32,500, respectively). In percentage terms, the most robust employment expansion occurred in Nevada (3.8 percent), followed at some distance by Hawaii (1.9 percent) and Florida and Wyoming (1.8 percent each). Alaska, Montana, New Mexico, North Dakota, and Wyoming are notable for being the only States that posted at least some job growth during each of the last 3 years on a fourth-quarter-to-fourth-quarter basis.

Table 10. Total nonfarm employment and changes in employment for selected large metropolitan areas, not seasonally adjusted, fourth quarter, 2002–03

[Numbers in thousands]

Metropolitan area	Fourth quarter, 2002			Fourth quarter, 2003		
	Employment	Over-the-year change		Employment	Over-the-year change	
		Level	Percent		Level	Percent
Los Angeles-Long Beach, CA	4,052.7	–17.2	–.4	4,014.2	–38.5	–.9
New York, NY	4,177.1	–23.1	–.5	4,124.7	–52.4	–1.3
Chicago, IL	4,153.2	–42.6	–1.0	4,125.4	–27.8	–.7
Philadelphia, PA-NJ	2,431.6	3.0	.1	2,434.2	2.6	.1
Washington, DC-MD-VA-WV	2,836.4	27.7	1.0	2,860.5	24.1	.8
Detroit, MI	2,114.0	–25.7	–1.2	2,062.8	–51.2	–2.4
Houston, TX	2,120.1	-7.9	–.4	2,104.0	–16.1	–.8
Atlanta, GA	2,188.4	.3	.0	2,177.0	–11.4	–.5
Dallas, TX	1,929.2	–38.1	–1.9	1,913.6	–15.6	–.8
Boston, MA-NH	1,983.7	–42.5	–2.1	1,935.0	–48.7	–2.5
Riverside-San Bernardino, CA	1,085.1	38.1	3.6	1,100.4	15.3	1.4
Phoenix-Mesa, AZ	1,623.9	21.0	1.3	1,651.7	27.8	1.7
Minneapolis-St. Paul, MN-WI	1,738.7	–14.5	–.8	1,744.6	5.9	.3
Orange County, CA	1,423.6	13.1	.9	1,441.6	18.0	1.3
San Diego, CA	1,244.9	14.6	1.2	1,254.1	9.2	.7
Nassau-Suffolk, NY	1,235.6	3.2	.3	1,244.5	8.9	.7
St. Louis, MO-IL	1,313.1	–12.6	–1.0	1,301.5	–11.6	–.9
Baltimore, MD	1,258.6	–7.8	–.6	1,257.3	–1.3	–.1
Seattle-Bellevue-Everett, WA	1,356.1	–28.5	–2.1	1,350.1	–6.0	–.4
Tampa-St. Petersburg-Clearwater, FL	1,220.2	.5	.0	1,239.0	18.8	1.5
Oakland, CA	1,049.0	.0	.0	1,025.1	–23.9	–2.3
Pittsburgh, PA	1,127.8	–7.9	–.7	1,113.6	–14.2	–1.3
Miami, FL	1,010.6	–12.3	–1.2	1,014.2	3.6	.4
Cleveland-Lorain-Elyria, OH	1,114.5	–27.9	–2.4	1,120.8	6.3	.6
Denver, CO	1,147.3	–18.3	–1.6	1,143.2	–4.1	–.4
Newark, NJ	1,015.9	–3.7	–.4	1,024.0	8.1	.8
Portland-Vancouver, OR-WA	943.7	–8.7	–.9	930.5	–13.2	–1.4
Kansas City, MO-KS	954.0	–14.0	–1.4	946.9	–7.1	–.7
San Francisco, CA	985.0	–38.2	–3.7	949.8	–35.2	–3.6
Fort Worth-Arlington, TX	785.2	–5.4	–.7	779.9	–5.3	–.7
San Jose, CA	882.6	–74.2	–7.8	848.7	–33.9	–3.8
Cincinnati, OH-KY-IN	868.0	–8.7	–1.0	876.5	8.5	1.0
Orlando, FL	920.0	13.4	1.5	940.6	20.6	2.2
Sacramento, CA	750.8	10.3	1.4	758.0	7.2	1.0
Fort Lauderdale, FL	716.3	11.8	1.7	727.0	10.7	1.5
Indianapolis, IN	894.5	.5	.1	894.8	.3	.0
San Antonio, TX	730.6	5.8	.8	726.9	–3.7	–.5
Norfolk-Virginia Beach-Newport News, VA-NC	730.2	5.2	.7	741.6	11.4	1.6
Las Vegas, NV-AZ	804.6	25.4	3.3	839.0	34.4	4.3
Columbus, OH	885.2	–10.0	–1.1	880.4	–4.8	–.5
Milwaukee-Waukesha, WI	844.4	–6.5	–.8	835.8	–8.6	–-1.0
Charlotte-Gastonia-Rock Hill, NC-SC	833.5	.9	.1	833.7	.2	.0

NOTE: Areas are listed in descending order of population as of July 1, 2002.

SOURCE: Bureau of Labor Statistics, State and Area Current Employment Statistics.

Two East North Central division States experienced the largest total nonfarm employment declines in 2003: Michigan (70,000) and Ohio (63,600). California, Illinois, Massachusetts, New York, Oklahoma, Pennsylvania, and Texas also shed more than 30,000 jobs each. On a relative basis, Oklahoma recorded the sharpest employment contraction (2.2 percent), followed by Massachusetts (1.8 percent) and Michigan (1.6 percent). For 17 States, 2003 was the third consecutive year of over-the-year total nonfarm employment losses. In Michigan, New York, and Ohio, the cumulative declines since the fourth quarter of 2000 exceed a quarter of a million jobs each.

Metropolitan areas.[42] Thirty of the 42 most populous metropolitan areas saw their unemployment rates fall in 2003.[43] (See table 9.) Three areas—Atlanta, Georgia; Phoenix-Mesa, Arizona; and San Jose, California—registered declines of

Local Area Unemployment Statistics

The Local Area Unemployment Statistics (LAUS) program uses multiple methodologies to produce monthly estimates of the civilian labor force, employment, unemployment, and unemployment rates 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 conceptually comparable across geographic levels.

The LAUS methodologies vary with the availability of inputs—a relationship that 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. Because of 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 according to which categories of unemployed workers are classified on the basis of their previous status with respect to the labor force. Both the model approach and the building-block approach incorporate administrative data from the Unemployment Insurance (UI) systems and establishment payroll data produced by other BLS programs.

more than a full percentage point each. Of the seven areas where jobless rates rose, only Charlotte-Gastonia-Rock Hill, North Carolina-South Carolina; and Detroit, Michigan, experienced increases of one-half percentage point or more.

In the fourth quarter of 2003, unemployment rates were above 7 percent in New York, New York; Portland-Vancouver, Oregon-Washington; and San Jose, California. Unlike San Jose, New York and Portland-Vancouver had rates that were little changed from a year earlier. At the same time, jobless rates were below 4 percent in Norfolk-Virginia Beach-Newport News, Virginia-North Carolina; Orange County, California; and Washington, DC-Maryland-Virginia-West Virginia. While Orange County posted a decline of one-half percentage point from the fourth quarter of 2002, neither of the other two low-rate areas recorded a notable change in rate over the year.

Twenty-two of the most populous metropolitan areas experienced declines in their total nonfarm employment levels in 2003. (See table 10.) The heaviest job losses were registered in New York, New York (52,400); Detroit, Michigan (51,200); and Boston, Massachusetts-New Hampshire (48,700). For the third straight year, San Jose, California, reported the steepest percent decline in employment (3.8 percent), and neighboring San Francisco had the second-largest contraction (3.6 percent). Boston, Detroit, and Oakland, California, also posted declines of more than 2 percent in 2003. Eighteen of the 42 most populous metropolitan areas have lost jobs during each of the past 3 years.

Twenty large metropolitan areas experienced increases in total nonfarm employment in 2003. The most jobs were added in Las Vegas, Nevada-Arizona (34,400); Phoenix-Mesa, Arizona (27,800); Washington, DC-Maryland-Virginia-West Virginia (24,100); and Orlando, Florida (20,600). In percentage terms, Las Vegas posted the largest employment expansion (4.3 percent), followed by Orlando (2.2 percent). Growth rates of more than a full percentage point were recorded by six other large areas in 2003. Seven areas—Fort Lauderdale, Florida; Las Vegas; Norfolk-Virginia Beach-Newport News, Virginia-North Carolina; Orange County, California; Riverside-San Bernardino, California; Sacramento, California; and San Diego, California—are notable for having reported employment gains during each of the past 3 years. □

Notes

[1] See Martin Feldstein, "There's no such thing as a 'jobless' recovery," *Wall Street Journal*, Oct. 13, 2003, p. A18; and Greg Ip, "Economy gained jobs last month as nonfarm payrolls expanded," *Wall Street Journal*, Oct. 6, 2003, p. A3.

[2] American Trucking Association, December 2003 report, vol. 37, no. 12, and February 2004 report, vol. 38, no. 2.

[3] Data on industrial production are published by the Federal Reserve on the Internet at **http://www.federalreserve.gov** (visited February 2004).

[4] Diffusion indexes of employment change measure the dispersion of employment growth across industries and over a specified time span. See the 1-month span diffusion index of employment change produced by the Bureau of Labor Statistics and available on the Internet at **http://www.bls.gov/ces/home.htm** (visited February 2004).

[5] See "Beyond the Bubble," *The Economist*, Oct. 9, 2003; on the Internet at **http://www.economist.com**.

[6] Data on spending and investment are available from the Bureau of Economic Analysis on the Internet at **http://www.bea.gov** (visited February 2004).

[7] See Eric C. Fleming, "U.S. Tech firms increasingly move jobs overseas," *Barron's Online*, June 30, 2003; and Manjeet Kripalani and Pete Engardio, "Industrial Management: Outsourcing," *Business Week*, January 20, 2003, p. 70F.

[8] Data on industrial production are available from the Federal Reserve on the Internet at **http://www.federalreserve.gov** (visited February 2004). Data on trade are available from the U.S. International Trade Commission's "*Interactive* Tariff and Trade Data Web," on the Internet at **http://dataweb.usitc.gov** (visited February 2004).

[9] See Jonathan Weisman, "Tariffs help lift U.S. steel industry, trade panel reports," *Washington Post*, Sept. 21, 2003, p. A12.

[10] Data are from the Producer Price Commodities Index for steel mill products and the Producer Price Industry Index for motor vehicle parts and accessories. Data are available from the Bureau of Labor Statistics on the Internet at **http://www.bls.gov** (visited February 2004).

[11] See Sholnn Freeman, "GM, Ford, win UAW permission to close or sell eight facilities," *Wall Street Journal*, Sept. 22, 2003, p. B2; and "America's motor industry: The year of the car," *The Economist*, Jan. 4, 2004, p. 47.

[12] Data on North American car and truck production are published by the Automotive News Data Center at **www.automotivenews.com**. See also Jeffrey Ball, Lee Hawkins, Jr., and Sholnn Freeman, "Amid foreign pressure, auto makers, union look to set standardized deal," *Wall Street Journal*, Sept. 8, 2003, p. A2.

[13] Data on industrial production for textile mills and textile product mills are combined. Data on industrial production in each industry are published by the Federal Reserve on the Internet at **http://www.federalreserve.gov** (visited February 2004).

[14] Data on trade are available on the Internet at **http://dataweb.usitc.gov** visited February 2004).

[15] See Edmund L. Andrews, "Textile towns appeal for help but quotas may not suffice," *New York Times*, Nov . 20, 2003, p. C1; andKen Gepfert, "Maybe NAFTA was actually a good thing for region," *Wall Street Journal*, Sept. 8, 1999, p. F1.

[16] See Jim Carlton, "Timber firms hope to smooth rough edges of cycles," *Wall Street Journal*, Aug. 27, 1999, p. B4.

[17] See United States Postal Service, "Transformation plan progress report," November 2003, available on the Internet at **http://www.usps.com/strategicdirection/_pdf/TP-Progress-Rpt_11-03.pdf** (visited December 2003).

[18] See David Litwak, "Automating the front end: increasingly, shoppers are doing the work of cashiers, as more U.S. supermarkets install self-scanning equipment to help speed patrons through the checkout lanes," *Grocery Headquarters*, Feb. 1, 2003, p. 95; and Deena M. Amato-McCoy, "The road toward wireless: IT budgets may be tight, but that is not stopping innovative retailers from taking advantage of hard returns, increased productivity and cost efficiencies associated with the latest wireless mobile devices," *Ibid.*, Aug. 1, 2003, p. 53.

[19] See Patricia Callahan and Ann Zimmerman, "Wal-Mart tops grocery list with supercenter format," *Wall Street Journal*, May 27, 2003, p. B1.

[20] Data on retail sales are available from the U.S. Census Bureau on the Internet at **http://www.census.gov** (visited February 2004). See RoxAnna Sway, "The department store: headed for the dustbin or ready to re-energize?" *Display and Design Ideas*, June 1, 2003, p. 20.

[21]At midyear 2003, the Federal Government offered State and local governments assistance with post-September 11, 2001, security costs. See Jackie Calmes, "States ask: what recovery?" *Wall Street Journal*, Dec. 10, 2003, p. A4.

[22] See Jackie Calmes, "State tax hikes pick up steam, undermining Bush stimulus plan," *Wall Street Journal*, June 9, 2003, p. A1; Gary S. Becker, Edward P. Lazear, and Kevin M. Murphy, "The double benefit of tax cuts," *Wall Street Journal*, Oct. 7, 2003, p. A20.

[23] See Calmes, "States ask."

[24] See National Association of Independent Colleges and Universities, "Increase in private college tuition remains steady for 2003–04," May 19, 2003; William C. Symonds, "Colleges in Crisis," *Business Week*, Apr. 28, 2003, p. 72; and Sandy Baum, "Affordability in higher education," *Congressional Testimony by Federal Document Clearing House*, July 10, 2003.

[25] See "Healthcare financing: Hospitals leaders urge Congress to help them care for communities," *Managed Care Weekly Digest*, Feb. 3, 2003, p. 4; Stanley B. Siegel, "How to tame healthcare costs," *Journal of Accountancy*, Aug. 1, 2003, p. 83; and Vicki Kemper, "Medicaid feeling the effects of the States' fiscal crisis," *Los Angeles Times*, Sept. 23, 2003, p. A13.

[26] See J. Lynn Lunsford, "Trends: aviation; bigger planes, smaller planes, parked planes," *Wall Street Journal,* Feb. 9, 2004, p. R4.

[27] Data on retail sales are available from the U.S. Census Bureau on the Internet at **http://www.census.gov** (visited February 2004).

[28] Data on the sale of new homes are available from the U.S. Census Bureau on the Internet at **http://www.census.gov** (visited February 2004). Data on the affordability of housing are available from the National Association of Realtors on the Internet at **http://www.realtor.org** (visited February 2004). Data on refinancing activity are available from the Mortgage Bankers Association of America on the Internet at **http://www.mbaa.org** (visited February 2004). Information on historic mortgage rates is available from Freddie Mac on the Internet at **http://www.freddiemac.com** (visited February 2004).

[29] Data on the sale of new homes are available from the U.S. Census Bureau on the Internet at **http://www.census.gov** (visited February 2004). Data on the sale of existing homes are available from the National Association of Realtors on the Internet at **http://www.realtor.org** (visited February 2004).

[30] At the time of publication of this article, the latest available data were for November 2003. The over-the-year sales growth compares January to November 2002 with January to November 2003. Data on retail sales are available from the U.S. Census Bureau on the Internet at **http://www.census.gov** (visited February 2004).

[31] For further discussion of recent trends in teen labor force participation, see Katie Kirkland, "Declining Teen Labor Force Participation," in *Issues in Labor Statistics*, Summary 02–06 (Bureau of Labor Statistics, September 2002).

[32] The National Bureau of Economic Research (NBER), the generally recognized arbiter of business cycle turning points, designated March 1991 as the trough of the recession that began in July 1990. Although this recession thus officially ended in March 1991, labor market conditions continued to be sluggish until late 1992. NBER also designated March 2001 as the starting date of the most recent recession and November 2001 as the end point. Labor market conditions again remained sluggish well after the official trough of the recession. This section and the accompanying table compare data for the quarter containing the NBER-designated peaks with the eighth quarter after the official NBER troughs.

[33] Evidence from the March CPS indicates that the proportion of women aged 25 to 54 who said that they were out of the labor force due to an illness or a disability increased from 12.6 percent in 1991 to 21.9 percent in 2001. These data are supported by Social Security Administration data which show that the number of women under age 55 who received Social Security disability benefits more than doubled over the same period. For further discussion of these women's declining participation rates see Steven Hipple, "Labor Force Participation during Recent Labaor Market Downturns," *Issues in Labor Statistics*, Summary 03–03 (Bureau of Labor Statistics, September 2003).

[34] Data in this section refer to persons aged 25 and older.

[35] Data presented in this section were "smoothed " to adjust for the "bump "in the population in January 2003. The technique used to smooth these series differs from that used for the other series. Here,

the total effect of the population revision in January 2003 was subtracted from the change from the fourth quarter of 2002 to the fourth quarter of 2003. The technique for the other series involves wedging this population effect back to the beginning of the reference period for the revision.

[36] The figure represents the highest fourth-quarter level since 1995.

[37] Estimates for these categories are seasonally adjusted independently and do not sum to total unemployment.

[38] Data in this section compare 2003 annual averages with 2002 annual averages.

[39] See *Highlights of Women's Earnings in 2002* (Bureau of Labor Statistics, September 2003) for more information on women's earnings.

[40] The four census regions and the nine divisions they jointly comprise 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.

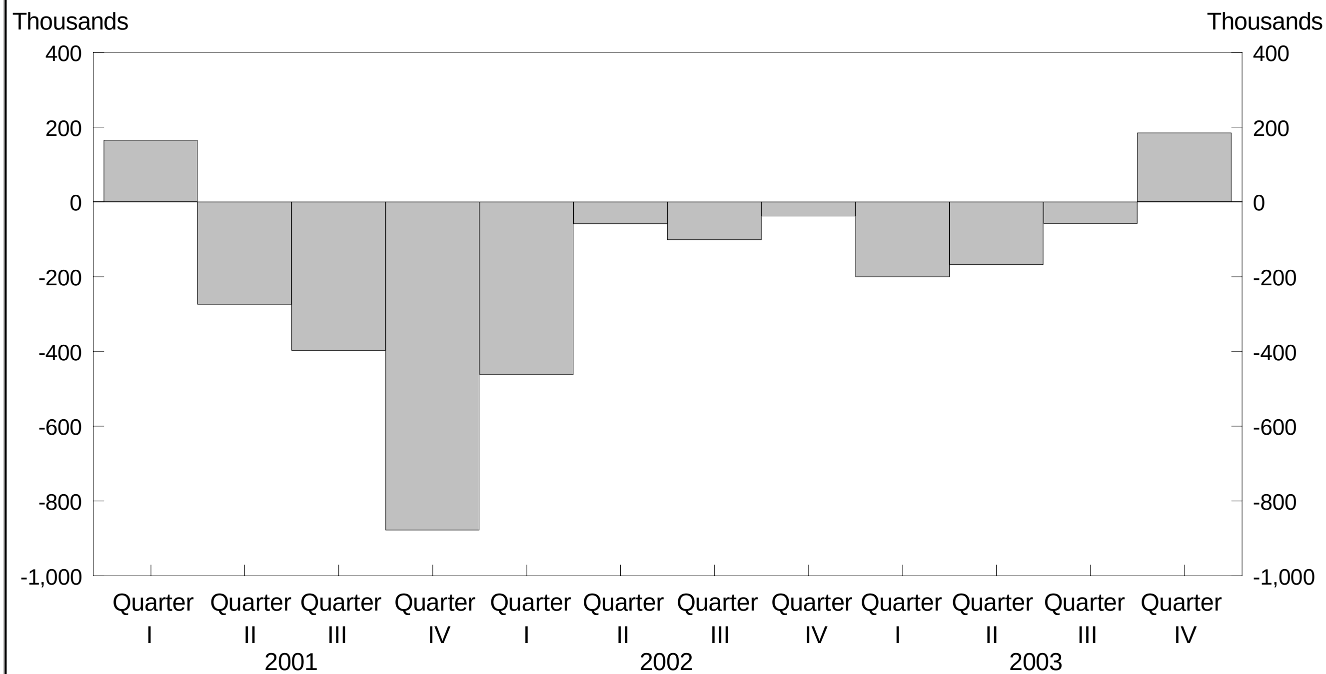
West: *Mountain division*—Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming; *Pacific division*—Alaska, California, Hawaii, Oregon, Washington.

[41] Total nonfarm employment data are produced by the State and Area Current Employment Statistics program. (See box on page 4 for conceptual differences between employment estimates from establishment and household surveys.)

[42] The analysis of the metropolitan area data presented in this article is limited to the 42 areas with a population of 1.5 million or more as of July 1, 2002. The data reflect metropolitan area standards and definitions established by the U.S. Office of Management and Budget on June 30, 1993.

[43] Neither unemployment nor total nonfarm employment data are available on a seasonally adjusted basis at the metropolitan area level. The estimates presented here are quarterly data that are not seasonally adjusted, thereby precluding any analysis of over-the-quarter changes. Unemployment rate data for metropolitan areas are preliminary; revised estimates for 2003 are scheduled to be issued on May 5, 2004.

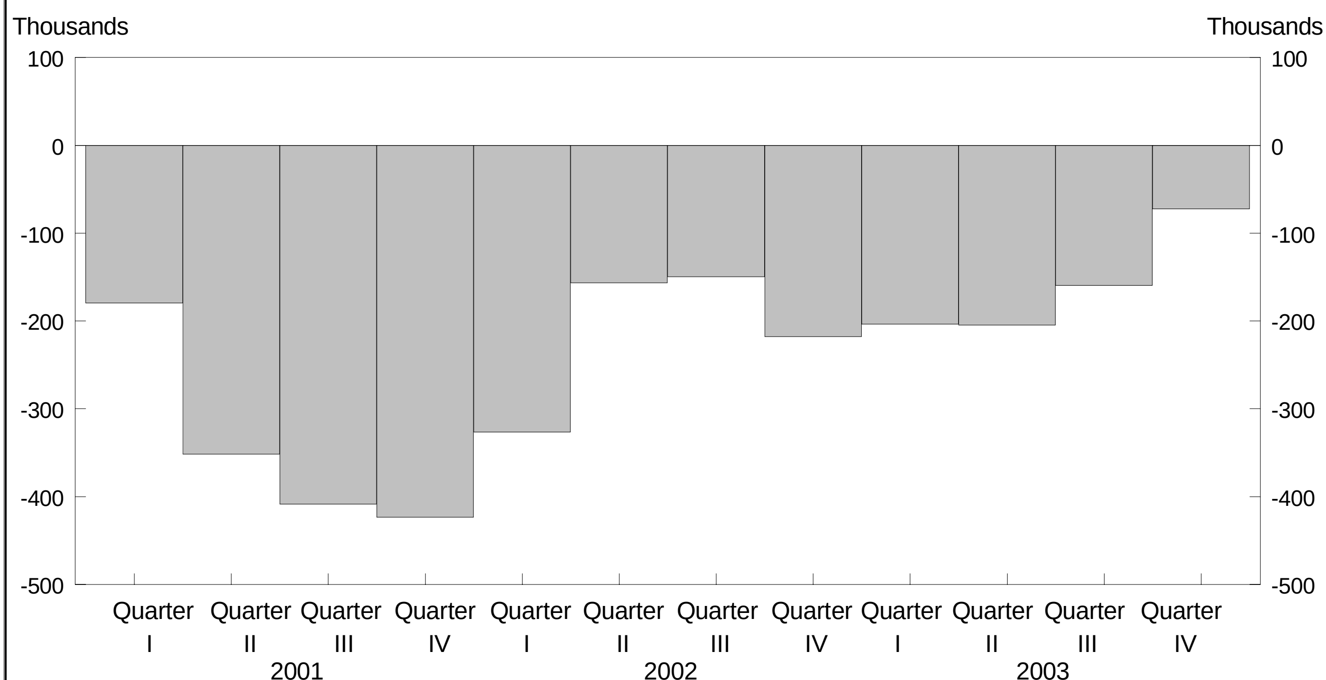
Chart 1. Quarterly changes in total nonfarm employment, 2001–03



NOTE: Data are seasonally adjusted.

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

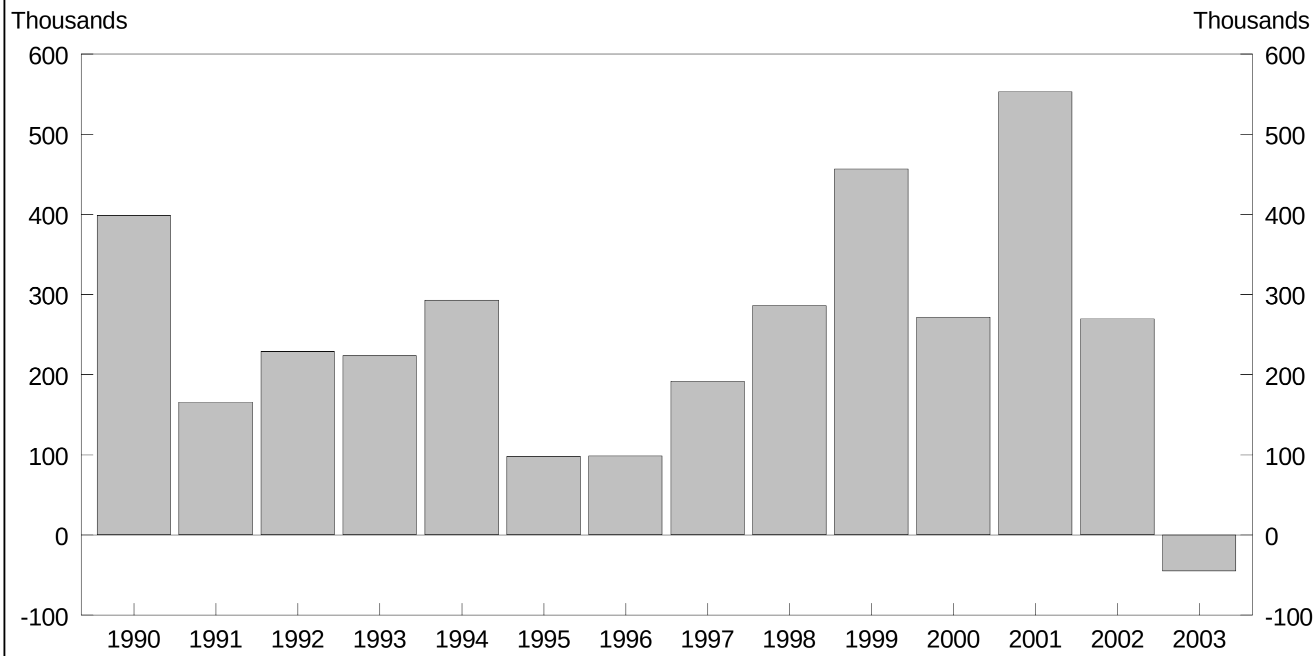
Chart 2. Quarterly changes in manufacturing employment, 2001–03



NOTE: Data are seasonally adjusted.

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

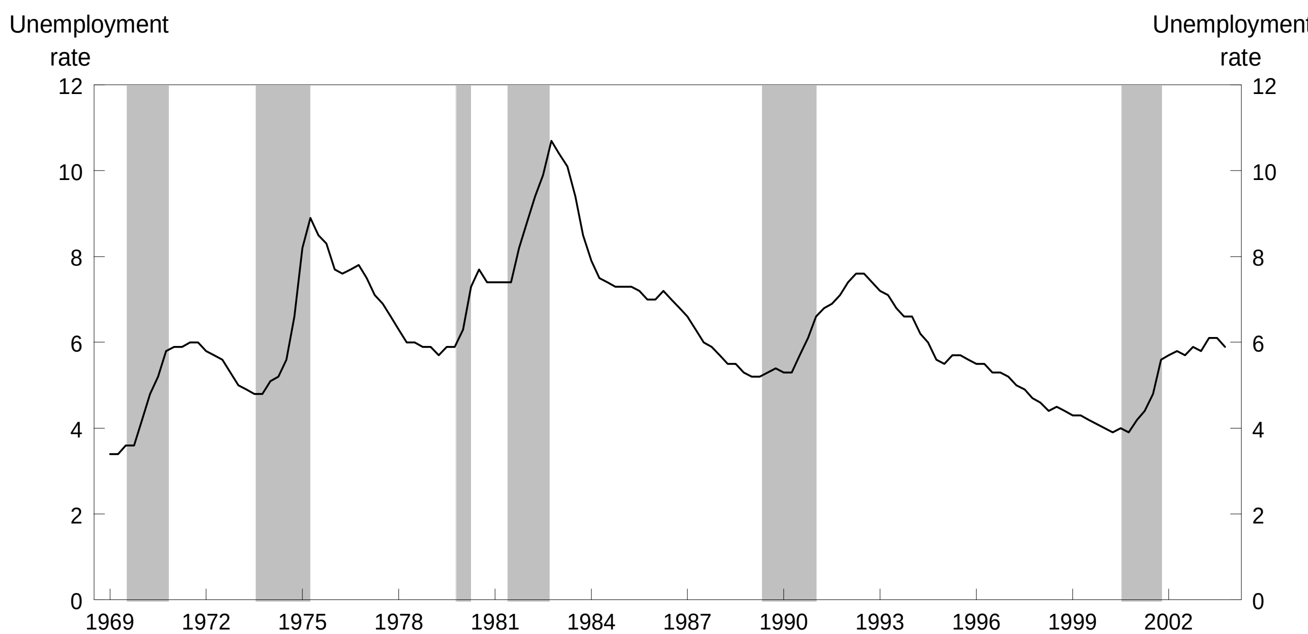
Chart 3. Over-the-year changes in government employment, 1990–2003



NOTE: Data are seasonally adjusted.

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

Chart 4. Unemployment rate, seasonally adjusted quarterly data, 1969–2003



NOTE: Shaded regions represent recessions as designated by the National Bureau of Economic Research.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

Chart 5. **Change in labor force participation rate during recent economic downturns, by age and sex**

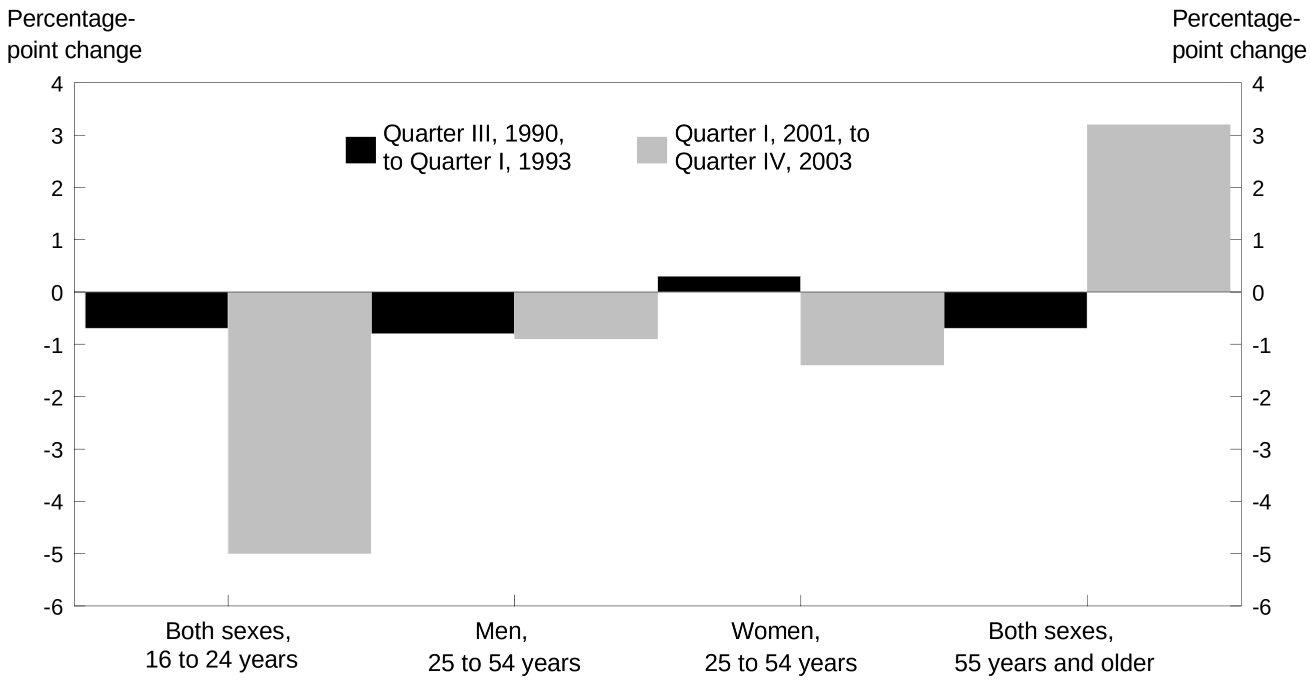
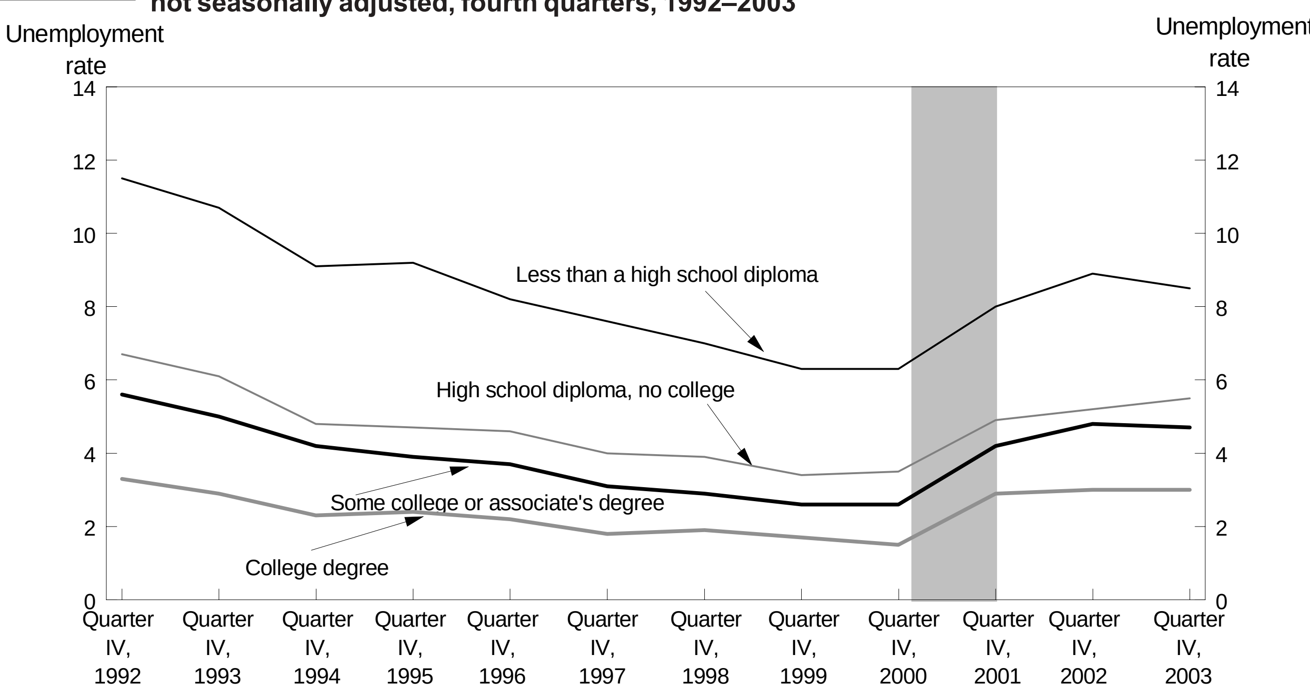


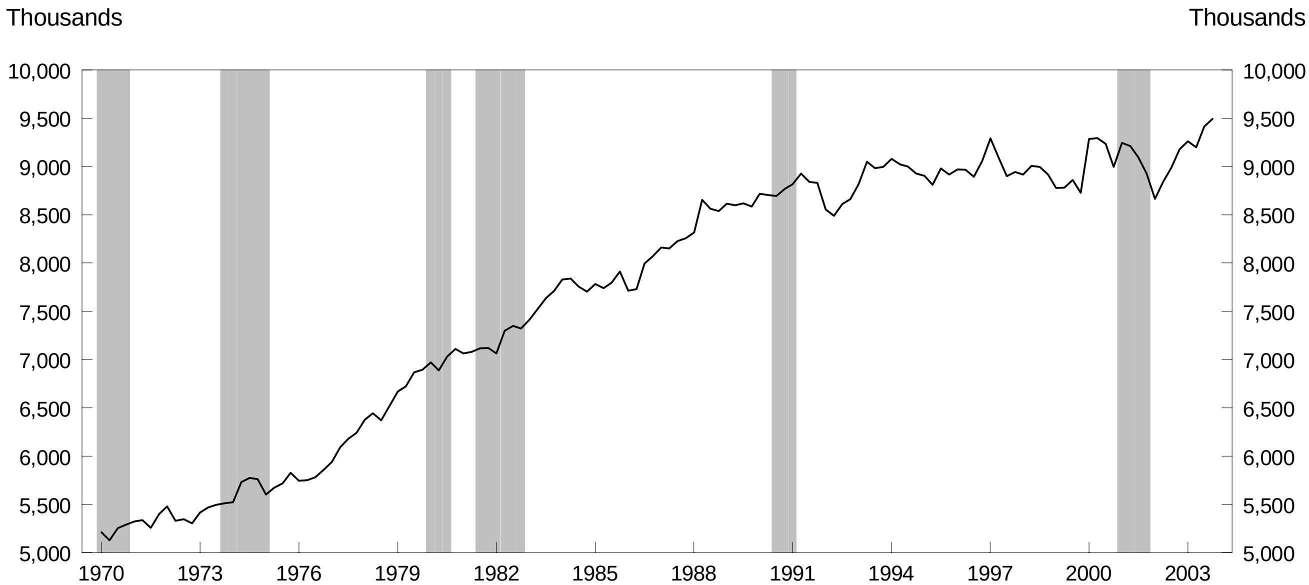
Chart 6. **Unemployment rates of persons aged 25 and older, by educational attainment, not seasonally adjusted, fourth quarters, 1992–2003**



NOTE: Data from 1994 on are not strictly comparable to data for 1993 and earlier years, due to the CPS redesign. Shaded region represents a recession as designated by the National Bureau of Economic Research.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

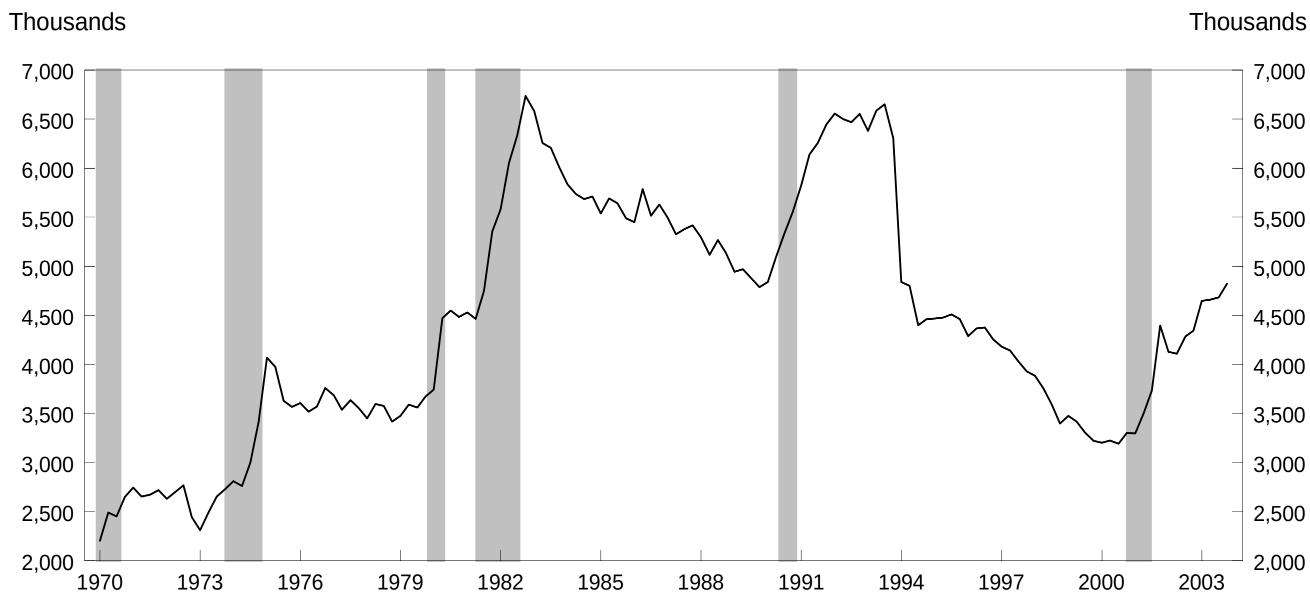
Chart 7. Nonagricultural self-employed workers, seasonally adjusted quarterly data, 1970–2003



NOTE: Shaded regions represent recessions as designated by the National Bureau of Economic Research. Beginning in 2000, data reflect revised population controls in the CPS and are not strictly comparable to data for earlier years.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

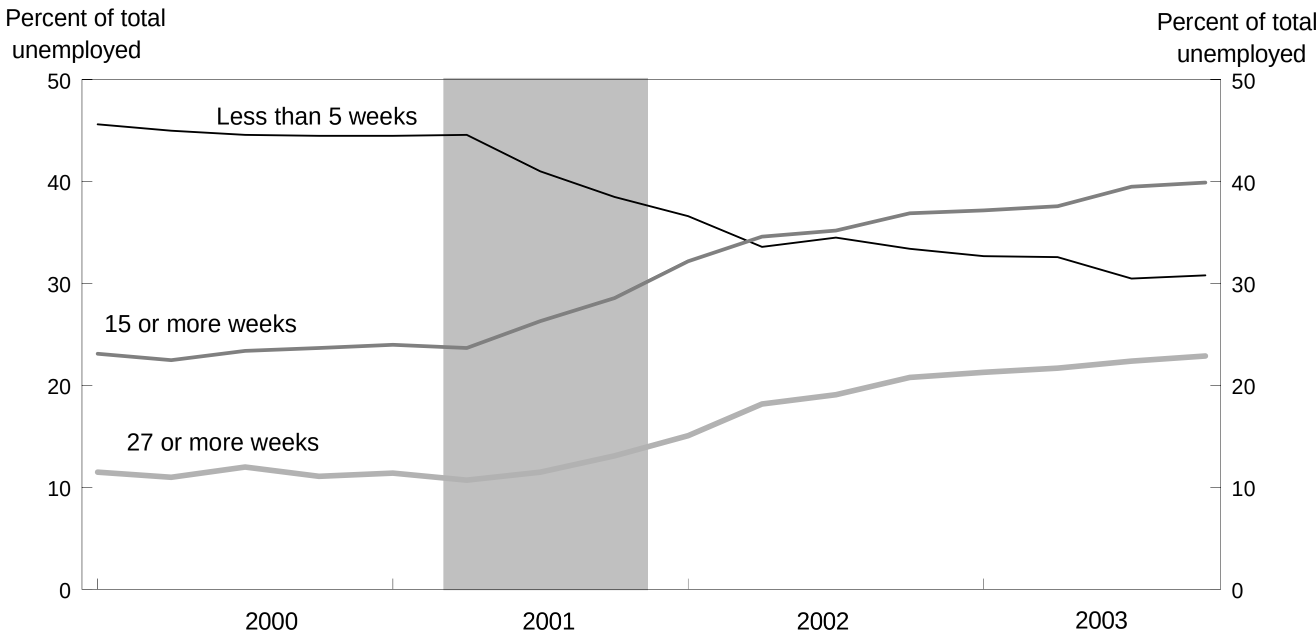
Chart 8. Persons employed part time for economic reasons, seasonally adjusted quarterly data, 1970–2003



NOTE: Shaded regions represent recessions as designated by the National Bureau of Economic Research. Beginning in 1994, data are affected by the redesign of the Current Population Survey and are not strictly comparable to data for prior years.

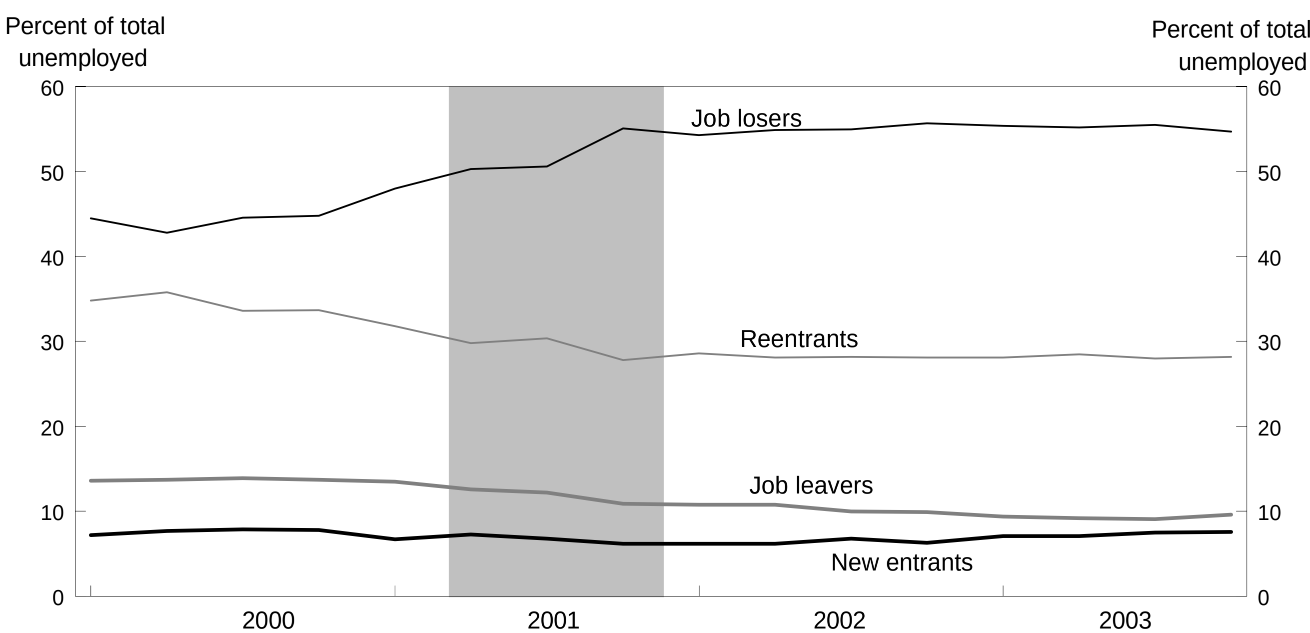
SOURCE: Bureau of Labor Statistics, Current Population Survey.

Chart 9. Unemployment by duration, seasonally adjusted quarterly data, 2000–03



NOTE: Shaded region represents a recession as designated by the National Bureau of Economic Research.
SOURCE: Bureau of Labor Statistics, Current Population Survey.

Chart 10. Percent of unemployed by reason, seasonally adjusted quarterly data, 2000–03



NOTE: Shaded region represents a recession as designated by the National Bureau of Economic Research.
SOURCE: Bureau of Labor Statistics, Current Population Survey.

Chart 11. **Over-the-year change in unemployment rates by State, seasonally adjusted, fourth quarter 2002 to fourth quarter 2003**

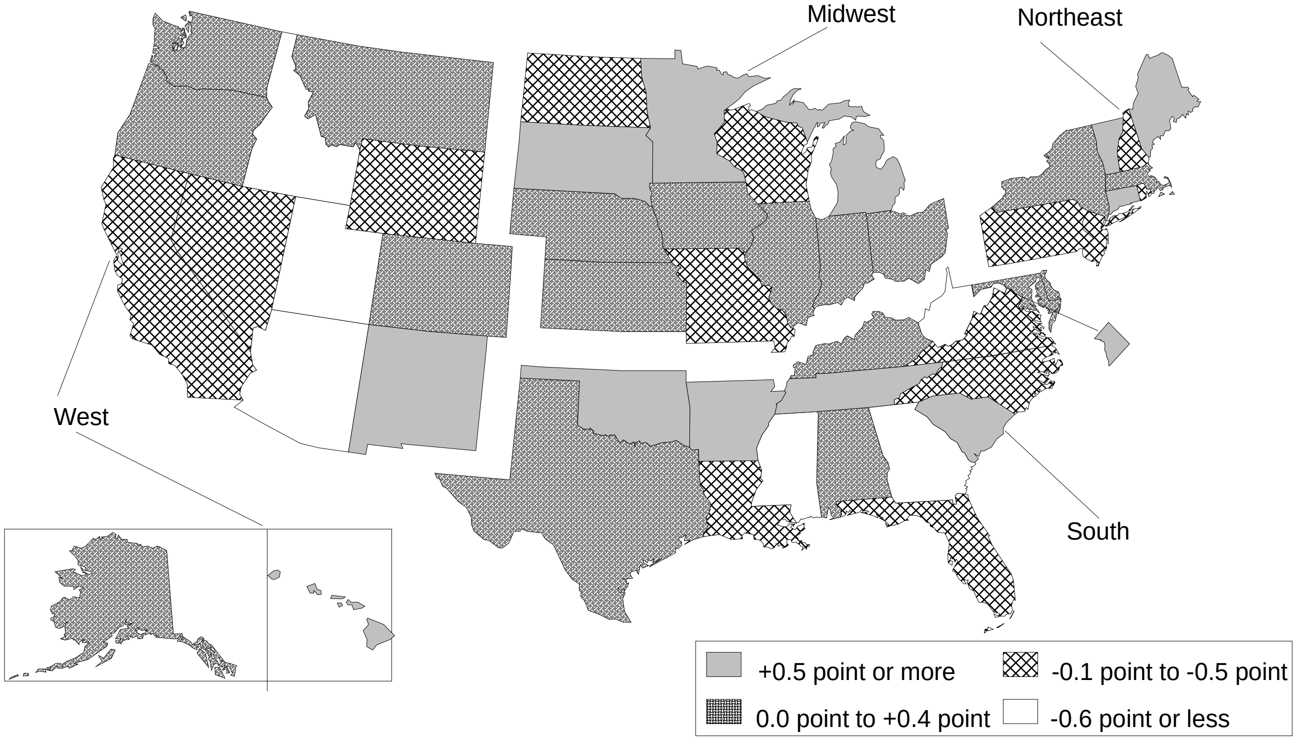
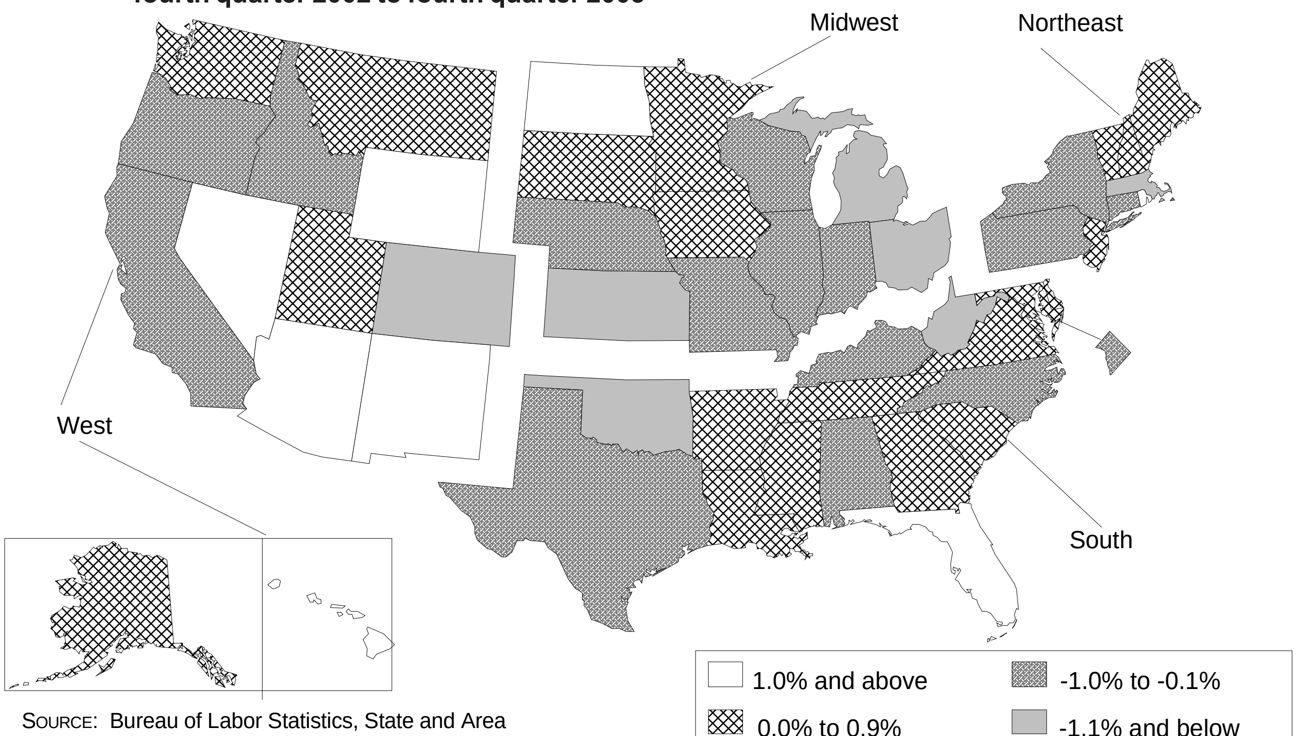


Chart 12. **Percent change in total nonfarm employment by State, seasonally adjusted, fourth quarter 2002 to fourth quarter 2003**



SOURCE: Bureau of Labor Statistics, State and Area Current Employment Statistics.