December 2000

MONTHLY LABOR REVIEW

U.S. Department of Labor

Bureau of Labor Statistics



GED: Second chance for women dropouts

also in this issue:

Job trends in the 90s
Fair Labor Standards Act

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The *Monthly Labor Review* (USPS 987–800) is published monthly by the Bureau of Labor Statistics of the U.S. Department of Labor. The *Review* welcomes articles on the labor force, labor-management relations, business conditions, industry productivity, compensation, occupational safety and health, demographic trends, and other economic developments. Papers should be factual and analytical, not polemical in tone. Potential articles, as well as communications on editorial matters, should be submitted to:
Editor-in-Chief
Monthly Labor Review
Bureau of Labor Statistics
Washington, DC 20212
Telephone: (202) 691–5900
E-mail: mlr@bls.gov

Inquiries on subscriptions and circulation, including address changes, should be sent to:
Superintendent of Documents
Government Printing Office
Washington, DC 20402
Telephone: (202) 512–1800

Subscription price per year—$31 domestic; $38.75 foreign. Single copy—$10 domestic; $12.50 foreign. Make checks payable to the Superintendent of Documents.

Subscription prices and distribution policies for the *Monthly Labor Review* (ISSN 0098–1818) and other government publications are set by the Government Printing Office, an agency of the U.S. Congress.

The Secretary of Labor has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this Department. Periodicals postage paid at Washington, DC, and at additional mailing addresses.

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Information is available to sensory impaired individuals upon request:
Voice phone: (202) 691–5200
Federal Relay Service: 1–800–877–8339.

POSTMASTER: Send address changes to *Monthly Labor Review*, U.S. Government Printing Office, Washington, DC 20402-0001.

Cover designed by Keith Tapscott

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MONTHLY LABOR
REVIEW

Volume 123, Number 12
December 2000

FEB 08 2001

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The December *Review*

As we wrap up the final issue of the *Monthly Labor Review* for the 20th century, it is fitting to look at that century's final decade, the 1990s. (Why is it we name decades by their first year and centuries by their last?) Julie Hatch and Angela Clinton take a broad look at the 1990s as they manifested themselves in the employment, hours, and earnings statistics. After the recession that occurred during the decade's first two years, overall employment began a sustained period of growth. The long expansion was not evenly distributed, however, and there was a continuing divide between the goods-producing and service-providing sectors of the economy.

In contrast, there was a degree of convergence throughout the decade in terms of earnings. In fact, average hourly earnings in some service-providing industries—wholesale trade and finance, insurance, and real estate—actually moved higher than those in manufacturing by the decade's end.

It is also meet that the *Review* should publish another look at some of the research issues that remain open as the century ends. Kathryn Parker Boudette, Richard J. Murnane, and John B. Willett take on several issues at once as they ask, "In an economy that increasingly values skill, can a young woman without a high school diploma get a second chance?" They find that obtaining a General Educational Development (GED) credential is associated with earnings gains of about 25 percent (after a 10-year lag), and that combining a GED with an additional year of off-the-job training bumps that gain up to 50 percent. The authors warn, however, that the absolute earnings of dropouts, even after these second-chance efforts, are still too low to establish economic independence.

In this issue, it is also right to present an analysis of some labor and labor standards history. Howard D. Samuel does this for us in his study of the Fair Labor Standards Act. This legislation established the 40-hour workweek, required premium pay for overtime, and stipulated a minimum wage. Samuel points out that what is now a well-established part of the labor market's legal infrastructure once faced a good deal of resistance—and not all of it was from the business community or the more reactionary political elements.

It is certainly our bounden duty, as we conclude the *Monthly Labor Review*'s final 20th century volume, to thank the thousands of authors who have contributed such excellent work to our pages since our launch in 1915. To our readers, we reaffirm our commitment to being their first-choice journal of fact, analysis, and research in the field of labor economics, broadly defined.

More experience employment

The proportion of the working-age population that was employed at some point during the year increased slightly to 70.6 percent in 1999. This upward movement has been the trend for the past three decades, interrupted occasionally by recessions.

The increasing participation of women in the workforce has been the main factor behind the rising employment rate. The proportion of women who worked at some point during the year has risen 11.9 percentage points since 1969, to 64.5 percent in 1999. In contrast, the proportion of men who worked at some time during 1999 was 77.2 percent, a decrease of 8.0 percentage points since 1969.

The number of individuals who experienced some unemployment during the year continued to decline in 1999. About 13 million individuals were in this category, down about 1 million from 1998. Roughly 149 million persons worked or looked for work at some time in 1999. Thus, the 13.1 million who experienced some unemployment during the year represented a "work-experience unemployment rate" of 8.8 percent. This rate was 0.8 percentage point lower than in 1998—the lowest since the series began in 1958. Learn more in "Work Experience of the Population in 1999," news release USDL 00–333.

Shiskin Award nominations

Nominations are invited for the annual Julius Shiskin Award for Economic Statistics. The award is given in recognition of unusually original and important contributions in the development of economic statistics or in the use of economic statistics in interpreting the economy.

A nomination form may be obtained from the Julius Shiskin Award Committee, American Statistical Association, 1429 Duke Street, Alexandria, Virginia 22314-3402, or via e-mail at nancyh@amstat.org. Nominations must be received by April 1, 2001.

Raises biggest in Washington, Massachusetts

Leading the Nation in pay growth for the third year in a row, Washington State's average annual pay advanced 8.0 percent in 1999. The next highest pay increase occurred in Massachusetts, where wages climbed 6.8 percent. Three other States had pay gains in excess of 5.0 percent in 1999: California (6.3 percent), Colorado (6.0 percent), and Virginia (5.2).

Overall, pay gains moderated in 1999 compared with the previous year. In the United States, average annual pay rose by 4.3 percent in 1999, compared with 5.2 percent in 1998. Pay data presented here represent all workers covered by State and Federal unemployment insurance programs. Data for 1999 are preliminary and subject to revision. Find more information on 1999 pay in "Average Annual Pay By State and Industry, 1999," news release USDL 00–339. □

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Job growth in the 1990s: a retrospect

The long economic expansion fueled job growth during the period, while new technology had mixed effects; the employment divide between the goods- and service-producing sectors of the economy continued to widen

Julie Hatch
and
Angela Clinton

The U.S. economy sank into recession early in the 1990s and then rebounded with the longest running expansion in the Nation's history.[1] Real gross domestic product (GDP) growth slowed in 1990 as the country slipped into recession. By 1992, however, recovery began and GDP grew throughout the remainder of the decade. Nonfarm payroll employment increased by nearly 21 million workers during the decade.[2]

Employment in export-sensitive industries followed a cyclical pattern, turning down for the 1990–91 recession and the later Asian economic crisis. Reduced defense spending resulted in job losses in defense-related industries, especially early in the decade. While the number of workers declined in these goods-producing industries, construction and related industries began to slowly recover in 1992, and strong employment growth resumed by mid-decade. Technology and demand for more services drove employment up in the service-producing sector.

Productivity improved as new and cheaper computer technology was applied in all sectors of the economy. Businesses transformed their systems to meet Y2K deadlines and to compete with lower priced foreign goods resulting from economic crisis in Asia. Inflation remained largely in check throughout the decade, with moderate gains in consumer prices. Even after adjusting average hourly earnings for inflation, U.S. workers saw their real wages increase. Low interest rates spurred new construction and refinance activity. Technology stocks helped create record profits in the stock market and boost the wealth of many households. Consumer confidence rose to new heights and remained strong through the end of the decade.

The private service-producing industries accounted for nearly 90 percent of the job growth in the 1990s and increased their share of total nonfarm employment by more than 4 percentage points. (See chart 1.) All major industry divisions within the service-producing sector added workers and growth was especially strong in the services division. (See chart 2.) Employment in the goods-producing industries edged up slightly, as losses in manufacturing and mining nearly offset gains in construction.

Mining employment sinks lower

The mining industry lost nearly a quarter of its workforce during the 1990s, with most of the losses occurring in coal mining and oil and gas extraction. Of the two, coal mining lost relatively more workers, 40.6 percent, while oil and gas extraction lost the greatest number of workers, 88,100. (See table 1.)

Employment fell as productivity increased in coal mining. Despite having lost jobs more rapidly than other mining industries, losses in coal

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Chart 1. Percent distribution of payroll employment by industry sector, 1950, 1989, 1999

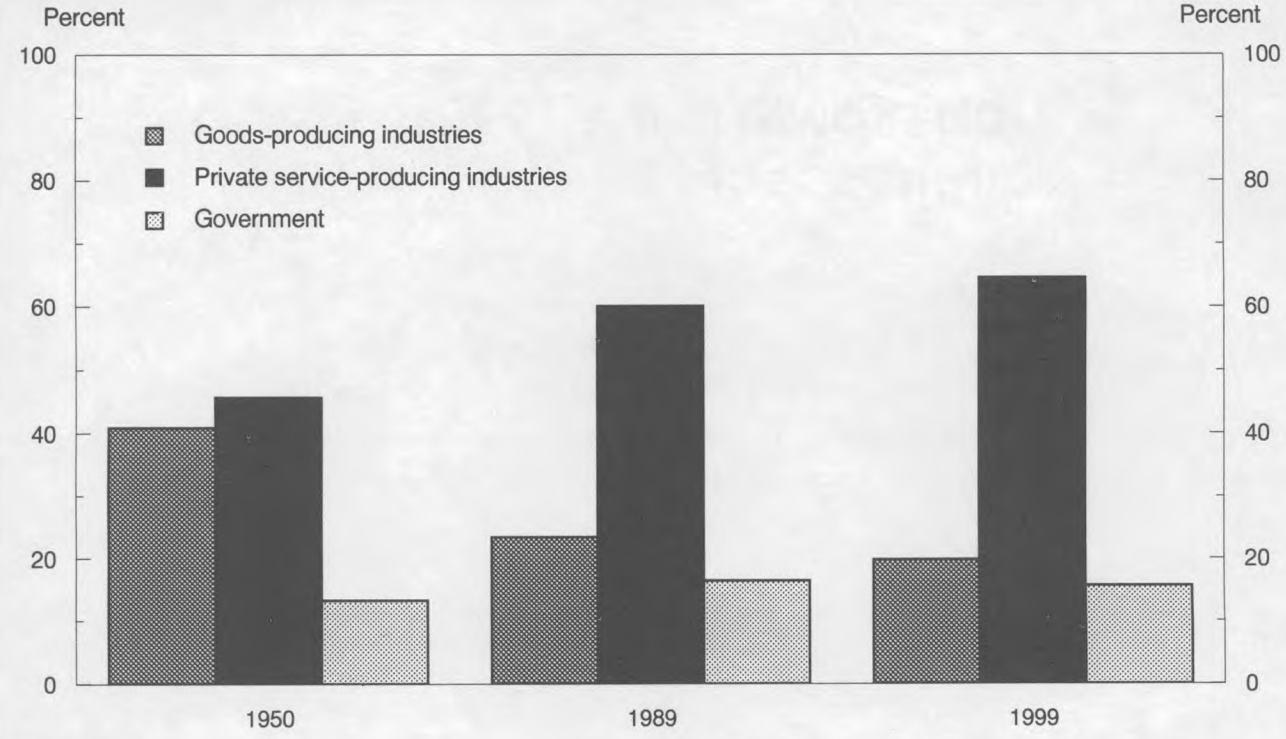
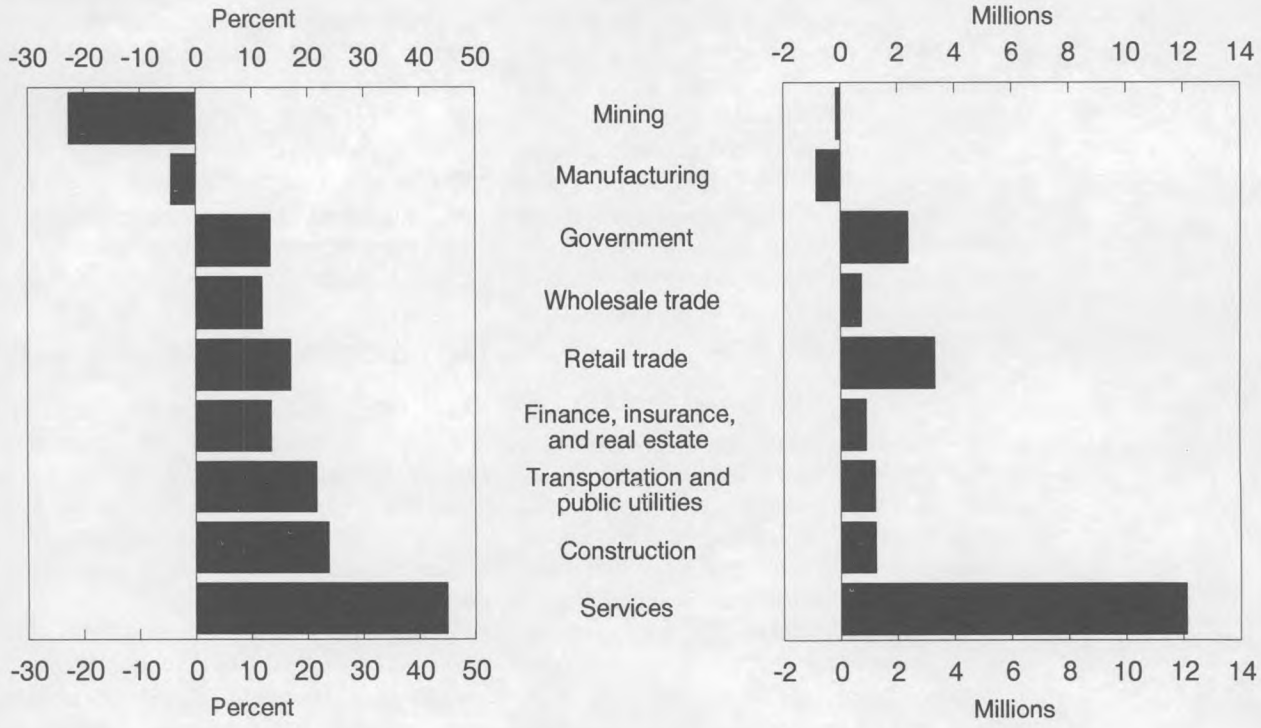


Chart 2. Employment changes by major industry division, 1989–99



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Table 1. Employment change by industry, 1989–99

[Numbers in thousands]

SIC code	Industry	1989	1999	Change	
				Number	Percent
	Total nonfarm	107,884	128,786	20,902	19.4
07,10–87,89,99	Total private	90,105	108,616	18,511	20.5
10-39	Goods producing	25,254	25,482	228	.9
10-14	Mining	692	535	–157	–22.7
10	Metal mining	55.7	45.3	–10.4	–18.7
12	Coal mining	143.7	85.4	–58.3	–40.6
13	Oil and gas extraction	381.0	292.9	–88.1	–23.1
14	Nonmetallic minerals, except fuels	111.2	111.8	0.6	.5
15–17	Construction	5,171	6,404	1,233	23.8
15	General building contractors	1,331.8	1,450.1	118.3	8.9
16	Heavy construction, except building	767.0	869.1	102.1	13.3
17	Special trade contractors	3,072.1	4,084.2	1,012.1	32.9
	Manufacturing	19,391	18,543	–848	–4.4
24,25, 32–39	Durable goods	11,394	11,103	–291	–2.6
24	Lumber and wood products	756.2	828.4	72.2	9.5
25	Furniture and fixtures	524.3	548.4	24.1	4.6
32	Stone, clay and glass products	568.4	563.3	–5.1	–.9
33	Primary metals	771.8	699.7	–72.1	–9.3
34	Fabricated metals	1,445.4	1,517.4	72.0	5.0
35	Industrial machinery and equipment	2,124.9	2,140.5	15.6	.7
36	Electronic and other electrical equipment	1,744.3	1,669.8	–74.5	-4.3
37	Transportation equipment	2,051.5	1,884.2	–167.3	–8.2
38	Instruments and related products	1,025.9	856.4	–169.5	–16.5
39	Miscellaneous manufacturing	381.2	394.9	13.7	3.6
20–23,26–31	Nondurable goods	7,997	7,440	–557	–7.0
20	Food and kindred products	1,644.4	1,676.7	32.3	2.0
21	Tobacco products	49.9	38.4	–11.5	–23.0
22	Textile mill products	719.8	560.2	–159.6	–22.2
23	Apparel and other textile products	1,075.7	692.3	–383.4	–35.6
26	Paper and allied products	695.7	667.8	–27.9	–4.0
27	Printing and publishing	1,555.9	1,552.9	–3.0	–.2
28	Chemicals and allied products	1,073.9	1,034.0	–39.9	–3.7
29	Petroleum and coal products	156.0	133.6	–22.4	–14.4
30	Rubber and misc. plastics products	888.0	1,005.7	117.7	13.3
31	Leather and leather products	137.6	77.9	–59.7	–43.4
40–87,89,99	Service producing	82,630	103,304	20,674	25.0
40–49	Transportation and public utilities	5,614	6,826	1,212	21.6
40	Railroad transportation	292.5	229.7	–62.8	–21.5
41	Local and interurban passenger transit	325.7	484.5	158.8	48.8
42	Trucking and warehousing	1,379.0	1,804.6	425.6	30.9
44	Water transportation	171.6	187.1	15.5	9.0
45	Transportation by air	897.2	1,227.0	329.8	36.8
46	Pipelines, except natural gas	18.5	13.0	–5.5	–29.7
47	Transportation services	319.0	463.4	144.4	45.3
48	Communications	1,272.1	1,551.5	279.4	22.0
49	Electric, gas and sanitary services	938.1	864.7	–73.4	–7.8
50–51	Wholesale trade	6,187	6,924	737	11.9
50	Durable goods	3,653	4,120	467	12.8
51	Nondurable goods	2,534	2,804	270	10.7
52–59	Retail trade	19,475	22,788	3,313	17.0
52	Building materials	783.4	989.2	205.8	26.3
53	General merchandise stores	2,544.3	2,771.3	227.0	8.9
54	Food stores	3,163.5	3,494.8	331.3	10.5
55	Automotive dealers and service stations	2,092.4	2,368.6	276.2	13.2
56	Apparel and accessory stores	1,196.7	1,173.7	–23.0	–1.9
57	Furniture and home furnishing stores	826.4	1,081.5	255.1	30.9
58	Eating and drinking places	6,401.9	7,940.3	1,538.4	24.0
59	Miscellaneous retail establishments	2,466.8	2,969.0	502.2	20.4

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Table 1. Continued—Employment change by industry, 1989–99

SIC code	Industry	1989	1999	Change	
				Number	Percent
60–67	Finance, insurance and real estate	6,668	7,569	901	13.5
60	Depository institutions	2,273.4	2,061.0	–212.4	–9.3
61	Nondepository institutions	361.2	710.4	349.2	96.7
62	Security and commodity brokers	430.2	687.8	257.6	59.9
67	Holding and other investment offices	217.7	231.4	13.7	6.3
63	Insurance carriers	1,438.4	1,610.5	172.1	12.0
64	Insurance agents, brokers, and services	651.8	760.8	109.0	16.7
65	Real estate	1,296	1,507	211	16.3
07,70–87,89,99	Services	26,907	39,027	12,120	45.0
07	Agricultural services	464.9	765.5	300.6	64.7
70	Hotels and other lodging places	1,595.8	1,847.7	251.9	15.8
72	Personal services	1,085.7	1,233.1	147.4	13.6
73	Business services	4,940.6	9,266.8	4,326.2	87.6
75	Auto repair, services and parking	884.1	1,184.1	300.0	33.9
76	Miscellaneous repair services	374.3	377.0	2.7	.7
78	Motion pictures	374.7	609.8	235.1	62.7
79	Amusement and recreation services	1,033.3	1,659.8	626.5	60.6
80	Health services	7,462.8	9,989.3	2,526.5	33.9
81	Legal services	880.4	996.7	116.3	13.2
82	Educational services	1,647.0	2,275.7	628.7	38.2
83	Social services	1,643.6	2,800.1	1,156.5	70.4
84	Museums and botanical and zoological gardens	62.0	97.9	35.9	57.9
86	Membership organizations	1,835.7	2,425.4	589.7	32.1
87	Engineering and management services	2,389.2	3,254.1	864.9	36.2
	Government	17,779	20,170	2,391	13.4
	Federal government	2,988	2,669	–319	–10.7
	Federal, except Postal Service	2,155.4	1,796.1	–359.3	–16.7
	State government	4,182	4,695	513	12.3
	State government except education	2,513.8	2,727.1	213.3	8.5
	State government education	1,668.1	1,968.1	300.0	18.0
	Local government	10,609	12,806	2,197	20.7
	Local government except education	4,733.8	5,534.3	800.5	16.9
	Local government education	5,875.4	7,272.0	1,396.6	23.8

mining decelerated during the decade, compared with the prior 10-year period. Most of the losses occurred in bituminous coal and lignite mining—one of the 20 three-digit industries losing the most jobs over the period.[3] (See table 2.) Demand for low-sulfur coal grew as populations migrated to the West and Southwest. Because coal must be transported, typically by rail, output at western coal mining sites increased with demand. Productivity in surface mining, which is common in western states, is much greater than that for other types of coal mining.[4]

In addition, demand for western coal increased as electrical utilities purchased relatively more of the lower sulfur coal found in the West as well as in the central Appalachian region. At the same time, demand fell in the northern Appalachian region and in the Illinois basin, where sulfur content is higher and productivity is lower.[5] With the second phase of the Clean Air Act beginning on January 1, 2000, the demand for lower sulfur coal should continue to increase relative to that for the more labor-intensive, higher sulfur coal and result in continuing employment losses in the coal mining industry.

Job losses in oil and gas extraction accelerate. While employment losses slowed in coal mining, the rate of decline accelerated slightly in oil and gas extraction. The industry responded to changing oil prices and demand by adjusting production and, consequently, the number of workers. As oil prices began to fall at the start of the decade, employment declines followed. The industry cut back significantly in 1992, and job losses continued until the middle of the decade, when prices began to escalate.

In 1998, however, domestic oil prices plummeted to less than 11 dollars per barrel, and the response was dramatic. Oil and gas extraction companies dropped more than 45,000 workers from payrolls the following year. The industry lost nearly a quarter of its workforce during the decade, and two-thirds of those losses occurred in crude petroleum and natural gas extraction.

Construction rebuilds following recession

Construction's strong connection to changes in the business cycle led to substantial employment losses during the 1990–

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91 recession. The expansionary period that followed nourished an explosion of job growth in the industry. A healthy stock market pumped more money into the U.S. economy and, along with low mortgage rates, fostered wealth effects. Construction expenditures grew at an exceptionally healthy rate, and housing starts, completions, and permits surged.[6] Employment in construction grew almost as rapidly as the service-producing sector, although labor and supply shortages were evident late in the decade.[7]

Special trade contractors, the largest group of industries in construction, benefited the most from the favorable economy. Not only did people have more money to purchase new homes, they were willing to buy in every area of the country. In addition, Americans spent more money renovating existing homes.[8] Electrical work alone added a quarter-million workers during the decade. This industry accounted for 20 percent of the job growth in construction. Most industries classified under special trade contractors grew faster than the national job market.

In contrast to the special trade contractors industry, general building contractors lost more than a quarter of a million jobs during the recession. The corresponding recovery was a long, arduous process. Low interest rates and a strong housing market provided enough stimuli to effect a full recovery, yet employment in the industry grew by only about half the rate of the total nonfarm economy during the decade.

The remaining group of construction industries, heavy construction, except building contractors, experienced large declines during the 1980–82 recessions, from which it did not recover during the subsequent economic expansion. After suffering additional losses during the 1990–91 recession, however, by 1999, employment in the industry had completely recovered from losses incurred during the 1990s, and nearly recovered from those incurred during the 1980s. Throughout the 1990s expansion, government expenditures on long-term heavy construction projects helped boost growth.[9]

Job losses continue in manufacturing

While construction-related manufacturing added workers during the 1990s, the prevailing trend was negative throughout most other manufacturing industries—13 of 20 lost workers.[10] In addition to losses suffered during the U.S. recession, technological improvements allowed fewer workers to generate more output than in the past, the Asian economic crisis reduced demand for goods manufactured in the United States, and the U.S. Government reduced defense spending.

Technological innovations transformed the manufacturing industry into a highly efficient machine. Output per hour increased more rapidly in the 1990s, compared with a decade earlier.[11] Durable goods industries showed the greatest productivity gains, and two industries stand out with particularly impressive labor productivity improvements—output per hour for the 10 years ending in 1997 grew at an average annual rate of 25 percent in computer and office equipment, followed by electronic components and accessories, with nearly 20 percent per year. Industrial production for all of manufacturing increased by more than a third during the decade, even as employment and aggregate hours decreased.[12]

Business cycles create drag on manufacturing employment. The manufacturing group of industries was particularly sensitive to changing economic conditions, both at home and abroad. (See chart 3.) Even before 1990, both employment and the average factory workweek, a leading economic indicator, began to edge down. The manufacturing industry soured even more as the U.S. economy went into recession. Not until 2 years after the official end of the recession did manufacturing businesses begin to slowly add workers back to their payrolls.

A financial crisis hit Thailand in July 1997 and quickly spread to neighboring Asian countries. In the United States, manufacturing industries soon felt the pinch as well. The average workweek began to edge down at the start of the next year, and employment peaked in April 1998. The trade deficit for manufacturing products increased by nearly 200 percent during the decade.[13] The Asian crisis escalated to such an extent that the Federal Reserve Board lowered interest rates to insulate the U.S. economy from the global financial turmoil.[14] Special interest groups, including manufacturers, urged Congress to approve funding for the International Monetary Fund to stabilize countries in crisis.[15] Although the Asian crisis and subsequent global economic turmoil abated late in the decade, U.S. manufacturing firms continued to reduce payrolls. A positive signal appeared late in 1999, however, as employment losses appeared to taper off.

The durable goods industries experienced the greatest losses and were slower to recover from national and global economic weaknesses. Employment in primary metals (SIC 33), which fluctuates with trade balances, sharply declined during the decade. Significant reductions in employment occurred prior to and shortly after the recession. Payrolls stabilized for the most part until the Asian crisis, when large amounts of foreign steel found its way into the U.S. market at extremely low prices.

Blast furnaces and basic steel products (SIC 331) was hurt in particular, and production capacity bottomed out as financial crisis spread across the globe.[16] Claims of illegal dumping prompted the U.S. Department of Commerce to investigate. Although the amount of foreign steel imported subsequently decreased, employment continued to fall until the final quarter of the decade.

The Asian crisis reversed the positive employment trend in electronic and other electrical equipment (SIC 36). This industry gained an average of 36,000 jobs annually between the

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Table 2. The 20 industries losing the most jobs over the 1989–99 period

[Numbers in thousands]

Rank	SIC code	Industry	Employment		Change	
			1989	1999	Level	Percent
1		Federal government, except Postal Service	2,155.4	1,796.1	–359.3	–16.7
2	603	Savings institutions	481.5	251.5	–230.0	–47.8
3	372	Aircraft and parts manufacturing	711.0	494.9	–216.1	–30.4
4	562	Women's clothing stores	422.7	278.4	–144.3	–34.1
5	233	Women's and misses' outerwear manufacturing	342.4	205.2	–137.2	–40.1
6	381	Search and navigation equipment manufacturing	299.5	166.3	–133.2	–44.5
7	232	Men's and boys' furnishings manufacturing	287.0	157.2	–129.8	–45.2
8	376	Guided missiles, space vehicles, and parts manufacturing	194.1	88.1	–106.0	–54.6
9	357	Computer and office equipment manufacturing	458.7	370.2	–88.5	–19.3
10	491	Electric services	448.2	360.0	–88.2	–19.7
11	602	Commercial banks	1,555.0	1,475.9	–79.1	–5.1
12	225	Knitting mills manufacturing	214.8	141.0	–73.8	–34.4
13	533	Variety stores	209.8	138.0	–71.8	–34.2
14	40	Railroad transportation	292.5	229.7	–62.8	–21.5
15	131	Crude petroleum and natural gas extraction	192.7	133.1	–59.6	–30.9
16	122	Bituminous coal and lignite mining	134.2	79.8	–54.4	-40.5
17	517	Petroleum and petroleum products distribution	206.9	155.2	–51.7	–25.0
18	331	Blast furnaces and basic steel products manufacturing	279.1	227.6	–51.5	–18.5
19	314	Footwear, except rubber manufacturing	77.3	32.9	-44.4	–57.4
20	631	Life insurance	550.2	506.0	-44.2	–8.0

end of the recession and the start of the Asian crisis.[17] The industry lost 37,000 jobs in 1999. Almost half of the output produced by the electronic and other electrical equipment industry is sold to foreign countries, making it the most export dependent of all manufacturing industries.[18] Electronic components and accessories firms, along with producers of semiconductors and printed circuit boards, lost the most jobs. The computer and office equipment industry experienced a significant workforce reduction as foreign computer products entered the United States and productivity advances occurred.[19]

Textile mill products (SIC 22) and the apparel industries (SIC 23) steadily lost jobs to foreign competition and technological advances throughout the 1990s. Improved technology reduced production time and the number of workers required to manufacture fabrics in the textile industry.[20] Apparel and other textile products, influenced less by technological innovations than by imports, lost a third of its workforce during the decade. This industry was especially harmed in the latter half of the decade, when most Asian countries devalued their currencies, making their products much less costly in the United States.[21] Job losses were widespread, but substantial declines occurred in women's and misses' outerwear.

Defense spending slows. The end of the Cold War and the fall of the Soviet Union ushered in an era of significant cuts in defense spending. The aerospace industry shifted its focus to serving commercial and foreign markets, which soured late in the decade. Mergers allowed businesses to scale back costs by combining research and development laboratories.[22] Aircraft and parts dropped 216,000 workers. Guided missiles, space vehicles, and parts lost more than half its workforce during the decade, and search and navigation equipment fared only slightly better.

Economic expansion helps build job growth. Low interest rates and greater personal income marked much of the 1990s and helped boost both construction- and auto-related employment. Manufacturing firms struggled to keep up with the demand placed on them by the exuberant housing and household accessories markets. Shortages for materials like drywall, brick, and insulation delayed the construction development cycle in the latter part of the decade.[23]

Lumber and wood products (SIC 24) added 72,000 jobs over the period, due mostly to strength in millwork, plywood and structural members (SIC 243), and in wood buildings and mobile homes (SIC 245); the latter was the only three-digit manufacturing industry to make the list of the 20 fastest-growing industries in the decade. (See table 3.) In the same vein, rubber and miscellaneous plastics products (SIC 30) added 118,000 jobs, mainly due to high demand for plastic plumbing fixtures.

Consumers struggled with furniture shortages once their houses were built. The scarcity of labor and fabric in the furniture manufacturing industry during the last half of the decade prolonged delivery times and burdened retailers.[24] Demand for both building materials and automotive parts stimulated employment growth in fabricated metal products (SIC 34). The component industries fabricated structural metal products, metal forgings and stampings, and miscellaneous fabricated

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metal products all benefited from the healthy U.S. economy. The robustness of the automotive and construction markets positively influenced industrial machinery employment also. Workers were added to assembly lines to manufacture carburetors, pistons, and valves.

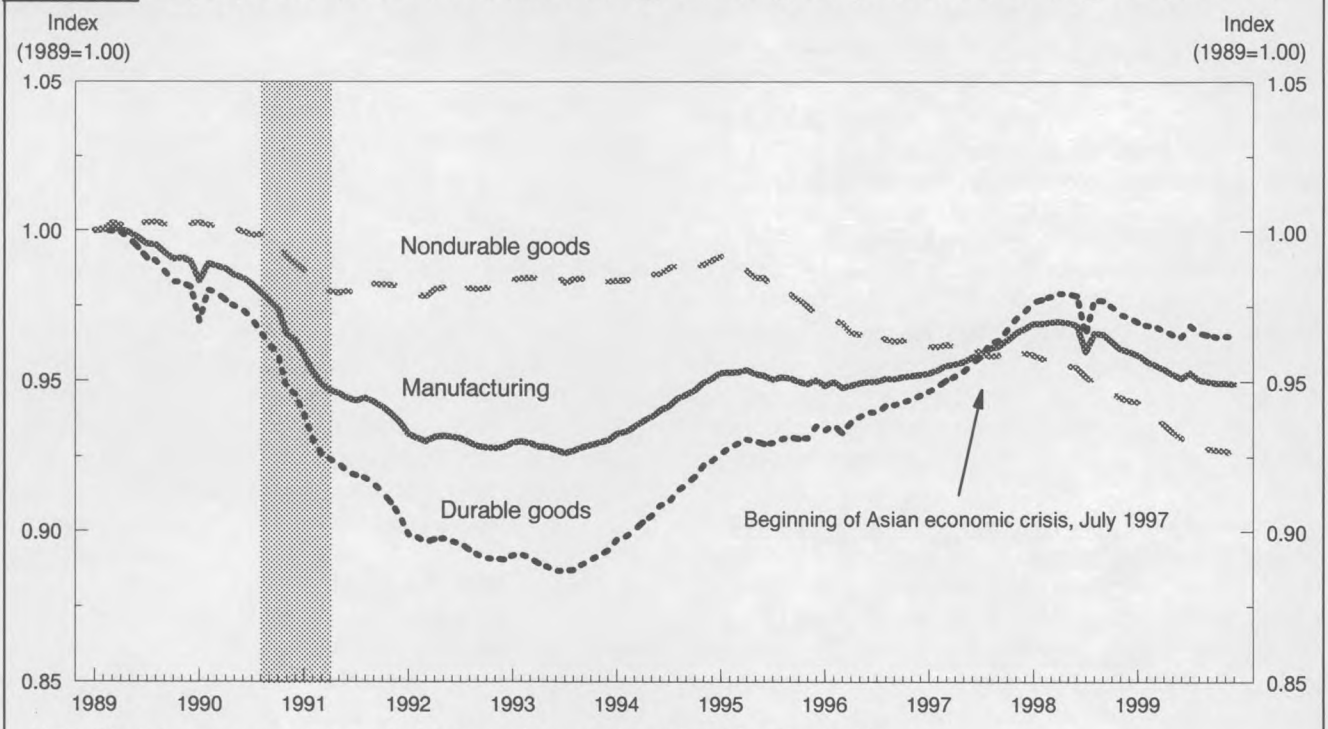
Transportation and public utilities diverge

Transportation and public utilities added 1.2 million jobs during the decade. While this industry division was the second-fastest growing in the service-producing sector, its component industries took off in opposite directions. Transportation accounted for more than 80 percent of the gain in this varied industry division. Relatively strong employment growth was apparent in several industries throughout transportation services. Trucking and courier services was among the top 20 industries adding jobs during the decade. (See table 4.) Air transportation services followed closely by adding more than 260,000 workers. Air travel as measured by passenger miles tripled from 1970 to 1995.[25] The shift from heavier, lower value manufacturing goods to lighter, higher value products decreased the demand for water and rail services relative to air freight and trucking services.[26] As demand increased, prompt, reliable and cost-efficient service became a necessity and forced trucking and courier services to transform their infrastructures. These services underwent a technological revolution similar to the manufacturing industry, as a way to keep up with the growing demand for just-in-time delivery.[27] Technologies like automatic vehicle-location systems, mobile communication systems, and on-board computers allow transportation companies and their customers to track freight inventories in real time.[28]

While trucking and air transportation added greater numbers of workers, local and suburban transportation expanded at a much more rapid pace as States and localities raced to get more passengers out of their cars and into mass transit systems. In contrast, railroad transportation employment continued to decline, but at a much slower pace than occurred during the 1980s.

The communications industry added more than a quarter of a million jobs during the decade. Cable and other pay television services (SIC 484) continued to grow even during the economic recession and became one of the 20 fastest growing industries.[29] Employment gains in the telephone communications industry during the 1990s offset losses that occurred in the 1980s following the break up of AT&T. The demand for cellular service doubled in the last 3 years of the 1990s with more than 76 million subscribers in June of 1999.[30] In addition, the increased popularity of pagers and the Internet helped raise employment levels.

Chart 3. Employment indexes for manufacturing, durable goods, and nondurable goods, 1989–99



NOTE: Shaded area represents the period of economic contraction, July 1990 to March 1991.

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Table 3. The 20 industries growing the fastest during the 1989–99 period

[Numbers in thousands]

Rank	SIC code	Industry	Employment		Change	
			1989	1999	Level	Percent
1	808	Home health care services	243.7	635.6	391.9	160.8
2	737	Computer and data processing services	736.3	1,830.8	1,094.5	148.6
3	736	Personnel supply services	1,454.5	3,600.7	2,146.2	147.6
4	616	Mortgage bankers and brokers	149.1	356.8	207.7	139.3
5	628	Security and commodity services	71.1	156.7	85.6	120.4
6	781	Motion picture production and services	133.9	278.3	144.4	107.8
7	411	Local and suburban transportation	126.8	245.4	118.6	93.5
8	835	Child day care services	378.4	694.9	316.5	83.6
9	836	Residential care	422.7	775.4	352.7	83.4
10	874	Management and public relations	570.0	1,035.5	465.5	81.7
11	799	Miscellaneous. amusement and recreation services	697.7	1,240.5	542.8	77.8
12	615	Business credit institutions	75.4	132.1	56.7	75.2
13	832	Individual and family services	433.7	752.3	318.6	73.5
14	484	Cable and other pay television services	117.4	200.5	83.1	70.8
15	495	Sanitary services	105.2	178.9	73.7	70.1
16	573	Radio, television, and computer stores	272.3	454.5	182.2	66.9
17	473	Freight transportation arrangement	113.9	187.2	73.3	64.4
18	422	Public warehousing and storage	114.6	185.4	70.8	61.8
19	632	Medical service and health insurance	228.1	368.9	140.8	61.7
20	245	Wood buildings and mobile homes manufacturing	64.4	102.9	38.5	59.8

While job growth occurred in transportation and communications, the public utility industries lost 7.8 percent of their workforce. The loss can be attributed to substantial reductions in electric services employment. The electric services industry underwent major upheaval with the introduction of deregulation. Electric companies repositioned themselves as a precautionary measure against the threat of deregulation.[31] Mergers led to economies of scale. Productivity improved, allowing fewer workers to produce more energy than in the past.

Wholesale trade mimics manufacturing

Employment in wholesale trade grew the slowest of all service-producing industries during the decade. Job growth in durable goods distribution only slightly outpaced that of nondurable goods and, when combined, resulted in sluggish employment growth in wholesale trade compared to the all-industry average. Like manufacturing, employment contracted during the year prior to the recession, and then lagged behind in the recovery. Wholesale trade did not fully recover until 1995.

The durable goods distribution industry, which accounts for approximately 60 percent of total employment in wholesale trade, responded dramatically to the changing business cycle. Losses were severe and recovery slow, but, once underway, expansion was rapid. In contrast, employment in nondurable goods distribution was not nearly as volatile and more closely mirrored overall industry employment trends.

Professional and commercial equipment (SIC 504) accounted for close to 40 percent of employment growth in durable goods and was affected much more mildly during the recession. This industry was largely influenced by the computers, peripherals, and software industry. During the first half of the decade, the average annual rate of job growth in the computer industry remained flat, but rebounded and managed to grow at an 8-percent average annual rate for the rest of the decade. The integration of the personal computer into the daily routine of more and more U.S. households increased consumer demand and, therefore, employment.[32] According to the Bureau of the Census, the percent of households that owned a computer more than doubled to 36.6 percent between 1989 and 1997.[33]

Retail trade sells itself short

Employment changes in the retail trade industry were highly sensitive to shifting trends in demographics, buying power, and fashion. More disposable income in the 1990s helped retail sales expand by 70 percent. Strong sales were not reflected in strong job growth in retail trade, and employment in the industry grew slower than that of the total private economy.[34] Retail e-commerce sales in the fourth quarter of 1999 were less than one percent of total retail sales; thus, e-commerce cannot be blamed for this sluggish growth.[35]

A tight labor market plagued the Nation at the end of the decade and hampered employment growth in most retail industries. Employers desperate for workers devised new and innovative methods for hiring and retaining employees. Major retail chains started to recruit seasonal help earlier. Companies hosted parties and added extra incentives, such as bigger

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store discounts and increased wages.[36] Retail stores not only competed against each other for workers, but against higher paying industries as well.

Apparel and accessory stores—the only retail industry to lose workers during the decade—experienced widespread employment declines. The largest losses were in women's clothing stores. Declines in employment were caused by several different factors. Over-saturation of stores in the women's apparel market discouraged employment growth with chains going out of business or reducing the number of stores.[37] A key demographic group, 25-to 44-year-old women, spent less money on clothes for themselves and price-shopped more aggressively.[38]

While apparel stores were losing workers, employment in department stores continued to grow. Discount department stores benefited from the increasing number of price-conscious shoppers. Customers liked the convenience of one-stop shopping. According to some reports, discount department stores even became a fashionable place to shop for clothing.[39] Although department stores were one of the 20 industries adding the most jobs in the 1990s, their percentage increase was below the average growth rate for all industries.

Furniture and home furnishings stores added more than a quarter of a million jobs in the 1990s. This was due largely to radio, television and computer stores, which was one of the fastest growing industries overall. Increased use of personal computers and other high-tech appliances at home and in the workplace fueled job growth in radio, television, and computer stores.[40] Employment in this industry grew by 66.9 percent over the decade.

As households became more prosperous, they spent more money eating outside the home. Eating and drinking places' sales, in current dollars, increased by 60 percent during the decade.[41] Sales growth was reflected in employment, which grew faster than the all-industry average. Almost 1 out of every 2 jobs added in retail trade occurred in eating and drinking places.

Employment in grocery stores grew slower than total retail but they still added 270,000 jobs. These stores, forced to compete with nontraditional food retailers, underwent major renovations. Many local or regional businesses transformed into national food store chains through mergers and acquisitions. Larger retailers, using economies of scale, positioned themselves to compete against gas stations with convenience stores, drugstores selling groceries, and super centers, a combination discount department store and supermarket.[42]

Low interest rates, healthy economy drive finance

Finance, insurance, and real estate posted moderate employment gains during the 1990s. Economic changes late in the decade spurred growth in some of these industries. The lowest interest rates in 3 years generated a frenzy of activity and strong employment growth for mortgage bankers and brokers. Stock brokerages also added workers at a rapid pace as the number of households that owned stocks multiplied and strength in technology stocks resulted in a soaring market. Job losses in depository institutions partly offsets gains made

Table 4. The 20 industries gaining the most jobs during the 1989–99 period

[Numbers in thousands]

Rank	SIC code	Industry	Employment		Change	
			1989	1999	Level	Percent
1	736	Personnel supply services	1,454.5	3,600.7	2,146.2	147.6
2	58	Eating and drinking places	6,401.9	7,940.3	1,538.4	24.0
3		Local government education	5,875.4	7,272.0	1,396.6	23.8
4	737	Computer and data processing services	736.3	1,830.8	1,094.5	148.6
5		Local government, except education	4,733.8	5,534.3	800.5	16.9
6	738	Miscellaneous business services	1,197.5	1,820.7	623.2	52.0
7	801	Offices and clinics of medical doctors	1,267.9	1,876.6	608.7	48.0
8	806	Hospitals	3,438.5	3,982.4	543.9	15.8
9	799	Miscellaneous amusement and recreation services	697.7	1,240.5	542.8	77.8
10	874	Management and public relations services	570.0	1,035.5	465.5	81.7
11	805	Nursing and personal care facilities	1,355.7	1,784.5	428.8	31.6
12	808	Home health care services	243.7	635.6	391.9	160.8
13	836	Residential care services	422.7	775.4	352.7	83.4
14	421	Trucking and courier services, except air	1,260.6	1,610.5	349.9	27.8
15	832	Individual and family services	433.7	752.3	318.6	73.5
16	835	Child day care services	378.4	694.9	316.5	83.6
17	531	Department stores	2,116.3	2,430.8	314.5	14.9
18		State government education	1,668.1	1,968.1	300.0	18.0
19	822	Colleges and universities	1,000.6	1,286.3	285.7	28.6
20	541	Grocery stores	2,814.3	3,084.6	270.3	9.6

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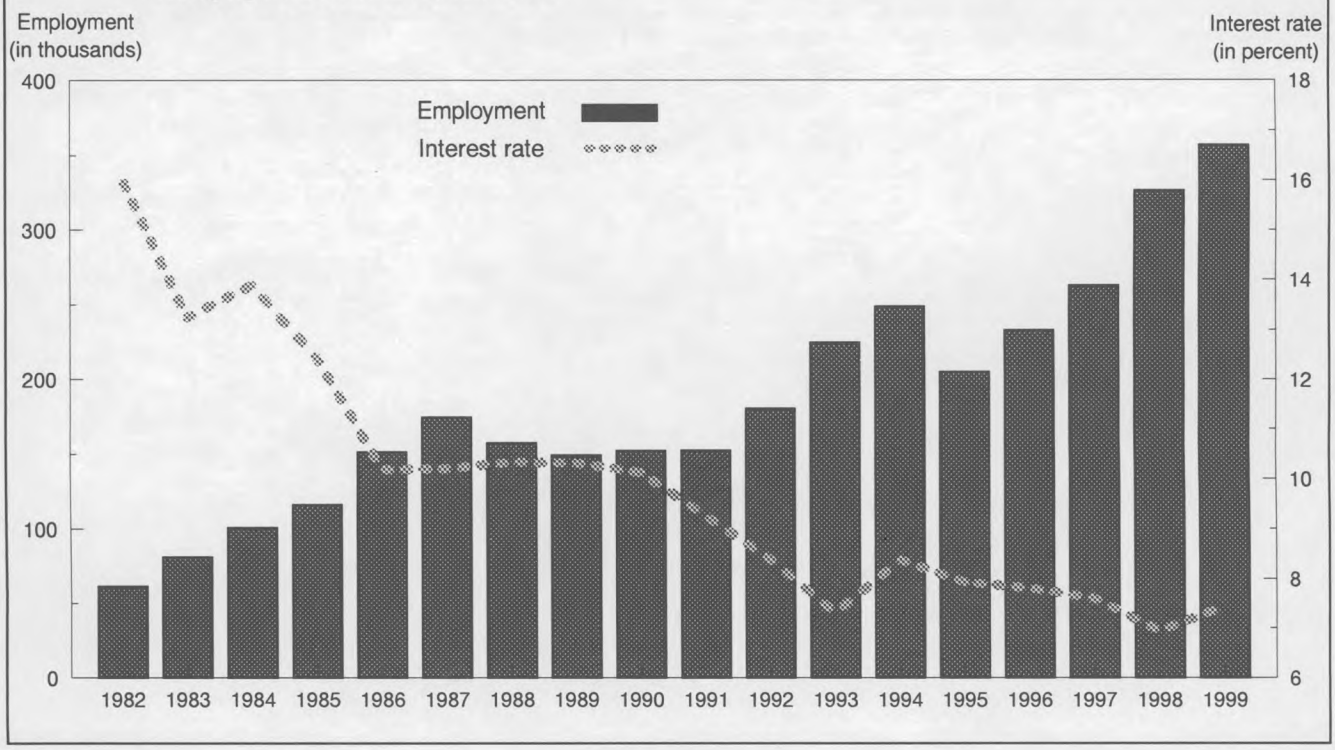
in these industries. Depository institutions lost 9.3 percent of their workforce. The vast majority of the contraction was in savings institutions, which shrank by almost half. In addition, traditional commercial banks dropped workers from their payrolls, but at a much slower rate than savings institutions. Depository institutions continued to adopt new technologies and business practices as they were faced with increased competition from other financial businesses. Banks increasingly relied on technology such as automated teller machines (ATM) and Internet banking to lower transaction costs.[43] According to the American Bankers Association, for example, an ATM transaction costs 75 percent less than one made through a traditional teller.[44] Finance industries continued to make their workforces more flexible by contracting for some of their labor, lower skilled workers in particular.[45] Bank failures and merger activity continued to mark the industry.[46] With all of these changes, commercial banks produced more output with fewer employees, and labor productivity increased close to 30 percent during the decade.[47]

Employment in nondepository institutions almost doubled as mortgage banks, credit-card issuers, and auto-financing companies grew in popularity as an alternative to traditional commercial banks. Looser restrictions on the fees companies can charge customers, a growing real estate market, and record levels of consumer spending and debt are a few explanations for rapid growth.[48] Particularly noteworthy is the fourth fastest-growing industry, mortgage bankers and brokers, which increased their labor force by 139.3 percent over the decade. (See chart 4.) Low mortgage rates and the red-hot housing market helped push loan originations for purchase and refinancing to a record level, $1.47 trillion, in 1998.[49]

The real estate market flourished under the low interest rates and expanding economy. Households and businesses took advantage of favorable market conditions to buy and sell real estate. According to the National Association of Realtors, potential buyers—who used the Internet during the latter part of the decade to research neighborhoods and view homes on virtual tours—were more likely to use a real estate agent.[50] As a result, employment in real estate agents and managers expanded by 189,600 jobs during the decade. Despite this rapid expansion, real estate operators and lessors experienced anemic job growth, while subdividers and developers failed to fully recover from the recession early in the decade.

With low interest rates and the corresponding mortgage refinance activity, consumers had more money to spend and continued to stimulate the economic expansion. In addition to buying commercial goods and services, consumers bought stocks and bonds. Close to 50 percent of households owned stocks, and Wall Street earned record profits.[51] Employment

Chart 4. Employment in the mortgage bankers and brokers industry versus 30-year fixed mortgage interest rate, 1982–99



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Table 5. Private production or nonsupervisory workers and average weekly hours

Industry	Production or nonsupervisory workers (percent of total private)			Average weekly hours		
	1989	1999	Change	1989	1999	Change
Total private	100.0	100.0	...	34.6	34.5	–.1
Goods-producing	24.3	20.4	–3.9	40.3	41.0	.7
Mining	.7	.5	–.2	43.0	43.8	.8
Construction	5.5	5.6	.1	37.9	39.1	1.2
Manufacturing	18.1	14.3	–3.8	41.0	41.7	.7
Service-producing	75.7	79.6	3.9	32.7	32.8	.1
Transportation and public utilities	6.4	6.4	.0	38.3	38.7	.4
Wholesale trade	6.8	6.2	–.6	38.0	38.3	.3
Retail trade	23.6	22.5	–1.1	28.9	29.0	.1
Finance, insurance, and real estate	6.6	6.2	–.4	35.8	36.2	.4
Services	32.2	38.3	6.1	32.6	32.6	.0

in securities and commodity brokerages grew by more than a quarter of a million jobs by the end of the decade. Security and commodity services, while accounting for slightly less than a quarter of total employment in security and commodity brokers, more than doubled its employment.

Services leads job growth

The services industry was the driving force behind job growth during the 1990s. Rapid technological transformation helped prolong the longest economic expansion on record and helped create a substantial number of employment opportunities in services. Of the 10 specific industries adding the most jobs during the decade, 7 were in services.

Business services: The Real McCoy. Employment in business services grew more than any other industry group during the decade. (See table 1.) Business services accounted for approximately a third of all job growth in the services division. Topping the list of most jobs added and third in growth rate, personnel supply services, which includes both traditional employment agencies and help supply firms (primarily temporary help agencies), accounted for half the strength in business services. Employment opportunities exploded in the help supply industry as more firms relied on temporary help as a way to manage labor more effectively. Businesses adopted the concept of "just-in-time labor," similar to just-in-time production which is common in the automobile industry. Labor supplied by the help supply industry enabled firms to quickly adjust their labor forces to stay competitive.[52]

Firms expanded demand for temporary workers, especially for more highly skilled ones. During the 1980s, firms typically used temporary workers for more repetitive clerical and menial-labor tasks. This practice transformed during the next decade as companies routinely purchased the services of highly skilled workers from temporary agencies to meet their diverse needs in areas such as financial services, health services, telecommunications, and information technology.[53] Skilled workers were added to payrolls, and training was offered to expand the skills of all workers in areas such as word processing and computer-based applications.[54] In addition to providing a wider range of workers, some help supply establishments began to take on the functions of traditional employment agencies, as client firms increasingly used temporary agencies to try out potential permanent employees. Some businesses even opted to have temp firms handle all of their staffing needs and provided on-site offices for a temporary agency.[55]

Computer and data processing services mimicked help supply in its demand for more highly skilled computer professionals. Even though employment growth remained strong during the decade, recession included, there were signs of slowing very late in the decade. Colleges and universities could not produce graduates with computer degrees fast enough, as firms scrambled to cure the Y2K bug and design chips and software for computers and other consumer products.[56]

Computer and data processing services added more than a million jobs during the decade. The computer market expanded during the 1990s as a response to the technological advancements made and the continual reduction of price. Parents began to purchase computers as educational tools for their children. Within computer and data processing services, employment grew especially in information retrieval services and the software industry.[57] Computer game software became more sophisticated with the evolution of the computer chip, and helped employment in the software industry grow.[58] More Americans increasingly integrated the Internet into their everyday routines, and as a result, employment blossomed in information retrieval services. Computer consulting services, which dominates the residual category, were greatly in de-

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mand during the decade.[59] Demand for consulting services expanded as businesses set up local area networks, developed websites, and rewrote programs for the new millennium.

Although engineering and management services grew at half the pace of business services, it outpaced the rate of total nonfarm employment growth by one and a half times. Engineering and management services added 800,000 jobs during the decade. Much of this strength can be attributed to the value added to most industry sectors by engineering and management personnel. The construction industry in particular benefited greatly from the engineering and architectural industry. Finance, insurance, and real estate businesses frequently relied upon management and public relation services to improve productivity.[60] Management and public relations accounted for more than half of all job growth in management and engineering services.

Huge gains arise from serving people. Health services, while growing less than half as fast as business services during the 1990s, still contributed more than 2.5 million jobs to nonfarm payrolls. The growth rate slowed from that of the previous decade. The growing popularity of HMOs and the implementation of the perspective payment plan by Congress led to decreased health care expenditures.[61] Not all health service industries experienced the slower growth phenomena. Home health care services grew the fastest of all the industries, and also made the list of the top 20 in terms of number of jobs gained. Several factors contributed to this above-average growth. First, medicare expanded benefits to make more people eligible for home health care coverage, the cost associated with care at home was relatively less costly compared to that at hospitals, and technological advancements provided people the option to receive medical treatment in the comfort of their own home.[62] Nevertheless, home health care also was affected by cutbacks in health expenditures, and ended the decade with employment 78,000 lower than its July 1997 peak.

Offices and clinics of medical doctors added jobs at a considerably slower rate than in the 1980s, but still faster than average for services. Offices and clinics of medical doctors ranked 7th in the number of jobs added. Hospital employment also increased by more than a half a million jobs, but the rate of growth in this huge industry was anemic. This, in part, is due to the decreased average length of stay and the restructuring of hospital staffs to reduce costs.[63]

Social services grew twice as rapidly as health services during the 1990s, increasing employment by 70 percent or more than a million employees. The growth was concentrated in three industries—residential care services, individual and family services, and child day care services. Each of these industries made the top-20 list for both the number of jobs gained and the growth rate. Job training, which benefited from the restructuring of the American workforce, also added jobs at a rapid pace. People needed skills that did not exist 10 years ago as a result of the rapidly changing technology.

In a lighter vein, two industries that serve up entertainment—motion picture services and amusement and recreation services experienced strong rates of job growth during the 1990s. The strong U.S. economy enabled these industries to prosper throughout the majority of the decade. As disposable income continued to increase, the public devoted more time and money to these luxury items.

Government employment growth slows

Taken together, the pace of job growth in Federal, State, and local governments fell short of that in the private sector. The Federal government reduced its workforce while State and

Table 6. Average hourly earnings in current and constant dollars, 1989–99

Industry	Current dollars		Change		Constant dollars		Change	
	1989	1999	Level	Percent	1989	1999	Level	Percent
Total private	$ 9.66	$13.24	$3.58	37.1	$7.64	$7.86	0.22	2.9
Goods-producing	11.22	14.84	3.62	32.3	8.87	8.81	–.06	–.7
Mining	13.26	17.09	3.83	28.9	10.48	10.15	–.33	-3.1
Construction	13.54	17.18	3.64	26.9	10.70	10.20	–.50	–4.7
Manufacturing	10.48	13.91	3.43	32.7	8.28	8.26	–.02	–.2
Service-producing	9.04	12.73	3.69	40.8	7.15	7.56	.41	5.7
Transportation and public utilities	12.57	15.69	3.12	24.8	9.94	9.32	–.62	–6.2
Wholesale trade	10.39	14.58	4.19	40.3	8.21	8.66	.45	5.5
Retail trade	6.53	9.08	2.55	39.1	5.16	5.39	.23	4.5
Finance, insurance, and real estate	9.53	14.62	5.09	53.4	7.53	8.68	1.15	15.3
Services	9.38	13.36	3.98	42.4	7.42	7.93	.51	6.9

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local governments added workers. The Federal government lost more workers than any other industry except the apparel and other textile products industry. The U.S. Postal Service, part of the Federal government employment counts, added less than a quarter of the number of jobs added during the previous decade. Changes in the rest of the Federal government were even more dramatic: Employment peaked in 1992 and then began a descent that did not abate until the Census Bureau began hiring temporary workers late in the decade.[64] (See chart 5.) Excluding the Postal Service and temporary Census workers, Federal employment fell to levels not observed since 1965. The U.S. Department of Defense suffered the greatest losses —333,000 civilian workers.

While job losses occurred in the Federal government, State and local governments added employees. The increase in State workers, however, fell short of the number added during the 1980s. In contrast, local government added more than twice as many workers compared to the previous decade, with the noneducation agencies adding about 4 times as many workers in the 1990s as in the 1980s.

As the following tabulation shows, both employment in local public education and public enrollment for grade K through 12 increased substantially during the 1990s.[65]

	1989	*1999*
Employment (in thousands)	5,875	7,272
Enrollment (in thousands)	40,543	47,244
Student-employee ratio	6.9 : 1	6.5 : 1

Employment grew faster, however, and the student-to-employee ratio fell. Although the number of all education employees grew more rapidly, teacher shortages were reported during much of the decade and suppressed potential employment growth.[66]

Hours and earnings

Production workers in the goods-producing sector and nonsupervisory workers in the private service-producing sector earned more per week at the end of the decade, even after adjusting for price increases. Although these workers toiled fewer hours per week on average, their average hourly rate of pay increased 2.9 percent after deflation by the Consumer Price Index for Urban Wage Earners and Clerical Workers.

Services industry pulls down average weekly hours. The average workweek for production or nonsupervisory workers edged down 0.1 hour over the decade, a continued slowing in a long-term declining trend.[67] But there is more to the story than the small change indicates. Average weekly hours fluctuated by as much as two-tenths of an hour from one year to the next as industries adjusted their workforces to meet changes in demand and changes in production processes. (See chart 6.)

In 1989 and 1990, a shrinking of the average workweek in manufacturing signaled the coming recession. Hours in retail trade ticked down in 1990 as well, and by 1991, production workers in 7 of the 9 major industry divisions cut back on their average weekly hours. As the U.S. economy began to recover, hours rose. Especially large gains occurred in 1994 throughout most of the industry divisions, but were offset the following year. (See table 5.)

All major industry divisions showed at least a small increase in their average workweek during the 10-years ending in 1999 with the exception of services, which saw no change over the decade. Despite these increases, average weekly hours edged down for the typical, private-sector production or nonsupervisory worker. The answer to this enigma lies in the changing industry composition of employment and the difference in the average workweeks among industries.

In 1989, the goods-producing sector employed nearly a quarter of all production workers, and their average workweek stood at 40.3 hours. Ten years later, this sector's average weekly hours had risen but their share of production workers fell, particularly in the manufacturing industry. In fact, among all industry divisions, only the services industry experienced a significant increase in production or nonsupervisory workers as a percent of those in all nonfarm, private industries. Because services' average weekly hours were lower than those for all other industries, except retail trade, and because it was the only industry to gain a greater share of all production or nonsupervisory workers, services managed to lower the topside average slightly, even though its average workweek remained unchanged.

Earnings increases outpace inflation. While the average workweek decreased during the decade, the same cannot be said for earnings. average hourly earnings for production or nonsupervisory workers grew by 37.1 percent. (See table 6.) Earnings for the goods-producing sector and the transportation and public utilities industry division grew at slower rates than the rest of the industry divisions, while the finance, insurance, and real estate industry division had the fastest earnings growth.

Hourly earnings in finance industries expanded by more than 50 percent during the decade. Although more contracting of lower-skilled workers and rapidly improving technology helped boost the average hourly wage rate, the strong U.S. economy ignited earnings growth in several finance industries where workers rely heavily on commissions. Historically low interest rates spurred buying and refinance activity, especially for mortgage bankers and brokers. Positive wealth effects resulting from the healthy markets helped consumers decide to funnel more of their funds into the markets and

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Chart 5. Employment in Federal Government, except Postal Service, seasonally adjusted, 1965–2000

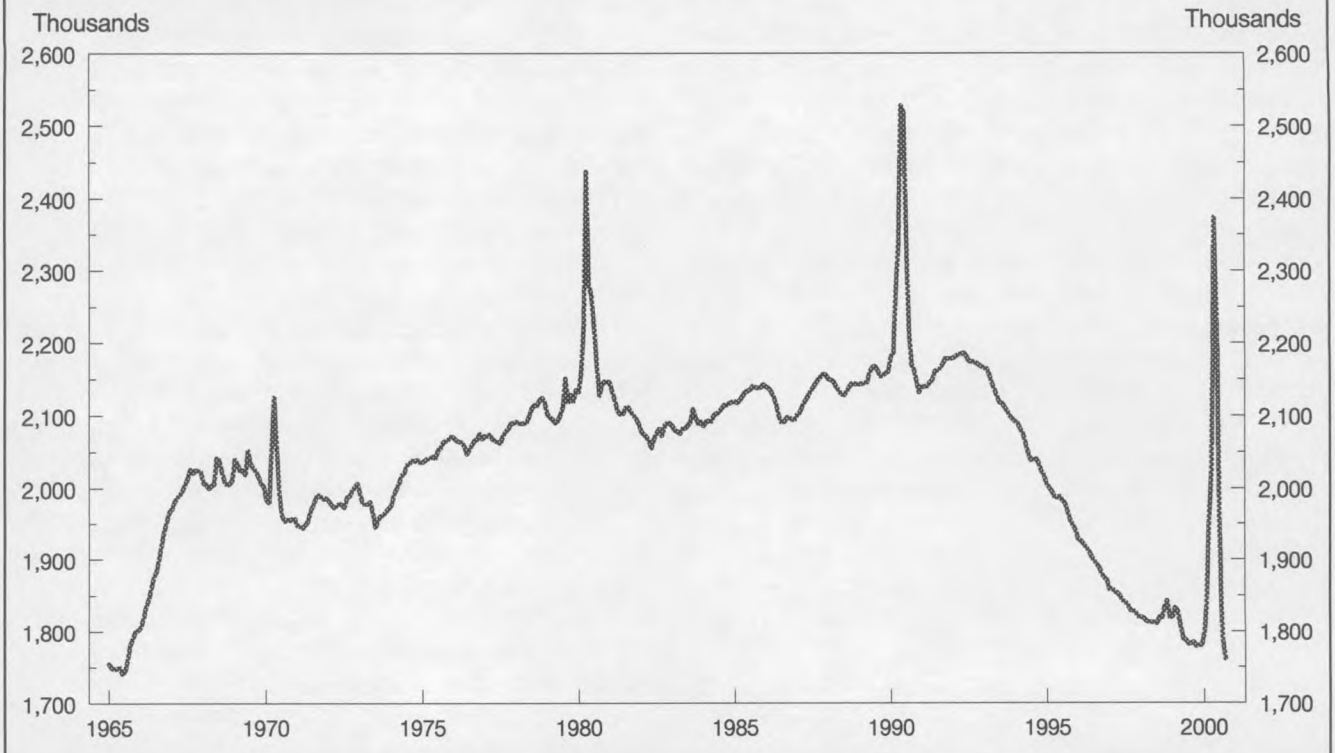
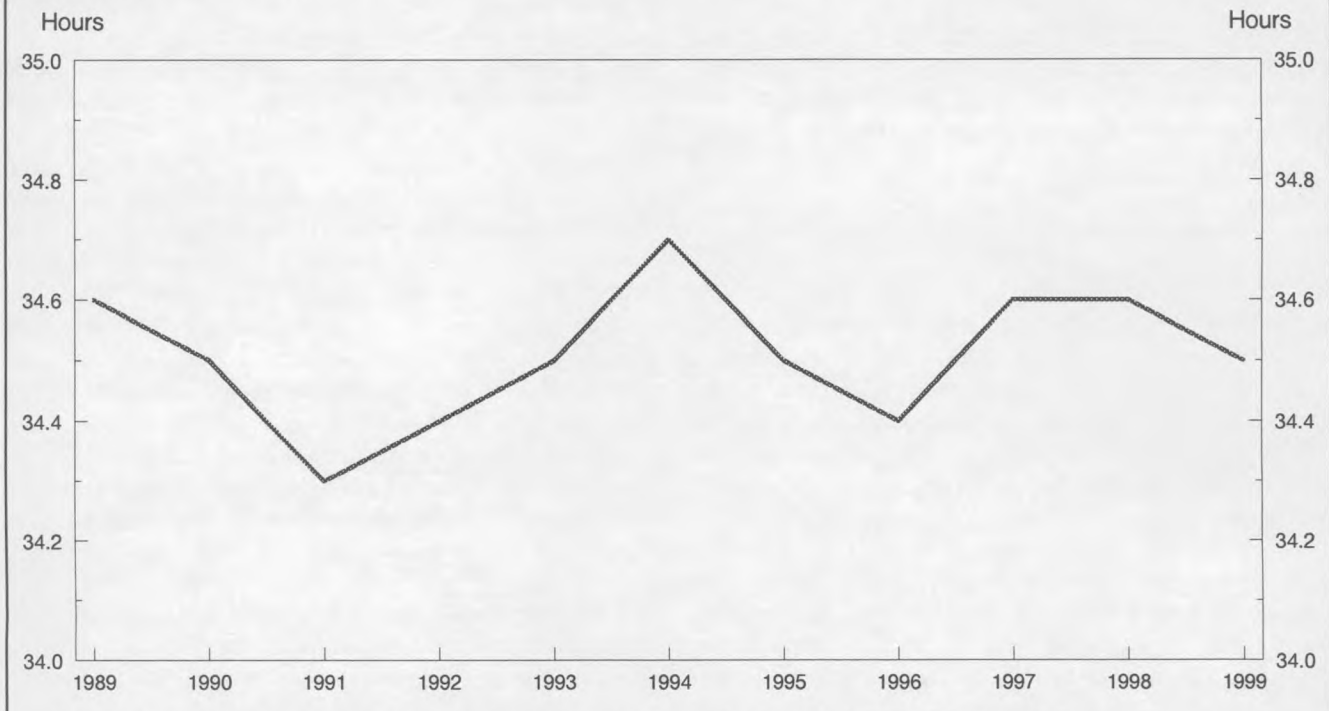


Chart 6. Average weekly hours of private sector production or nonsupervisory workers, 1989–99



NOTE: Data are annual averages of monthly estimates from the Current Employment Statistics (CES) program.

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insurance plans, which, in turn, helped boost earnings of security and commodity brokers and insurance carriers.

All of the service-producing industry divisions except transportation and public utilities had lower average hourly earnings than all of the goods-producing industry division, at the beginning of the decade. Because of the differential rates of earnings growth, By the end of the decade the average hourly earnings of nonsupervisory workers both in wholesale trade and in finance, insurance, and real estate surpassed that of manufacturing production workers. only workers in retail trade and services earned, on average, less than manufacturing production workers in 1999.

After adjusting for price changes, the average production or nonsupervisory workers in the private economy still enjoyed an increase in hourly earnings. However, there are sharp contrasts among industry divisions. Workers in all the service-producing industry divisions, with the exception of those in the transportation and public utilities industry, received inflation-adjusted or real increases in hourly earnings. however, real average hourly earnings in all the goods-producing industry divisions, and in transportation and public utilities lost ground by decade end. transportation and public utilities took the biggest hit, while manufacturing's real average hourly earnings were down only slightly. □

Notes

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[2] Data on employment, hours and earnings used in this article are from the Current Employment Statistics (CES) program, which surveys nearly 380,000 nonfarm employers monthly. For more information on the CES program's concepts and methodology, see *BLS Handbook of Methods*, Bulletin 2490 (Bureau of Labor Statistics, April 1997), chapter 2, pp. 15–31. These data are available on the Internet at **http://www.bls.gov/ceshome.htm.**

[3] Table 1 represents employment change from 1989 to 1999 for each industry group by two-digit SIC code. If most of the employment movement in an industry can be explained by changes in one of its component industries, then those three-digit industries may be discussed also. Tables 2, 3, and 4 display employment change at this more detailed level. Table 2 contains the 20 industries losing the most jobs, table 3 shows the 20 most rapidly growing industries, and table 4 reveals the 20 industries gaining the most.

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[17] This figure is computed using annual average data for 1993–98. Data are computed from 1993 through 1998 annual averages because that period captures the positive growth trend in electronic and other electrical equipment.

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'Second-chance' strategies for women who drop out of school

Young female dropouts may make several kinds of educational investments, all of which enhance earned income markedly; for the average woman, however, the increase in earnings is not enough to lift a family out of poverty

Kathryn Parker Boudett, Richard J. Murnane, and John B. Willett

In an economy that increasingly values skills, can a young woman without a high school diploma get a second chance? This article investigates four educational opportunities pursued by young women who drop out of high school. It begins with a discussion of the mechanisms through which these educational investments may affect earnings, and a brief review of relevant research. The article then documents the ways in which women who engage in educational activities differ from those who do not. Discussed next is the analytic strategy employed for distinguishing the effects of education and training on earnings from the effects of different preexisting characteristics on earnings. The article concludes with a presentation of the results of the study and a discussion of their significance.

Background

Four educational opportunities available to women without traditional high school diplomas. The most common educational activity pursued by women in the sample used in this study is obtaining the General Educational Development (GED) credential. The GED is awarded to those who receive passing scores on a battery of tests of writing, social studies, science, reading, and mathematics. For individuals who dropped out of school with relatively strong academic skills, passing this test may be a matter of minimal preparation and one sitting of the 7½-hour battery of exams. For others, passing the test is a goal achieved only after months or years of remedial work and GED preparation classes. Although the data that follow do not permit one to know how many hours individuals prepare for the exam, for the purposes of this article, obtaining a GED will be referred to as an "educational activity."

The second educational activity pursued by women in the sample may be termed "off-the-job training." It includes training offered by proprietary institutions (such as beauty schools and secretarial schools) and those programs provided by government agencies (such as the Job Corps, the Youth Conservation Corps, and programs funded under the Job Training Partnership Act).[1] The third type of activity is "on-the-job training," defined as training provided by an individual's employer. This category includes formal company training programs run by the employer, seminars or training programs at work conducted by someone other than the employer, and training programs outside of work that were sponsored by the employer.[2] The final educational alternative examined is college, which includes community

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college and, of limited relevance to the sample studied in this article, 4-year college.

Theories of how education could affect earnings. In theory, there are several ways in which participation in an educational activity could increase a woman's earned income. Human capital theory posits that a worker who increases her mastery of academic or technical skills needed in the workplace will raise her marginal productivity, thereby allowing her to command a higher wage.[3] For a woman who improves her reading and mathematics skills while preparing for the GED exams, or for an individual in a health care training program who gains substantive knowledge required in her field, human capital theory predicts that, other things being equal, she will earn higher wages after the certification or program than before.

An alternative theory is that education and credentialing programs offer individuals a chance to "signal" to employers that they possess desirable attributes.[4] For a dropout who has relatively strong reading and mathematics skills, obtaining the GED is one way to distinguish herself from other dropouts with lower academic skills. The GED might signal more than just academic skills: an employer may favor a GED holder in part because the dropout, in obtaining the credential, has signaled that she has "gotten her life together."

Finally, education could lead to improved labor market outcomes by raising a woman's expectations about what she can do and where she can do it. Even if a woman learns no new skills and earns no credentials valued by employers, participating in an educational program could bolster her confidence and expand her networking opportunities. For a woman who has lived with the "shame" of dropping out of school, participating in a training program or obtaining a GED could increase her self-esteem, leading to delayed childbirth and increased commitment to the labor market. For example, a woman who enrolls in secretarial school may make contacts with teachers and fellow students that might lead to employment opportunities she would not otherwise have considered.

Recent literature. In the wake of an influential paper by S. V. Cameron and J. J. Heckman which found that *male* GED holders were by no means the "equivalents" of traditional high school graduates,[5] several researchers have used national data sets to investigate the impact of GED certification on women's labor market outcomes. For example, employing data from the National Longitudinal Survey of Youth (NLSY), Cameron investigated cross sections of women observed at ages 25, 28, and 30.[6] He attributed about half of any differences he found in the wages of GED holders and dropouts to the fact that GED holders get more college and training than other dropouts; the rest he credited to the relatively stronger academic backgrounds of GED holders.[7] In a more recent paper, J. J. Heckman, J. Hsse, and Y. Rubinstein used NLSY data to show that the hourly wages of white women who obtain a GED do not differ significantly from those of other female dropouts with the same observable characteristics.[8] The paper did not investigate the impact of GED certification on hours worked or annual earnings.

In their cross-sectional analyses of the NLSY Mother and Children File and the Washington State Family Income Study, J. Cao, E. Stromsdorfer, and G. Weeks echoed Cameron's finding that all differences between average hourly wage rates of GED holders and other dropouts can be explained by GED holders having higher test scores and more years of formal education.[9] In contrast, using earnings data from the 1990 and 1991 High School and Beyond surveys, R. J. Murnane, J. B. Willett, and J. H. Tyler presented evidence that the impact of the GED on the earnings of women depends on their skill levels as 10th graders.[10] They found substantial impacts of GED certification on the annual earnings of women who left high school with relatively weak academic skills, but no impact of GED certification on the earnings of women who left school with stronger academic skills. Then, using a unique data set that merges Social Security income with GED test scores, these same authors found that the acquisition of a GED is associated with 10- to 19-percent increases in earnings for white female dropouts whose skills put them on the margin of passing the 1990 GED exams.[11]

Researchers who have studied the earnings impacts of social programs designed to increase GED certification have tended to find even stronger results.[12] J. M. Bos, for example, found that women who participated in an experimental program for school dropouts experienced monthly earnings gains of between 33 percent and 43 percent as a result of obtaining the GED.[13] D. Friedlander, P. K. Robins, and Bos reported impacts of a similar magnitude in their analysis of California's Greater Avenues to Independence (GAIN) program.[14]

Several studies report that on-the-job training, off-the-job training, and college improve labor market outcomes.[15] However, there appears to be a paucity of articles that examine the impact of these types of investments on labor market outcomes for female dropouts in particular.

This article contributes in two ways to the literature on the impact of education and training investments on the earnings of women who left high school without a diploma. First, the analysis takes advantage of longitudinal data to model the shape of the annual earnings profile over a period of more than 10 years after the women dropped out. This approach gives a more complete picture of how young women's earnings change in the years after dropping out than is possible in studies that examine the earnings of a particular year or earnings over a shorter period. Second, the analysis explicitly models the impact of the acquisition of a GED, off-the-job training, on-the-job training, and college on annual earnings. This strategy allows one to assess the extent to which the impact

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Table 1. Sample means in the full sample and in selected subgroups

Category	All dropouts	Women who dropped out of school and then—				
		Got no further education	Got a GED credential	Got any off-the-job training	Got any on-the-job training	Completed a year or more of college
Number	689	246	283	267	111	63
Percent of all dropouts[1]	100	36	41	39	16	9
Race or ethnicity:						
Black	.22	.22	.20	.28	.15	.16
Hispanic	.23	.23	.21	.26	.23	.27
Non-Hispanic white	.54	.55	.59	.46	.62	.57
Family background and skills:						
Mother's highest grade completed	9.35 (3.04)	8.64 (3.09)	10.04 (2.93)	9.39 (2.95)	10.30 (2.80)	10.14 (3.31)
Highest grade completed upon dropping out	9.13 (1.38)	8.81 (1.48)	9.34 (1.20)	9.23 (1.32)	9.23 (1.24)	9.33 (1.28)
Armed Forces Qualifications Test score	19.54 (17.37)	14.19 (14.17)	26.78 (18.55)	19.83 (18.47)	25.66 (19.43)	32.48 (19.74)
Family status:						
Ever married	.73	.72	.76	.67	.81	.79
Ever had children	.90	.90	.89	.91	.87	.92
Ever a teen parent	.54	.61	.51	.50	.46	.44
Labor market outcomes:						
Annual earnings, 1990 dollars (including zero earnings)	$4,725.33 (4,681.80)	$3,609.11 (4,223.65)	$5,838.16 (5,045.45)	$4,617.25 (4,142.84)	$7,824.61 (5,149.83)	$7,914.54 (6,672.66)
Probability of employment	.65	.57	.72	.66	.83	.78

[1] The percentages shown at the top of the last five columns do not sum to 100 percent because one-third of the sample participated in more than one type of educational activity.

NOTE: Standard deviations are shown in parentheses for continuous variables.

of attaining a GED on earnings comes through the mechanism of improving access to other education and training opportunities. The strategy also provides a relatively comprehensive treatment of the range of educational opportunities available to young women "in search of a second chance."

Research design

The sample. The data to be presented are drawn from the NLSY, a national survey of 12,686 young women and men sponsored by the Bureau of Labor Statistics. In 1979, the first year of data collection, information about a wide range of topics, including education, employment, and family status was collected for individuals ranging from 14 to 21 years of age. Extensive follow-up data were collected in each subsequent year. The sample used in this article consists of 689 women who dropped out of school before obtaining a high school diploma. The women are drawn from the random cross-sectional sample and supplemental oversamples of black, Hispanic, and economically disadvantaged white youths.[16] The goal of the analysis is to determine the impacts of various educational activities on the annual earnings of these women. To ensure that there is full information about each woman's employment history, the sample is limited to women who were aged 14 to 17 in the first year of the survey. The analysis uses data from the year after dropout through the 1994 survey. This gives a maximum of 16 years of information on each woman, although because many did not drop out until after 1979 and not all women were surveyed in all years, the average number of years of data per woman is approximately 12. (The appendix gives definitions of the variables used in the analysis.)

Who pursues education? The first column of table 1 presents descriptive information on the full sample of women who dropped out before completing high school. Twenty-two percent of the women were black, 23 percent Hispanic, and 54 percent non-Hispanic white. The typical woman in the sample dropped out of school after having completed ninth grade and has a mother who completed only slightly more education than herself. On average, the women in the sample scored 19.54 on the Armed Forces Qualifications Test (AFQT), a general measure of aptitude and trainability.[17] This score is roughly half of the mean AFQT score of women in the NLSY who have traditional high school diplomas. Approximately three-quarters of the women in the sample were married at some point during the survey, and 90 percent had at least one child. Fifty-four percent of the sample became parents as teenagers. Finally, the average annual earnings for all women in all years (including zero earnings for years in which women have no earnings) is $4,725 (in 1990 dollars), and the probability of a woman reporting earnings in any particular year is 65 percent.

Women participate in various human-capital-enhancing

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educational activities in different proportions, with the GED being the most common step taken. The second row of the table shows that only 36 percent of the women in the sample chose not to pursue some sort of further education. Forty-one percent obtained a GED during the period the sample was studied, 39 percent obtained off-the-job training, 16 percent obtained on-the-job training, and 9 percent completed a year or more of college.[18] (The percentages do not sum to 100, because approximately one-third of the sample participated in more than one type of educational activity.)

How do women who pursue these educational activities differ from women who do not? Women who obtain a GED, get on-the-job training, or attend college are more similar to each other than to women who get off-the-job training or no training at all. Women who participate in at least one of those three activities are more likely to be white, to have completed more school before dropping out, to have mothers who are more educated, and to have higher AFQT scores than other women. Women who participate are also more likely to marry and less likely to be teen parents than women who do not pursue further education. Finally, over all years of participation in the labor force, the women who obtain GED certification, participate in on-the-job training, or attend college have higher average annual earnings and a greater probability of employment. Among participants in the three activities, the women who go on to college start off with the highest skills and end up with the highest average annual earnings.

Women who participate in off-the-job training are also different from women who do not get further education, but along other dimensions. For one thing, off-the-job-training participants are more likely to be black. For another, although off-the-job training attracts women with somewhat stronger test scores than women who do not pursue education, the skills gap is much smaller than that observed with the other educational activities. Even when test scores for just black women with off-the-job training are compared with scores of black women with no further education, the small advantage the former have is not statistically significant. Off-the-job-training participants are less likely to have ever been married and less likely to have been teen parents than nonparticipants. Finally, differences in average annual earnings and in the probability of employment between off-the-job-training participants and women without further education are much smaller than between women who participated in the other educational activities and women who did not participate in any postdropout education.

When do women receive their education? Chart 1 shows the percentages of women who participate in the various human-capital-enhancing activities at each age. The upper left panel of the chart shows that, among those who obtain the GED, most do so while still quite young: the median age at which the sample receives the GED is 19, and the median number of years elapsed between the time the woman drops out and receipt of the GED is 3, with a small, but consistent, proportion of older dropouts obtaining the credential. The upper right panel of the chart shows that, as with the GED, women are most likely to pursue off-the-job training in the years immediately after they leave school. Unlike obtaining the GED, however, which is effectively a one-time event, participation in off-the-job training does not decline as rapidly with age. As will be shown later, this behavior may result from some women pursuing training over a period of years.

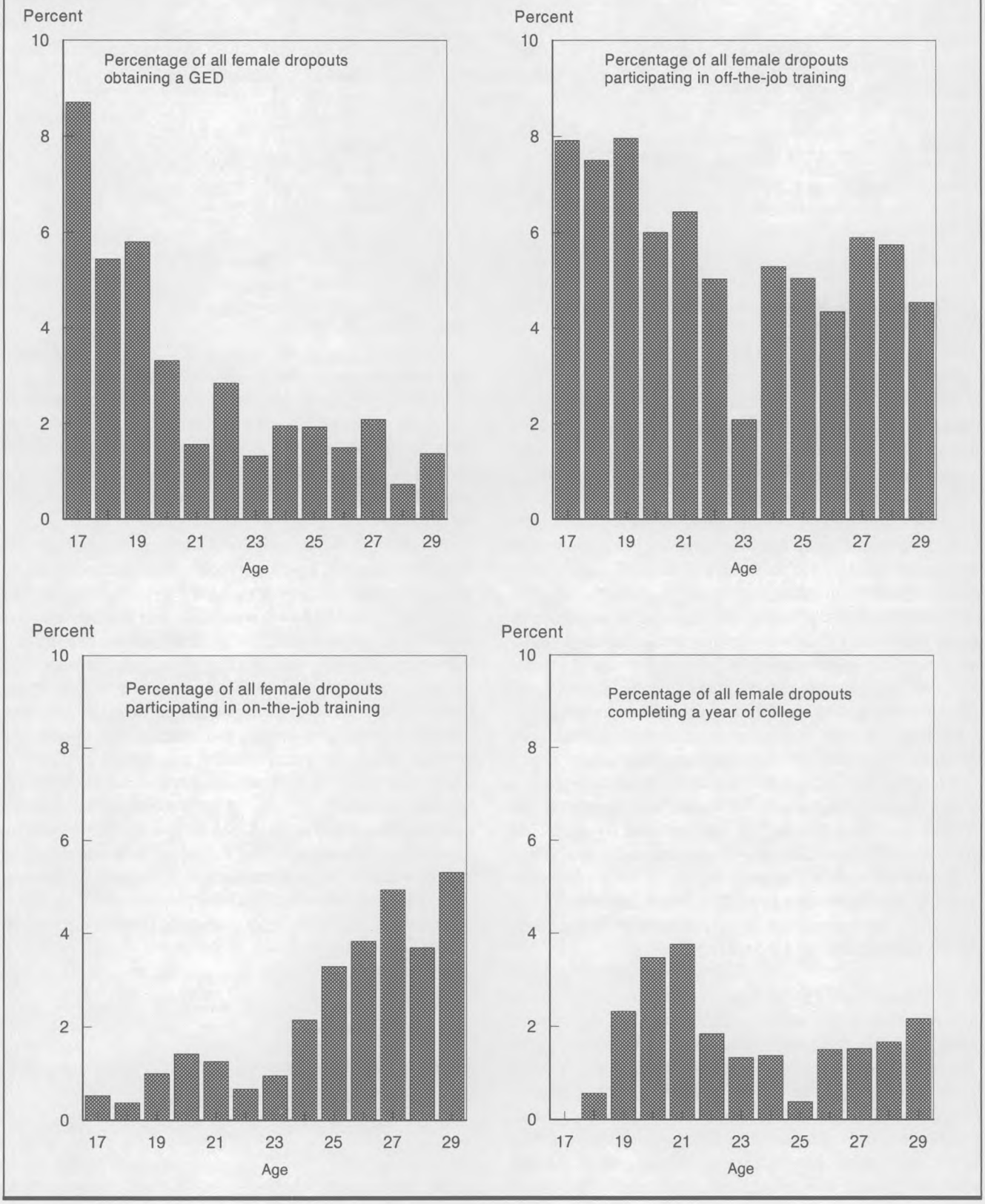
The lower left panel of the figure shows that participation in on-the-job training follows a pattern different from that of the other alternatives: chiefly, employers are more likely to provide training to older women. This finding is consistent with other research showing that youths take time to find "good" jobs.[19] Finally, the lower right panel of the chart shows that college participation peaks at age 21, although several women do report attending college in their late twenties.

How much education do women get? The NLSY does not contain data on the number of hours individuals spend preparing for the GED examination or enrolling in college courses. The survey does, however, allow estimates of the number of hours of training a woman accumulates over time and also permits tracking the number of years of college a woman completes. In other work, Murnane, Willett, and Boudett have shown that obtaining the GED and continuing one's education are by no means independent: women who obtain a GED are more likely to pursue training and college after receiving the credential than they otherwise would have been.[20] This makes sense, since GED certification may open doors to educational opportunities that are not available to dropouts who lack the credential. Many training and college degree programs require a high school diploma or GED certificate for admission, and the possession of a GED certificate satisfies the Federal requirement that a student demonstrate an "ability to benefit" in order to be eligible for Federal financial aid to pay for such programs. To illustrate the higher levels of participation in training among GED holders, table 2 shows the amounts of training and college received by women with and without the GED at ages 24 and 29.

The table shows that, as of age 24, 21 percent of women without a GED and 38 percent of eventual GED holders participated in off-the-job training. Five years later, both of these percentages were substantially higher, and the gap in training participation rates by GED status had shrunk somewhat. The median number of hours of training accumulated by women who did not obtain a GED during the sample period was 214 at age 24, a figure that rose to 230 at age 29. For eventual GED holders, median hours increased by 100 (from 428 to 528) between age 24 and age 29. In general, not only do

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Chart 1. Ages at which women make educational investments



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Table 2. Participation in training and attendance at college among women aged 24 and 29 and without a traditional high school diploma, by GED status

Type of activity	Women aged 24 years who—		Women aged 29 years who—	
	Lacked the GED	Received the GED	Lacked the GED	Received the GED
Number in sample	411	202	290	194
Off-the-job training:				
Percent with any training	21.17	38.12	35.52	46.39
Median hours for those with training	214.20	428.40	229.60	527.80
On-the-job training:				
Percent with any training	3.16	7.43	11.38	21.65
Median hours for those with training	86.80	138.60	37.80	77.00
College:				
Percent who completed a year or more of college, but received no degree	.00	11.39	.00	20.10
Percent with associate's degree	.00	.50	.00	3.10

NOTE: Sample sizes differ from those of table 1 because table 2 includes only people who were interviewed in their 24th or 29th year.

GED holders obtain more than twice as much off-the-job training as other dropouts, but their participation also becomes more intensive over time, a pattern not seen as strongly among women without the credential.

As with off-the-job training, GED holders are much more likely than other dropouts to obtain training provided by their employers. As shown in the lower left panel of chart 1, much of the participation occurs as women get older. Not so obvious from the figure is the shorter duration of training programs attended by older women: the median number of training hours falls as the participant moves from age 24 to age 29.[21] For both dropouts and eventual GED holders, the amount of time women spend in employer-provided training by age 29 is less than 100 hours, only a fraction of the time women spend in training programs not financed by employers.

With regard to college, the table shows that a large fraction of the relatively small number of women who complete a year or more of college do so in their late twenties. By age 29, the percentage of GED holders who have completed some college (but have not earned a degree) is 20 percent, a percentage twice as large as that at age 24. It is important to note, however, that only 3 percent of 29-year-old GED holders actually have completed at least a 2-year degree.[22]

Statistical analysis. Table 1 shows that women who pursue educational activities work more and earn more than women who do not. The table also shows that, for most of the activities examined, women who participate in further education have higher test scores and more educated parents than other female dropouts. Given these observed differences, it is reasonable to assume that women who choose to invest in their own human capital may differ from other women in unmeasured ways as well, such as in their motivation or their ability to learn new job skills. If the modeling strategy presented in these pages does not take those preexisting differences into account, it could attribute to human-capital investments earnings differences that would have occurred in the absence of further education.

Accordingly, the analysis that follows must investigate (1) how the earnings of a woman who pursues further training or credentials differ from *what she would have earned if she had not participated in education* and (2) the extent to which any impact of a GED on earnings is attributable to increased participation in college and training among GED holders. The multiple-regression model addresses the first issue by using up to 16 years of data on each woman to model the shape of her annual-earnings trajectory over time: before, during, and after her participation in educational and training activities. In addition, to control for all measured *and unmeasured* differences that do not change among women over time, the model employs the method of fixed effects, specifying a unique intercept for each woman. The second issue is addressed by including participation in training and college as predictors in the model, allowing the direct effect of GED certification and other training activities on earnings to be partitioned out. The regression model is therefore of the form

$$\begin{aligned}\text{AnnualEarnings}_{it} = {} & B_{0i} + B_1\text{YearsSinceDropout}_{it} + B_2\text{YearsSinceDropout}^2_{it} + \\ & B_3\text{Black x YearsSinceDropout}_{it} + B_4\text{Black x YearsSinceDropout}^2_{it} \\ & + B_5\text{YearsSinceGED}_{it} + B_6\text{YearsSinceGED}^2_{it} + B_7\text{UnemploymentRate}_{it} \\ & + B_8\text{CurrentOffJobTraining}_{it} + B_9\text{CumulativeOffJobTraining}_{it} + \\ & B_{10}\text{CurrentOnJobTraining}_{it} + B_{11}\text{CumulativeOnJobTraining}_{it} + \\ & B_{12}\text{CurrentCollege}_{it} + B_{13}\text{CumulativeCollege}_{it} + e_{it},\end{aligned}$$

where the subscript i indicates the individual and the sub-

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script *t* indicates the time at which the observation occurred. In fitting this model, the value of the outcome in years in which a woman reported no earnings is included as zero. This enables the model to capture the fact that some of the benefit of participating in human-capital-enhancing activities may lie in moving women from nonemployment to employment, not just in increasing earnings among women who would have worked anyway. The model allows the individual earnings trajectory to be curvilinear, with a slope and curvature that may change after receipt of the GED. Parameters B_1 and B_2 describe the growth in annual earnings of a woman who lacks the GED credential; B_3 and B_4 allow the rate of growth and curvature to be different for black women.[23] Parameters B_5 and B_6 permit the acquisition of the GED to affect the growth of earnings, leading to a difference in slope and curvature after receipt of the credential.[24]

The model equation for annual earnings also controls for the local unemployment rate in each period[25] and for a number of predictors describing a woman's participation in training and attendance at college. These predictors allow for training obtained in the current period to have an impact different from that of cumulative training obtained up until, but not including, the current period.[26] Attendance at college is measured as the number of years of college *completed*. To allow for some comparability between the impact of college and that of training, the training data, which are measured in hours, were converted to years. A year of training is defined to be equal to 1,120 hours, or 8 months of full-time (35 hours per week) training.

Results

Estimates of the impacts of education on earnings. The first fitted model in table 3 shows fixed-effects estimates of the effects of the predictors of annual earnings. The intercept estimate cited in this fitted model represents the average value of earnings when the values of all the predictors have been set to zero—that is, the predicted earnings immediately after dropping out for a white woman without any additional education or credentials and who lives in an area of average unemployment. In the year after such a woman leaves high school, she is predicted to earn $1,369. Her earnings in subsequent years are predicted to rise (at a decreasing rate), with negligible differences in the growth rates of black and white women. The model shows a positive and statistically significant impact of the GED on earnings growth. Estimates generated by the fitted model predict that, by the 7th year after obtaining her GED (the 10th year after the typical GED holder dropped out of school), the woman receives an earnings boost of $1,328. This earnings gain, which is statistically significant, represents a 25-percent increase over what the woman is predicted to have earned had she not obtained the credential.

It is interesting to compare this estimate of the impact of the GED *net of training and college* with the estimate derived from the second fitted model in the table, which does not control for participation in other educational activities. In the second model, the estimated total impact of the GED on earnings is $1,917. Comparing predicted values from the two models shows that two-thirds of the $1,917 increase is a direct impact of the GED, while the remaining one-third comes from an indirect impact of the GED on the likelihood that a woman would attend college or participate in training, each of which, in turn, affects earnings.

In addition to affording an estimate of the direct impact of the GED, model 1 provides estimates of the impacts of college and training. The fitted model shows that, during the years in which a woman participates in off-the-job training, she earns $2,143 less than she otherwise would have earned. During the years in which she is in college, she is predicted to forego $773. These findings are not surprising: students have less time available for work than nonstudents have. The estimates for the cumulative effects of training and college, though, tell the more important story: for each year of off-the-job training in which she participates, a woman is predicted to earn $1,239 more in all future years; and for each year of college she completes, the impact on her earnings is a gain of $1,153.

A year of on-the-job training is also associated with an increase of $3,939 in after-training earnings. It is problematic, however, to interpret this relationship as an estimate of the causal impact of on-the-job training. The reason is that the fitted model also predicts that a woman earns $11,351 more during the year in which she participates in full-time on-the-job training than she would otherwise have earned.[27] A woman who participates in on-the-job training could have higher earnings as a result of that training, or her employer could have offered the training as a result of promoting her to a higher paid position. Because the decision whether to offer training is made by the employer (and not by the individual, as it typically would be in the case of deciding to attend college or to participate in off-the-job training), it is not appropriate to infer from this estimate that on-the-job training *caused* the person's earnings to rise. Therefore, employer-provided training is included in the model mostly as a control.

Model 3 adds to model 1 predictors, indicating whether each woman is married or is caring for one or more of her own children during each survey year. Both of these family choices are associated with lower annual earnings. A married woman is predicted to earn $410 per year less than she would earn if she were unmarried; a mother is predicted to earn $2,690 per year less than she would earn if she were childless. Including family status controls in the model dampens, but does not eliminate, the impact of most educational activities on earnings; off-the-job training is the one exception to this pattern. Apparently, 5 percent to 15 percent of the impact of the other activities stems from the fact that women who participate in educational activities make family choices that are somewhat different from those of women who do not so participate. The remainder of the article focuses on estimates derived from

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Table 3. Coefficients and standard errors from fitted fixed-effects regression models predicting annual earnings in 1990 dollars[1]

Statistical quantity	Model 1	Model 2	Model 3
Intercept	[2] 1,369.431 (165.910)	[2] 1,328.608 (165.263)	[2] 2,176.022 (176.126)
Years since dropping out	[2] 549.769 (63.421)	[2] 569.755 (63.827)	[2] 830.386 (65.358)
Square of years since dropping out	[2] –15.787 (4.246)	[2] –15.876 (4.276)	[2] –26.270 (4.236)
Black:			
Years since dropping out	2.282 (104.543)	23.969 105.655)	–44.105 (104.963)
Square of years since dropping out	–7.873 (6.736)	–8.581 (6.827)	–7.400 (6.780)
Years since GED was awarded	[2] 339.239 (92.660)	[2] 441.764 (90.939)	[2] 299.131 (91.671)
Square of years since GED was awarded	[2] –21.358 (7.498)	[2] –23.978 (7.594)	[3] –17.120 (7.432)
Unemployment rate	[3] –62.355 (25.877)	[3] –59.166 (25.897)	–41.873 (25.434)
Current off-the-job training	[2] –1,889.783 (543.778)	—	[2] -2,142.607 (539.391)
Current on-the-job training	[2] 11,730.821 (1,821.580)	—	[2] 11,351.146 (1,862.210)
Current college	–772.774 (591.107)	—	–840.022 (582.744)
Cumulative off-the-job training	[2] 1,238.733 (337.049)	—	[2] 1,256.055 (334.063)
Cumulative on-the-job training	[2] 3,938.782 (1,198.660)	—	[2] 3,422.426 (1,208.770)
Cumulative college	[2] 1,152.871 (359.011)	—	[2] 1,062.139 (353.139)
Married	—	—	[3] -410.186 (168.370)
Parent	—	—	[2] –2,690.350 (194.404)
R_2	.517	.523	.538
Using above regession estimates:			
Predicted impact in year 7 after receiving GED	[2] $1,328	[2] $1,917	[2] $1,255
Predicted impact as a percent of predicted earnings, no GED	25	35	16

[1] $N = 689$.
[2] $p < 0.01$.
[3] $p < 0.05$.

NOTE: Standard deviations are shown in parentheses. Dash indicates predictor not included in model.

model 1, which does *not* control for family status, on the ground that it may be appropriate to attribute to educational activities earnings gains that result from more educated women making different family choices.

Table 3 illustrates the relationship between human-capital investments and earnings. However, it does not answer the question of whether increases in earnings stem from increased work effort or higher wages. It is to this question that we now turn.

Labor supply and wage impacts. Table 4 summarizes the results of multiple-regression models fitted with four different dependent variables: annual earnings, probability of employment, annual hours worked, and the natural logarithm of hourly wages. The annual-earnings estimates are derived from model 1 of table 3. (The output for the models with the other three dependent variables, which have specifications analogous to model 1, can be obtained from the first author upon request.[28])

Table 4 shows the predicted impact of human-capital investments on labor market outcomes 10 years after the individual has dropped out of high school, with the investment assumed to have occurred 3 years after the person dropped out. The first column summarizes impacts on earnings; the remaining columns provide insight into how these impacts came about. For example, the second column shows that, 10 years after dropping out of high school, a woman who obtained a GED the 3rd year after she dropped out is not significantly more likely to be employed than she would have been without the credential. The third column indicates the same with respect to the woman's likelihood of working longer hours. The last column shows the source of the impact of the GED on earnings: a woman who obtains a GED is predicted to earn an hourly wage 10 years after dropping out that is 6 percent higher than she would have earned in the absence of the credential.

For off-the-job training, the story is different: earnings impacts are driven by women *working* more, not *earning* more for each hour worked. The second row of the table reveals that a woman who obtains a year of off-the-job training 3 years after dropping out of high school is 13 percent more likely to be working in the 10th year after she dropped out than she otherwise would have been. Given that she works at all, a woman is predicted to work 212 hours more per year if

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she has obtained off-the-job training. The 2-percent increase in wages shown in the last column of the second row is not statistically significant.[29] For on-the-job training, the impact on annual earnings is associated with women both working more and earning higher hourly wages.

In the case of attending college, the effect of education on earnings is more difficult to estimate precisely, owing partly to the fact that so few women dropouts complete even a year of college. The last row of the table shows that attending college has a positive impact on a woman's probability of employment, annual hours worked, and hourly wage, but in no case is the impact statistically significant on its own.[30] Apparently, the impact of college on earnings is a result of the accumulation of a number of weaker effects.

Summary and implications

Summary of key findings. Chart 2 summarizes the main findings of the research presented in this article. The chart shows the predicted income profile for three women. A woman who obtains no postdropout education or training is represented by the solid line. A woman who obtains a GED 3 years after dropping out of school is represented by the bold line. Finally, the hatched line represents a woman who obtains both the GED and a year of off-the-job training 3 years after dropping out. (The impact of college is not shown in the chart, because it is so close in magnitude to that of off-the-job training; nor is the impact of on-the-job training pictured, because of the difficulty in interpretation described earlier.)

The chart illustrates two key points. First, there *are* steps a woman without a traditional high school diploma can take to increase her earnings. Ten years after dropping out of school, obtaining a GED in the 3rd year after dropping out is associated with an earnings gain of approximately 25 percent; a GED *and* a year of off-the-job training or college boosts income by nearly 50 percent. The logical next question becomes "Do these investments justify their costs?" Table 5 shows the present value of the predicted stream of increased earnings associated with off-the-job training and college for a range of assumptions about discount rates and the number of years a woman works after obtaining further education. If a woman works for 20 years after obtaining training, then, even at a discount rate of 10 percent, the present value of the stream of her additional earnings after training is worth more than $10,000. When we consider that the woman's forgone earnings during her year of training would amount to an estimated $2,143, it would appear that a training program costing a student less than $8,000 would be a decent investment *from the perspective of the student.* Whether there are positive net benefits *to society* as well would depend, of course, on the total social cost of providing the training opportunity.

The second, more sobering lesson from chart 2 is that it is important to keep the absolute size of the earnings gain in perspective. A woman who both obtains a GED and completes a year of training or college is still predicted to earn *less than $8,000* in the 10th year after dropping out of school. Although

Table 4. Summary of predicted impacts of human-capital investments on labor market outcomes 10 years after the woman has dropped out of high school

Type of educational activity	Impact on—			
	Annual earnings (1990 dollars)	Probability of employment	Annual hours worked	Natural logarithm of hourly wage
Number in sample	689	541	662	636
GED credential:				
Total effect	[1] 1,999	.03	[3] 102	[2] .07
Direct effect, net of training	[1] 1,328	–.01	53	[3] .06
One year of off-the-job training	[1] 1,239	[1] .13	[1] 212	.02
One year of on-the-job training	[1] 3,939	[3] .09	[3] 221	[2] .13
One year of college	[1] 1,153	.04	27	.02

[1] $p < 0.01$.
[2] $p < 0.05$.
[3] $p < 0.10$.

NOTE: The numbers in this table show the predicted change in each dependent variable associated with four educational activities. Labor market impacts are calculated 10 years after the individual has dropped out, and the educational activity is assumed to have occurred 3 years after the person dropped out (the median number of years elapsed between dropping out and the attainment of the GED for this sample). All estimates are derived from the fixed-effects specification given in the model equation in the text. For annual earnings, the output of the regression is reported in table 3; the output for the other dependent variables is available from the first author upon request. The annual-earnings model and the probability-of-employment model were fitted with the outcome set to zero for years in which a woman did not work; the number of annual hours worked and the natural logarithm of hourly wages were estimated *excluding* observations of zero hours or wages. The sample size for the probability of employment, which was estimated with the use of a conditional logit, is smaller than the full sample of 689 women, because estimates can be identified only by using women with some variation in the employment variable.

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Chart 2. Annual-earnings profiles of female dropouts

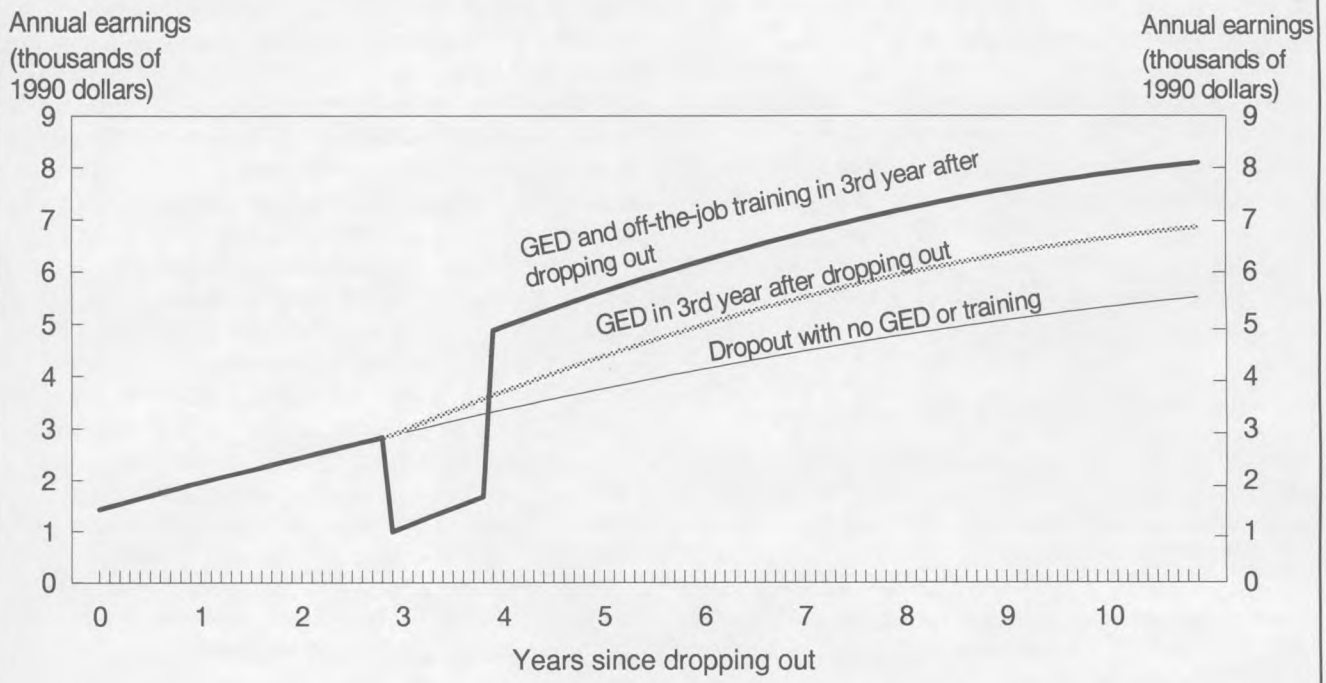


Table 5. Present discounted value of additional earnings generated by 1 year of off-the-job training or college

Educational investment	Predicted opportunity cost to student	Total cost of program to student and society	Benefit to student for following number of years after training:				
			1	5	10	20	30
Off-the-job training							
Discount rate (percent):							
10	$2,143	varies	$1,256	$4,761	$7,718	$10,693	$11,840
5	2,143	varies	1,256	5,438	9,698	15,653	19,308
3	2,143	varies	1,256	5,752	10,714	18,686	24,618
College							
Discount rate (percent):							
10	773	varies	1,153	4,371	7,085	9,816	10,869
5	773	varies	1,153	4,992	8,903	14,369	17,724
3	773	varies	1,153	5,280	9,835	17,154	22,599

NOTE: This table uses estimates of current costs and of annual benefits of training and college given in model 1 of table 3. To determine whether education has a *net* present value, one should compare the total cost (incuding the predicted opportunity cost to the student and the cost of the program to the student and society) with the predicted benefits for a particular combination of assumptions about the discount rate and the number of years that a woman will work.

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this amount may be impressive compared with that earned by a woman who does not pursue further education, it is still only 87 percent of the poverty line for a family of two in 1994.[31] By the 10th year after dropping out, most women are parents, but less than half are still married. For the average woman, then, obtaining a GED, with or without further education, does not bring economic independence.

Implications for research. This article has shown that the impact of a GED on a woman's earnings, while initially modest, grows over time. It is therefore important that researchers evaluating the effectiveness of GED programs allow several years to measure the impact of those programs. For example, as currently written, guidelines for assessing the impact of adult education programs in response to the Workforce Investment Act of 1998 suggest measuring employment outcomes within 1 year of completion of an adult education program.[32] By contrast, the analysis presented herein suggests that a longer time horizon may be needed to capture meaningful impacts. In any case, that same analysis affords a message to young dropouts, namely, that many women who obtain a GED—but especially those who use the credential as a stepping-stone to training or college—have opened the door to a second chance at economic opportunity. □

Notes

ACKNOWLEDGMENT: Kathryn Parker Boudett gratefully acknowledges the Spencer Foundation for financial support for this research through the foundation's Dissertation and Post-Doctoral Fellowship programs. All the authors thank the National Center for the Study of Adult Learning and Literacy and the Rockefeller, Russell Sage, and Smith Richardson Foundations for supporting the research on which this article is based. The data presented, the statements made, and the views expressed are solely the responsibility of the authors.

Work supported by the National Center for the Study of Adult Learning and Literacy was done so under the Educational Research and Development Centers Program, Award Number R309B60002, as administered by the Office of Educational Research and Improvement of the National Institute on Postsecondary Education, Libraries, and Lifelong Learning, U. S. Department of Education. The contents of the article do not necessarily represent the positions or policies of the National Institute on Postsecondary Education, Libraries, and Lifelong Learning, the Office of Educational Research and Improvement, the U. S. Department of Education, or the Federal Government.

[1] Types of training are summarized in this way because inconsistencies in the collection of data make it difficult to distinguish reliably between the various types of training in all survey years. For example, funding for the National Longitudinal Survey of Youth (NLSY) shifted in 1987 from the Employment and Training Administration to the Bureau of Labor Statistics, resulting in a decreased emphasis on distinguishing between government and other types of training. (See *NLSY User's Guide* (Columbus, OH, Ohio State University, Center for Human Resource Research, 1995), chapters 1.14, 1.35.)

[2] The learning of skills on the job as part of the experience of working, but not as part of a formal training program, is not deemed on-the-job training.

[3] G. S. Becker, *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education* (New York: National Bureau of Economic Research, 1964).

[4] M. Spence, "Job Market Signaling," *Quarterly Journal of Economics*, August 1973, pp. 355–74.

[5] S. V. Cameron and J. J. Heckman, "The Nonequivalence of High School Equivalents," *Journal of Labor Economics*, vol. 11, no. 1, pp. 1–47.

[6] S. V. Cameron, "Assessing High School Certification for Women Who Drop Out," paper presented at the annual meeting of the American Economics Association, Washington, DC, January 1995.

[7] Cameron also conducted a longitudinal analysis in which he included dummy variables indicating whether a particular wage observation pertained to an individual's pre-GED or post-GED period. When he averaged the wages earned during all periods before the individual obtained a GED and compared the figure with the average wages earned during all periods after the student received the GED, Cameron found that the difference was not statistically different from zero. However, when he broke down the pre- and post-GED periods more finely, Cameron found that the longer the interval after GED receipt, the larger was the wage gap. In fact, the difference between wages observed 5 or more years after attainment of the GED and wages observed before attainment of the GED was nearly 6 percent, a finding that is consistent with the estimates of the impact of the GED on wages 5 years after certification presented later in the article. Cameron found that he could not reject the hypothesis that, as a group, the coefficients on the post-GED attainment periods were different from those on the pre-GED attainment periods. This finding is consistent with the hypothesis that it takes several years for GED certification to affect wages.

[8] J. J. Heckman, J. Hsse, and Y. Rubinstein, "The GED is a 'Mixed Signal': The Effect of Cognitive and Non-cognitive Skills on Human Capital and Labor Market Outcomes," paper presented at the National Bureau of Economic Research Summer Labor Economics Workshop, Cambridge, MA, July 2000.

[9] J. Cao, E. Stromsdorfer, and G. Weeks, "The Human Capital Effect of General Education Development Certificates on Low Income Women," *Journal of Human Resources*, vol. 31, no. 1, 1996, pp. 206–28.

[10] R. J. Murnane, J. B. Willett, and J. H. Tyler, "Who Benefits from Obtaining a GED? Evidence from High School and Beyond," *Review of Economics and Statistics*, February 2000, pp. 23–37.

[11] J. H. Tyler, R. J. Murnane, and J. B. Willett, "Estimating the Labor Market Signaling Value of the GED," *Quarterly Journal of Economics*, May 2000, pp. 431–68.

[12] For two reasons, analyses of formal adult education programs might be more likely than analyses of national data sets to find a positive impact of the attainment of a GED on earnings. First, in preparing students to take the exam, formal programs may actually help participants improve their human capital; national surveys include GED holders who took the exam with little preparation. Second, evaluations of programs tend to model the impact of GED certification on labor market outcomes as occurring over time, with a period of years

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allowed for follow-up. This is not the case in some studies based on national data sets.

[13] J. M. Bos, *The Labor Market Value of Remedial Education: Evidence from Time Series Data on an Experimental Program for School Dropouts*, Ph.D. dissertation, New York University, 1995.

[14] D. Friedlander, P. K. Robins, and J. M. Bos, *The Labor Market Value of GED Attainment and Higher TALS Scores for AFDC Recipients in GAIN*, research paper supported by the U.S. Department of Education, New York, Manpower Demonstration Research Corporation, 1995.

[15] See R. B. Freeman, "Occupational Training in Proprietary Schools and in Technical Institutes," *Review of Economics and Statistics*," August 1974, pp. 310–18; T. J. Kane and C. E. Rouse, "Labor Market Returns to Two- and Four-Year College," *American Economic Review*, June 1995, pp. 600–14; and L. M. Lynch, "Private-Sector Training and the Income of Young Workers," *American Economic Review*, March 1992, pp. 299–312.

[16] Data in this analysis are not weighted, because weights generated for use on the full sample of 12,686 respondents would not necessarily be applicable to the selected sample of 689 female dropouts.

[17] In 1980, 94 percent of the original 1979 NLSY sample took the Armed Services Vocational Aptitude Battery (ASVAB), a series of multiple-choice tests. A composite score derived from four subsections of the test is used to construct the AFQT score. The scores used in this article are based on the 1989 calculation of the composite ASVAB score. (See *NLSY User's Guide*, p. 52.) All scores are corrected for age on the basis of the full NLSY sample.

[18] We thank Nachum Sicherman and Ann Bartel for sharing their code for calculating training in the NLSY. Training and college data are collected differently: training questions allow for a calculation of the number of hours of training obtained, whereas college questions tend to focus on the distinction between number of years of education *attended* versus number of years *completed.*

[19] See, for example, R. J. Murnane, J. B. Willett, and F. Levy, "The Growing Importance of Skills in Wage Determination," *Review of Economics and Statistics*, May 1995, pp. 251–66.

[20] R. J. Murnane, J. B. Willett, and K. P. Boudett, "Does Acquisition of a GED Lead to More Training, Post-Secondary Education and Military Service for School Dropouts?" *Industrial and Labor Relations Review*, October 1997, pp. 100–16.

[21] Only after 1987, however, did NLSY surveys begin asking respondents about training programs of less than 1 month's duration. This may explain the pattern of shorter training spells for older women.

[22] One of the criteria used in this article to accurately identify dropouts in the NLSY is that the individual not have attended college. Among the very small number of individuals who did not have a GED, but who did report having attended college, most appeared to be traditional high school graduates who had missing data on the question about whether they had a high school diploma or a GED credential. Because most colleges require a high school diploma or a GED certificate for admission, the restriction was imposed that women who reported college have one of these credentials.

[23] Hypothesis tests indicated that interactions allowing the earnings growth trajectory to be different for Hispanic women were not needed in any of the models used.

[24] Many alternative specifications for the effect of attaining a GED on earnings were explored; the model presented here was found to be the best. There was no evidence either of a temporary dip in earnings immediately preceding the acquisition of the GED (a possibility discussed in O. Ashenfelter, "Estimating the Effect of Training Programs on Income," *Review of Economics and Statistics*, February 1978, pp. 47–57) or of a difference in the impact of the GED on the earnings of women with different initial AFQT scores. The possibility that women with different skill levels would be affected differentially by their acquisition of a GED was explored; no statistically significant pattern was found. This result differs from that obtained with a similar model applied to men: wages of men whose initial skill levels were weakest were affected the most by their acquisition of the GED. (See Murnane, Willett, and Boudett, "Do Male Dropouts Benefit from Obtaining a GED, Postsecondary Education, and Training?" *Evaluation Review*, October 1999, pp. 475–502.) The result is also different from what Tyler, Murnane, and Willett ("Labor Market Signaling Value of the GED") found regarding women in the High School and Beyond database.

In addition, all of the models examined were refitted with a random-effects specification. The fixed-effects specifications tended to produce larger impacts from GED and training, but smaller impacts from college, than the random-effects specifications generated. The fixed-effects results are emphasized because a Hausman test indicated that the random-effects specification is not justified. Results from these alternative specifications are available from the first author upon request.

[25] To make interpreting the regression table and figures easier, the unemployment rate is centered so that it is equal to the actual rate minus 7.78, the average local unemployment rate in the sample.

[26] Participating in training and attending college are modeled differently from obtaining a GED. Because obtaining a GED is a one-time event, it is possible to model earnings after receipt of the GED as a smooth quadratic function. By contrast, participating in training and attending college can occur in multiple bursts of unequal length and duration, making a quadratic function inappropriate for those predictors.

[27] Very few women, however, report completing a full year of on-the-job training during any given year. Among women with positive values for CurrentOnJobTraining, the median number of hours of training received was 3 percent of a year (34 hours). This figure corresponds to an earnings boost of $11,731 x 0.03 = $352 during the year of training.

[28] Notice that the sample sizes differ for each dependent variable. The annual-earnings analysis is based on the full sample of 689 women and includes years in which a woman reported zero earnings. The probability-of-employment analysis, which is estimated by using a conditional logit function (following G. Chamberlain, "Analysis of Covariance with Qualitative Data," *Review of Economic Studies*, January 1980, pp. 225–38), is based on a subsample of the full sample of 689 women for technical reasons. (The conditional logit analysis removes person-specific heterogeneity by conditioning on the number of times that the dependent variable equals unity for each individual. Because the model is identified only for individuals with variation in the dependent variable, to estimate the probability of employment using a fixed-effects strategy, 148 women (21 percent of the sample) who worked in none or all of the observed periods must be dropped from the sample.) Finally, the annual-hours-worked and "log"-hourly-wage analyses include only observations whose outcomes are nonzero; women who report zero values of the outcome in all periods are dropped from the sample.

[29] Using data only through the 1983 NLSY survey, Lynch was able to isolate off-the-job training programs that were not provided by a government agency. Lynch's analysis found that training in such programs was associated with higher hourly wages for individuals without high school diplomas. During the early 1990s, the Federal Government closed approximately 1,000 proprietary schools that had made fraudulent use of student financial aid programs. It is possible that the economic payoff to students of the remaining 3,000 or so proprietary schools is higher than the estimate presented in the current article, which is based on data from the 1980s. (See Lynch, "Private-Sector Training.")

[30] One reason the estimate presented here of the impact of a year of college on wages is not as large as that of other researchers (see, for example, Kane and Rouse, "Labor Market Returns," who found the impact of attending college on wages to be 5 percent) could be that the

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sample studied was a particularly disadvantaged group of women who may not have had access to the highest-quality college programs.

[31] *Statistical Abstract of the United States* (U.S. Bureau of the Census, 1999), table 762 (using a 1990 threshold, because all earnings mentioned in this article are reported in constant 1990 dollars).

[32] See *Measures and Methods for the National Reporting System for Adult Education: Implementation Guidelines* (U.S. Department of Education, June 2000).

APPENDIX: Definitions of variables used in the analysis

Variable	*Definition*
AnnualEarnings	The product of AnnualHoursWorked and HourlyWage. If either hours or wages are missing, AnnualIncome is set to zero. Income greater than $50,000 is set to Missing.
Employed	Equals 1 if woman worked for pay during survey year, 0 otherwise.
AnnualHoursWorked	Number of hours worked in previous year. If survey period covers more or less than 1 year, data are prorated. Top coded at 3,000.
LogHourlyWage	Natural logarithm of the hourly rate of pay at the respondent's current or most recent job. Wages less than 2 or greater than 75 dollars per hour are set to Missing.
YearsSinceDropout	Number of years that have elapsed between year of dropout and time of survey.
YearsSinceGED	Number of years that have elapsed between year of GED and time of survey.
UnemploymentRate	Local unemployment rate for year of survey, transformed so that the average rate for the sample (7.78%) is centered on zero. Missing values are set to the average rate.
Black	Equals 1 if woman is black, 0 otherwise.
Hispanic	Equals 1 if woman is Hispanic, 0 otherwise.
GradeAtDropout	Highest grade of school completed before dropping out.
Mother'sEducation	Number of years of education completed by dropout's mother.
AFQTScore	AFQT score, using 1989 calculation, corrected for age. When missing, this variable is imputed using subject's race and mother's education.
CurrentCollege	Equals 1 if woman is attending college this period, 0 otherwise.
CumulativeCollege	Number of years of college the woman completed up until, but not including, the current period.
CurrentOnJobTraining	Amount of on-the-job training received this period, measured in years, where 1 year equals 8 months of 140 hours of training.
CumulativeOnJobTraining	Number of years of on-the-job training received up until, but not including, current year.
CurrentOffJobTraining	Amount of off-the-job training received this period, measured in years, where 1 year equals 8 months of 140 hours of training.
CumulativeOffJobTraining	Number of years of off-the-job training received up until, but not including, current year.
Married	Equals 1 if woman is married and living with her husband in the current period, 0 otherwise.
Parent	Equals 1 if woman is caring for one or more of her own children during the current period, 0 otherwise.

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Troubled passage: the labor movement and the Fair Labor Standards Act

Historical events show that oppositions within the labor movement had prolonged passage of legislation relating to minimum wages and maximum hours, contained in the Fair Labor Standards Act of 1938

Howard D. Samuel

For most observers, the issue of statutory labor standards is inalterably linked to the labor movement. And indeed it has been, starting early in the 19th Century when the earliest efforts to enact maximum hours legislation took place at the State level, to the year 2000, when raising the minimum wage was once again on the Congressional agenda. Organized labor has played a significant role in supporting the improvement of labor standards for all of this century and a half—with one exception—minimum wages for male workers imposed and enforced by the Federal Government. Starting in 1937, when wage and hour legislation was proposed to apply to all workers—not just women and minors or workers in nonunion companies—and when it was proposed that a Federal agency be created to enforce standards—despite the unwavering support of President Roosevelt, and the dedicated efforts of some labor leaders on behalf of the bill, some elements of the labor movement actively fought the bill, while others held the measure hostage to their specific demands. Labor opponents were not alone, of course. The business community was largely opposed to it, and Southern Democrats often were linked with Republicans in their opposition.

Despite the opposition, however, eventually the Fair Labor Standards Act did pass, and President Roosevelt commented, a few days after he signed it on June 28, 1938, that "I do think that next to the Social Security Act it is the most important Act that has been passed in the last two to three years."[1] But it took three sessions of Congress and a monumental effort by the bill's supporters to get it passed, in no small reason, because of the divisions within the labor movement—which this article explores.

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The early years

For almost a century, prior to passage of the Fair Labor Standards Act, there had been efforts at the State level to enact restrictions on the hours of work—particularly for women and children. The demand for shorter hours was largely a consequence of economic changes—including cyclical unemployment—as the Nation gradually moved from an agrarian to an industrial society.

By 1840, most skilled trades had won the 10-hour day in eastern cities and towns. In addition, the National Trades Union—a short-lived coalition of skilled trades unions—persuaded President Van Buren to issue an executive order establishing a 10-hour day on Government work. During the next 20 years, a number of States mandated 10-hour days for all workers—although enforcement was weak.

After the Civil War, labor turned its attention to winning the 8-hour day, which became a principal goal of the new National Labor Union, headed by William H. Sylvis.

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Its slogan was "Whether you work by the piece or work by the day, decreasing the hours increases the pay."[2] The pressure paid off when Congress passed a law in 1868, enacting an 8-hour day for Federal Government employees, and similar laws were passed in a number of States, most, however, with inadequate provision for effective enforcement. But meanwhile, an increasing number of States were passing more muscular laws limiting hours for women and children.

The 8-hour day was a major goal of the newly formed American Federation of Labor (AFL) in 1886, under its president, Samuel Gompers. According to Gompers, "The answer to all opponents of shorter hours...so long as there is one man who seeks employment and cannot obtain it the hours of labor are too long."[3] However, Gompers was referring to the obligation of employers to accept the shorter hour's goal. Neither Gompers nor the AFL were ready to support legislation establishing labor standards, at least for the majority of union members, who were men. In 1913, Gompers was quoted as insisting that, "If it were proposed in this country to vest authority in any tribunal to fix by law wages for men, labor would protest by every means in its power."[4] At the 1914 AFL convention, delegates approved a resolution, by a 3–2 majority, opposing the shorter work-hours legislation, which was supported by Gompers. But the forces opposing any kind of legislation were beginning to lose support; the same resolution won passage at the 1915 convention by a bare majority.

At the same time, the logic behind approving legislative standards for women—but not for men—focused on the difficulty of organizing women and thus affording them the protection of collective bargaining, which was intended to insulate male workers from exploitation. Similarly, the AFL could endorse legislated standards for Government workers, because it "drew a distinction between Government as an employer and Government as a regulator of economic activity."[5]

Partly because of early labor opposition, laws regulating wages—for women and minors—came much later. In 1913, Massachusetts passed the first State minimum wage law for women, and by 1923, minimum wage laws for women had been enacted in 16 States. In addition, impelled by decisions of the National War Labor Board during 1917–18, the 8-hour day and a 40-cents hourly minimum wage had become accepted practice. Legislatively, in 1918, Congress passed a minimum wage law for women and minors in the District of Columbia.

In 1923, the regulatory process came to an abrupt halt when the Supreme Court in *Adkins v. Children's Hospital*—specifically in respect to the DC law—disallowed minimum wage laws on the basis that by interfering with the liberty of contract they violated the due process clause of the 5th Amendment. Minimum wage laws that were passed thereafter by a number of States were, in effect, advisory, allowing employers to establish their own standards.

The effort to legislate against child labor had a shorter history. Most of the action in the late 1800s and early 1900s was at the State level; by 1916, virtually every State had passed laws prohibiting child labor. Congress made two efforts to pass similar legislation on the Federal level, in 1916 and 1919, and both laws were overturned by the Supreme Court on constitutional grounds. So in 1924, Congress initiated a Constitutional amendment—which was promptly defeated in most of the States where ratification was attempted. But by the late 1920s, opinion had changed, and by 1937, 28 States—of the 38 needed—had ratified. The child labor provision in the Fair Labor Standards Act made the amendment process moot.

In the early 1930s, motivated by the disaster of the depression, William Green, who had been elected president of the AFL in 1924, reemphasized the importance of a shorter work week as a means of reducing unemployment. Born in Coshocton, Ohio, Green had become a member of the United Mine Workers and gradually won election to a position of leadership. Appointed a member of the Executive Council of the AFL in 1913, Green was elected to succeed Samuel Gompers as president on the latter's death. However, Green had little of Gompers' strength or leadership talents, and was obliged to spend much of his term in office trying to steer a course that would be acceptable to the warring presidents of his major affiliates, including those leaders who eventually left the AFL to form the Congress of Industrial Organizations (CIO).

William Green expressed his commitment to the shorter work week in a statement, published by the AFL in 1932, titled "The Five Day Week is Inevitable." "History shows," Green stated, "that ever since the beginning of the factory system work hours have continually been shortened while wages have increased." But the demand was directed at America's industrialists for a commitment to improve the factory system, not at Government for legislative action. The only Government action Green advocated was to legislate working standards for Federal contractors, which had been mandated in 1931 through the Davis Bacon Act. That same year, Green called for a national economic conference to enable "industry, labor and business ...to lower recurring periods of unemployment to an irreducible minimum."[6] There was no mention of a role for Government besides hosting the conference.

Enter the New Deal

The Great Depression and the election of Franklin D. Roosevelt as President pushed the issues revolving around unemployment, including maximum hours and minimum wages, to the fore. One of the earliest proponents of wage and hours legislation—and perhaps its staunchest supporter in the years ahead—was Sidney Hillman, the founding president of the Amalgamated Clothing Workers of America (ACWA). Born in Lithuania, and brought to this country in 1907, Hillman was elected president of the ACWA in 1914. Over

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the years, he had proved to be an innovative and resourceful leader. He became the founding spirit of labor's political action initiatives, and in the mid-1930s was a leader, along with John L. Lewis, in the creation of the CIO.

During the 1920s, Hillman demanded action to overcome the growing economic problems, but according to his biographer, "his was a lonely if not solitary voice, demanding national action on unemployment insurance, low-cost housing, public works, the five-day week and minimum wages."[7]

In 1932, after Roosevelt appointed Frances Perkins to be Secretary of Labor, Hillman sent her a memorandum proposing Government-enforced standards for wages and hours. The President was committed to labor standards—as New York's governor, he had promoted a State law—and under the National Industrial Recovery Act, the New Deal's first major attack on the depression, industries were encouraged to establish "codes of competition" which would include regulated hours and wages. In July 1933, President Roosevelt appealed to employers to agree voluntarily to adopt the 35-hour week and 8-hour day. But the National Labor Board established by the National Recovery Administration (NRA) failed to mandate maximum hours or minimum wages, and within 2 years, when more than 500 voluntary industrial codes were put into effect, most provided for a 40-hour week and minimum wage scales ranging from 12 cents to 70 cents an hour.

The AFL's official attitude toward wage and hour legislation was equivocal. In a statement on unemployment by William Green in January 1935, the AFL President said that "the cure proposed by the AFL is the adoption of a work week which will absorb the unemployed...." There was no mention of legislation to regulate wages, and a year later, in an article on labor's legislative objectives, Green approved the regulation of terms of employment for Government workers, but made no mention of similar protection for anyone else.[8] And at its 1935 convention, the AFL's legislative report also omitted any mention of a minimum wage law covering all workers.[9] In 1936, the AFL submitted labor proposals to both major political party conventions calling for "minimum wage legislation for women and children but not for men."[10]

At its 1937 convention, the Metal Trades and Building Trades Departments, embracing considerable AFL membership, submitted a resolution opposing the creation of a Government agency with power to replace collective bargaining. But it appeared that the AFL was no longer totally opposed to Federal standards. The convention agreed with the principle of "establishing a point below which wages could not be paid and hours of labor beyond which wage earners could not be employed." However, its unhappy experience with the NRA Labor Board and with the recently passed National Labor Relations Act led it to oppose the creation of a board or commission to enforce Federal standards.[11]

But old beliefs die hard. As Secretary Perkins later wrote, "many AFL officials privately expressed the traditional Gompers doctrine against minimum wages, repeating the old adage that 'the minimum tends to become the maximum.'"[12]

Meanwhile, whatever progress had been made through the NRA in establishing wage and hour standards was again derailed by the Supreme Court. In a unanimous decision in May 1935 (*Schechter Poultry Corp. v. U.S.*) the Court declared that the NRA unreasonably stretched the Federal Government's power to regulate interstate commerce, under Article 1, Section 8 of the Constitution, and had improperly delegated legislative authority to the executive branch in providing for Presidential approval of the codes. A year later, in dealing with the New York State law, the Supreme Court (*Morehead v. N.Y. ex rel Tipaldo*) ruled that neither the Federal Government nor the States could enact a general minimum wage law. At its 1936 convention, the AFL expressed concern about the Court's ruling, but commented that it was more concerned with the "power of the Supreme Court" than with the minimum wage decision itself.[13]

But by the 1936 presidential election, fair labor standards had become a major issue. Earlier that year, Congress had passed the Walsh Healey Public Contract Act, bolstering the Davis Bacon Law, and providing for an 8-hour day and a 40-hour week, with time-and-a-half for overtime, for Federal contractors. The Roosevelt Administration appealed for no changes in hours and wages established under the NRA codes. And early in 1937, President Roosevelt introduced his "court-packing" proposal, which was in large part a reaction to the Court's decisions on the NRA and State wage and hour laws.

The first session, 1937

Shortly after the demise of the NRA, Secretary Perkins informed President Roosevelt that she had already drafted a labor standards bill, with Sidney Hillman's help. In the meantime, a group of industrial unions under the leadership of John L. Lewis and Hillman were in the process of disassociating themselves from the AFL. Born in Iowa, Lewis became involved in union organizing, and in 1920, was elected president of the United Mineworkers, one of the largest and most powerful unions in the country. In 1935, he led the group of unions out of the AFL, because they were aiming to organize on an industrial basis—rather than on the traditional AFL craft basis. Three years later, after continuing warfare between the two groups, Lewis became president of the Congress of Industrial Organizations (CIO).

In mid-May 1937, the President met with AFL President Green, and a day later, with Sidney Hillman and John L. Lewis, to discuss the details of a labor standards bill. On May 22, 1937, the Black-Connery bill was officially introduced. Named after the chairmen of the Senate and House Labor Commit-

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tees respectively, the bill provided for a 40-cent minimum wage and created a Labor Standards Board to establish maximum hours by industry. The introduction of the bill served to disclose the deep divisions within the labor groups. Hillman, who was involved in its creation, gave it his full support. Green opposed the Standards Board and insisted that wages and hours should apply to all workers, without differentials. He also demanded that enforcement should be turned over to the Department of Justice. According to Secretary Perkins, AFL representatives also suggested that the regulatory process set by the bill should not apply to unionized firms. She also claimed that while the bill was under consideration in the Senate, several AFL leaders, including Matthew Woll, a vice president, John Frey, president of the Metal Trades Department, and William Hutchinson, representing the building trades, indicated that they opposed the bill.[14] Lewis, whose interest in the bill was limited because its standards were below the conditions he had achieved for his own members, was more interested in another bill, which provided penalties for companies violating the National Labor Relations Act.

By July, when the Senate Labor Committee was marking up the bill, debate was delayed when it was reported that Green did not favor the bill, and Lewis opposed Federal fixing of wage standards. The bill that reached the Senate floor provided for the establishment of standards by industry, with a floor of 40 cents an hour and 40 hours a week—the whole process under the jurisdiction of a Federal Labor Standards Board. Green wrote a letter to Senator Black warning that the "bill in the form in which it is now before the Senate does not meet the expectations of labor." But he urged that the Senate pass the bill and amend it at a later stage of the legislative process.[15] The bill passed the Senate on August 1, despite the efforts of several AFL leaders to have the bill recommitted, an effort which was defeated, 36–48.

In the House, Representative Mary Norton had succeeded to the chairmanship of the Labor Committee, following the death of William P. Connery. On the request of Green, Norton made some changes in the Senate bill, including removing industries under collective bargaining. When Green objected to a Labor Standards Board, Norton changed the enforcement agency to an administration agency. Green objected again, claiming that an administrator was worse than a board.[16] Despite the changes, there was little enthusiasm for the bill, and when it reached the Rules Committee, Southern Democrats and Republicans teamed up to block consideration. Congress adjourned without taking action.

Special session

If the first session of the 75th Congress had not been productive in producing a labor standards bill, the special session called on October 12, 1937 by President Roosevelt was even less effective. Presidential power, despite the overwhelming election victory in 1936, had been eroded by the President's losing struggle to pass a "court-packing" bill. This was considered a defeat for the White House, despite the fact that out of it emerged an altered Supreme Court majority, which had approved the Wagner Act and the DC minimum wage for women and minors. In addition, the Nation was entering a recession, with the stock market failing and unemployment rising—a major challenge to an administration which had won its spurs by promising better times. These factors undoubtedly played a role—along with the divisions within organized labor—in the failure of the labor standards bill in the first session, and they continued to spell defeat in the special session—which gave the President none of the objectives he had set for it.

In his message to the Congress, President Roosevelt listed his goals for the session, which began on November 15, 1937. With a glance over his shoulder at labor's leadership, Roosevelt asked for labor standards legislation in the most general terms. He explained that, "This does not mean that legislation must require immediate uniform minimum hour or wage standards; that is an ultimate goal."[17] He urged flexibility so industries could adjust. But he added, perhaps in response to William Green's objections, "...we must not forget that no policy of flexibility will be practical unless a coordinating agency has the obligation of inspection and investigation to ensure the recognition and enforcement of what the law requires."[18] In an August press conference, President Roosevelt reported on a visit from Green, who spoke about "three matters of principle." The President stated: "He favored retention of collective bargaining, the Walsh Healey bill and not to fix wages lower than the going rate in the vicinity."[19] As the special session got under way, two unnamed congressional leaders, according to The New York Times,[20] predicted that AFL opposition doomed favorable consideration of a labor standards bill. Since the Rules Committee remained adamant, Chairman Norton initiated a discharge petition, which eventually garnered 210 signatures—enough to bring the issue to the House floor for debate and vote. At the request of the AFL, a new bill was introduced as a substitute. This bill provided for a simple 40-cents an hour and 40-hours a week standard for workers in non-unionized plants, to be enforced by the Department of Justice. Lewis and Hillman favored flexible standards to be set by a Board. The AFL bill was defeated 131–162. The House then took up the original Labor Committee version, which met the CIO goals. Green sent a telegram urging that the bill be recommitted, "in order that proper amendments could be made to the bill." He particularly opposed the creation of a board: "Labor, industry and the public are fed up with boards." In recounting the events of the day at the 1938 AFL convention, Green cast scorn on the CIO, which opposed recommitting the bill: "No matter how objectionable

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a proposed wage and hour bill might be, the CIO favored it."[21]

He also accused the President, in his support of an enforcement agency, of favoring the CIO.[22] With the recommittal vote pending, according to Secretary Perkins, "President Green of the AFL, although he had been privately apologetic for the position taken by some of his colleagues (against the bill), now threw the whole weight of his organization against the bill."[23] After 5 days of contentious debate, highlighted by the passage of a number of weakening amendments removing certain industries from the bill, the House recommitted it on a 216–198 vote, with Speaker Bankhead and 29 of the petition signers voting to kill it.

Final victory

When the third session of the 75th Congress met in January 1938, it was widely agreed that prospects for a wage-hour bill were much improved. Although the President had lost his court-packing initiative, the Supreme Court was already beginning to show signs of changing its attitude toward New Deal legislation. In his State of the Union message, President Roosevelt urged passage of a bill. Aware of lingering unfavorable views on the part of some of the AFL's leaders, he pointed out that, "We are seeking, of course, only legislation to end starvation wages and intolerable hours; more desirable wages are and continue to be the product of collective bargaining."[24] Following a conference in the White House, the governors of seven Southeastern States endorsed the principle of a wages and hours bill. And perhaps most incisive, a new Senator, Lister Hill, had won a primary in Alabama based on a platform of support for Roosevelt's New Deal program.

For 2 months, from February to April, the House Labor Committee wrestled with two opposing concepts, a fixed universal standard—which Green indicated he still preferred—or the creation of a National Labor Standards Board which, within limits, could establish standards on an industry basis. A subcommittee first introduced a bill incorporating a wage board, which was opposed by both the AFL and the National Association of Manufacturers (NAM). According to Secretary Perkins, "For the first time in years, Congress was treated to the spectacle of the AFL and the NAM fighting cordially on the same side."[25] The CIO, which supported a wage board, supported the bill. The version which eventually emerged from the full committee compromised the issues: the secretary of labor was authorized to impose a minimum, starting at 25 cents an hour, increasing 5 cents annually until it reached 40 cents, on an industry basis. Similarly, maximum hours were fixed at 44 weekly, to be reduced by 2 hours a year to the level of 40—again on an industry basis. Exempted were workers in agriculture, transportation, local retail stores and public employees. But an influential Labor Committee member, Robert Ramspek (D-GA) objected because the bill did not provide for regional differentials.

Once again, the Rules Committee, influenced by Ramspek's opposition, refused to pass a rule. Both Lewis and Green opposed Ramspek's effort to win a provision providing for regional differentials, and both urged the Rules Committee to issue a rule. In a letter to Chairman Norton, President Roosevelt also urged that the House as a whole, "...should be given full and free opportunity to discuss (the bill)....I still hope that the House as a whole can vote on a wages and hours bill...."[26] And the mood of the House as a whole had changed. On May 6, 1938, less than 3 hours after a discharge petition—bringing the bill to the floor without a rule—had been laid on the Speaker's desk, a majority of 218 members had signed it, jostling each other in an unusually boisterous atmosphere on the House floor.

House debate on the bill lasted 2 days (May 24 to 25). After disposing of 50 amendments, the House passed the bill by a 314–97 margin, with 256 Democrats, 46 Republicans, and 12 independents in favor; 56 Democrats and 41 Republicans opposed. After 9 days of effort, the conference committee reported out a compromise between the House and Senate bills. Standards were initially set at 25 cents an hour and 44 hours a week, with industry committees given the authority to recommend higher levels. A wage-hour administrator in the Department of Labor could only accept or reject such recommendations, not modify them. But the 40-cents minimum would go into effect in every industry by the end of 7 years, unless it could be demonstrated that it would result in unemployment. The bill set a minimum working age of 16 with a number of exceptions. Exempted were intrastate retail business, most transportation workers, farmworkers, Government employees, and a number of small businesses. Lower standards were allowed for apprentices, learners, and the handicapped.

President Green sent a telegram indicating that although the conference report "did not comply fully with the wishes of the AFL," he did not oppose its passage.[27] On June 15, both houses approved the conference report; the House on a 290–89 vote, the Senate on a voice vote. And on June 28, 1938, President Roosevelt signed the bill.

Postscript

The immediate labor reaction to the Fair Labor Standards Act was mixed. Secretary Perkins commented that "The AFL said it was their bill and their contribution. The CIO claimed full credit for its passage."[28] At the 1938 CIO convention, a resolution hailed the passage of the bill "only after an intensive struggle by organized labor in the face of the most reactionary opposition." It also pointed out that the labor movement must press for lower maximum hours if the law were to ameliorate unemployment.[29] But CIO president Lewis had lost interest and had turned the issue over to Sidney Hillman, whose low-paid mem-

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bers in the highly competitive needle trades were among the most likely to benefit from the bill. Hillman was unequivocal in his approval: "The Bill is a sincere effort to raise the standard of living of underpaid and overworked labor and to remove the blot of child labor from American industrial life."[30]

The AFL was less than enthusiastic. The Building Trades Department still opposed the injection of Government in the wage-setting process, and was considering whether to renew the struggle in Congress. At the 1938 AFL convention, president Green promised, "It is the intention of the Executive Council to seek amendments to the law as soon as the insufficiencies of some of its provisions have been shown."[31] A pamphlet published by the AFL that same year said, "It is important to emphasize that the wage and hour law is far from perfect. ...The undesirable provisions of the Act must and can be corrected in the future." The pamphlet also urged AFL affiliates to make sure that wage rates set under the Act are "as high as all available facts can justify," but "to secure through organization and collective bargaining labor standards higher than the minimum standards."

But a year later, at the 1939 AFL convention, president Green stated that "the initial year of its operation was notable for the extent of voluntary compliance with these standards by employers," and that the FLSA should not be changed.[32] And indeed there had been major progress. By 1941, the Wage and Hour Division of the U.S. Department of Labor reported that wage orders had raised 700,000 workers above the 25-cent minimum and that additional orders were pending. By 1943, the Labor Department indicated that all workers would be covered by the 40-cent minimum that year—2 years before the deadline mandated by the law—and that the 69th and last industry committee had completed its work.

By 1944, as organized labor began to turn its attention to the problems caused by peace, the AFL vowed to guard against "any attempt to weaken by amendment, administrative rule or judicial decision the firm minimum standards established to date."[33] Two years later, the AFL began its drive to raise the legal minimum wage to $1 an hour. By early 1955, even before the AFL and CIO merger, a number of unions from both organizations had formed an alliance to raise the minimum. Labor's doubts about the creation of statutory wage and hour standards had disappeared. □

Notes

ACKNOWLEDGMENT: The author wishes to acknowledge the assistance of Dorothy Fisher Weed, librarian, and her colleagues at the Wirtz Labor Library, U.S. Department of Labor, in locating sources for this article, as well as similar assistance by the staff of the George Meany Memorial Archives.

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[31] AFL Convention Proceedings, 1938, p. 155.

[32] *Ibid.*, p. 180.

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Communications

To the Editor:

I have read with a great deal of interest Lucilla Tan's article, "Spending patterns of public-assisted families" (*Monthly Labor Review*, May 2000). I had not seen similar data before. I believe your approach to understanding the economic circumstances of those families that take advantage of various assistance programs leads to some very informative results.

One aspect of your results that I found interesting was that for the assisted families there was, at most, a small discrepancy between average total expenditure and income before taxes. However, for the very low income groups in the Consumer Expenditure Survey,the discrepancy is enormous (as I am sure you well know) for the group classified with incomes less than $5,000, the reported income averaged $1,888 (before taxes) and expenditures averaged $17,502. It is not obvious how this large difference was financed—the data on changes in net assets and liabilities are far too small, as are gifts or other financial receipts.

Also, I hope you can help me with a question that I have concerning our poverty measures. The current poverty measure is based on income. I believe that consumption expenditures is clearly a much better indicator of the economic well-being of a household. So my question is: do you know of data on the consumption expenditures of households or families that are defined as being in poverty? Based on an inquiry that I made last summer, I believe that such data are available. If so, I would very much like to have a reference to it.

I would greatly appreciate any help that you can give me.

Sincerely yours,

[signed] Dr. D. Gale Johnson
Eliakim Hastings Moore
Distinguished Professor of Economics
University of Chicago
and former President
of the American Economic Association

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The author replies:

Dear Dr. Johnson:

Your observation about the large discrepancies between income and average expenditures of low-income groups is frequently noted by users of Consumer Expenditure (CE) Survey data. The primary reason for the discrepancies is under-reporting or non-reporting of income by respondents. The average incomes shown in the tables published from CE are derived from complete income reporters (that is, consumer units that provide information for at least one of the major sources of their income, such as wages and salaries, self-employment income, or retirement income). However, even complete income reporters may not provide a full accounting of all income from all sources. Research has shown that some consumer units in the lower income classification have expenditure levels that are more typical of upper income consumer units. Their expenditures raise the average expenditure levels of the income group in which they are classified. Other possible explanations are:

- Consumer units whose members experience a spell of unemployment may draw on their savings to maintain their expenditures.
- Self-employed consumers may experience business losses that result in low or even negative incomes, but they are able to maintain their expenditures by borrowing or relying on savings.
- Students may get by on loans while they are in school, and retirees may rely on savings and investments.

My article does not use income as a classifying variable; instead, it uses the receipt of public assistance. To avoid the measurement issue associated with income (described above), I did not consider the characteristics and spending patterns of poor consumer units. Instead, I examined the characteristics and spending patterns of consumer units that receive public assistance. The underlying assumption was that there would be a high correlation between the poor and those who receive public assistance.

You asked about the availability of data on the consumption expenditures of households or families that are defined as being in poverty. Currently, there are no published CE tables that use poverty as a classifying variable. However, assuming you are defining poverty as those consumer units below the poverty threshold, there are variables on the CE public use micro-data that would allow you to identify consumer units who are below the poverty threshold. Note that the issues of income under-reporting and non-reporting by respondents still remain. Information on ordering the micro-data can be obtained from **http://stats.bls.gov/csxhome.htm**. There is a current project underway to impute missing income values for the CE.

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Where the jobs are now

Density appears to be among the primary determinants of job clustering at the beginning of the 21st century, according to Gerald Carlino, in "From Centralization to Deconcentration: People and Jobs Spread Out" (*Business Review,* Federal Reserve Bank of Philadelphia, November/December 2000).

Three shifts, which have determined the distribution of jobs and people, have occurred since the end of World War II: 1) the shift from the frostbelt to the sunbelt; 2) the movement from central cities to suburbs; and 3) "the relatively faster growth of jobs and people in small and less dense metropolitan statistical areas (MSAs)." This last shift is what Carlino calls "deconcentration," and he has found that "jobs have grown less rapidly in MSAs where employment is dense...[and] employment has spread out faster than population during the postwar period, suggesting that the proportion of the population that is employed grew faster in small and less dense MSAs than in the big and more dense MSAs."

As the denser areas come close to the carrying capacity of local resources, "adding jobs and people burdens existing support systems, leading to increases in the cost of living," such as when rents and housing prices around a major metropolitan area rise out of proportion to their actual value. Jobs are growing faster in the less densely populated, outlying areas, because infrastructures either already exist or, with little ado, can be built to sustain the new growth. Carlino offers a suggestion to better manage the third-generational shift's growth: "[L]ocal planners can enhance growth in dense MSAs is by adding public infrastructure to reduce congestion. Similarly, in the faster growing, less dense MSAs, local planners need to make sure that the area's public infrastructure keeps in step with private growth." Without such planning efforts, the new "hot spots" may find themselves with the same growth problems as those experienced by the major metropolitan areas during the first- and second-generation shifts.

A place in the sun for baby-boomers

In *Economic Commentary* (Federal Reserve Bank of Cleveland, October 1, 2000), Jagadeesh Gokhale and Laurence J. Kotlikoff question whether the coming few decades will bring a substantial increase in inheritances and if today's baby-boomer workers should depend upon inheritances to fund their retirement years.

They answer "no." While estimates have placed the projected sum of future inheritance receipts as high as $14 trillion by 2050 (in 1999 dollars), today's elderly generations are wealthier because of such elements as growth in Social Security and medicare benefits during the past several decades, causing a transfer of wealth from younger toward older generations.

The post-World War II generation produced more offspring than their parents, resulting in the current and pending situation of many boomers having to split inheritance pies. "Another factor limiting the flow of bequests across generations is the remarkable postwar increase in the degree to which the resources of the elderly are annuitized," that is, composed of income that will cease to flow once the recipient dies. People are living longer and spending more years in retirement, thus depleting "the assets they would otherwise have bequeathed to their children." Gokhale and Kotlikoff conclude that although boomers stand to inherit more in the aggregate than previous generations have, it is *their* children, the grandchildren of today's older Americans, who will be the ultimate beneficiaries of the economic "boom times" of today.

Escaping unemployment

How well does unemployment, the economists' traditional yardstick, measure labor market tightness, given today's combination of historically low unemployment rates and somewhat limited wage and salary pressures? In her article "Discouraged and Other Marginally Attached Workers: Evidence on Their Role in the Labor Market," (*New England Economic Review,* May/June 2000), Yolanda Kodrzkycki concludes that it measures reasonably well, and that the effect of these other categories of worker on our understanding of the cyclical condition of the labor market is negligible.

Three points support her findings: 1) even when these individuals are included in an expanded measure of unemployment, the jobless rate thus measured remains the lowest in thirty years; 2) as a group, marginally attached workers are less likely to become employed or remain employed, because they are more concentrated than the unemployed in demographic groups whose employment-population ratios are low; and 3) unemployed workers have been highly successful in finding jobs in the last several years, resulting in a sharp reduction in the number of marginally attached workers.

The last point—seemingly contradictory—is a reflection of the simple fact that fewer people are entering this category. Kodrzkycki notes that "a greater share of the marginally attached in 1997–2000 reported finding a job the following month than was the case during 1994–96. The monthly job-finding rate for discouraged workers increased from 10 percent to about 14 percent, and that for other marginally attached workers increased from almost 11 percent to almost 16 percent." Even so, the discouraged and the marginally attached workers found employment at a rate less than half that of the unemployed. □

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Economic liberalization

Economic Liberalization and Labor Markets. Edited by Parvis Dabir-Alai and Mehmet Odekon. Westport, CT, Greenwood Press, 1999, 274 pp. $65.

The argument conveyed by the authors of the 12 essays presented in this book may be summarized as follows: the labor markets of the countries and regions discussed have been subjected to the often severe deregulatory pressures characteristic of economic liberalization, from which labor market deregulation is inseparable. Functionally, economic liberalization seeks to ensure that the market, under the compulsion of global competition, allocate resources on the basis of price. Labor markets are to be governed by the same criterion, that is, of price (wages being prices of labor) as the fundamental allocative mechanism. Whatever "distorts" this mechanism—such as industrywide collective bargaining, difficulty of worker dismissals, expense of severance—should in principle be dismantled.

Economic liberalization is based on the view that the free market, in combination with anti-inflationary policies, will spur economic development and raise living standards. It involves privatization of state-run enterprises (which invariably entails substantial job loss); removal, or lowering, of trade barriers; decontrol of financial flows; equal treatment of foreign investors; and the pegging of exchange rates to make exports globally competitive. The import-substituting industrial strategies of many developing countries of the earlier postwar period had become unsustainable.

While stabilization of major macroeconomic variables has been a focal concern of governments and international financial institutions, economic liberalization, so the authors' argument implies, has instead destabilized the lives of several working people in terms of recurrent and at times large-scale unemployment and underemployment, job insecurity, the weakening of collective bargaining processes and the political strength of worker organizations. The distribution of income has become progressively skewed in favor of the well-to-do, and professional and technical employees. Real wages have slowly, if at all, recovered their 1960s levels. A tendency toward capital-intensive investment has contributed to the displacement of less skilled and unskilled workers, while the gradual shrinkage of labor-intensive production methods has likewise disfavored their employment at wages that allow customary living standards.

It is evident that economic liberalization has eroded, if not eliminated, the social protection—for which worker organizations had successfully struggled over many decades—against such untoward market forces as business cycle swings, technological job displacement, and foreign competition.

None of the authors discusses the period that preceded economic liberalization in detail. As indicated, that period for some Latin American countries began in the 1930s or 1940s and for some African countries began after they became independent, was marked by an import-substituting industrialization strategy—the creation of domestic industries, especially capital and consumer goods. The strategy indeed achieved economic growth but became "exhausted" in recent decades. Economies of scale could not be adequately attained within national markets. Vested interests clustered to ensure protective measures. Currencies tended to be overvalued, foreign indebtedness soared as exports lagged, and raw materials and fuel prices climbed.

Labor did benefit from the strategy. In Argentina, for example, unemployment remained low into the 1960s; worker benefits, generous; and trade unions, strong. But the "redistributionist" and developmental policies of the Peron regime and its military and democratic successors could not be pursued without some hyperinflationary results and deep budgetary deficits. Interest rates reached levels that contributed to steep declines in industrial production and real wages.

The Menem administration, beginning in late 1989, instituted a radical program of structural adjustment, which not only contained inflation but diminished public subsidies, lifted restrictions on foreign investment, and privatized an array of state enterprises. It also froze wages and salaries. Human resource services were cut back. Real wages plunged, on average buying only 29-72 percent of the minimal basket of essential goods and services (in 1990). "The transfer of income from the low- and middle-income groups" created a new stratum of pauperized, formerly middle- and working-class families. Labor was further weakened by the introduction of flexible work rules, and the shift of collective bargaining to individual firms—a move which more closely aligned wage changes with productivity.

In some respects, Argentina's economic liberalization parallels that of Chile. In Chile, as later witnessed in Argentina, this exacted a high cost in workers' income, security, and trade union protection—the impotence of the unions being to some extent assured by legislation. Income distribution worsened and poverty spread, although by the early 1990s, as real wages recovered, the incidence of poverty had declined to 26 percent from 40 percent in the earlier years. Privatization of state enterprises signaled, as it did in Argentina and elsewhere, favorable opportunities for foreign investors.

Economic liberalization in Mexico was to an extent compelled by the debt crisis of the 1980s but, more fundamentally, was adopted as the country's import-substituting industrial strategy, which could no longer be sustained—even though this strategy had produced high growth rates between 1965 and 1980. The adoption of the North American Free Trade Agreement (NAFTA) in 1993 must, of course, be regarded as part of the liber-

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alization policy. The author of the relevant chapter concedes the advantages of this policy but writes that "although liberalization has improved the performance of the Mexican economy in a variety of ways, the lot of the Mexican worker deteriorated...."

In the face of perennially high unemployment and underemployment (Mexico has a large informal sector where incomes often run at or below minimal subsistence needs), labor demand has shrunk (at least up to the time the chapter was written). The role of the state has diminished, meaning that government employment has declined, and that privatization (together with the competitive threat it posed to state-run enterprises) has led to job cuts. Productivity in manufacturing has indeed risen, but faster than output, leading to worker displacement. Moreover, American firms investing in Mexico often introduce capital-intensive, rather than labor-intensive, production techniques, thus also limiting demand for labor. It is true that Maquiladoras have evidenced vigorous growth in output and employment, but real wages have continued to decline. Furthermore, even though a quarter of Mexico's workforce is in agriculture, the requirement under NAFTA that Mexico's agricultural tariffs be eliminated over the next several years threatens hundreds of thousands of the country's campesionos with destitution as they are compelled to migrate to urban centers in search of a new livelihood.

An important chapter of the book deals with African countries, although its author does not focus on any one in particular, and possibly overgeneralizes at times. Many of these countries, like their Latin American counterparts, adopted import-substituting industrial strategies as they became independent during the post-World War II period. However, the development of their internal markets was thwarted by low incomes, a factor which was evidently aggravated by government exploitation of peasantry to accumulate the capital needed for the strategy. The need to import raw materials also eventually caused indebtedness to rise, such that up to 50 percent of export earnings had (and has) to be used to pay off debt. Agriculture was neglected; taxes on agricultural products constituted up to 70 percent of peasants' revenue, collected by state commodity boards, which then presumably guided all or part of the proceeds to industrialization and infrastructure schemes. A result has been increased rural-urban migration, contributing to the employment problems and deterioration of urban centers.

However, the author notes that ending the practice of selling farm products to commodity boards, as well as instituting tax cuts in more recent years in some African countries, has helped expand rural self-employment, as have devaluations, which made these products competitive with cheap imports.

Yet the economic development of African countries remains stymied by the large military expenditures and bureaucracies of their governments, often at the expense of adequate infrastructure. The need for reform evidently cannot be met by economic liberalization alone; the reform of governance itself remains the problem.

The book is quite instructive about the relationship of economic liberalization and labor markets. But considering the scope of the vast number of human problems implicit in the discussions, it is surprising that the editors fail to present a concluding essay that comes to grips with these problems more broadly. The employment problem, once discussed only within the frame of the industrial countries, has widened to global scope. Can economic liberalization resolve it? The book's message does not allow much optimism about the answer. One misses some further, deeper probing of this question.

—Horst Brand
Economist,
formerly with the Bureau
of Labor Statistics

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Current Labor Statistics

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Notes on Current Labor Statistics

This section of the *Review* presents the principal statistical series collected and calculated by the Bureau of Labor Statistics: series on labor force; employment; unemployment; labor compensation; consumer, producer, and international prices; productivity; international comparisons; and injury and illness statistics. In the notes that follow, the data in each group of tables are briefly described; key definitions are given; notes on the data are set forth; and sources of additional information are cited.

General notes

The following notes apply to several tables in this section:

Seasonal adjustment. Certain monthly and quarterly data are adjusted to eliminate the effect on the data of such factors as climatic conditions, industry production schedules, opening and closing of schools, holiday buying periods, and vacation practices, which might prevent short-term evaluation of the statistical series. Tables containing data that have been adjusted are identified as "seasonally adjusted." (All other data are not seasonally adjusted.) Seasonal effects are estimated on the basis of past experience. When new seasonal factors are computed each year, revisions may affect seasonally adjusted data for several preceding years.

Seasonally adjusted data appear in tables 1–14, 16–17, 39, and 43. Seasonally adjusted labor force data in tables 1 and 4–9 were revised in the February 2000 issue of the *Review*. Seasonally adjusted establishment survey data shown in tables 1, 12–14 and 16–17 were revised in the July 2000 *Review* and reflect the experience through March 2000. A brief explanation of the seasonal adjustment methodology appears in "Notes on the data."

Revisions in the productivity data in table 45 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month-to-month and quarter-to-quarter are published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All-Items CPI. Only seasonally adjusted percent changes are available for this series.

Adjustments for price changes. Some data—such as the "real" earnings shown in table 14—are adjusted to eliminate the effect of changes in price. These adjustments are made by dividing current-dollar values by the Consumer Price Index or the appropriate component of the index, then multiplying by 100. For example, given a current hourly wage rate of $3 and a current price index number of 150, where 1982 = 100, the hourly rate expressed in 1982 dollars is $2 ($3/150 x 100 = $2). The $2 (or any other resulting values) are described as "real," "constant," or "1982" dollars.

Sources of information

Data that supplement the tables in this section are published by the Bureau in a variety of sources. Definitions of each series and notes on the data are contained in later sections of these Notes describing each set of data. For detailed descriptions of each data series, see *BLS Handbook of Methods*, Bulletin 2490. Users also may wish to consult *Major Programs of the Bureau of Labor Statistics*, Report 919. News releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule appearing on the back cover of this issue.

More information about labor force, employment, and unemployment data and the household and establishment surveys underlying the data are available in the Bureau's monthly publication, *Employment and Earnings*. Historical unadjusted and seasonally adjusted data from the household survey are available on the Internet:

http://stats.bls.gov/cpshome.htm

Historically comparable unadjusted and seasonally adjusted data from the establishment survey also are available on the Internet:

http://stats.bls.gov/ceshome.htm

Additional information on labor force data for areas below the national level are provided in the BLS annual report, *Geographic Profile of Employment and Unemployment.*

For a comprehensive discussion of the Employment Cost Index, see *Employment Cost Indexes and Levels, 1975–95,* BLS Bulletin 2466. The most recent data from the Employee Benefits Survey appear in the following Bureau of Labor Statistics bulletins: *Employee Benefits in Medium and Large Firms; Employee Benefits in Small Private Establishments;* and *Employee Benefits in State and Local Governments*.

More detailed data on consumer and producer prices are published in the monthly periodicals, *The CPI Detailed Report* and *Producer Price Indexes*. For an overview of the 1998 revision of the CPI, see the December 1996 issue of the *Monthly Labor Review*. Additional data on international prices appear in monthly news releases.

Listings of industries for which productivity indexes are available may be found on the Internet:

http://stats.bls.gov/iprhome.htm

For additional information on international comparisons data, see *International Comparisons of Unemployment,* BLS Bulletin 1979.

Detailed data on the occupational injury and illness series are published in *Occupational Injuries and Illnesses in the United States, by Industry,* a BLS annual bulletin.

Finally, the *Monthly Labor Review* carries analytical articles on annual and longer term developments in labor force, employment, and unemployment; employee compensation and collective bargaining; prices; productivity; international comparisons; and injury and illness data.

Symbols

n.e.c. = not elsewhere classified.
n.e.s. = not elsewhere specified.
p = preliminary. To increase the timeliness of some series, preliminary figures are issued based on representative but incomplete returns.
r = revised. Generally, this revision reflects the availability of later data, but also may reflect other adjustments.

Comparative Indicators

(Tables 1–3)

Comparative indicators tables provide an overview and comparison of major BLS statistical series. Consequently, although many of the included series are available monthly, all measures in these comparative tables are presented quarterly and annually.

Labor market indicators include employment measures from two major surveys and information on rates of change in compensation provided by the Employment Cost Index (ECI) program. The labor force participation rate, the employment-to-population ratio, and unemployment rates for major demographic groups based on the Current Population ("household") Survey are presented, while measures of employment and average weekly hours by major industry sector are given using nonfarm payroll data. The Employment Cost Index (compensation), by major sector and by bargaining status, is chosen from a variety of BLS compensation and wage measures because it provides a comprehensive measure of employer costs for hiring labor, not just outlays for wages, and it is not affected by employment shifts among occupations and industries.

Data on **changes in compensation, prices, and productivity** are presented in table 2.

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Measures of rates of change of compensation and wages from the Employment Cost Index program are provided for all civilian nonfarm workers (excluding Federal and household workers) and for all private nonfarm workers. Measures of changes in consumer prices for all urban consumers; producer prices by stage of processing; overall prices by stage of processing; and overall export and import price indexes are given. Measures of productivity (output per hour of all persons) are provided for major sectors.

Alternative measures of wage and compensation rates of change, which reflect the overall trend in labor costs, are summarized in table 3. Differences in concepts and scope, related to the specific purposes of the series, contribute to the variation in changes among the individual measures.

Notes on the data

Definitions of each series and notes on the data are contained in later sections of these notes describing each set of data.

Employment and Unemployment Data

(Tables 1; 4–20)

Household survey data

Description of the series

EMPLOYMENT DATA in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 50,000 households selected to represent the U.S. population 16 years of age and older. Households are interviewed on a rotating basis, so that three-fourths of the sample is the same for any 2 consecutive months.

Definitions

Employed persons include (1) all those who worked for pay any time during the week which includes the 12th day of the month or who worked unpaid for 15 hours or more in a family-operated enterprise and (2) those who were temporarily absent from their regular jobs because of illness, vacation, industrial dispute, or similar reasons. A person working at more than one job is counted only in the job at which he or she worked the greatest number of hours.

Unemployed persons are those who did not work during the survey week, but were available for work except for temporary illness and had looked for jobs within the preceding 4 weeks. Persons who did not look for work because they were on layoff are also counted among the unemployed. **The unemployment rate** represents the number unemployed as a percent of the civilian labor force.

The **civilian labor force** consists of all employed or unemployed persons in the civilian noninstitutional population. Persons **not in the labor force** are those not classified as employed or unemployed. This group includes discouraged workers, defined as persons who want and are available for a job and who have looked for work sometime in the past 12 months (or since the end of their last job if they held one within the past 12 months), but are not currently looking, because they believe there are no jobs available or there are none for which they would qualify. The **civilian noninstitutional population** comprises all persons 16 years of age and older who are not inmates of penal or mental institutions, sanitariums, or homes for the aged, infirm, or needy. The **civilian labor force participation** rate is the proportion of the civilian noninstitutional population that is in the labor force. The **employment-population ratio** is employment as a percent of the civilian noninstitutional population.

Notes on the data

From time to time, and especially after a decennial census, adjustments are made in the Current Population Survey figures to correct for estimating errors during the intercensal years. These adjustments affect the comparability of historical data. A description of these adjustments and their effect on the various data series appears in the Explanatory Notes of *Employment and Earnings*.

Data beginning in 2000 are not strictly comparable with data for 1999 and earlier years because of the introduction of revised population controls. Additional information appears in the February 2000 issue of *Employment and Earnings*.

Labor force data in tables 1 and 4–9 are seasonally adjusted. Since January 1980, national labor force data have been seasonally adjusted with a procedure called X-11 ARIMA which was developed at Statistics Canada as an extension of the standard X-11 method previously used by BLS. A detailed description of the procedure appears in the X-11 *ARIMA Seasonal Adjustment Method*, by Estela Bee Dagum (Statistics Canada, Catalogue No. 12-564E, January 1983).

At the beginning of each calendar year, historical seasonally adjusted data usually are revised, and projected seasonal adjustment factors are calculated for use during the January–June period. The historical seasonally adjusted data usually are revised for only the most recent 5 years. In July, new seasonal adjustment factors, which incorporate the experience through June, are produced for the July–December period, but no revisions are made in the historical data.

FOR ADDITIONAL INFORMATION on national household survey data, contact the Division of Labor Force Statistics: (202) 691–6378.

Establishment survey data

Description of the series

EMPLOYMENT, HOURS, AND EARNINGS DATA in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies by about 300,000 establishments representing all industries except agriculture. Industries are classified in accordance with the 1987 *Standard Industrial Classification (SIC) Manual*. In most industries, the sampling probabilities are based on the size of the establishment; most large establishments are therefore in the sample. (An establishment is not necessarily a firm; it may be a branch plant, for example, or warehouse.) Self-employed persons and others not on a regular civilian payroll are outside the scope of the survey because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

Definitions

An **establishment** is an economic unit which produces goods or services (such as a factory or store) at a single location and is engaged in one type of economic activity.

Employed persons are all persons who received pay (including holiday and sick pay) for any part of the payroll period including the 12th day of the month. Persons holding more than one job (about 5 percent of all persons in the labor force) are counted in each establishment which reports them.

Production workers in manufacturing include working supervisors and nonsupervisory workers closely associated with production operations. Those workers mentioned in tables 11–16 include production workers in manufacturing and mining; construction workers in construction; and nonsupervisory workers in the following industries: transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for about four-fifths of the total em-

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ployment on private nonagricultural payrolls.

Earnings are the payments production or nonsupervisory workers receive during the survey period, including premium pay for overtime or late-shift work but excluding irregular bonuses and other special payments. **Real earnings** are earnings adjusted to reflect the effects of changes in consumer prices. The deflator for this series is derived from the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

Hours represent the average weekly hours of production or nonsupervisory workers for which pay was received, and are different from standard or scheduled hours. **Overtime hours** represent the portion of average weekly hours which was in excess of regular hours and for which overtime premiums were paid.

The **Diffusion Index** represents the percent of industries in which employment was rising over the indicated period, plus one-half of the industries with unchanged employment; 50 percent indicates an equal balance between industries with increasing and decreasing employment. In line with Bureau practice, data for the 1-, 3-, and 6-month spans are seasonally adjusted, while those for the 12-month span are unadjusted. Data are centered within the span. Table 17 provides an index on private nonfarm employment based on 356 industries, and a manufacturing index based on 139 industries. These indexes are useful for measuring the dispersion of economic gains or losses and are also economic indicators.

Notes on the data

Establishment survey data are annually adjusted to comprehensive counts of employment (called "benchmarks"). The latest adjustment, which incorporated March 1999 benchmarks, was made with the release of May 2000 data, published in the July 2000 issue of the *Review.* Coincident with the benchmark adjustment, historical seasonally adjusted data were revised to reflect updated seasonal factors. Unadjusted data from April 1999 forward and seasonally adjusted data from January 1996 forward are subject to revision in future benchmarks.

In addition to the routine benchmark revisions and updated seasonal factors introduced with the release of the May 2000 data, all estimates for the wholesale trade division from April 1998 forward were revised to incorporate a new sample design. This represented the first major industry division to convert to a probability-based sample under a 4-year phase-in plan for the establishment survey sample redesign project. For additional information, see the the June 2000 issue of *Employment and Earnings.*

Revisions in State data (table 11) occurred with the publication of January 2000 data.

Beginning in June 1996, the BLS uses the X-12 ARIMA methodology to seasonally adjust establishment survey data. This procedure, developed by the Bureau of the Census, controls for the effect of varying survey intervals (also known as the 4- versus 5-week effect), thereby providing improved measurement of over-the-month changes and underlying economic trends. Revisions of data, usually for the most recent 5-year period, are made once a year coincident with the benchmark revisions.

In the establishment survey, estimates for the most recent 2 months are based on incomplete returns and are published as preliminary in the tables (12–17 in the *Review).* When all returns have been received, the estimates are revised and published as "final" (prior to any benchmark revisions) in the third month of their appearance. Thus, December data are published as preliminary in January and February and as final in March. For the same reasons, quarterly establishment data (table 1) are preliminary for the first 2 months of publication and final in the third month. Thus, fourth-quarter data are published as preliminary in January and February and as final in March.

FOR ADDITIONAL INFORMATION on establishment survey data, contact the Division of Monthly Industry Employment Statistics: (202) 691–6555.

Unemployment data by State

Description of the series

Data presented in this section are obtained from the Local Area Unemployment Statistics (LAUS) program, which is conducted in cooperation with State employment security agencies.

Monthly estimates of the labor force, employment, and unemployment for States and sub-State areas are a key indicator of local economic conditions, and form the basis for determining the eligibility of an area for benefits under Federal economic assistance programs such as the Job Training Partnership Act. Seasonally adjusted unemployment rates are presented in table 10. Insofar as possible, the concepts and definitions underlying these data are those used in the national estimates obtained from the CPS.

Notes on the data

Data refer to State of residence. Monthly data for all States and the District of Columbia are derived using standardized procedures established by BLS. Once a year, estimates are revised to new population controls, usually with publication of January estimates, and benchmarked to annual average CPS levels.

FOR ADDITIONAL INFORMATION on data in this series, call (202) 691–6392 (table 10) or (202) 691–6559 (table 11).

Compensation and Wage Data

(Tables 1–3; 21–27)

COMPENSATION AND WAGE DATA are gathered by the Bureau from business establishments, State and local governments, labor unions, collective bargaining agreements on file with the Bureau, and secondary sources.

Employment Cost Index

Description of the series

The **Employment Cost Index** (ECI) is a quarterly measure of the rate of change in compensation per hour worked and includes wages, salaries, and employer costs of employee benefits. It uses a fixed market basket of labor—similar in concept to the Consumer Price Index's fixed market basket of goods and services—to measure change over time in employer costs of employing labor.

Statistical series on total compensation costs, on wages and salaries, and on benefit costs are available for private nonfarm workers excluding proprietors, the self-employed, and household workers. The total compensation costs and wages and salaries series are also available for State and local government workers and for the civilian nonfarm economy, which consists of private industry and State and local government workers combined. Federal workers are excluded.

The Employment Cost Index probability sample consists of about 4,400 private nonfarm establishments providing about 23,000 occupational observations and 1,000 State and local government establishments providing 6,000 occupational observations selected to represent total employment in each sector. On average, each reporting unit provides wage and compensation information on five well-specified occupations. Data are collected each quarter for the pay period including the 12th day of March, June, September, and December.

Beginning with June 1986 data, fixed employment weights from the 1980 Census of Population are used each quarter to calculate the civilian and private indexes and the index for State and local governments. (Prior to June 1986, the employment weights are from the 1970 Census of Population.) These fixed weights, also used to derive all of the industry and occupation series indexes, ensure that changes in these indexes reflect only changes in compensation, not employment shifts among indus-

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tries or occupations with different levels of wages and compensation. For the bargaining status, region, and metropolitan/non-metropolitan area series, however, employment data by industry and occupation are not available from the census. Instead, the 1980 employment weights are reallocated within these series each quarter based on the current sample. Therefore, these indexes are not strictly comparable to those for the aggregate, industry, and occupation series.

Definitions

Total compensation costs include wages, salaries, and the employer's costs for employee benefits.

Wages and salaries consist of earnings before payroll deductions, including production bonuses, incentive earnings, commissions, and cost-of-living adjustments.

Benefits include the cost to employers for paid leave, supplemental pay (including nonproduction bonuses), insurance, retirement and savings plans, and legally required benefits (such as Social Security, workers' compensation, and unemployment insurance).

Excluded from wages and salaries and employee benefits are such items as payment-in-kind, free room and board, and tips.

Notes on the data

The Employment Cost Index for changes in wages and salaries in the private nonfarm economy was published beginning in 1975. Changes in total compensation cost—wages and salaries and benefits combined—were published beginning in 1980. The series of changes in wages and salaries and for total compensation in the State and local government sector and in the civilian nonfarm economy (excluding Federal employees) were published beginning in 1981. Historical indexes (June 1981=100) are available on the Internet:

http://stats.bls.gov/ecthome.htm

FOR ADDITIONAL INFORMATION on the Employment Cost Index, contact the Office of Compensation Levels and Trends: (202) 691–6199.

Employee Benefits Survey

Description of the series

Employee benefits data are obtained from the Employee Benefits Survey, an annual survey of the incidence and provisions of selected benefits provided by employers. The survey collects data from a sample of approximately 9,000 private sector and State and local government establishments. The data are presented as a percentage of employees who participate in a certain benefit, or as an average benefit provision (for example, the average number of paid holidays provided to employees per year). Selected data from the survey are presented in table 25 for medium and large private establishments and in table 26 for small private establishments and State and local government.

The survey covers paid leave benefits such as holidays and vacations, and personal, funeral, jury duty, military, family, and sick leave; short-term disability, long-term disability, and life insurance; medical, dental, and vision care plans; defined benefit and defined contribution plans; flexible benefits plans; reimbursement accounts; and unpaid family leave.

Also, data are tabulated on the incidence of several other benefits, such as severance pay, child-care assistance, wellness programs, and employee assistance programs.

Definitions

Employer-provided benefits are benefits that are financed either wholly or partly by the employer. They may be sponsored by a union or other third party, as long as there is some employer financing. However, some benefits that are fully paid for by the employee also are included. For example, long-term care insurance and postretirement life insurance paid entirely by the employee are included because the guarantee of insurability and availability at group premium rates are considered a benefit.

Participants are workers who are covered by a benefit, whether or not they use that benefit. If the benefit plan is financed wholly by employers and requires employees to complete a minimum length of service for eligibility, the workers are considered participants whether or not they have met the requirement. If workers are required to contribute towards the cost of a plan, they are considered participants only if they elect the plan and agree to make the required contributions.

Defined benefit pension plans use predetermined formulas to calculate a retirement benefit (if any), and obligate the employer to provide those benefits. Benefits are generally based on salary, years of service, or both.

Defined contribution plans generally specify the level of employer and employee contributions to a plan, but not the formula for determining eventual benefits. Instead, individual accounts are set up for participants, and benefits are based on amounts credited to these accounts.

Tax-deferred savings plans are a type of defined contribution plan that allow participants to contribute a portion of their salary to an employer-sponsored plan and defer income taxes until withdrawal.

Flexible benefit plans allow employees to choose among several benefits, such as life insurance, medical care, and vacation days, and among several levels of coverage within a given benefit.

Notes on the data

Surveys of employees in medium and large establishments conducted over the 1979–86 period included establishments that employed at least 50, 100, or 250 workers, depending on the industry (most service industries were excluded). The survey conducted in 1987 covered only State and local governments with 50 or more employees. The surveys conducted in 1988 and 1989 included medium and large establishments with 100 workers or more in private industries. All surveys conducted over the 1979–89 period excluded establishments in Alaska and Hawaii, as well as part-time employees.

Beginning in 1990, surveys of State and local governments and small private establishments were conducted in even-numbered years, and surveys of medium and large establishments were conducted in odd-numbered years. The small establishment survey includes all private nonfarm establishments with fewer than 100 workers, while the State and local government survey includes all governments, regardless of the number of workers. All three surveys include full- and part-time workers, and workers in all 50 States and the District of Columbia.

FOR ADDITIONAL INFORMATION on the Employee Benefits Survey, contact the Office of Compensation Levels and Trends on the Internet:

http://stats.bls.gov/ebshome.htm

Work stoppages

Description of the series

Data on work stoppages measure the number and duration of major strikes or lockouts (involving 1,000 workers or more) occurring during the month (or year), the number of workers involved, and the amount of work time lost because of stoppage. These data are presented in table 27.

Data are largely from a variety of published sources and cover only establishments directly involved in a stoppage. They do not measure the indirect or secondary effect of stoppages on other establishments whose employees are idle owing to material shortages or lack of service.

Definitions

Number of stoppages: The number of strikes and lockouts involving 1,000 workers or more and lasting a full shift or longer.

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Workers involved: The number of workers directly involved in the stoppage.

Number of days idle: The aggregate number of workdays lost by workers involved in the stoppages.

Days of idleness as a percent of estimated working time: Aggregate workdays lost as a percent of the aggregate number of standard workdays in the period multiplied by total employment in the period.

Notes on the data

This series is not comparable with the one terminated in 1981 that covered strikes involving six workers or more.

FOR ADDITIONAL INFORMATION on work stoppages data, contact the Office of Compensation and Working Conditions: (202) 691–6282, or the Internet:

http://stats.bls.gov/cbahome.htm

Price Data

(Tables 2; 28–38)

PRICE DATA are gathered by the Bureau of Labor Statistics from retail and primary markets in the United States. Price indexes are given in relation to a base period—1982 = 100 for many Producer Price Indexes, 1982–84 = 100 for many Consumer Price Indexes (unless otherwise noted), and 1990 = 100 for International Price Indexes.

Consumer Price Indexes

Description of the series

The **Consumer Price Index** (CPI) is a measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The CPI is calculated monthly for two population groups, one consisting only of urban households whose primary source of income is derived from the employment of wage earners and clerical workers, and the other consisting of all urban households. The wage earner index (CPI-W) is a continuation of the historic index that was introduced well over a half-century ago for use in wage negotiations. As new uses were developed for the CPI in recent years, the need for a broader and more representative index became apparent. The all-urban consumer index (CPI-U), introduced in 1978, is representative of the 1993–95 buying habits of about 87 percent of the noninstitutional population of the United States at that time, compared with 32 percent represented in the CPI-W. In addition to wage earners and clerical workers, the CPI-U covers professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, fuel, drugs, transportation fares, doctors' and dentists' fees, and other goods and services that people buy for day-to-day living. The quantity and quality of these items are kept essentially unchanged between major revisions so that only price changes will be measured. All taxes directly associated with the purchase and use of items are included in the index.

Data collected from more than 23,000 retail establishments and 5,800 housing units in 87 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 14 major urban centers are presented in table 29. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

Notes on the data

In January 1983, the Bureau changed the way in which homeownership costs are meaured for the CPI-U. A rental equivalence method replaced the asset-price approach to homeownership costs for that series. In January 1985, the same change was made in the CPI-W. The central purpose of the change was to separate shelter costs from the investment component of home-ownership so that the index would reflect only the cost of shelter services provided by owner-occupied homes. An updated CPI-U and CPI-W were introduced with release of the January 1987 and January 1998 data.

FOR ADDITIONAL INFORMATION on consumer prices, contact the Division of Consumer Prices and Price Indexes: (202) 691–7000.

Producer Price Indexes

Description of the series

Producer Price Indexes (PPI) measure average changes in prices received by domestic producers of commodities in all stages of processing. The sample used for calculating these indexes currently contains about 3,200 commodities and about 80,000 quotations per month, selected to represent the movement of prices of all commodities produced in the manufacturing; agriculture, forestry, and fishing; mining; and gas and electricity and public utilities sectors. The stage-of-processing structure of PPI organizes products by class of buyer and degree of fabrication (that is, finished goods, intermediate goods, and crude materials). The traditional commodity structure of PPI organizes products by similarity of end use or material composition. The industry and product structure of PPI organizes data in accordance with the Standard Industrial Classification (SIC) and the product code extension of the SIC developed by the U.S. Bureau of the Census.

To the extent possible, prices used in calculating Producer Price Indexes apply to the first significant commercial transaction in the United States from the production or central marketing point. Price data are generally collected monthly, primarily by mail questionnaire. Most prices are obtained directly from producing companies on a voluntary and confidential basis. Prices generally are reported for the Tuesday of the week containing the 13th day of the month.

Since January 1992, price changes for the various commodities have been averaged together with implicit quantity weights representing their importance in the total net selling value of all commodities as of 1987. The detailed data are aggregated to obtain indexes for stage-of-processing groupings, commodity groupings, durability-of-product groupings, and a number of special composite groups. All Producer Price Index data are subject to revision 4 months after original publication.

FOR ADDITIONAL INFORMATION on producer prices, contact the Division of Industrial Prices and Price Indexes: (202) 691–7705.

International Price Indexes

Description of the series

The **International Price Program** produces monthly and quarterly export and import price indexes for nonmilitary goods traded between the United States and the rest of the world. The export price index provides a measure of price change for all products sold by U.S. residents to foreign buyers. ("Residents" is defined as in the national income accounts; it includes corporations, businesses, and individuals, but does not require the organizations to be U.S. owned nor the individuals to have U.S. citizenship.) The import price index provides a measure of price change for goods purchased from other countries by U.S. residents.

The product universe for both the import and export indexes includes raw materials, agricultural products, semifinished manufactures, and finished manufactures, including both capital and consumer goods. Price data for these items are collected primarily by mail questionnaire. In nearly all cases, the data are collected directly from the exporter or importer, although in a few cases, prices are obtained from other sources.

To the extent possible, the data gathered refer to prices at the U.S. border for exports and at either the foreign border or the U.S.

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border for imports. For nearly all products, the prices refer to transactions completed during the first week of the month. Survey respondents are asked to indicate all discounts, allowances, and rebates applicable to the reported prices, so that the price used in the calculation of the indexes is the actual price for which the product was bought or sold.

In addition to general indexes of prices for U.S. exports and imports, indexes are also published for detailed product categories of exports and imports. These categories are defined according to the five-digit level of detail for the Bureau of Economic Analysis End-use Classification (SITC), and the four-digit level of detail for the Harmonized System. Aggregate import indexes by country or region of origin are also available.

BLS publishes indexes for selected categories of internationally traded services, calculated on an international basis and on a balance-of-payments basis.

Notes on the data

The export and import price indexes are weighted indexes of the Laspeyres type. Price relatives are assigned equal importance within each harmonized group and are then aggregated to the higher level. The values assigned to each weight category are based on trade value figures compiled by the Bureau of the Census. The trade weights currently used to compute both indexes relate to 1990.

Because a price index depends on the same items being priced from period to period, it is necessary to recognize when a product's specifications or terms of transaction have been modified. For this reason, the Bureau's questionnaire requests detailed descriptions of the physical and functional characteristics of the products being priced, as well as information on the number of units bought or sold, discounts, credit terms, packaging, class of buyer or seller, and so forth. When there are changes in either the specifications or terms of transaction of a product, the dollar value of each change is deleted from the total price change to obtain the "pure" change. Once this value is determined, a linking procedure is employed which allows for the continued repricing of the item.

For the export price indexes, the preferred pricing is f.a.s. (free alongside ship) U.S. port of exportation. When firms report export prices f.o.b. (free on board), production point information is collected which enables the Bureau to calculate a shipment cost to the port of exportation. An attempt is made to collect two prices for imports. The first is the import price f.o.b. at the foreign port of exportation, which is consistent with the basis for valuation of imports in the national accounts. The second is the import price c.i.f.(costs, insurance, and freight) at the U.S. port of importation, which also includes the other costs associated with bringing the product to the U.S. border. It does not, however, include duty charges. For a given product, only one price basis series is used in the construction of an index.

FOR ADDITIONAL INFORMATION on international prices, contact the Division of International Prices: (202) 691–7155.

Productivity Data

(Tables 2; 39–42)

Business sector and major sectors

Description of the series

The productivity measures relate real output to real input. As such, they encompass a family of measures which include single-factor input measures, such as output per hour, output per unit of labor input, or output per unit of capital input, as well as measures of multifactor productivity (output per unit of combined labor and capital inputs). The Bureau indexes show the change in output relative to changes in the various inputs. The measures cover the business, nonfarm business, manufacturing, and nonfinancial corporate sectors.

Corresponding indexes of hourly compensation, unit labor costs, unit nonlabor payments, and prices are also provided.

Definitions

Output per hour of all persons (labor productivity) is the quantity of goods and services produced per hour of labor input. **Output per unit of capital services** (capital productivity) is the quantity of goods and services produced per unit of capital services input. **Multifactor productivity** is the quantity of goods and services produced per combined inputs. For private business and private nonfarm business, inputs include labor and capital units. For manufacturing, inputs include labor, capital, energy, non-energy materials, and purchased business services.

Compensation per hour is total compensation divided by hours at work. Total compensation equals the wages and salaries of employees plus employers' contributions for social insurance and private benefit plans, plus an estimate of these payments for the self-employed (except for nonfinancial corporations in which there are no self-employed). **Real compensation per hour** is compensation per hour deflated by the change in the Consumer Price Index for All Urban Consumers.

Unit labor costs are the labor compensation costs expended in the production of a unit of output and are derived by dividing compensation by output. **Unit nonlabor payments** include profits, depreciation, interest, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from current-dollar value of output and dividing by output.

Unit nonlabor costs contain all the components of unit nonlabor payments except unit profits.

Unit profits include corporate profits with inventory valuation and capital consumption adjustments per unit of output.

Hours of all persons are the total hours at work of payroll workers, self-employed persons, and unpaid family workers.

Labor inputs are hours of all persons adjusted for the effects of changes in the education and experience of the labor force.

Capital services are the flow of services from the capital stock used in production. It is developed from measures of the net stock of physical assets—equipment, structures, land, and inventories—weighted by rental prices for each type of asset.

Combined units of labor and capital inputs are derived by combining changes in labor and capital input with weights which represent each component's share of total cost. Combined units of labor, capital, energy, materials, and purchased business services are similarly derived by combining changes in each input with weights that represent each input's share of total costs. The indexes for each input and for combined units are based on changing weights which are averages of the shares in the current and preceding year (the Tornquist index-number formula).

Notes on the data

Business sector output is an annually-weighted index constructed by excluding from real gross domestic product (GDP) the following outputs: general government, nonprofit institutions, paid employees of private households, and the rental value of owner-occupied dwellings. Nonfarm business also excludes farming. Private business and private nonfarm business further exclude government enterprises. The measures are supplied by the U.S. Department of Commerce's Bureau of Economic Analysis. Annual estimates of manufacturing sectoral output are produced by the Bureau of Labor Statistics. Quarterly manufacturing output indexes from the Federal Reserve Board are adjusted to these annual output measures by the BLS. Compensation data are developed from data of the Bureau of Economic Analysis and the Bureau of Labor Statistics. Hours data are developed from data of the Bureau of Labor Statistics.

The productivity and associated cost measures in tables 39–42 describe the relation-

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ship between output in real terms and the labor and capital inputs involved in its production. They show the changes from period to period in the amount of goods and services produced per unit of input.

Although these measures relate output to hours and capital services, they do not measure the contributions of labor, capital, or any other specific factor of production. Rather, they reflect the joint effect of many influences, including changes in technology; shifts in the composition of the labor force; capital investment; level of output; changes in the utilization of capacity, energy, material, and research and development; the organization of production; managerial skill; and characteristics and efforts of the work force.

FOR ADDITIONAL INFORMATION on this productivity series, contact the Division of Productivity Research: (202) 691–5606.

Industry productivity measures

Description of the series

The BLS industry productivity data supplement the measures for the business economy and major sectors with annual measures of labor productivity for selected industries at the three- and four-digit levels of the Standard Industrial Classification system. In addition to labor productivity, the industry data also include annual measures of compensation and unit labor costs for three-digit industries and measures of multifactor productivity for three-digit manufacturing industries and railroad transportation. The industry measures differ in methodology and data sources from the productivity measures for the major sectors because the industry measures are developed independently of the National Income and Product Accounts framework used for the major sector measures.

Definitions

Output per hour is derived by dividing an index of industry output by an index of labor input. For most industries, **output** indexes are derived from data on the value of industry output adjusted for price change. For the remaining industries, output indexes are derived from data on the physical quantity of production.

The **labor input** series consist of the hours of all employees (production workers and nonproduction workers), the hours of all persons (paid employees, partners, proprietors, and unpaid family workers), or the number of employees, depending upon the industry.

Unit labor costs represent the labor compensation costs per unit of output produced, and are derived by dividing an index of labor compensation by an index of output. **Labor compensation** includes payroll as well as supplemental payments, including both legally required expenditures and payments for voluntary programs.

Multifactor productivity is derived by dividing an index of industry output by an index of the combined inputs consumed in producing that output. **Combined inputs** include capital, labor, and intermediate purchases. The measure of **capital input** used represents the flow of services from the capital stock used in production. It is developed from measures of the net stock of physical assets—equipment, structures, land, and inventories. The measure of **intermediate purchases** is a combination of purchased materials, services, fuels, and electricity.

Notes on the data

The industry measures are compiled from data produced by the Bureau of Labor Statistics and the Bureau of the Census, with additional data supplied by other government agencies, trade associations, and other sources.

For most industries, the productivity indexes refer to the output per hour of all employees. For some trade and services industries, indexes of output per hour of all persons (including self-employed) are constructed. For some transportation industries, only indexes of output per employee are prepared.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Industry Productivity Studies: (202) 691–5618.

International Comparisons

(Tables 43–45)

Labor force and unemployment

Description of the series

Tables 43 and 44 present comparative measures of the labor force, employment, and unemployment—approximating U.S. concepts—for the United States, Canada, Australia, Japan, and several European countries. The unemployment statistics (and, to a lesser extent, employment statistics) published by other industrial countries are not, in most cases, comparable to U.S. unemployment statistics. Therefore, the Bureau adjusts the figures for selected countries, where necessary, for all known major definitional differences. Although precise comparability may not be achieved, these adjusted figures provide a better basis for international comparisons than the figures regularly published by each country.

Definitions

For the principal U.S. definitions of the **labor force**, **employment**, and **unemployment**, see the Notes section on Employment and Unemployment Data: Household survey data.

Notes on the data

The adjusted statistics have been adapted to the age at which compulsory schooling ends in each country, rather than to the U.S. standard of 16 years of age and older. Therefore, the adjusted statistics relate to the population aged 16 and older in France, Sweden, and the United Kingdom; 15 and older in Canada, Australia, Japan, Germany, Italy from 1993 onward, and the Netherlands; and 14 and older in Italy prior to 1993. The institutional population is included in the denominator of the labor force participation rates and employment-population ratios for Japan and Germany; it is excluded for the United States and the other countries.

In the U.S. labor force survey, persons on layoff who are awaiting recall to their jobs are classified as unemployed. European and Japanese layoff practices are quite different in nature from those in the United States; therefore, strict application of the U.S. definition has not been made on this point. For further information, see *Monthly Labor Review*, December 1981, pp. 8–11.

The figures for one or more recent years for France, Germany, Italy, the Netherlands, and the United Kingdom are calculated using adjustment factors based on labor force surveys for earlier years and are considered preliminary. The recent-year measures for these countries, therefore, are subject to revision whenever data from more current labor force surveys become available.

There are breaks in the data series for the United States (1990, 1994, 1997, 1998), France (1992), Italy (1991, 1993), the Netherlands (1988), and Sweden (1987).

For the United States, the break in series reflects a major redesign of the labor force survey questionnaire and collection methodology introduced in January 1994. Revised population estimates based on the 1990 census, adjusted for the estimated undercount, also were incorporated. In 1996, previously published data for the 1990–93 period were revised to reflect the 1990 census-based population controls, adjusted for the undercount. In 1997, revised population controls were introduced into the household survey. Therefore, the data are not strictly conparable with prior years. In 1998, new composite estimation procedures and minor revisions in population controls were intro-

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duced into the household survey. Therefore, the data are not strictly comparable with data for 1997 and earlier years. See the Notes section on Employment and Unemployment Data of this *Review*.

For France, the 1992 break reflects the substitution of standardized European Union Statistical Office (EUROSTAT) unemployment statistics for the unemployment data estimated according to the International Labor Office (ILO) definition and published in the Organization for Economic Cooperation and Development (OECD) annual yearbook and quarterly update. This change was made because the EUROSTAT data are more up-to-date than the OECD figures. Also, since 1992, the EUROSTAT definitions are closer to the U.S. definitions than they were in prior years. The impact of this revision was to lower the unemployment rate by 0.1 percentage point in 1992 and 1993, by 0.4 percentage point in 1994, and 0.5 percentage point in 1995.

For Italy, the 1991 break reflects a revision in the method of weighting sample data. The impact was to increase the unemployment rate by approximately 0.3 percentage point, from 6.6 to 6.9 percent in 1991.

In October 1992, the survey methodology was revised and the definition of unemployment was changed to include only those who were actively looking for a job within the 30 days preceding the survey and who were available for work. In addition, the lower age limit for the labor force was raised from 14 to 15 years. (Prior to these changes, BLS adjusted Italy's published unemployment rate downward by excluding from the unemployed those persons who had not actively sought work in the past 30 days.) The break in the series also reflects the incorporation of the 1991 population census results. The impact of these changes was to raise Italy's adjusted unemployment rate by approximately 1.2 percentage points, from 8.3 to 9.5 percent in fourth-quarter 1992. These changes did not affect employment significantly, except in 1993. Estimates by the Italian Statistical Office indicate that employment declined by about 3 percent in 1993, rather than the nearly 4 percent indicated by the data shown in table 44. This difference is attributable mainly to the incorporation of the 1991 population benchmarks in the 1993 data. Data for earlier years have not been adjusted to incorporate the 1991 census results.

For the Netherlands, a new survey questionnaire was introduced in 1992 that allowed for a closer application of ILO guidelines. EUROSTAT has revised the Dutch series back to 1988 based on the 1992 changes. The 1988 revised unemployment rate is 7.6 percent; the previous estimate for the same year was 9.3 percent.

There have been two breaks in series in the Swedish labor force survey, in 1987 and 1993. Adjustments have been made for the 1993 break back to 1987. In 1987, a new questionnaire was introduced. Questions regarding current availability were added and the period of active workseeking was reduced from 60 days to 4 weeks. These changes lowered Sweden's 1987 unemployment rate by 0.4 percentage point, from 2.3 to 1.9 percent. In 1993, the measurement period for the labor force survey was changed to represent all 52 weeks of the year rather than one week each month and a new adjustment for population totals was introduced. The impact was to raise the unemployment rate by approximately 0.5 percentage point, from 7.6 to 8.1 percent. Statistics Sweden revised its labor force survey data for 1987–92 to take into account the break in 1993. The adjustment raised the Swedish unemployment rate by 0.2 percentage point in 1987 and gradually rose to 0.5 percentage point in 1992.

Beginning with 1987, BLS has adjusted the Swedish data to classify students who also sought work as unemployed. The impact of this change was to increase the adjusted unemployment rate by 0.1 percentage point in 1987 and by 1.8 percentage points in 1994, when unemployment was higher. In 1998, the adjusted unemployment rate had risen from 6.5 to 8.4 percent due to the adjustment to include students.

The net effect of the 1987 and 1993 changes and the BLS adjustment for students seeking work lowered Sweden's 1987 unemployment rate from 2.3 to 2.2 percent.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 691–5654.

Manufacturing productivity and labor costs

Description of the series

Table 45 presents comparative indexes of manufacturing labor productivity (output per hour), output, total hours, compensation per hour, and unit labor costs for the United States, Canada, Japan, and nine European countries. These measures are trend comparisons—that is, series that measure changes over time—rather than level comparisons. There are greater technical problems in comparing the levels of manufacturing output among countries.

BLS constructs the comparative indexes from three basic aggregate measures—output, total labor hours, and total compensation. The hours and compensation measures refer to all employed persons (wage and salary earners plus self-employed persons and unpaid family workers) in the United States, Canada, Japan, France, Germany, Norway, and Sweden, and to all employees (wage and salary earners) in the other countries.

Definitions

Output, in general, refers to value added in manufacturing from the national accounts of each country. However, the output series for Japan prior to 1970 is an index of industrial production, and the national accounts measures for the United Kingdom are essentially identical to their indexes of industrial production.

The 1977–97 output data for the United States are the gross product originating (value added) measures prepared by the Bureau of Economic Analysis of the U.S. Department of Commerce. Comparable manufacturing output data currently are not available prior to 1977.

U.S. gross product originating is a chain-type annual-weighted series. (For more information on the U.S. measure, see Robert E. Yuskavage, "Improved Estimates of Gross Product by Industry, 1959–94," *Survey of Current Business*, August 1996, pp. 133–55.) The Japanese value added series is based upon one set of fixed price weights for the years 1970 through 1997. Output series for the other foreign economies also employ fixed price weights, but the weights are updated periodically (for example, every 5 or 10 years).

To preserve the comparability of the U.S. measures with those for other economies, BLS uses gross product originating in manufacturing for the United States for these comparative measures. The gross product originating series differs from the manufacturing output series that BLS publishes in its news releases on quarterly measures of U.S. productivity and costs (and that underlies the measures that appear in tables 39 and 41 in this section). The quarterly measures are on a "sectoral output" basis, rather than a value-added basis. Sectoral output is gross output less intrasector transactions.

Total labor hours refers to hours worked in all countries. The measures are developed from statistics of manufacturing employment and average hours. The series used for France (from 1970 forward), Norway, and Sweden are official series published with the national accounts. Where official total hours series are not available, the measures are developed by BLS using employment figures published with the national accounts, or other comprehensive employment series, and estimates of annual hours worked. For Germany, BLS uses estimates of average hours worked developed by a research institute connected to the Ministry of Labor for use with the national accounts employment figures. For the other countries, BLS constructs its own estimates of average hours.

Denmark has not published estimates of

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average hours for 1994–97; therefore, the BLS measure of labor input for Denmark ends in 1993.

Total compensation (labor cost) includes all payments in cash or in-kind made directly to employees plus employer expenditures for legally required insurance programs and contractual and private benefit plans. The measures are from the national accounts of each country, except those for Belgium, which are developed by BLS using statistics on employment, average hours, and hourly compensation. For Canada, France, and Sweden, compensation is increased to account for other significant taxes on payroll or employment. For the United Kingdom, compensation is reduced between 1967 and 1991 to account for employment-related subsidies. Self-employed workers are included in the all-employed-persons measures by assuming that their hourly compensation is equal to the average for wage and salary employees.

Notes on the data

In general, the measures relate to total manufacturing as defined by the International Standard Industrial Classification. However, the measures for France (for all years) and Italy (beginning 1970) refer to mining and manufacturing less energy-related products, and the measures for Denmark include mining and exclude manufacturing handicrafts from 1960 to 1966.

The measures for recent years may be based on current indicators of manufacturing output (such as industrial production indexes), employment, average hours, and hourly compensation until national accounts and other statistics used for the long-term measures become available.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 691–5654.

Occupational Injury and Illness Data

(Tables 46–47)

Survey of Occupational Injuries and Illnesses

Description of the series

The Survey of Occupational Injuries and Illnesses collects data from employers about their workers' job-related nonfatal injuries and illnesses. The information that employers provide is based on records that they maintain under the Occupational Safety and Health Act of 1970. Self-employed individuals, farms with fewer than 11 employees, employers regulated by other Federal safety and health laws, and Federal, State, and local government agencies are excluded from the survey.

The survey is a Federal-State cooperative program with an independent sample selected for each participating State. A stratified random sample with a Neyman allocation is selected to represent all private industries in the State. The survey is stratified by Standard Industrial Classification and size of employment.

Definitions

Under the Occupational Safety and Health Act, employers maintain records of nonfatal work-related injuries and illnesses that involve one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment other than first aid.

Occupational injury is any injury such as a cut, fracture, sprain, or amputation that results from a work-related event or a single, instantaneous exposure in the work environment.

Occupational illness is an abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to factors associated with employment. It includes acute and chronic illnesses or disease which may be caused by inhalation, absorption, ingestion, or direct contact.

Lost workday injuries and illnesses are cases that involve days away from work, or days of restricted work activity, or both.

Lost workdays include the number of workdays (consecutive or not) on which the employee was either away from work or at work in some restricted capacity, or both, because of an occupational injury or illness. BLS measures of the number and incidence rate of lost workdays were discontinued beginning with the 1993 survey. The number of days away from work or days of restricted work activity does not include the day of injury or onset of illness or any days on which the employee would not have worked, such as a Federal holiday, even though able to work.

Incidence rates are computed as the number of injuries and/or illnesses or lost work days per 100 full-time workers.

Notes on the data

The definitions of occupational injuries and illnesses are from *Recordkeeping Guidelines for Occupational Injuries and Illnesses* (U.S. Department of Labor, Bureau of Labor Statistics, September 1986).

Estimates are made for industries and employment size classes for total recordable cases, lost workday cases, days away from work cases, and nonfatal cases without lost workdays. These data also are shown separately for injuries. Illness data are available for seven categories: occupational skin diseases or disorders, dust diseases of the lungs, respiratory conditions due to toxic agents, poisoning (systemic effects of toxic agents), disorders due to physical agents (other than toxic materials), disorders associated with repeated trauma, and all other occupational illnesses.

The survey continues to measure the number of new work-related illness cases which are recognized, diagnosed, and reported during the year. Some conditions, for example, long-term latent illnesses caused by exposure to carcinogens, often are difficult to relate to the workplace and are not adequately recognized and reported. These long-term latent illnesses are believed to be understated in the survey's illness measure. In contrast, the overwhelming majority of the reported new illnesses are those which are easier to directly relate to workplace activity (for example, contact dermatitis and carpal tunnel syndrome).

Most of the estimates are in the form of incidence rates, defined as the number of injuries and illnesses per 100 equivalent full-time workers. For this purpose, 200,000 employee hours represent 100 employee years (2,000 hours per employee). Full detail on the available measures is presented in the annual bulletin, *Occupational Injuries and Illnesses: Counts, Rates, and Characteristics.*

Comparable data for more than 40 States and territories are available from the BLS Office of Safety, Health and Working Conditions. Many of these States publish data on State and local government employees in addition to private industry data.

Mining and railroad data are furnished to BLS by the Mine Safety and Health Administration and the Federal Railroad Administration. Data from these organizations are included in both the national and State data published annually.

With the 1992 survey, BLS began publishing details on serious, nonfatal incidents resulting in days away from work. Included are some major characteristics of the injured and ill workers, such as occupation, age, gender, race, and length of service, as well as the circumstances of their injuries and illnesses (nature of the disabling condition, part of body affected, event and exposure, and the source directly producing the condition). In general, these data are available nationwide for detailed industries and for individual States at more aggregated industry levels.

FOR ADDITIONAL INFORMATION on occupational injuries and illnesses, contact the Office of Occupational Safety, Health and Working Conditions at (202) 691–6180, or access the Internet at:

http://www.bls.gov/oshhome.htm

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Census of Fatal Occupational Injuries

The Census of Fatal Occupational Injuries compiles a complete roster of fatal job-related injuries, including detailed data about the fatally injured workers and the fatal events. The program collects and cross checks fatality information from multiple sources, including death certificates, State and Federal workers' compensation reports, Occupational Safety and Health Administration and Mine Safety and Health Administration records, medical examiner and autopsy reports, media accounts, State motor vehicle fatality records, and follow-up questionnaires to employers.

In addition to private wage and salary workers, the self-employed, family members, and Federal, State, and local government workers are covered by the program. To be included in the fatality census, the decedent must have been employed (that is working for pay, compensation, or profit) at the time of the event, engaged in a legal work activity, or present at the site of the incident as a requirement of his or her job.

Definition

A fatal work injury is any intentional or unintentional wound or damage to the body resulting in death from acute exposure to energy, such as heat or electricity, or kinetic energy from a crash, or from the absence of such essentials as heat or oxygen caused by a specific event or incident or series of events within a single workday or shift. Fatalities that occur during a person's commute to or from work are excluded from the census, as well as work-related illnesses, which can be difficult to identify due to long latency periods.

Notes on the data

Twenty-eight data elements are collected, coded, and tabulated in the fatality program, including information about the fatally injured worker, the fatal incident, and the machinery or equipment involved. Summary worker demographic data and event characteristics are included in a national news release that is available about 8 months after the end of the reference year. The Census of Fatal Occupational Injuries was initiated in 1992 as a joint Federal-State effort. Most States issue summary information at the time of the national news release.

FOR ADDITIONAL INFORMATION on the Census of Fatal Occupational Injuries contact the BLS Office of Safety, Health, and Working Conditions at (202) 691–6175, or the Internet at:

http://www.bls.gov/oshhome.htm

Bureau of Labor Statistics Internet

The Bureau of Labor Statistics World Wide Web site on the Internet contains a range of data on consumer and producer prices, employment and unemployment, occupational compensation, employee benefits, workplace injuries and illnesses, and productivity. The homepage can be accessed using any Web browser:

http://stats.bls.gov

Also, some data can be accessed through anonymous FTP or Gopher at

stats.bls.gov

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1. Labor market indicators

Selected indicators	1998	1999	1998		1999				2000		
			III	IV	I	II	III	IV	I	II	III
Employment data											
Employment status of the civilian noninstitutionalized population (household survey):[1]											
Labor force participation rate	67.1	67.1	67.0	67.1	67.2	67.1	67.0	67.0	67.5	67.3	67.0
Employment-population ratio	64.1	64.3	64.0	64.1	64.3	64.2	64.2	64.3	64.7	64.6	64.3
Unemployment rate	4.5	4.2	4.5	4.4	4.3	4.3	4.2	4.1	4.1	4.0	4.0
Men	4.4	4.1	4.5	4.3	4.2	4.2	4.1	4.0	4.0	3.9	3.9
16 to 24 years	11.1	10.3	11.5	10.6	10.4	10.4	10.0	10.4	9.7	9.7	9.7
25 years and over	3.2	3.0	3.2	3.1	3.0	3.0	3.0	2.9	2.9	2.8	2.8
Women	4.6	4.3	4.5	4.6	4.4	4.4	4.4	4.2	4.2	4.1	4.2
16 to 24 years	9.8	9.5	9.9	9.4	9.8	9.2	9.5	9.4	9.6	9.0	8.5
25 years and over	3.6	3.3	3.5	3.6	3.4	3.4	3.3	3.1	3.2	3.2	3.3
Employment, nonfarm (payroll data), in thousands:[1]											
Total	125,865	128,786	126,180	126,967	127,800	128,430	129,073	129,783	130,626	131,552	131,619
Private sector	106,042	108,616	106,321	107,016	107,741	108,319	108,874	109,507	110,195	110,725	111,089
Goods-producing	25,414	25,482	25,408	25,469	25,488	25,454	25,459	25,524	25,680	25,703	25,670
Manufacturing	18,805	18,543	18,765	18,716	18,632	18,543	18,516	18,482	18,481	18,488	18,448
Service-producing	100,451	103,304	100,772	101,498	102,312	102,976	103,614	104,259	104,946	105,849	105,949
Average hours:											
Private sector	34.6	34.5	34.6	34.6	34.5	34.5	34.5	34.5	34.5	34.5	34.4
Manufacturing	41.7	41.7	41.7	41.7	41.6	41.7	41.8	41.7	41.7	41.7	41.4
Overtime	4.6	4.6	4.6	4.5	4.5	4.6	4.6	4.7	4.6	4.7	4.5
Employment Cost Index[2]											
Percent change in the ECI, compensation:											
All workers (excluding farm, household and Federal workers)	3.4	3.4	1.2	.6	.4	1.0	1.1	.9	1.3	1.0	1.0
Private industry workers	3.5	3.4	1.1	.6	.4	1.1	.9	.9	1.5	1.2	.9
Goods-producing[3]	2.8	3.4	.7	.5	.8	.7	.9	1.0	1.6	1.2	.9
Service-producing[3]	3.8	3.4	1.3	.6	.3	1.3	.9	.8	1.4	1.2	1.0
State and local government workers	3.0	3.4	1.5	.6	.5	.4	1.5	1.0	.6	.3	1.3
Workers by bargaining status (private industry):											
Union	3.0	2.7	1.1	.5	.4	.7	.9	.7	1.3	1.0	1.2
Nonunion	3.5	3.6	1.1	.6	.5	1.2	.9	1.0	1.5	1.2	1.0

[1] Quarterly data seasonally adjusted.

[2] Annual changes are December-to-December changes. Quarterly changes are calculated using the last month of each quarter.

[3] Goods-producing industries include mining, construction, and manufacturing. Service-producing industries include all other private sector industries.

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2. Annual and quarterly percent changes in compensation, prices, and productivity

Selected measures	1998	1999	1998		1999				2000		
			III	IV	I	II	III	IV	I	II	III
Compensation data[1,2]											
Employment Cost Index—compensation (wages, salaries, benefits):											
Civilian nonfarm	3.4	3.4	1.2	0.6	0.4	1.0	1.1	0.9	1.3	1.0	1.0
Private nonfarm	3.5	3.4	1.1	.6	.4	1.1	.9	.9	1.5	1.2	.9
Employment Cost Index—wages and salaries:											
Civilian nonfarm	3.7	3.5	1.3	.7	.5	1.0	1.1	.8	1.1	1.0	1.1
Private nonfarm	3.9	3.5	1.3	.6	.5	1.2	.9	.9	1.2	1.0	1.0
Price data[1]											
Consumer Price Index (All Urban Consumers): All Items	1.6	2.7	.4	.2	.7	.7	1.0	.2	1.7	.7	1.0
Producer Price Index:											
Finished goods	.0	2.9	–.1	.4	.0	1.2	1.5	.1	1.4	1.2	1.0
Finished consumer goods	.0	3.8	.0	.2	.0	1.8	2.2	–.2	1.8	1.5	1.0
Capital equipment	.0	.3	–.4	.9	–.1	–.4	–.4	1.2	.1	.0	.0
Intermediate materials, supplies, and components	–3.3	3.7	–.5	–1.6	–.2	1.9	1.9	.1	1.9	1.5	1.0
Crude materials	–16.7	15.3	–5.6	–2.5	–.1	9.4	10.2	–3.5	9.1	7.8	–.6
Productivity data[3]											
Output per hour of all persons:											
Business sector	2.7	3.1	2.1	3.9	3.3	.9	4.9	7.7	1.6	6.9	2.8
Nonfarm business sector	2.6	2.9	1.8	3.6	2.6	.6	5.2	8.0	1.9	6.1	3.3
Nonfinancial corporations[4]	3.3	4.0	5.2	3.4	4.4	3.8	5.1	6.1	2.9	5.4	4.9

[1] Annual changes are December-to-December changes. Quarterly changes are calculated using the last month of each quarter. Compensation and price data are not seasonally adjusted, and the price data are not compounded.

[2] Excludes Federal and private household workers.

[3] Annual rates of change are computed by comparing annual averages. Quarterly percent changes reflect annual rates of change in quarterly indexes. The data are seasonally adjusted.

[4] Output per hour of all employees.

3. Alternative measures of wage and compensation changes

Components	Quarterly average						Four quarters ending—					
	1999			2000			1999			2000		
	II	III	IV	I	II	III	II	III	IV	I	II	III
Average hourly compensation:[1]												
All persons, business sector	5.0	5.3	3.8	3.5	7.0	5.7	5.0	5.1	4.8	4.4	4.9	5.0
All persons, nonfarm business sector	5.0	5.5	4.2	3.9	5.9	6.3	4.8	4.8	4.8	4.6	4.9	5.1
Employment Cost Index—compensation:												
Civilian nonfarm[2]	1.0	1.1	.9	1.3	1.0	1.0	3.2	3.1	3.4	4.3	4.4	4.3
Private nonfarm	1.1	.9	.9	1.5	1.2	.9	3.3	3.1	3.4	4.6	4.6	4.6
Union	.7	.9	.7	1.3	1.0	1.2	2.7	2.5	2.7	3.6	3.9	4.2
Nonunion	1.2	.9	1.0	1.5	1.2	1.0	3.4	3.2	3.6	4.7	4.6	4.7
State and local governments	.4	1.5	1.0	.6	.3	1.3	3.0	2.9	3.4	3.6	3.5	3.3
Employment Cost Index—wages and salaries:												
Civilian nonfarm[2]	1.0	1.1	.8	1.1	1.0	1.1	3.6	3.3	3.5	4.0	4.0	4.0
Private nonfarm	1.2	.9	.9	1.2	1.0	1.0	3.6	3.2	3.5	4.2	4.1	4.1
Union	.8	.7	.6	.5	.9	1.1	3.1	2.5	2.6	2.7	2.8	3.2
Nonunion	1.2	.9	.9	1.3	1.1	1.0	3.7	3.3	3.6	4.4	4.3	4.3
State and local governments	.4	1.9	.9	.6	.3	1.7	3.1	3.3	3.6	3.8	3.7	3.5

[1] Seasonally adjusted. "Quarterly average" is percent change from a quarter ago, at an annual rate.

[2] Excludes Federal and household workers.

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4. Employment status of the population, by sex, age, race, and Hispanic origin, monthly data seasonally adjusted

[Numbers in thousands]

Employment status	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
TOTAL															
Civilian noninstitutional population[1]	205,220	207,753	208,483	208,666	208,832	208,782	208,907	209,053	209,216	209,371	209,543	209,727	209,935	210,161	210,378
Civilian labor force	137,673	139,368	139,697	139,834	140,108	140,910	141,165	140,867	141,230	140,489	140,762	140,399	140,742	140,639	140,918
Participation rate	67.1	67.1	67.0	67.0	67.1	67.5	67.6	67.4	67.5	67.1	67.2	66.9	67.0	66.9	67.0
Employed	131,463	133,488	133,940	134,098	134,420	135,221	135,362	135,159	135,706	134,715	135,179	134,749	134,912	135,161	135,422
Employment-population ratio[2]	64.1	64.3	64.2	64.3	64.4	64.8	64.8	64.7	64.9	64.3	64.5	64.2	64.3	64.3	64.4
Unemployed	6,210	5,880	5,757	5,736	5,688	5,689	5,804	5,708	5,524	5,774	5,583	5,650	5,829	5,477	5,496
Unemployment rate	4.5	4.2	4.1	4.1	4.1	4.0	4.1	4.1	3.9	4.1	4.0	4.0	4.1	3.9	3.9
Not in the labor force	67,547	68,385	68,786	68,832	68,724	67,872	67,742	68,187	67,986	68,882	68,781	69,329	69,193	69,522	69,460
Men, 20 years and over															
Civilian noninstitutional population[1]	90,790	91,555	91,896	91,986	92,052	92,057	92,092	92,145	92,303	92,408	92,546	92,642	92,754	92,863	92,969
Civilian labor force	69,715	70,194	70,339	70,388	70,529	70,917	71,120	70,822	70,761	70,603	70,714	70,702	71,067	71,002	71,128
Participation rate	76.8	76.7	76.5	76.5	76.6	77.0	77.2	76.9	76.7	76.4	76.4	76.3	76.6	76.5	76.5
Employed	67,135	67,761	67,898	68,037	68,197	68,585	68,691	68,480	68,481	68,230	68,430	68,440	68,757	68,699	68,743
Employment-population ratio[2]	73.9	74.0	73.9	74.0	74.1	74.5	74.6	74.3	74.2	73.8	73.9	73.9	74.1	74.0	73.9
Agriculture	2,350	2,244	2,206	2,262	2,227	2,303	2,309	2,232	2,213	2,217	2,269	2,296	2,288	2,350	2,196
Nonagricultural industries	64,785	65,517	65,692	65,775	65,970	66,282	66,382	66,249	66,269	66,013	66,161	66,144	66,469	66,349	66,547
Unemployed	2,580	2,433	2,441	2,351	2,332	2,332	2,429	2,342	2,280	2,373	2,284	2,263	2,309	2,303	2,385
Unemployment rate	3.7	3.5	3.5	3.3	3.3	3.3	3.4	3.3	3.2	3.4	3.2	3.2	3.2	3.2	3.4
Women, 20 years and over															
Civilian noninstitutional population[1]	98,786	100,158	100,458	100,573	100,666	100,579	100,666	100,713	100,809	100,929	101,007	101,111	101,209	101,321	101,448
Civilian labor force	59,702	60,840	60,955	61,052	61,154	61,576	61,575	61,671	61,920	61,614	61,596	61,508	61,260	61,386	61,481
Participation rate	60.4	60.7	60.7	60.7	60.7	61.2	61.2	61.2	61.4	61.0	61.0	60.8	60.5	60.6	60.6
Employed	57,278	58,555	58,800	58,838	58,958	59,280	59,398	59,422	59,757	59,248	59,278	59,222	58,949	59,268	59,417
Employment-population ratio[2]	58.0	58.5	58.5	58.5	58.6	58.9	59.0	59.0	59.3	58.7	58.7	58.6	58.2	58.5	58.6
Agriculture	768	803	800	768	791	826	871	894	899	864	834	792	824	744	734
Nonagricultural industries	56,510	57,752	58,000	58,070	58,167	58,454	58,526	58,528	58,858	58,383	58,444	58,430	58,125	58,524	58,683
Unemployed	2,424	2,285	2,155	2,214	2,196	2,297	2,178	2,249	2,163	2,367	2,318	2,286	2,311	2,118	2,065
Unemployment rate	4.1	3.8	3.5	3.6	3.6	3.7	3.5	3.6	3.5	3.8	3.8	3.7	3.8	3.5	3.4
Both sexes, 16 to 19 years															
Civilian noninstitutional population[1]	15,644	16,040	16,129	16,107	16,114	16,147	16,149	16,196	16,104	16,034	15,991	15,974	15,972	15,977	15,960
Civilian labor force	8,256	8,333	8,403	8,394	8,425	8,416	8,470	8,374	8,549	8,271	8,452	8,189	8,415	8,251	8,309
Participation rate	52.8	52.0	52.1	52.1	52.3	52.1	52.4	51.7	53.1	51.6	52.9	51.3	52.7	51.6	52.1
Employed	7,051	7,172	7,242	7,223	7,265	7,356	7,273	7,257	7,467	7,237	7,471	7,087	7,206	7,195	7,262
Employment-population ratio[2]	45.1	44.7	44.9	44.8	45.1	45.6	45.0	44.8	46.4	45.1	46.7	44.4	45.1	45.0	45.5
Agriculture	261	234	232	280	261	242	228	233	243	217	218	211	232	247	304
Nonagricultural industries	6,790	6,938	7,010	6,943	7,004	7,114	7,046	7,024	7,224	7,020	7,253	6,876	6,974	6,948	6,958
Unemployed	1,205	1,162	1,161	1,171	1,160	1,060	1,197	1,117	1,082	1,034	981	1,101	1,209	1,056	1,047
Unemployment rate	14.6	13.9	13.8	14.0	13.8	12.6	14.1	13.3	12.7	12.5	11.6	13.4	14.4	12.8	12.6
White															
Civilian noninstitutional population[1]	171,478	173,085	173,585	173,709	173,821	173,812	173,886	173,983	174,092	174,197	174,316	174,443	174,587	174,745	174,899
Civilian labor force	115,415	116,509	116,654	116,703	117,008	117,716	117,821	117,832	117,988	117,097	117,451	117,258	117,551	117,535	117,500
Participation rate	67.3	67.3	67.2	67.2	67.3	67.7	67.8	67.7	67.8	67.2	67.4	67.2	67.3	67.3	67.2
Employed	110,931	112,235	112,548	112,611	112,951	113,704	113,634	113,630	113,915	112,988	113,484	113,156	113,352	113,450	113,516
Employment-population ratio[2]	64.7	64.8	64.8	64.8	65.0	65.4	65.3	65.3	65.4	64.9	65.1	64.9	64.9	64.9	64.9
Unemployed	4,484	4,273	4,106	4,092	4,057	4,011	4,187	4,202	4,073	4,108	3,967	4,103	4,199	4,085	3,984
Unemployment rate	3.9	3.7	3.5	3.5	3.5	3.4	3.6	3.6	3.5	3.5	3.4	3.5	3.6	3.5	3.4
Black															
Civilian noninstitutional population[1]	24,373	24,855	24,985	25,019	25,051	25,047	25,076	25,105	25,135	25,161	25,191	25,221	25,258	25,299	25,339
Civilian labor force	15,982	16,365	16,489	16,508	16,513	16,622	16,785	16,572	16,636	16,596	16,557	16,456	16,512	16,403	16,593
Participation rate	65.6	65.8	66.0	66.0	65.9	66.4	66.9	66.0	66.2	66.0	65.8	65.2	65.4	64.8	65.5
Employed	14,556	15,056	15,124	15,187	15,204	15,254	15,471	15,356	15,444	15,261	15,275	15,190	15,190	15,246	15,380
Employment-population ratio[2]	59.7	60.6	60.5	60.7	60.7	60.9	61.7	61.2	61.4	60.7	60.6	60.2	60.1	60.3	60.7
Unemployed	1,426	1,309	1,365	1,321	1,309	1,368	1,314	1,216	1,191	1,335	1,302	1,266	1,322	1,156	1,213
Unemployment rate	8.9	8.0	8.3	8.0	7.9	8.2	7.8	7.3	7.2	8.0	7.9	7.7	8.0	7.0	7.3

See footnotes at end of table.

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4. Continued—Employment status of the population, by sex, age, race, and Hispanic origin, monthly data seasonally adjusted

[Numbers in thousands]

Employment status	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Hispanic origin															
Civilian noninstitutional population[1]	21,070	21,650	21,881	21,947	22,008	22,047	22,108	22,166	22,231	22,292	22,355	22,422	22,488	22,555	22,618
Civilian labor force	14,317	14,665	14,809	14,887	14,984	15,251	15,249	15,313	15,355	15,322	15,325	15,188	15,248	15,536	15,496
Participation rate	67.9	67.7	67.7	67.8	68.1	69.2	69.0	69.1	69.1	68.7	68.6	67.7	67.8	68.9	68.5
Employed	13,291	13,720	13,879	13,979	14,095	14,395	14,382	14,355	14,524	14,432	14,461	14,339	14,371	14,666	14,728
Employment-population ratio[2]	63.1	63.4	63.4	63.7	64.0	65.3	65.1	64.8	65.3	64.7	64.7	64.0	63.9	65.0	65.1
Unemployed	1,026	945	930	908	889	856	868	958	831	890	864	849	876	871	767
Unemployment rate	7.2	6.4	6.3	6.1	5.9	5.6	5.7	6.3	5.4	5.8	5.6	5.6	5.7	5.6	5.0

[1] The population figures are not seasonally adjusted.

[2] Civilian employment as a percent of the civilian noninstitutional population.

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" groups are not presented and Hispanics are included in both the white and black population groups.

5. Selected employment indicators, monthly data seasonally adjusted

[In thousands]

Selected categories	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Characteristic															
Employed, 16 years and over	131,463	133,488	133,940	134,098	134,420	135,221	135,362	135,159	135,706	134,715	135,179	134,749	134,912	135,161	135,422
Men	70,693	71,446	71,623	71,732	71,927	72,358	72,473	72,313	72,307	71,948	72,217	72,063	72,407	72,352	72,378
Women	60,771	62,042	62,317	62,366	62,493	62,863	62,889	62,846	63,399	62,767	62,962	62,686	62,505	62,809	63,044
Married men, spouse present	42,923	43,254	43,206	43,273	43,283	43,951	43,535	43,297	43,272	43,216	43,357	43,284	43,372	43,324	43,363
Married women, spouse present	32,872	33,450	33,521	33,635	33,762	34,166	33,882	33,780	33,877	33,786	33,824	33,618	33,413	33,402	33,604
Women who maintain families	7,904	8,229	8,398	8,526	8,375	8,362	8,220	8,082	8,307	8,301	8,280	8,483	8,519	8,548	8,441
Class of worker															
Agriculture:															
Wage and salary workers	2,000	1,944	1,936	2,049	2,018	2,024	2,025	2,043	2,054	2,006	2,059	2,079	2,056	2,010	2,044
Self-employed workers	1,341	1,297	1,267	1,216	1,211	1,320	1,344	1,292	1,272	1,252	1,175	1,182	1,258	1,288	1,171
Unpaid family workers	38	40	42	41	36	38	51	42	43	38	50	40	37	39	31
Nonagricultural industries:															
Wage and salary workers	119,019	121,323	121,654	121,965	122,426	122,823	123,166	123,169	123,623	122,860	123,002	122,681	122,773	122,992	123,367
Government	18,383	18,903	18,817	18,902	18,959	19,013	19,394	19,598	19,280	19,169	18,777	18,497	18,496	18,979	19,047
Private industries	100,637	102,420	102,837	103,063	103,467	103,810	103,772	103,571	104,343	103,691	104,225	104,184	104,277	104,013	104,320
Private households	962	933	939	944	948	952	1,016	998	1,019	953	957	807	716	812	793
Other	99,674	101,487	101,898	102,119	102,519	102,858	102,756	102,573	103,324	102,783	103,268	103,377	103,561	103,201	103,527
Self-employed workers	8,962	8,790	8,833	8,686	8,662	8,802	8,793	8,704	8,750	8,714	8,665	8,609	8,590	8,799	8,550
Unpaid family workers	103	95	101	108	98	92	74	107	103	82	71	80	116	105	144
Persons at work part time[1]															
All industries:															
Part time for economic reasons	3,665	3,357	3,179	3,274	3,320	3,219	3,139	3,124	3,124	3,248	3,117	3,071	3,164	3,189	3,200
Slack work or business conditions	2,095	1,968	1,928	1,930	1,951	1,893	1,807	1,820	1,844	1,962	1,811	1,846	1,997	2,101	1,900
Could only find part-time work	1,258	1,079	993	1,032	1,025	1,012	1,023	953	1,016	978	1,022	900	855	815	973
Part time for noneconomic reasons	18,530	18,758	18,799	18,651	18,618	18,889	19,031	18,770	18,474	18,409	18,308	18,558	18,709	18,456	18,704
Nonagricultural industries:															
Part time for economic reasons	3,501	3,189	2,983	3,105	3,157	3,066	2,985	3,003	3,021	3,096	2,967	2,940	3,038	3,021	3,031
Slack work or business conditions	1,997	1,861	1,807	1,815	1,843	1,801	1,705	1,766	1,782	1,840	1,713	1,750	1,924	1,983	1,810
Could only find part-time work	1,228	1,056	964	1,013	1,018	966	1,005	922	989	962	994	881	838	804	945
Part time for noneconomic reasons	17,954	18,197	18,249	18,083	18,061	18,347	18,406	18,184	17,943	17,853	17,743	18,041	18,190	17,879	18,158

[1] Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial disputes.

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6. Selected unemployment indicators, monthly data seasonally adjusted

[Unemployment rates]

Selected categories	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Characteristic															
Total, 16 years and over	4.5	4.2	4.1	4.1	4.1	4.0	4.1	4.1	3.9	4.1	4.0	4.0	4.1	3.9	3.9
Both sexes, 16 to 19 years	14.6	13.9	13.8	14.0	13.8	12.6	14.1	13.3	12.7	12.5	11.6	13.4	14.4	12.8	12.6
Men, 20 years and over	3.7	3.5	3.5	3.3	3.3	3.3	3.4	3.3	3.2	3.4	3.2	3.2	3.2	3.2	3.4
Women, 20 years and over	4.1	3.8	3.5	3.6	3.6	3.7	3.5	3.6	3.5	3.8	3.8	3.7	3.8	3.5	3.4
White, total	3.9	3.7	3.5	3.5	3.5	3.4	3.6	3.6	3.5	3.5	3.4	3.5	3.6	3.5	3.4
Both sexes, 16 to 19 years	12.6	12.0	11.8	12.0	12.2	10.8	12.5	11.7	11.6	10.6	9.4	11.5	12.2	11.5	11.1
Men, 16 to 19 years	14.1	12.6	11.9	12.8	13.3	12.4	14.4	11.3	13.0	10.7	11.2	12.6	13.3	12.2	11.5
Women, 16 to 19 years	10.9	11.3	11.7	11.2	10.9	9.1	10.4	12.1	10.0	10.5	7.4	10.3	11.0	10.7	10.6
Men, 20 years and over	3.2	3.0	2.9	2.8	2.8	2.8	2.9	2.9	2.8	2.8	2.8	2.7	2.7	2.9	2.9
Women, 20 years and over	3.4	3.3	3.1	3.1	3.0	3.1	3.1	3.2	3.1	3.3	3.2	3.3	3.3	3.1	2.9
Black, total	8.9	8.0	8.3	8.0	7.9	8.2	7.8	7.3	7.2	8.0	7.9	7.7	8.0	7.0	7.3
Both sexes, 16 to 19 years	27.6	27.9	30.8	28.4	25.3	23.9	24.3	25.1	22.2	23.9	25.4	26.6	27.8	23.9	24.2
Men, 16 to 19 years	30.1	30.9	35.3	31.0	27.5	24.0	22.3	21.3	22.0	27.7	32.0	25.0	33.7	26.7	28.0
Women, 16 to 19 years	25.3	25.1	26.1	25.9	23.0	23.8	26.6	28.9	22.4	20.2	18.2	27.9	22.5	21.5	21.0
Men, 20 years and over	7.4	6.7	7.7	7.0	7.0	7.4	7.1	6.4	6.6	7.2	6.9	6.7	7.4	6.3	7.0
Women, 20 years and over	7.9	6.8	6.1	6.6	6.7	7.2	6.5	6.1	5.8	7.0	6.6	6.4	6.3	5.8	5.6
Hispanic origin, total	7.2	6.4	6.3	6.1	5.9	5.6	5.7	6.3	5.4	5.8	5.6	5.6	5.7	5.6	5.0
Married men, spouse present	2.4	2.2	2.2	2.1	2.2	2.0	2.1	2.0	1.8	1.9	1.9	2.0	2.0	2.1	2.0
Married women, spouse present	2.9	2.7	2.5	2.5	2.5	2.6	2.6	2.7	2.6	2.9	2.6	2.8	2.9	2.8	2.4
Women who maintain families	7.2	6.4	6.0	6.0	6.2	6.2	6.1	6.8	6.3	6.5	6.1	5.6	6.0	5.3	5.4
Full-time workers	4.3	4.1	4.0	3.9	3.9	3.9	3.9	3.8	3.8	3.9	3.8	3.7	4.0	3.8	3.8
Part-time workers	5.3	5.0	4.7	4.9	4.9	4.6	4.9	5.1	4.6	5.3	4.8	5.3	5.0	4.6	4.4
Industry															
Nonagricultural wage and salary workers	4.6	4.3	4.2	4.2	4.1	4.2	4.2	4.3	4.0	4.2	4.0	4.1	4.1	4.0	4.0
Mining	3.2	5.7	5.0	4.6	4.1	2.6	4.0	2.5	2.8	4.2	3.5	5.1	4.6	5.8	7.1
Construction	7.5	7.0	6.7	5.7	6.6	6.4	7.5	6.9	5.2	5.8	5.9	5.9	6.5	6.4	6.5
Manufacturing	3.9	3.6	3.7	3.7	3.6	3.2	3.3	3.9	4.0	3.7	3.4	3.6	3.5	3.6	4.1
Durable goods	3.4	3.5	3.5	3.7	3.6	2.8	3.0	3.0	3.9	3.6	3.5	3.3	3.1	3.1	3.8
Nondurable goods	4.7	3.9	4.0	3.7	3.5	3.9	3.8	5.2	4.1	3.7	3.1	4.0	4.3	4.4	4.5
Transportation and public utilities	3.4	3.0	3.1	3.3	3.0	3.7	3.2	3.1	2.9	3.2	2.7	3.2	3.1	3.3	2.7
Wholesale and retail trade	5.5	5.2	4.9	5.3	5.2	5.1	5.3	5.4	4.9	5.1	5.2	5.0	5.1	4.7	4.7
Finance, insurance, and real estate	2.5	2.3	2.3	2.3	2.1	2.5	2.9	2.4	2.6	2.4	2.3	2.1	2.5	2.0	2.4
Services	4.5	4.1	4.0	3.9	3.8	4.2	3.7	4.0	3.7	4.1	3.8	4.0	3.8	3.6	3.5
Government workers	2.3	2.2	2.1	2.0	2.1	2.1	2.2	1.7	1.7	2.0	2.5	2.1	2.4	2.0	2.0
Agricultural wage and salary workers	8.3	8.9	7.7	8.3	7.1	5.0	6.5	5.6	8.4	7.6	7.3	7.0	8.5	7.8	9.2
Educational attainment[1]															
Less than a high school diploma	7.1	6.7	6.6	6.5	6.0	6.6	6.0	6.9	6.1	7.0	6.4	6.4	6.1	6.1	6.4
High school graduates, no college	4.0	3.5	3.3	3.3	3.5	3.5	3.5	3.4	3.4	3.6	3.4	3.3	3.7	3.3	3.5
Some college, less than a bachelor's degree	3.0	2.8	2.7	2.7	2.5	2.6	2.9	2.7	2.6	2.5	2.9	2.8	2.9	2.6	2.4
College graduates	1.8	1.8	1.7	1.7	1.8	1.8	1.6	1.6	1.5	1.6	1.5	1.7	1.8	1.9	1.6

[1] Data refer to persons 25 years and over.

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7. Duration of unemployment, monthly data seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	Annual average		1999			2000									
	1998	1999	Oct.	Nov,	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.
Less than 5 weeks	2,622	2,568	2,545	2,601	2,620	2,447	2,603	2,824	2,455	2,531	2,595	2,470	2,594	2,487	2,497
5 to 14 weeks	1,950	1,832	1,811	1,760	1,694	1,754	1,864	1,719	1,868	1,953	1,759	1,812	1,846	1,717	1,703
15 weeks and over	1,637	1,480	1,434	1,401	1,388	1,372	1,277	1,295	1,250	1,337	1,242	1,331	1,384	1,226	1,320
15 to 26 weeks	763	755	719	725	693	667	673	657	670	677	593	654	679	602	715
27 weeks and over	875	725	715	676	695	705	604	637	580	660	649	677	705	624	605
Mean duration, in weeks	14.5	13.4	13.2	13.0	12.9	13.2	12.5	12.8	12.4	12.6	12.4	13.3	13.0	11.9	12.4
Median duration, in weeks	6.7	6.4	6.3	6.2	5.9	5.7	6.1	6.0	6.0	5.8	5.8	6.0	6.2	5.2	6.2

8. Unemployed persons by reason for unemployment, monthly data seasonally adjusted

[Numbers in thousands]

Reason for unemployment	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Job losers[1]	2,822	2,622	2,518	2,493	2,401	2,477	2,616	2,541	2,306	2,483	2,450	2,417	2,615	2,511	2,428
On temporary layoff	866	848	802	851	795	739	838	781	703	894	959	856	940	823	791
Not on temporary layoff	1,957	1,774	1,716	1,642	1,606	1,739	1,778	1,759	1,602	1,589	1,491	1,561	1,674	1,688	1,637
Job leavers	734	783	778	821	825	776	759	824	883	774	671	799	782	746	837
Reentrants	2,132	2,005	1,958	1,935	2,036	2,043	1,975	1,979	1,961	2,093	2,076	1,961	1,919	1,774	1,842
New entrants	520	469	511	485	453	393	387	434	408	500	343	402	514	411	383
Percent of unemployed															
Job losers[1]	45.5	44.6	43.7	43.5	42.0	43.5	45.6	44.0	41.9	42.4	44.2	43.3	44.8	46.2	44.2
On temporary layoff	13.9	14.4	13.9	14.8	13.9	13.0	14.6	13.5	12.8	15.3	17.3	15.3	16.1	15.1	14.4
Not on temporary layoff	31.5	30.2	29.8	28.6	28.1	30.6	31.0	30.5	29.1	27.2	26.9	28.0	28.7	31.0	29.8
Job leavers	11.8	13.3	13.5	14.3	14.4	13.6	13.2	14.3	15.1	13.2	12.1	14.3	13.4	13.7	15.3
Reentrants	34.3	34.1	34.0	33.7	35.6	35.9	34.4	34.3	35.6	35.8	37.5	35.1	32.9	32.6	33.5
New entrants	8.4	8.0	8.9	8.5	7.9	6.9	6.7	7.5	7.4	8.5	6.2	7.2	8.8	7.5	7.0
Percent of civilian labor force															
Job losers[1]	2.1	1.9	1.8	1.8	1.7	1.8	1.9	1.8	1.6	1.8	1.7	1.7	1.9	1.8	1.7
Job leavers	.5	.6	.6	.6	.6	.6	.5	.6	.6	.6	.5	.6	.6	.5	.6
Reentrants	1.5	1.4	1.4	1.4	1.5	1.4	1.4	1.4	1.4	1.5	1.5	1.4	1.4	1.4	1.3
New entrants	.4	.3	.4	.3	.3	.3	.3	.3	.3	.4	.2	.3	.4	.4	.3

[1] Includes persons who completed temporary jobs.

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9. Unemployment rates by sex and age, monthly data seasonally adjusted

[Civilian workers]

Sex and age	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Total, 16 years and over	4.5	4.2	4.1	4.1	4.1	4.0	4.1	4.1	3.9	4.1	4.0	4.0	4.1	3.9	3.9
16 to 24 years	10.4	9.9	10.0	10.0	9.8	9.3	10.0	9.7	9.3	9.8	9.0	9.2	9.4	8.7	8.9
16 to 19 years	14.6	13.9	13.9	14.0	13.8	12.6	14.1	13.3	12.7	12.5	11.6	13.4	14.4	12.8	12.6
16 to 17 years	17.2	16.3	15.9	16.5	16.5	14.0	15.9	15.3	14.6	16.0	13.1	16.5	17.1	15.7	14.9
18 to 19 years	12.8	12.4	12.4	12.3	12.1	11.4	12.8	12.1	11.4	10.4	10.6	11.5	12.6	11.2	11.3
20 to 24 years	7.9	7.5	7.7	7.7	7.4	7.4	7.5	7.6	7.2	8.2	7.5	6.8	6.4	6.4	6.8
25 years and over	3.4	3.1	3.0	3.0	3.0	3.0	3.0	3.0	2.9	3.0	3.0	3.0	3.1	3.0	2.9
25 to 54 years	3.5	3.2	3.1	3.1	3.0	3.1	3.0	3.0	3.0	3.1	3.1	3.2	3.2	3.0	3.0
55 years and over	2.7	2.8	2.7	2.6	2.7	2.8	3.0	2.7	2.4	2.4	2.3	2.4	2.6	2.8	2.9
Men, 16 years and over	4.4	4.1	4.1	4.0	4.0	3.9	4.1	3.8	3.8	3.9	3.9	3.8	4.0	3.8	3.9
16 to 24 years	11.1	10.3	10.4	10.2	10.6	9.7	10.3	9.2	9.6	10.0	9.5	9.6	10.1	9.3	9.4
16 to 19 years	16.2	14.7	14.2	14.9	15.2	14.0	15.5	12.4	13.6	13.1	14.1	14.0	16.0	13.6	13.2
16 to 17 years	19.1	17.0	15.5	16.9	17.7	14.3	17.3	15.1	15.8	16.9	15.6	17.4	16.9	17.4	17.7
18 to 19 years	14.1	13.1	13.2	13.6	13.5	13.7	13.9	10.5	12.4	10.8	13.3	11.9	15.5	11.0	10.3
20 to 24 years	8.1	7.7	8.2	7.5	7.8	7.2	7.3	7.4	7.3	8.3	6.8	7.1	6.7	6.9	7.4
25 years and over	3.2	3.0	2.9	2.8	2.8	2.8	2.9	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.9
25 to 54 years	3.3	3.0	3.0	2.9	2.9	2.9	2.9	2.8	2.7	2.8	2.9	2.8	2.9	2.8	2.9
55 years and over	2.8	2.8	2.8	2.6	2.5	2.5	2.8	2.8	2.7	2.6	2.2	2.4	2.7	2.6	2.9
Women, 16 years and over	4.6	4.3	4.2	4.2	4.1	4.2	4.1	4.3	4.0	4.3	4.1	4.3	4.3	4.0	3.9
16 to 24 years	9.8	9.5	9.6	9.8	8.9	8.9	9.6	10.2	8.9	9.5	8.5	8.9	8.6	8.0	8.4
16 to 19 years	12.9	13.2	13.4	13.0	12.2	11.1	12.6	14.4	11.6	11.8	8.9	12.8	12.6	11.9	12.0
16 to 17 years	15.1	15.5	16.3	16.1	15.1	13.7	14.3	15.4	13.3	15.0	10.4	15.5	17.3	13.9	12.2
18 to 19 years	11.5	11.6	11.4	10.8	10.5	8.9	11.6	13.7	10.4	9.9	7.8	11.0	9.4	11.5	12.3
20 to 24 years	7.8	7.2	7.2	7.9	7.0	7.6	7.8	7.7	7.2	8.2	8.2	6.5	6.2	5.7	6.2
25 years and over	3.6	3.3	3.1	3.1	3.2	3.2	3.0	3.2	3.0	3.3	3.2	3.3	3.5	3.2	3.0
25 to 54 years	3.8	3.4	3.2	3.3	3.2	3.3	3.0	3.3	3.2	3.5	3.4	3.5	3.6	3.2	3.0
55 years and over	2.6	2.8	2.5	2.6	2.9	3.1	3.3	2.7	2.0	2.3	2.4	2.3	2.6	3.1	2.9

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10. Unemployment rates by State, seasonally adjusted

State	Sept. 1999	Aug. 2000	Sept. 2000[p]	State	Sept. 1999	Aug. 2000	Sept. 2000[p]
Alabama	4.8	4.5	4.4	Missouri	3.2	2.6	3.1
Alaska	6.2	5.8	6.3	Montana	5.1	5.1	4.9
Arizona	4.3	3.9	3.6	Nebraska	2.8	2.7	2.6
Arkansas	4.3	4.1	3.8	Nevada	4.6	3.8	4.0
California	5.0	5.1	4.8	New Hampshire	2.5	2.9	2.4
Colorado	2.8	2.8	2.7	New Jersey	4.6	4.0	3.9
Connecticut	3.1	2.5	2.4	New Mexico	5.6	5.4	5.3
Delaware	3.4	3.9	3.9	New York	5.2	4.5	4.6
District of Columbia	5.9	5.4	5.8	North Carolina	3.2	3.5	3.6
Florida	3.8	3.7	3.7	North Dakota	3.2	2.9	2.5
Georgia	3.9	3.7	3.8	Ohio	4.3	4.2	4.2
Hawaii	5.3	4.3	4.4	Oklahoma	3.2	3.2	3.0
Idaho	5.0	4.5	4.6	Oregon	5.7	5.3	5.1
Illinois	4.3	4.3	4.4	Pennsylvania	4.4	4.0	4.0
Indiana	3.0	3.5	2.3	Rhode Island	4.1	4.5	3.7
Iowa	2.4	2.2	2.3	South Carolina	4.6	3.2	3.6
Kansas	3.0	3.4	3.4	South Dakota	2.8	2.2	2.3
Kentucky	4.4	3.8	3.8	Tennessee	3.9	3.6	3.8
Louisiana	4.9	4.8	5.0	Texas	4.6	4.3	4.3
Maine	4.1	3.2	3.4	Utah	3.5	3.1	3.0
Maryland	3.4	3.5	3.5	Vermont	3.0	2.7	2.8
Massachusetts	3.2	2.6	2.4	Virginia	2.9	2.5	2.4
Michigan	3.6	3.8	3.7	Washington	4.6	5.1	4.7
Minnesota	2.8	2.8	2.7	West Virginia	6.6	5.0	5.3
Mississippi	5.1	5.0	4.7	Wisconsin	2.9	3.5	3.6
				Wyoming	4.8	4,3	4.4

[p] = preliminary

11. Employment of workers on nonfarm payrolls by State, seasonally adjusted

[In thousands]

State	Sept. 1999	Aug. 2000	Sept. 2000[p]	State	Sept. 1999	Aug. 2000	Sept. 2000[p]
Alabama	1,937.1	1,947.8	1,951.0	Missouri	2,740.4	2,764.2	2,773.8
Alaska	278.9	282.7	282.0	Montana	383.4	391.7	393.3
Arizona	2,179.0	2,274.7	2,275.5	Nebraska	894.8	891.4	887.8
Arkansas	1,142.4	1,172.6	1,172.0	Nevada	996.0	1,037.6	1,041.1
California	14,063.8	14,464.7	14,487.7	New Hampshire	607.8	610.9	614.1
Colorado	2,152.2	2,212.4	2,212.1	New Jersey	3,877.6	3,918.9	3,933.5
Connecticut	1,674.8	1,696.6	1,697.2	New Mexico	734.0	748.9	750.3
Delaware	413.7	422.3	422.6	New York	8,475.0	8,586.8	8,653.4
District of Columbia	617.1	625.2	621.3	North Carolina	3,881.0	3,950.7	3,920.5
Florida	6,934.1	7,197.2	7,227.6	North Dakota	325.1	323.2	324.4
Georgia	3,931.7	4,009.3	4,018.8	Ohio	5,560.4	5,599.1	5,592.4
Hawaii	541.2	545.5	551.3	Oklahoma	1,464.7	1,493.4	1,492.7
Idaho	542.2	563.2	563.6	Oregon	1,576.0	1,597.5	1,594.3
Illinois	5,970.3	6,017.0	6,008.3	Pennsylvania	5,581.2	5,585.8	5,587.5
Indiana	2,980.2	3,003.7	3,002.4	Rhode Island	466.8	470.1	471.5
Iowa	1,466.8	1,494.8	1,494.0	South Carolina	1,840.5	1,881.4	1,881.2
Kansas	1,323.7	1,352.4	1,354.1	South Dakota	373.3	378.6	377.9
Kentucky	1,801.0	1,835.3	1,829.3	Tennessee	2,682.6	2,725.4	2,715.6
Louisiana	1,900.9	1,911.8	1,911.5	Texas	9,191.4	9,414.0	9,441.7
Maine	588.8	598.2	595.2	Utah	1,057.9	1,075.3	1,083.0
Maryland	2,396.3	2,420.9	2,454.4	Vermont	290.0	295.6	296.6
Massachusetts	3,253.4	3,286.1	3,300.3	Virginia	3,417.8	3,471.2	3,486.5
Michigan	4,575.4	4,617.0	4,612.2	Washington	2,647.1	2,702.1	2,695.5
Minnesota	2,619.6	2,659.3	2,661.7	West Virginia	722.6	728.6	732.6
Mississippi	1,162.0	1,150.1	1,145.1	Wisconsin	2,779.6	2,823.5	2,824.3
				Wyoming	231.4	234.8	235.8

[p] = preliminary

NOTE: Some data in this table may differ from data published elsewhere because of the continual updating of the data base.

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12. Employment of workers on nonfarm payrolls by industry, monthly data seasonally adjusted

[In thousands]

Industry	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[p]	Oct.[p]
TOTAL	125,865	128,786	129,523	129,788	130,038	130,387	130,482	131,009	131,419	131,590	131,647	131,607	131,528	131,723	131,860
PRIVATE SECTOR	106,042	108,616	109,275	109,517	109,730	110,036	110,088	110,462	110,752	110,578	110,845	111,001	111,018	111,248	111,365
GOODS-PRODUCING	25,414	25,482	25,483	25,527	25,561	25,677	25,624	25,738	25,725	25,684	25,700	25,756	25,644	25,610	25,648
Mining	590	535	529	527	530	530	533	536	539	539	539	538	537	539	543
Metal mining	49	45	45	45	45	45	45	45	45	44	44	43	44	44	45
Oil and gas extraction	339	293	289	288	291	293	296	300	303	305	306	306	304	307	309
Nonmetallic minerals, except fuels	110	112	112	112	111	111	111	111	111	110	110	110	109	108	109
Construction	6,020	6,404	6,470	6,516	6,552	6,652	6,618	6,726	6,694	6,666	6,668	6,670	6,675	6,708	6,742
General building contractors	1,377	1,450	1,464	1,470	1,474	1,498	1,491	1,508	1,497	1,497	1,498	1,498	1,505	1,510	1,519
Heavy construction, except building	840	869	872	876	882	892	885	905	899	888	877	881	882	882	883
Special trades contractors	3,804	4,084	4,134	4,170	4,196	4,262	4,242	4,313	4,298	4,281	4,293	4,291	4,288	4,316	4,340
Manufacturing	18,805	18,543	18,484	18,484	18,479	18,495	18,473	18,476	18,492	18,479	18,493	18,548	18,432	18,363	18,363
Production workers	12,952	12,739	12,702	12,702	12,701	12,713	12,697	12,683	12,689	12,682	12,683	12,741	12,630	12,582	12,583
Durable goods	11,205	11,103	11,083	11,085	11,087	11,099	11,088	11,094	11,104	11,106	11,120	11,161	11,087	11,044	11,044
Production workers	7,666	7,590	7,581	7,579	7,579	7,592	7,592	7,580	7,584	7,584	7,593	7,629	7,567	7,541	7,536
Lumber and wood products	814	828	831	831	831	830	832	830	830	828	827	825	818	815	812
Furniture and fixtures	533	548	553	553	552	553	553	555	557	558	558	564	555	555	553
Stone, clay, and glass products	562	563	562	564	565	568	567	568	567	566	568	571	566	564	564
Primary metal industries	715	700	697	698	698	699	699	701	699	699	699	698	695	691	689
Fabricated metal products	1,509	1,517	1,519	1,520	1,521	1,523	1,525	1,528	1,534	1,535	1,540	1,539	1,539	1,533	1,535
Industrial machinery and equipment	2,206	2,141	2,130	2,131	2,132	2,130	2,131	2,124	2,126	2,125	2,130	2,137	2,133	2,122	2,123
Computer and office equipment	382	370	369	370	370	369	368	366	364	360	360	361	363	362	360
Electronic and other electrical equipment	1,707	1,670	1,672	1,670	1,673	1,679	1,684	1,682	1,691	1,693	1,697	1,719	1,718	1,714	1,720
Electronic components and accessories	660	636	638	638	640	642	645	646	651	654	661	670	675	681	688
Transportation equipment	1,893	1,884	1,873	1,870	1,867	1,871	1,855	1,865	1,859	1,863	1,864	1,863	1,818	1,808	1,806
Motor vehicles and equipment	995	1,019	1,022	1,022	1,023	1,027	1,029	1,028	1,026	1,026	1,030	1,029	993	986	983
Aircraft and parts	525	495	478	473	470	469	453	467	461	463	460	460	456	456	456
Instruments and related products	873	856	849	850	849	847	844	844	844	845	844	849	849	847	848
Miscellaneous manufacturing industries	395	395	397	398	399	399	398	397	397	394	393	396	396	395	394
Nondurable goods	7,600	7,440	7,401	7,399	7,392	7,396	7,385	7,382	7,388	7,373	7,373	7,387	7,345	7,319	7,319
Production workers	5,287	5,149	5,121	5,123	5,122	5,121	5,105	5,103	5,105	5,098	5,090	5,112	5,063	5,041	5,047
Food and kindred products	1,683	1,677	1,673	1,675	1,674	1,681	1,672	1,671	1,678	1,675	1,679	1,680	1,670	1,659	1,671
Tobacco products	41	39	38	38	38	38	37	35	37	37	37	37	34	36	36
Textile mill products	598	560	550	552	549	548	549	549	548	545	542	544	542	539	534
Apparel and other textile products	766	692	674	672	669	666	665	665	665	660	652	656	644	637	632
Paper and allied products	677	668	665	665	665	664	663	662	662	661	663	662	660	659	660
Printing and publishing	1,565	1,553	1,551	1,549	1,548	1,549	1,550	1,551	1,554	1,552	1,558	1,561	1,560	1,560	1,560
Chemicals and allied products	1,043	1,034	1,032	1,031	1,030	1,031	1,031	1,031	1,030	1,028	1,028	1,026	1,024	1,024	1,022
Petroleum and coal products	139	134	133	132	132	132	132	132	132	132	132	131	132	132	131
Rubber and miscellaneous plastics products	1,005	1,006	1,008	1,009	1,011	1,011	1,010	1,010	1,007	1,008	1,008	1,014	1,005	999	1,001
Leather and leather products	84	78	77	76	76	76	76	76	75	75	74	76	74	74	72
SERVICE-PRODUCING	100,451	103,304	104,040	104,261	104,477	104,710	104,858	105,271	105,694	105,906	105,947	105,851	105,884	106,113	106,212
Transportation and public utilities	6,611	6,826	6,875	6,898	6,911	6,925	6,937	6,953	6,970	6,962	6,985	7,010	6,941	7,034	7,057
Transportation	4,273	4,409	4,441	4,453	4,459	4,470	4,479	4,492	4,509	4,501	4,510	4,536	4,549	4,550	4,565
Railroad transportation	231	230	226	226	226	225	225	222	221	219	217	219	221	219	219
Local and interurban passenger transit	469	485	489	490	491	493	494	494	498	498	493	502	503	501	503
Trucking and warehousing	1,744	1,805	1,818	1,823	1,818	1,827	1,828	1,833	1,839	1,834	1,834	1,846	1,845	1,848	1,849
Water transportation	181	187	190	190	192	192	196	197	200	200	202	199	204	205	208
Transportation by air	1,181	1,227	1,241	1,246	1,253	1,256	1,259	1,268	1,270	1,269	1,279	1,282	1,288	1,288	1,295
Pipelines, except natural gas	14	13	13	13	13	13	12	12	12	12	12	13	12	12	12
Transportation services	454	463	464	465	466	464	465	466	469	469	473	475	476	477	479
Communications and public utilities	2,338	2,416	2,434	2,445	2,452	2,455	2,458	2,461	2,461	2,461	2,475	2,474	2,392	2,484	2,492
Communications	1,477	1,552	1,572	1,581	1,588	1,591	1,598	1,602	1,604	1,606	1,619	1,618	1,537	1,628	1,636
Electric, gas, and sanitary services	861	865	862	864	864	864	860	859	857	855	856	856	855	856	856
Wholesale trade	6,800	6,924	6,973	6,989	7,002	7,005	7,011	7,017	7,055	7,048	7,049	7,050	7,062	7,069	7,084
Retail trade	22,295	22,788	22,863	22,893	22,936	22,973	22,987	23,027	23,197	23,064	23,122	23,196	23,191	23,170	23,174
Building materials and garden supplies	948	989	1,004	1,008	1,012	1,016	1,020	1,034	1,032	1,025	1,018	1,018	1,021	1,016	1,016
General merchandise stores	2,730	2,771	2,752	2,752	2,766	2,765	2,762	2,756	2,791	2,744	2,741	2,727	2,740	2,746	2,734
Department stores	2,415	2,431	2,408	2,406	2,416	2,419	2,417	2,409	2,443	2,388	2,386	2,373	2,393	2,395	2,384

See footnotes at end of table.

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12. Continued—Employment of workers on nonfarm payrolls by industry, monthly data seasonally adjusted

[In thousands]

Industry	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June	July	Aug.	Sept.[P]	Oct.[P]
Food stores	3,484	3,495	3,496	3,498	3,501	3,501	3,503	3,502	3,522	3,516	3,515	3,519	3,522	3,522	3,525
Automotive dealers and service stations	2,332	2,369	2,377	2,380	2,386	2,399	2,394	2,407	2,410	2,408	2,412	2,411	2,418	2,420	2,434
New and used car dealers	1,047	1,079	1,089	1,092	1,094	1,097	1,100	1,105	1,106	1,107	1,110	1,111	1,115	1,117	1,121
Apparel and accessory stores	1,141	1,174	1,186	1,190	1,182	1,176	1,184	1,188	1,195	1,195	1,197	1,206	1,202	1,212	1,206
Furniture and home furnishings stores	1,025	1,082	1,093	1,091	1,098	1,099	1,102	1,111	1,113	1,113	1,118	1,119	1,121	1,121	1,126
Eating and drinking places	7,768	7,940	7,950	7,966	7,986	7,998	7,992	8,000	8,097	8,028	8,071	8,132	8,099	8,063	8,060
Miscellaneous retail establishments	2,868	2,969	3,005	3,008	3,005	3,019	3,021	3,029	3,037	3,035	3,050	3,064	3,068	3,070	3,073
Finance, insurance, and real estate	7,389	7,569	7,599	7,604	7,613	7,612	7,624	7,621	7,610	7,600	7,588	7,586	7,608	7,617	7,637
Finance	3,588	3,691	3,704	3,707	3,710	3,709	3,717	3,713	3,709	3,703	3,705	3,708	3,717	3,728	3,733
Depository institutions	2,046	2,061	2,063	2,061	2,059	2,058	2,057	2,054	2,052	2,044	2,042	2,036	2,037	2,035	2,036
Commercial banks	1,472	1,476	1,475	1,473	1,471	1,470	1,469	1,466	1,464	1,456	1,454	1,449	1,450	1,448	1,447
Savings institutions	256	252	250	250	248	247	245	243	243	243	242	240	240	239	239
Nondepository institutions	658	710	706	704	704	699	699	692	686	684	682	683	683	688	687
Security and commodity brokers	647	688	703	709	713	716	723	728	732	736	741	748	753	760	764
Holding and other investment offices	238	231	232	233	234	236	238	239	239	239	240	241	244	245	246
Insurance	2,335	2,371	2,378	2,375	2,378	2,372	2,373	2,373	2,365	2,361	2,359	2,354	2,358	2,352	2,355
Insurance carriers	1,591	1,611	1,612	1,608	1,610	1,606	1,606	1,605	1,597	1,594	1,593	1,585	1,587	1,581	1,581
Insurance agents, brokers, and service	744	761	766	767	768	766	767	768	768	767	766	769	771	771	774
Real estate	1,465	1,507	1,517	1,522	1,525	1,531	1,534	1,535	1,536	1,536	1,524	1,524	1,533	1,537	1,549
Services[1]	37,533	39,027	39,482	39,606	39,707	39,844	39,914	40,090	40,195	40,220	40,401	40,403	40,572	40,748	40,765
Agricultural services	708	766	774	782	782	806	796	812	801	790	788	794	799	801	805
Hotels and other lodging places	1,789	1,848	1,863	1,868	1,868	1,866	1,868	1,885	1,902	1,904	1,922	1,925	1,921	1,922	1,926
Personal services	1,201	1,233	1,247	1,252	1,257	1,263	1,265	1,265	1,272	1,262	1,271	1,273	1,285	1,285	1,292
Business services	8,618	9,267	9,465	9,502	9,538	9,571	9,615	9,681	9,735	9,715	9,773	9,768	9,800	9,927	9,840
Services to buildings	950	985	997	998	997	997	1,000	1,004	1,001	996	997	1,002	1,000	999	998
Personnel supply services	3,278	3,601	3,712	3,734	3,748	3,753	3,773	3,817	3,885	3,855	3,873	3,851	3,865	3,898	3,847
Help supply services	2,956	3,228	3,327	3,343	3,358	3,361	3,382	3,418	3,485	3,440	3,444	3,433	3,436	3,502	3,420
Computer and data processing services	1,615	1,831	1,874	1,880	1,888	1,896	1,906	1,915	1,927	1,929	1,933	1,950	1,951	1,956	1,964
Auto repair services and parking	1,145	1,184	1,191	1,191	1,192	1,194	1,195	1,192	1,195	1,192	1,191	1,194	1,198	1,199	1,209
Miscellaneous repair services	376	377	379	379	382	382	384	384	383	383	384	384	384	385	386
Motion pictures	576	610	624	625	624	626	623	630	634	632	635	634	636	629	629
Amusement and recreation services	1,594	1,660	1,691	1,701	1,703	1,721	1,723	1,729	1,752	1,755	1,789	1,795	1,808	1,787	1,815
Health services	9,853	9,989	10,027	10,041	10,053	10,066	10,078	10,091	10,093	10,104	10,116	10,143	10,161	10,183	10,200
Offices and clinics of medical doctors	1,806	1,877	1,893	1,898	1,903	1,910	1,914	1,920	1,925	1,928	1,928	1,930	1,935	1,945	1,953
Nursing and personal care facilities	1,772	1,785	1,785	1,785	1,787	1,788	1,790	1,791	1,789	1,788	1,786	1,787	1,793	1,793	1,794
Hospitals	3,930	3,982	3,992	3,992	3,997	4,001	4,002	4,004	3,999	4,005	4,008	4,018	4,021	4,033	4,035
Home health care services	666	636	636	637	637	638	639	639	641	641	642	645	646	644	645
Legal services	971	997	1,003	1,005	1,007	1,008	1,007	1,007	1,004	1,006	1,009	1,012	1,014	1,014	1,016
Educational services	2,178	2,276	2,299	2,305	2,309	2,308	2,309	2,329	2,329	2,356	2,374	2,374	2,395	2,376	2,378
Social services	2,646	2,800	2,845	2,868	2,884	2,905	2,912	2,929	2,940	2,946	2,945	2,919	2,955	2,997	3,013
Child day care services	621	695	708	721	729	737	740	749	753	758	760	768	774	769	775
Residential care	744	775	790	795	800	803	807	810	812	816	820	826	827	833	837
Museums and botanical and zoological gardens	94	98	99	99	99	100	100	101	102	101	103	103	103	102	103
Membership organizations	2,372	2,425	2,431	2,434	2,438	2,439	2,439	2,440	2,439	2,438	2,441	2,429	2,433	2,448	2,450
Engineering and management services	3,139	3,254	3,300	3,310	3,327	3,344	3,354	3,369	3,368	3,390	3,415	3,411	3,435	2,449	2,459
Engineering and architectural services	908	953	964	969	974	982	984	985	987	995	1,005	1,007	1,010	1,012	1,015
Management and public relations	1,000	1,036	1,054	1,058	1,068	1,074	1,077	1,085	1,088	1,096	1,110	1,107	1,118	1,119	1,128
Government	19,823	20,170	20,248	20,271	20,308	20,351	20,394	20,547	20,667	21,012	20,802	20,606	20,510	20,475	20,495
Federal	2,686	2,669	2,647	2,646	2,646	2,663	2,700	2,816	2,885	3,238	3,092	2,819	2,657	2,632	2,632
Federal, except Postal Service	1,819	1,796	1,779	1,780	1,780	1,797	1,835	1,951	2,022	2,374	2,230	1,954	1,790	1,767	1,769
State	4,612	4,695	4,722	4,723	4,727	4,725	4,728	4,733	4,744	4,737	4,716	4,774	4,765	4,770	4,775
Education	1,922	1,968	1,979	1,980	1,983	1,981	1,981	1,982	1,990	1,983	1,967	1,994	2,002	2,001	2,004
Other State government	2,690	2,727	2,743	2,743	2,744	2,744	2,747	2,751	2,754	2,754	2,749	2,750	2,763	2,769	2,771
Local	12,525	12,806	12,879	12,902	12,935	12,963	12,966	12,998	13,038	13,037	12,994	13,043	13,088	13,073	13,088
Education	7,085	7,272	7,308	7,323	7,343	7,356	7,355	7,373	7,408	7,395	7,361	7,394	7,411	7,385	7,391
Other local government	5,440	5,534	5,571	5,579	5,592	5,607	5,611	5,625	5,630	5,642	5,633	5,649	5,677	5,688	5,697

[1] Includes other industries not shown separately.

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

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13. Average weekly hours of production or nonsupervisory workers on private nonfarm payrolls, by industry, monthly data seasonally adjusted

Industry	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[P]	Oct.[P]
PRIVATE SECTOR	34.6	34.5	34.5	34.5	34.5	34.5	34.6	34.5	34.6	34.4	34.5	34.4	34.3	34.4	34.3
GOODS-PRODUCING	41.0	41.0	41.1	41.3	41.0	41.1	41.3	41.2	41.5	40.9	40.9	41.1	40.8	40.5	40.8
MINING	43.9	43.8	44.1	44.2	44.3	44.7	44.7	44.7	45.3	44.1	44.7	45.3	44.6	45.3	45.2
MANUFACTURING	41.7	41.7	41.8	41.7	41.7	41.7	41.8	41.7	42.2	41.4	41.6	41.7	41.4	41.2	41.3
Overtime hours	4.6	4.6	4.7	4.7	4.7	4.6	4.7	4.6	4.9	4.5	4.6	4.6	4.5	4.4	4.4
Durable goods	42.3	42.2	42.3	42.2	42.2	42.3	42.3	42.3	42.8	42.0	42.2	42.4	41.9	41.7	41.8
Overtime hours	4.8	4.8	4.8	4.8	4.8	4.8	4.9	4.8	5.1	4.7	4.8	4.7	4.6	4.5	4.6
Lumber and wood products	41.1	41.2	41.1	41.1	41.0	41.1	41.0	40.9	41.2	40.7	40.8	41.1	40.4	40.5	40.7
Furniture and fixtures	40.5	40.3	40.1	39.9	40.2	40.2	40.3	40.2	40.6	40.3	39.9	39.7	39.4	39.3	39.3
Stone, clay, and glass products	43.5	43.5	43.5	43.8	43.5	43.6	43.5	43.4	43.6	43.0	42.9	43.7	43.2	43.2	43.4
Primary metal industries	44.2	44.2	44.3	44.3	44.4	44.5	44.5	44.4	44.9	43.8	43.9	44.3	43.7	43.7	43.4
Blast furnaces and basic steel products	44.6	44.8	45.2	45.3	45.4	45.3	45.4	45.2	45.0	44.7	45.0	45.2	44.4	44.6	44.1
Fabricated metal products	42.3	42.2	42.2	42.1	42.1	42.4	42.4	42.5	43.0	42.3	42.4	42.6	42.1	41.9	41.9
Industrial machinery and equipment	42.8	42.2	42.3	42.2	42.2	42.3	42.3	42.3	42.9	42.2	42.5	42.6	42.2	41.7	42.2
Electronic and other electrical equipment	41.4	41.4	41.6	41.4	41.5	41.6	41.6	41.8	42.2	41.3	41.4	41.9	41.0	41.1	41.2
Transportation equipment	43.4	43.8	43.8	43.6	43.4	43.8	44.0	43.7	44.3	43.2	44.0	43.9	43.4	42.7	43.0
Motor vehicles and equipment	43.5	45.0	45.0	44.7	44.5	45.0	45.0	44.6	45.5	44.2	45.3	44.5	44.5	43.2	43.9
Instruments and related products	41.3	41.5	41.5	41.5	41.5	41.3	41.2	41.2	41.6	41.2	41.3	41.6	41.1	41.1	40.9
Miscellaneous manufacturing	39.9	39.8	39.8	39.7	39.7	39.5	39.5	39.4	39.8	39.3	39.4	39.7	39.4	39.2	39.3
Nondurable goods	40.9	40.9	41.0	41.0	40.9	40.9	41.0	40.9	41.3	40.6	40.7	40.7	40.6	40.6	40.5
Overtime hours	4.3	4.4	4.5	4.5	4.5	4.4	4.5	4.3	4.6	4.3	4.3	4.3	4.2	4.2	4.2
Food and kindred products	41.7	41.8	41.9	41.8	41.7	41.6	41.6	41.6	41.9	41.2	41.5	41.2	41.5	41.4	41.3
Textile mill products	41.0	40.9	41.2	41.3	41.2	41.1	41.7	41.6	41.9	41.1	41.1	41.2	40.7	40.8	40.7
Apparel and other textile products	37.3	37.5	37.5	37.4	37.5	37.6	37.7	37.8	38.0	37.1	37.0	37.3	36.9	36.7	36.6
Paper and allied products	43.4	43.5	43.5	43.4	43.3	43.3	43.5	43.2	43.6	42.8	42.8	42.4	42.4	42.7	42.7
Printing and publishing	38.3	38.2	38.3	38.3	38.3	38.3	38.3	38.2	38.5	38.0	38.2	38.1	37.9	37.9	38.0
Chemicals and allied products	43.2	43.0	43.0	43.0	43.0	42.9	42.7	42.6	42.9	42.7	42.9	43.4	43.0	43.0	43.1
Rubber and miscellaneous plastics products	41.7	41.7	41.5	41.5	41.5	41.6	41.6	41.5	42.1	41.3	41.4	41.4	41.2	41.1	41.0
Leather and leather products	37.6	37.8	37.6	37.7	37.4	37.8	38.1	38.0	38.9	38.2	37.8	37.1	37.1	37.4	37.6
SERVICE-PRODUCING	32.9	32.8	32.9	32.8	32.9	32.9	32.8	32.8	32.8	32.7	32.9	32.7	32.7	32.8	32.7
TRANSPORTATION AND PUBLIC UTILITIES	39.5	38.7	38.4	38.3	38.4	38.4	38.3	38.3	38.7	38.4	38.4	38.8	38.2	38.6	39.0
WHOLESALE TRADE	38.3	38.3	38.6	38.4	38.5	38.6	38.5	38.6	38.6	38.6	38.6	38.5	38.3	38.5	38.2
RETAIL TRADE	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.0	28.8	28.8	29.0	28.8	28.8	28.8	28.9

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

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14. Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry, seasonally adjusted

Industry	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[P]	Oct.[P]
PRIVATE SECTOR (in current dollars)	$ 12.78	$ 13.24	$13.38	$13.41	$13.44	$13.49	$13.54	$13.58	$13.64	$13.66	$13.70	$13.75	$13.80	$13.83	$13.89
Goods-producing	14.34	14.84	14.99	15.03	15.05	15.13	15.20	15.25	15.30	15.29	15.34	15.40	15.45	15.45	15.55
Mining	16.91	17.09	17.09	17.00	17.04	17.09	17.14	17.27	17.26	17.25	17.24	17.23	17.05	17.04	17.09
Construction	16.61	17.18	17.33	17.37	17.44	17.50	17.60	17.67	17.78	17.75	17.77	17.90	17.93	17.98	18.01
Manufacturing	13.49	13.91	14.06	14.07	14.10	14.15	14.21	14.23	14.28	14.27	14.36	14.39	14.43	14.42	14.53
Excluding overtime	12.79	13.18	13.31	13.33	13.36	13.41	13.45	13.47	13.49	13.53	13.60	13.64	13.69	13.73	13.80
Service-producing	12.27	12.73	12.86	12.89	12.93	12.97	13.01	13.05	13.11	13.15	13.19	13.23	13.28	13.33	13.38
Transportation and public utilities	15.31	15.69	15.79	15.84	15.94	15.92	16.00	16.04	16.12	16.22	16.28	16.17	16.26	16.30	16.38
Wholesale trade	14.07	14.58	14.75	14.76	14.83	14.90	14.89	14.98	15.03	15.02	15.16	15.22	15.24	15.35	15.38
Retail trade	8.74	9.08	9.18	9.21	9.25	9.26	9.32	9.35	9.39	9.39	9.43	9.45	9.49	9.53	9.54
Finance, insurance, and real estate	14.07	14.62	14.73	14.76	14.78	14.86	14.87	14.95	14.98	15.01	15.05	15.03	15.12	15.18	15.19
Services	12.84	13.36	13.51	13.53	13.57	13.61	13.66	13.69	13.74	13.79	13.82	13.89	13.94	13.97	14.04
PRIVATE SECTOR (in constant (1982) dollars)	7.75	7.86	7.87	7.87	7.87	7.88	7.87	7.83	7.87	7.87	7.85	7.86	7.90	7.87	–

– Data not available.

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

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15. Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry

Industry	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[P]	Oct.[P]
PRIVATE SECTOR	$12.78	$13.24	$13.41	$13.43	$13.46	$13.58	$13.58	$13.59	$13.69	$13.64	$13.62	$13.68	$13.67	$13.87	$13.95
MINING	16.91	17.09	17.05	17.01	17.19	17.30	17.20	17.28	17.29	17.19	17.09	17.13	16.94	17.04	17.06
CONSTRUCTION	16.61	17.18	17.54	17.42	17.47	17.39	17.42	17.54	17.66	17.71	17.74	17.95	18.04	18.18	18.23
MANUFACTURING	13.49	13.91	14.03	14.08	14.20	14.19	14.19	14.22	14.28	14.27	14.34	14.37	14.37	14.49	14.51
Durable goods	13.98	14.40	14.55	14.58	14.73	14.72	14.73	14.76	14.82	14.80	14.90	14.86	14.93	15.05	15.06
Lumber and wood products	11.10	11.47	11.60	11.60	11.64	11.67	11.63	11.62	11.73	11.74	11.82	11.87	11.83	11.88	11.93
Furniture and fixtures	10.90	11.23	11.33	11.36	11.47	11.47	11.51	11.59	11.64	11.69	11.73	11.80	11.82	11.88	11.88
Stone, clay, and glass products	13.59	13.87	14.00	14.04	13.97	13.94	13.96	14.03	14.23	14.28	14.36	14.42	14.41	14.54	14.60
Primary metal industries	15.48	15.83	16.01	16.12	16.17	16.20	16.28	16.34	16.51	16.40	16.52	16.68	16.57	16.66	16.53
Blast furnaces and basic steel products	18.42	18.81	18.90	19.11	19.09	19.16	19.32	19.49	19.72	19.46	19.62	19.78	19.56	19.58	19.20
Fabricated metal products	13.07	13.48	13.52	13.59	13.72	13.71	13.67	13.69	13.75	13.75	13.82	13.82	13.90	14.01	14.02
Industrial machinery and equipment	14.47	15.02	15.18	15.22	15.36	15.39	15.40	15.43	15.42	15.45	15.51	15.61	15.66	15.75	15.72
Electronic and other electrical equipment	13.10	13.46	13.60	13.61	13.73	13.77	13.72	13.70	13.70	13.65	13.72	13.79	13.81	13.82	13.86
Transportation equipment	17.51	18.04	18.41	18.39	18.72	18.57	18.58	18.70	18.82	18.79	19.01	18.66	19.02	19.30	19.34
Motor vehicles and equipment	17.84	18.41	18.85	18.80	19.22	18.99	19.03	19.17	19.36	19.35	19.62	19.07	19.58	19.88	19.96
Instruments and related products	13.81	14.17	14.36	14.34	14.41	14.38	14.41	14.40	14.40	14.44	14.49	14.65	14.65	14.76	14.81
Miscellaneous manufacturing	10.88	11.30	11.45	11.41	11.54	11.52	11.53	11.55	11.58	11.59	11.60	11.65	11.60	11.71	11.78
Nondurable goods	12.76	13.16	13.25	13.31	13.39	13.37	13.36	13.37	13.45	13.43	13.48	13.61	13.52	13.64	13.65
Food and kindred products	11.80	12.09	12.09	12.19	12.28	12.23	12.23	12.27	12.36	12.36	12.39	12.46	12.40	12.52	12.46
Tobacco products	18.56	19.07	17.82	18.02	18.03	17.21	17.48	19.10	19.71	20.40	20.87	21.08	20.95	18.73	18.08
Textile mill products	10.39	10.71	10.73	10.80	10.84	10.84	10.85	10.86	10.94	10.91	10.91	10.97	10.97	11.06	11.03
Apparel and other textile products	8.52	8.86	8.99	8.98	9.04	9.03	9.03	9.05	9.05	9.05	9.07	9.06	9.09	9.17	9.16
Paper and allied products	15.50	15.94	16.09	16.08	16.12	16.02	15.99	16.00	16.15	16.12	16.18	16.29	16.18	16.32	16.36
Printing and publishing	13.46	13.84	13.98	14.02	14.12	14.10	14.13	14.18	14.20	14.15	14.15	14.29	14.29	14.47	14.47
Chemicals and allied products	17.09	17.38	17.61	17.64	17.67	17.70	17.67	17.63	17.77	17.80	17.91	18.17	17.94	18.10	18.15
Petroleum and coal products	20.91	21.39	21.62	21.76	21.76	21.62	22.03	22.24	21.77	21.34	21.19	21.24	21.01	21.15	21.47
Rubber and miscellaneous plastics products	11.89	12.36	12.42	12.46	12.57	12.61	12.57	12.58	12.67	12.65	12.72	12.84	12.81	12.87	12.89
Leather and leather products	9.35	9.77	9.91	9.93	10.01	10.08	9.96	10.01	10.13	10.05	10.08	10.08	10.15	10.21	10.21
TRANSPORTATION AND PUBLIC UTILITIES	15.31	15.69	15.78	15.90	15.96	15.98	16.05	16.02	16.15	16.13	16.17	16.19	16.22	16.31	16.37
WHOLESALE TRADE	14.07	14.58	14.74	17.76	14.85	14.99	14.91	14.83	15.14	14.99	15.04	15.25	15.17	15.33	15.46
RETAIL TRADE	8.74	9.08	9.21	9.22	9.26	9.33	9.35	9.37	9.42	9.39	9.38	9.38	9.40	9.56	9.57
FINANCE, INSURANCE, AND REAL ESTATE	14.07	14.62	14.69	14.74	14.76	14.99	14.93	14.97	15.12	15.02	14.93	15.01	14.99	15.11	15.26
SERVICES	12.84	13.36	13.51	13.57	13.65	13.78	13.77	13.77	13.83	13.76	13.68	13.74	13.70	13.96	14.09

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

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16. Average weekly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry

Industry	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[P]	Oct.[P]
PRIVATE SECTOR															
Current dollars	$442.19	$456.78	$463.99	$463.34	$465.72	$467.15	$464.44	$464.78	$473.67	$467.85	$471.25	$477.43	$474.35	$478.52	$484.07
Seasonally adjusted	–	–	461.61	462.65	463.68	465.41	468.48	468.51	471.94	469.90	472.65	473.00	473.34	475.75	476.43
Constant (1982) dollars	268.32	271.25	272.45	271.91	273.31	273.35	270.34	268.19	273.17	269.50	269.90	273.13	271.52	272.04	274.88
MINING	742.35	748.54	758.73	758.65	763.24	766.39	758.52	758.59	776.32	763.24	770.76	775.99	762.30	783.84	779.64
CONSTRUCTION	646.13	671.74	701.60	688.09	677.84	664.04	674.15	680.55	692.27	701.32	702.50	723.39	725.21	727.20	731.02
MANUFACTURING															
Current dollars	562.53	580.05	589.26	594.18	603.50	590.30	588.89	590.13	595.48	590.78	597.98	590.61	594.92	604.23	602.17
Constant (1982) dollars	341.34	344.45	346.01	348.70	354.17	345.41	342.78	340.53	343.41	340.31	342.49	337.88	340.54	343.51	341.95
Durable goods	591.35	607.68	618.38	622.57	634.86	621.18	620.13	622.87	628.37	623.08	630.27	618.18	625.57	635.11	632.52
Lumber and wood products	456.21	472.56	480.24	480.24	480.73	474.97	469.85	470.61	482.10	480.17	485.80	483.11	483.85	487.08	489.13
Furniture and fixtures	441.45	452.57	458.87	458.94	471.42	459.95	458.10	462.44	464.44	465.26	468.03	462.56	470.44	477.58	470.45
Stone, clay, and glass products	591.17	603.35	616.00	620.57	604.90	591.06	591.90	596.28	614.74	621.18	624.66	631.60	631.16	639.76	640.94
Primary metal industries	684.22	699.69	709.24	720.56	732.50	722.52	722.83	723.86	734.70	721.60	728.53	725.58	720.80	731.37	717.40
Blast furnaces and basic steel products	821.53	842.69	848.61	865.68	878.14	867.95	875.20	875.10	891.34	873.75	882.90	888.12	866.51	871.31	840.96
Fabricated metal products	552.86	568.86	574.60	580.29	594.08	579.93	576.87	577.72	583.00	581.63	587.35	576.29	585.19	594.02	591.64
Industrial machinery and equipment	619.32	633.84	640.60	646.85	663.55	654.08	652.96	654.23	655.35	653.54	659.18	654.06	657.72	661.50	661.81
Electronic and other electrical equipment	542.34	557.24	568.48	572.98	582.15	572.83	569.38	571.29	569.92	561.02	569.38	566.77	566.21	573.53	573.80
Transportation equipment	759.93	790.15	810.04	811.00	838.66	811.51	815.66	819.06	829.96	817.37	836.44	781.85	819.76	839.55	837.42
Motor vehicles and equipment	776.04	828.45	852.02	849.76	887.96	850.75	856.35	860.73	880.88	866.88	888.79	800.94	861.52	880.68	880.24
Instruments and related products	570.35	588.06	594.50	600.85	612.43	595.33	595.13	593.28	594.72	592.04	596.99	600.65	600.65	606.64	604.25
Miscellaneous manufacturing	434.11	449.74	459.15	459.82	466.22	450.43	453.13	456.23	456.25	454.33	458.20	453.19	458.20	464.89	467.67
Nondurable goods	521.88	538.24	547.23	551.03	557.02	544.16	542.42	542.82	548.76	543.92	549.98	549.84	548.91	559.24	556.92
Food and kindred products	492.06	505.36	512.62	518.08	520.67	505.10	500.21	501.84	506.76	506.76	512.95	513.35	517.08	528.34	520.83
Tobacco products	710.85	762.80	753.79	774.86	793.32	672.91	685.22	741.08	782.49	811.92	836.89	832.66	842.19	777.30	728.62
Textile mill products	425.99	438.04	445.30	449.28	453.11	443.36	448.11	450.69	456.20	448.40	451.67	450.29	448.67	454.57	452.23
Apparel and other textile products	317.80	332.25	338.92	337.65	343.52	335.92	339.53	342.09	341.19	336.66	339.22	333.41	336.33	338.37	337.09
Paper and allied products	672.70	693.39	704.74	704.30	712.50	695.27	687.57	686.40	696.07	686.71	692.50	687.44	681.18	701.76	703.48
Printing and publishing	515.52	528.69	539.63	543.98	550.68	534.39	536.94	540.26	542.44	533.46	534.87	540.16	543.02	555.65	554.20
Chemicals and allied products	738.29	747.34	758.99	765.58	772.18	757.56	750.98	749.28	757.00	756.50	768.34	779.49	769.63	781.92	784.08
Petroleum and coal products	911.68	921.91	933.98	935.68	937.86	933.98	956.10	969.66	966.59	919.75	923.88	955.80	926.54	955.98	970.44
Rubber and miscellaneous plastics products	495.81	515.41	516.67	523.32	532.97	523.32	520.40	520.81	528.34	523.71	529.15	522.59	525.21	532.82	529.78
Leather and leather products	351.56	369.31	374.60	378.33	375.75	372.96	375.49	379.38	388.99	384.92	387.07	365.90	383.67	387.98	385.94
TRANSPORTATION AND PUBLIC UTILITIES	604.75	607.20	605.95	608.97	612.86	612.03	611.51	608.76	626.62	616.17	622.55	634.65	627.71	632.83	643.34
WHOLESALE TRADE	538.88	558.41	567.49	566.78	570.24	578.61	568.07	566.51	588.95	575.62	579.04	591.70	581.01	588.67	596.76
RETAIL TRADE	253.46	263.32	266.17	264.61	271.32	265.91	266.48	267.98	272.24	270.43	274.83	279.52	277.30	275.33	277.53
FINANCE, INSURANCE, AND REAL ESTATE	512.15	529.24	530.31	530.64	534.31	551.63	538.97	537.42	554.90	539.22	540.47	550.87	539.64	545.47	560.04
SERVICES	418.58	435.54	441.78	443.74	444.99	450.61	448.90	447.53	453.62	445.82	447.34	453.42	450.73	453.70	462.15

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision. Dash indicates data not available.

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17. Diffusion indexes of employment change, seasonally adjusted

[In percent]

Timespan and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov	Dec.
	Private nonfarm payrolls, 356 industries											
Over 1-month span:												
1998	63.2	56.6	60.5	58.7	58.3	59.7	53.9	58.1	56.2	53.8	59.0	57.4
1999	54.1	58.8	53.9	59.6	52.8	57.9	58.8	53.8	57.3	60.7	60.8	59.0
2000	60.8	54.1	60.7	56.5	45.9	56.2	58.7	51.4	51.0	57.3	–	–
Over 3-month span:												
1998	64.3	66.6	63.2	66.3	63.6	58.0	57.4	57.9	59.7	58.1	58.6	59.4
1999	58.3	57.3	58.4	54.4	57.3	58.8	58.1	60.7	59.6	63.5	64.3	63.1
2000	61.0	62.6	61.9	57.4	56.7	58.3	57.9	55.6	53.5	–	–	–
Over 6-month span:												
1998	69.8	67.4	65.2	61.8	62.9	61.4	59.0	58.4	57.4	59.7	59.3	59.1
1999	60.0	58.0	57.6	58.6	54.4	59.7	60.4	62.1	64.0	62.8	65.2	64.6
2000	65.6	60.8	61.0	61.9	59.3	55.3	55.6	–	–	–	–	–
Over 12-month span:												
1998	69.7	67.3	67.3	65.9	63.9	62.5	61.5	62.1	61.0	59.8	59.8	58.1
1999	60.3	58.3	57.6	59.4	59.6	60.5	61.9	61.0	62.6	62.9	62.5	63.2
2000	64.9	63.8	60.7	60.4	–	–	–	–	–	–	–	–
	Manufacturing payrolls, 139 industries											
Over 1-month span:												
1998	57.9	50.7	53.6	50.7	47.1	50.0	37.8	50.0	45.7	39.9	41.7	43.9
1999	45.0	41.0	42.8	46.4	40.3	46.4	54.7	38.1	46.4	51.8	51.4	50.4
2000	52.2	47.8	51.1	51.1	45.7	51.1	57.6	36.3	36.7	46.0	–	–
Over 3-month span:												
1998	56.8	56.8	52.2	52.2	48.6	41.4	39.2	40.3	43.2	37.1	36.7	40.6
1999	36.7	37.1	37.1	34.5	37.8	43.5	39.9	45.0	42.1	50.4	51.1	50.7
2000	47.8	52.5	49.3	48.9	49.6	53.6	44.2	34.9	30.2	–	–	–
Over 6-month span:												
1998	60.1	54.3	50.4	39.9	43.5	42.1	38.8	36.7	36.0	39.9	34.5	32.7
1999	35.6	33.5	33.5	37.1	32.7	38.8	41.0	45.7	48.2	43.2	48.6	51.1
2000	51.4	47.5	50.4	53.6	45.0	36.7	34.9	–	–	–	–	–
Over 12-month span:												
1998	55.0	51.8	51.8	46.8	40.6	39.9	37.8	38.1	37.1	36.0	34.2	33.5
1999	37.4	32.4	31.7	35.3	36.0	37.1	38.8	39.6	42.4	42.4	42.4	46.0
2000	47.8	44.6	38.5	39.2	–	–	–	–	–	–	–	–

– Data not available.

NOTE: Figures are the percent of industries with employment increasing plus one-half of the industries with unchanged employment, where 50 percent indicates an equal balance between industries with increasing and decreasing employment. Data for the 2 most recent months shown in each span are preliminary. See the "Definitions" in this section. See "Notes on the data" for a description of the most recent benchmark revision.

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18. Annual data: Employment status of the population

[Numbers in thousands]

Employment status	1991	1992	1993	1994	1995	1996	1997	1998	1999
Civilian noninstitutional population	190,925	192,805	194,838	196,814	198,584	200,591	203,133	205,220	207,753
Civilian labor force	126,346	128,105	129,200	131,056	132,304	133,943	136,297	137,673	139,368
Labor force participation rate	66.2	66.4	66.3	66.6	66.6	66.8	67.1	67.1	67.1
Employed	117,718	118,492	120,259	123,060	124,900	126,708	129,558	131,463	133,488
Employment-population ratio	61.7	61.5	61.7	62.5	62.9	63.2	63.8	64.1	64.3
Agriculture	3,269	3,247	3,115	3,409	3,440	3,443	3,399	3,378	3,281
Nonagricultural industries	114,499	115,245	117,144	119,651	121,460	123,264	126,159	128,085	130,207
Unemployed	8,628	9,613	8,940	7,996	7,404	7,236	6,739	6,210	5,880
Unemployment rate	6.8	7.5	6.9	6.1	5.6	5.4	4.9	4.5	4.2
Not in the labor force	64,578	64,700	65,638	65,758	66,280	66,647	66,837	67,547	68,385

19. Annual data: Employment levels by industry

[In thousands]

Industry	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total employment	108,249	108,601	110,713	114,163	117,191	119,608	122,690	125,865	128,786
Private sector	89,847	89,956	91,872	95,036	97,885	100,189	103,133	106,042	108,616
Goods-producing	23,745	23,231	23,352	23,908	24,265	24,493	24,962	25,414	25,482
Mining	689	635	610	601	581	580	596	590	535
Construction	4,650	4,492	4,668	4,986	5,160	5,418	5,691	6,020	6,404
Manufacturing	18,406	18,104	18,075	18,321	18,524	18,495	18,675	18,805	18,543
Service-producing	84,504	85,370	87,361	90,256	92,925	95,115	97,727	100,451	103,304
Transportation and public utilities	5,755	5,718	5,811	5,984	6,132	6,253	6,408	6,611	6,826
Wholesale trade	6,081	5,997	5,981	6,162	6,378	6,482	6,648	6,800	6,924
Retail trade	19,284	19,356	19,773	20,507	21,187	21,597	21,966	22,295	22,788
Finance, insurance, and real estate	6,646	6,602	6,757	6,896	6,806	6,911	7,109	7,389	7,569
Services	28,336	29,052	30,197	31,579	33,117	34,454	36,040	37,533	39,027
Government	18,402	18,645	18,841	19,128	19,305	19,419	19,557	19,823	20,170
Federal	2,966	2,969	2,915	2,870	2,822	2,757	2,699	2,686	2,669
State	4,355	4,408	4,488	4,576	4,635	4,606	4,582	4,612	4,695
Local	11,081	11,267	11,438	11,682	11,849	12,056	12,276	12,525	12,806

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

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20. Annual data: Average hours and earnings of production or nonsupervisory workers on nonfarm payrolls, by industry

Industry	1991	1992	1993	1994	1995	1996	1997	1998	1999
Private sector:									
Average weekly hours	34.3	34.4	34.5	34.7	34.5	34.4	34.6	34.6	34.5
Average hourly earnings (in dollars)	10.32	10.57	10.83	11.12	11.43	11.82	12.28	12.78	13.24
Average weekly earnings (in dollars)	353.98	363.61	373.64	385.86	394.34	406.61	424.89	442.19	456.78
Mining:									
Average weekly hours	44.4	43.9	44.3	44.8	44.7	45.3	45.4	43.9	43.8
Average hourly earnings (in dollars)	14.19	14.54	14.60	14.88	15.30	15.62	16.15	16.91	17.09
Average weekly earnings (in dollars)	630.04	638.31	646.78	666.62	683.91	707.59	733.21	742.35	748.54
Construction:									
Average weekly hours	38.1	38.0	38.5	38.9	38.9	39.0	39.0	38.9	39.1
Average hourly earnings (in dollars)	14.00	14.15	14.38	14.73	15.09	15.47	16.04	16.61	17.18
Average weekly earnings (in dollars)	533.40	537.70	553.63	573.00	587.00	603.33	625.56	646.13	671.74
Manufacturing:									
Average weekly hours	40.7	41.0	41.4	42.0	41.6	41.6	42.0	41.7	41.7
Average hourly earnings (in dollars)	11.18	11.46	11.74	12.07	12.37	12.77	13.17	13.49	13.91
Average weekly earnings (in dollars)	455.03	469.86	486.04	506.94	514.59	531.23	553.14	562.53	580.05
Transportation and public utilities:									
Average weekly hours	38.1	38.3	39.3	39.7	39.4	39.6	39.7	39.5	38.7
Average hourly earnings (in dollars)	13.20	13.43	13.55	13.78	14.13	14.45	14.92	15.31	15.69
Average weekly earnings (in dollars)	502.92	514.37	532.52	547.07	556.72	572.22	592.32	604.75	607.20
Wholesale trade:									
Average weekly hours	38.1	38.2	38.2	38.4	38.3	38.3	38.4	38.3	38.3
Average hourly earnings (in dollars)	11.15	11.39	11.74	12.06	12.43	12.87	13.45	14.07	14.58
Average weekly earnings (in dollars)	424.82	435.10	448.47	463.10	476.07	492.92	516.48	538.88	558.41
Retail trade:									
Average weekly hours	28.6	28.8	28.8	28.9	28.8	28.8	28.9	29.0	29.0
Average hourly earnings (in dollars)	6.94	7.12	7.29	7.49	7.69	7.99	8.33	8.74	9.08
Average weekly earnings (in dollars)	198.48	205.06	209.95	216.46	221.47	230.11	240.74	253.46	263.32
Finance, insurance, and real estate:									
Average weekly hours	35.7	35.8	35.8	35.8	35.9	35.9	36.1	36.4	36.2
Average hourly earnings (in dollars)	10.39	10.82	11.35	11.83	12.32	12.80	13.34	14.07	14.62
Average weekly earnings (in dollars)	370.92	387.36	406.33	423.51	442.29	459.52	481.57	512.15	529.24
Services:									
Average weekly hours	32.4	32.5	32.5	32.5	32.4	32.4	32.6	32.6	32.6
Average hourly earnings (in dollars)	10.23	10.54	10.78	11.04	11.39	11.79	12.28	12.84	13.36
Average weekly earnings (in dollars)	331.45	342.55	350.35	358.80	369.04	382.00	400.33	418.58	435.54

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21. Employment Cost Index, compensation,[1] by occupation and industry group

[June 1989 = 100]

Series	1998		1999				2000			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 2000	
Civilian workers[2]	139.0	139.8	140.4	141.8	143.3	144.6	146.5	148.0	149.5	1.0	4.3
Workers, by occupational group:											
White-collar workers	140.6	141.4	141.9	143.3	145.0	146.3	148.4	149.9	151.5	1.1	4.5
Professional specialty and technical	140.0	141.0	141.3	142.2	143.9	145.3	146.7	148.3	150.0	1.1	4.2
Executive, adminitrative, and managerial	141.7	141.8	143.5	145.4	147.3	148.6	150.5	151.9	153.7	1.2	4.3
Administrative support, including clerical	140.4	141.3	142.5	143.4	144.7	146.1	148.6	150.1	151.8	1.1	4.9
Blue-collar workers	135.3	136.1	137.1	138.3	139.5	140.6	142.7	144.1	145.6	1.0	4.4
Service occupations	139.4	140.0	141.3	142.4	143.1	144.8	146.0	147.1	148.5	1.0	3.8
Workers, by industry division:											
Goods-producing	137.2	137.9	139.0	140.0	141.2	142.5	144.9	146.6	148.0	1.0	4.8
Manufacturing	138.2	138.9	139.9	140.9	142.1	143.6	146.0	147.5	148.7	.8	4.6
Service-producing	139.6	140.4	140.9	142.4	144.0	145.3	147.1	148.4	150.1	1.1	4.2
Services	140.8	141.7	142.3	143.2	145.1	146.5	148.0	149.3	151.2	1.3	4.2
Health services	139.1	139.1	140.5	141.4	142.7	144.3	145.9	147.5	149.0	1.0	4.4
Hospitals	139.4	140.2	141.3	142.2	143.4	145.0	146.3	147.7	149.5	1.2	4.3
Educational services	140.2	141.0	141.3	141.7	144.6	145.8	146.5	146.8	149.7	2.0	3.5
Public administration[3]	138.9	139.9	140.8	141.5	142.4	144.4	145.7	146.1	146.9	.5	3.2
Nonmanufacturing	139.0	139.9	140.5	141.9	143.4	144.7	146.6	148.0	149.6	1.1	4.3
Private industry workers	139.0	139.8	140.4	142.0	143.3	144.6	146.8	148.5	149.9	.9	4.6
Excluding sales occupations	138.8	139.4	140.5	141.9	143.2	144.5	146.5	148.2	149.8	1.1	4.6
Workers, by occupational group:											
White-collar workers	141.1	142.0	142.4	144.1	145.6	146.9	149.3	151.1	152.6	1.0	4.8
Excluding sales occupations	141.3	141.9	143.0	144.5	146.0	147.3	149.4	151.3	152.9	1.1	4.7
Professional specialty and technical occupations	141.6	142.6	142.9	144.1	145.2	146.7	148.4	150.7	152.2	1.0	4.8
Executive, adminitrative, and managerial occupations	141.9	141.8	143.7	145.8	147.7	149.1	151.1	152.7	154.4	1.1	4.5
Sales occupations	140.4	142.6	139.6	142.6	144.1	145.3	148.9	150.3	151.2	.6	4.9
Administrative support occupations, including clerical	140.6	141.4	142.6	143.7	145.0	146.2	149.0	150.6	152.3	1.1	5.0
Blue-collar workers	135.2	135.9	136.9	138.2	139.4	140.5	142.6	144.1	145.5	1.0	4.4
Precision production, craft, and repair occupations	135.4	136.1	137.2	138.4	139.6	140.6	142.3	144.1	145.8	1.2	4.4
Machine operators, assemblers, and inspectors	135.7	136.8	137.3	138.4	139.9	141.4	144.0	145.0	146.0	.7	4.4
Transportation and material moving occupations	130.7	130.7	131.6	133.6	134.4	135.2	137.5	138.6	139.9	.9	4.1
Handlers, equipment cleaners, helpers, and laborers	138.5	139.2	141.0	142.3	143.2	144.4	146.4	148.1	149.4	.9	4.3
Service occupations	137.3	138.0	139.5	140.6	141.0	142.6	143.9	145.4	146.6	.8	4.0
Production and nonsupervisory occupations[4]	138.0	139.0	139.3	140.8	141.9	143.1	145.3	146.9	148.4	1.0	4.6
Workers, by industry division:											
Goods-producing	137.1	137.8	138.9	139.9	141.1	142.5	144.8	146.6	147.9	.9	4.8
Excluding sales occupations	136.5	137.2	138.3	139.3	140.5	141.8	144.2	145.9	147.2	.9	4.8
White-collar occupations	139.7	140.2	141.7	142.7	143.9	145.5	148.1	150.1	151.3	.8	5.1
Excluding sales occupations	138.3	138.8	140.4	141.3	142.5	143.9	146.5	148.4	149.6	.8	5.0
Blue-collar occupations	135.5	136.3	137.1	138.3	139.4	140.7	142.8	144.4	145.8	1.0	4.6
Construction	133.4	134.3	135.6	136.9	137.9	138.7	140.8	143.2	145.1	1.3	5.2
Manufacturing	138.2	138.9	139.9	140.9	142.1	143.6	146.0	147.5	148.7	.8	4.6
White-collar occupations	140.1	140.5	141.8	143.0	144.3	145.8	148.2	150.2	151.4	.8	4.9
Excluding sales occupations	138.3	138.7	140.1	141.3	142.5	143.8	146.2	148.2	149.3	.7	4.8
Blue-collar occupations	136.8	137.7	138.5	139.4	140.5	142.1	144.4	145.6	146.7	.8	4.4
Durables	138.5	139.2	139.9	141.0	142.3	144.0	146.5	148.3	149.4	.7	5.0
Nondurables	137.6	138.2	139.6	140.4	141.5	142.8	144.9	146.0	147.5	1.0	4.2
Service-producing	139.6	140.5	140.9	142.8	144.1	145.3	147.4	149.1	150.6	1.0	4.5
Excluding sales occupations	140.0	140.6	141.7	143.3	144.6	145.9	147.7	149.4	151.1	1.1	4.5
White-collar occupations	141.2	142.2	142.3	144.3	145.8	147.0	149.3	151.0	152.6	1.1	4.7
Excluding sales occupations	142.2	142.8	143.8	145.5	147.0	148.3	150.3	152.1	153.9	1.2	4.7
Blue-collar occupations	134.3	134.8	136.2	137.8	139.1	139.8	141.8	143.1	144.5	1.0	3.9
Service occupations	137.0	137.8	139.3	140.5	140.8	142.4	143.6	145.1	146.3	.8	3.9
Transportation and public utilities	138.5	139.3	139.7	140.9	141.8	142.3	143.9	145.7	147.4	1.2	3.9
Transportation	136.7	137.3	136.8	138.1	138.7	139.5	140.4	141.8	142.8	.7	3.0
Public utilities	140.7	141.9	143.4	144.6	145.7	146.1	148.6	150.9	153.5	1.7	5.4
Communications	140.5	141.7	143.3	144.9	146.1	146.0	148.4	150.9	153.9	2.0	5.3
Electric, gas, and sanitary services	141.0	142.1	143.4	144.2	145.1	146.1	148.9	151.0	152.9	1.3	5.4
Wholesale and retail trade	137.6	138.2	138.9	141.1	142.2	143.5	145.6	147.3	148.3	.7	4.3
Excluding sales occupations	138.1	138.8	139.9	141.9	142.8	144.3	146.4	148.1	149.6	1.0	4.8
Wholesale trade	140.8	142.8	142.7	144.6	146.3	148.5	150.0	151.8	152.1	.2	4.0
Excluding sales occupations	140.0	141.2	142.4	144.0	145.8	147.4	149.6	151.1	152.7	1.1	4.7
Retail trade	135.9	135.6	136.8	139.1	140.0	140.7	143.2	144.8	146.2	1.0	4.4
General merchandise stores	133.2	134.0	135.0	135.6	137.2	138.3	139.7	141.0	142.2	.9	3.6
Food stores	133.7	132.7	134.3	135.7	137.0	138.1	140.1	142.5	143.4	.6	4.7

See footnotes at end of table.

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21. Continued—Employment Cost Index, compensation,[1] by occupation and industry group

[June 1989 = 100]

Series	1998		1999				2000			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 2000	
Finance, insurance, and real estate	141.0	142.5	141.5	145.8	147.6	148.3	152.0	153.1	155.2	1.4	5.1
Excluding sales occupations	143.2	143.3	145.6	148.8	151.0	151.6	154.2	155.5	157.4	1.2	4.2
Banking, savings and loan, and other credit agencies	148.4	146.7	148.8	155.4	159.3	159.8	162.7	164.2	165.8	1.0	4.1
Insurance	141.9	141.7	141.7	144.0	144.5	145.8	149.9	151.3	154.8	2.3	7.1
Services	141.8	142.7	143.5	144.6	146.1	147.6	149.4	151.2	152.9	1.1	4.7
Business services	143.5	145.9	147.5	148.7	150.7	151.9	154.2	156.3	157.5	.8	4.5
Health services	139.0	139.0	140.5	141.4	142.6	144.2	145.8	147.5	149.0	1.0	4.5
Hospitals	139.1	139.9	141.2	142.1	143.0	144.6	145.8	147.5	149.2	1.2	4.3
Educational services	147.0	147.7	148.3	148.7	152.2	153.0	154.0	154.9	158.8	2.5	4.3
Colleges and universities	147.8	148.5	149.2	149.6	152.6	153.3	154.6	155.5	158.6	2.0	3.9
Nonmanufacturing	138.9	139.7	140.3	142.0	143.4	144.5	146.7	148.4	150.0	1.1	4.6
White-collar workers	141.1	142.0	142.3	144.1	145.6	146.9	149.2	151.0	152.6	1.1	4.8
Excluding sales occupations	142.0	142.7	143.7	145.3	146.8	148.1	150.2	152.0	153.8	1.2	4.8
Blue-collar occupations	133.4	134.0	135.2	136.8	138.0	138.7	140.6	142.3	143.9	1.1	4.3
Service occupations	136.9	137.7	139.2	140.4	140.7	142.3	143.5	145.1	146.3	.8	4.0
State and local government workers	139.0	139.8	140.5	141.0	143.1	144.6	145.5	145.9	147.8	1.3	3.3
Workers, by occupational group:											
White-collar workers	138.4	139.3	139.8	140.2	142.6	144.0	144.9	145.3	147.3	1.4	3.3
Professional specialty and technical	137.7	138.5	138.8	139.3	142.0	143.2	144.1	144.5	146.6	1.5	3.2
Executive, administrative, and managerial	140.4	141.6	142.6	142.8	144.5	146.1	147.0	147.2	149.2	1.4	3.3
Administrative support, including clerical	139.5	140.3	141.4	141.3	143.0	145.0	145.9	146.5	148.3	1.2	3.7
Blue-collar workers	136.8	137.8	138.8	139.5	140.9	142.5	143.7	144.2	145.9	1.2	3.5
Workers, by industry division:											
Services	139.0	139.7	140.0	140.5	143.2	144.5	145.2	145.5	148.0	1.7	3.4
Services excluding schools[5]	138.7	138.8	139.6	140.3	142.6	143.8	145.2	145.8	147.6	1.2	3.5
Health services	140.3	140.7	141.2	142.0	144.2	145.8	147.3	147.9	150.0	1.4	4.0
Hospitals	140.7	141.2	141.7	142.7	144.8	146.3	147.9	148.4	150.7	1.5	4.1
Educational services	138.8	139.6	139.9	140.3	143.1	144.4	145.0	145.2	147.9	1.9	3.4
Schools	139.1	139.9	140.2	140.6	143.5	144.7	145.3	145.5	148.2	1.9	3.3
Elementary and secondary	138.8	139.3	139.6	140.0	142.9	144.1	144.5	144.7	147.3	1.8	3.1
Colleges and universities	140.4	141.5	141.7	142.1	144.8	146.5	147.4	147.6	150.5	2.0	3.9
Public administration[3]	138.9	139.9	140.8	141.5	142.4	144.4	145.7	146.1	146.9	.5	3.2

[1] Cost (cents per hour worked) measured in the Employment Cost Index consists of wages, salaries, and employer cost of employee benefits.

[2] Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[3] Consists of legislative, judicial, administrative, and regulatory activities.

[4] This series has the same industry and occupational coverage as the Hourly Earnings index, which was discontinued in January 1989.

[5] Includes, for example, library, social, and health services.

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22. Employment Cost Index, wages and salaries, by occupation and industry group

[June 1989 = 100]

Series	1998		1999				2000			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 2000	
Civilian workers[1]	136.8	137.7	138.4	139.8	141.3	142.5	144.0	145.4	147.0	1.1	4.0
Workers, by occupational group:											
White-collar workers	138.8	139.7	140.1	141.6	143.3	144.6	146.2	147.6	149.2	1.1	4.1
Professional specialty and technical	138.5	139.4	140.1	141.0	142.6	144.0	144.9	146.4	148.3	1.3	4.0
Executive, adminitrative, and managerial	140.5	140.3	141.6	143.8	145.9	147.2	148.6	149.9	151.6	1.1	3.9
Administrative support, including clerical	137.5	138.6	140.0	140.9	142.3	143.5	145.5	146.9	148.5	1.1	4.4
Blue-collar workers	132.6	133.3	134.5	135.8	137.0	137.9	139.2	140.6	142.0	1.0	3.6
Service occupations	136.1	137.0	138.3	139.4	140.1	141.7	143.0	144.0	145.7	1.2	4.0
Workers, by industry division:											
Goods-producing	134.4	135.2	136.3	137.4	138.6	139.7	141.3	143.0	144.3	.9	4.1
Manufacturing	136.0	136.8	137.9	139.0	140.2	141.5	142.9	144.4	145.7	.9	3.9
Service-producing	137.8	138.7	139.2	140.7	142.3	143.5	145.0	146.3	148.0	1.2	4.0
Services	139.6	140.5	141.5	142.3	144.1	145.5	146.6	147.9	149.9	1.4	4.0
Health services	137.6	137.6	138.8	139.7	140.9	142.5	143.8	145.3	146.7	1.0	4.1
Hospitals	136.4	137.1	138.1	138.8	140.1	141.6	142.6	143.8	145.6	1.3	3.9
Educational services	139.1	140.0	140.2	140.6	143.7	144.7	145.3	145.6	148.9	2.3	3.6
Public administration[2]	134.8	135.9	136.9	137.8	139.5	141.5	142.5	142.9	144.6	1.2	3.7
Nonmanufacturing	137.0	137.8	138.4	139.9	141.5	142.6	144.2	145.5	147.2	1.2	4.0
Private industry workers	136.6	137.4	138.1	139.7	141.0	142.2	143.9	145.4	146.8	1.0	4.1
Excluding sales occupations	136.3	136.9	138.2	139.6	140.8	142.0	143.5	145.1	146.5	1.0	4.0
Workers, by occupational group:											
White-collar workers	139.0	139.9	140.3	142.1	143.5	144.8	146.6	148.3	149.7	.9	4.3
Excluding sales occupations	139.1	139.7	141.0	142.5	143.9	145.2	146.7	148.5	149.9	.9	4.2
Professional specialty and technical occupations	138.7	139.7	140.7	141.8	142.6	144.1	145.1	147.3	148.6	.9	4.2
Executive, adminitrative, and managerial occupations	140.9	140.5	141.9	144.3	146.4	147.6	149.2	150.7	152.3	1.1	4.0
Sales occupations	138.8	141.3	137.3	140.5	142.1	143.3	146.7	147.9	149.0	.7	4.9
Administrative support occupations, including clerical	137.9	138.9	140.4	141.4	142.7	143.8	146.0	147.5	149.1	1.1	4.5
Blue-collar workers	132.4	133.2	134.3	135.6	136.8	137.7	139.1	140.5	141.9	1.0	3.7
Precision production, craft, and repair occupations	132.3	133.0	134.3	135.6	136.7	137.5	138.9	140.6	142.0	1.0	3.9
Machine operators, assemblers, and inspectors	133.8	134.9	135.7	136.7	138.3	139.5	140.7	141.6	142.9	.9	3.3
Transportation and material moving occupations	127.6	127.8	129.1	131.0	131.9	132.7	134.1	135.2	136.5	1.0	3.5
Handlers, equipment cleaners, helpers, and laborers	135.1	135.8	137.3	138.3	139.4	140.4	141.8	143.6	145.0	1.0	4.0
Service occupations	134.4	135.3	136.7	137.8	138.0	139.6	141.0	142.5	143.5	.7	4.0
Production and nonsupervisory occupations[3]	135.2	136.4	136.8	138.2	139.3	140.4	142.1	143.7	145.0	.9	4.1
Workers, by industry division:											
Goods-producing	134.3	135.2	136.3	137.3	138.5	139.7	141.3	143.0	144.3	.9	4.2
Excluding sales occupations	133.6	134.4	135.5	136.6	137.8	138.9	140.5	142.1	143.4	.9	4.1
White-collar occupations	137.4	138.2	139.4	140.5	141.7	143.0	145.0	146.8	147.9	.7	4.4
Excluding sales occupations	135.7	136.4	137.8	138.8	140.1	141.3	143.2	144.9	146.0	.8	4.2
Blue-collar occupations	132.3	133.3	134.3	135.4	136.6	137.6	139.0	140.5	142.0	1.1	4.0
Construction	128.5	129.3	130.7	131.9	133.0	133.6	136.0	138.0	139.4	1.0	4.8
Manufacturing	136.0	136.8	137.9	139.0	140.2	141.5	142.9	144.4	145.7	.9	3.9
White-collar occupations	138.3	139.0	140.1	141.4	142.7	144.0	145.8	147.7	148.7	.7	4.2
Excluding sales occupations	136.3	137.1	138.3	139.6	140.8	142.0	143.7	145.6	146.6	.7	4.1
Blue-collar occupations	134.3	135.3	136.3	137.2	138.4	139.7	140.8	142.0	143.4	1.0	3.6
Durables	135.9	136.9	137.9	139.1	140.4	141.8	143.0	144.7	146.1	1.0	4.1
Nondurables	136.0	136.8	138.0	138.7	139.7	140.9	142.7	143.9	145.0	.8	3.8
Service-producing	137.6	138.4	138.9	140.8	142.1	143.3	145.0	146.5	147.9	1.0	4.1
Excluding sales occupations	137.9	138.5	139.8	141.4	142.6	143.8	145.3	146.9	148.3	1.0	4.0
White-collar occupations	139.2	140.1	140.3	142.3	143.8	145.0	146.9	148.5	150.0	1.0	4.3
Excluding sales occupations	140.2	140.7	142.0	143.7	145.1	146.4	147.8	149.6	151.2	1.1	4.2
Blue-collar occupations	132.4	132.9	134.4	135.9	137.0	137.8	139.1	140.3	141.6	.9	3.4
Service occupations	134.2	135.2	136.7	137.8	138.0	139.6	141.1	142.5	143.5	.7	4.0
Transportation and public utilities	134.3	135.1	135.4	136.8	137.5	137.9	138.5	140.0	141.3	.9	2.8
Transportation	132.4	132.9	132.3	133.7	134.4	134.9	134.9	136.2	137.4	.9	2.2
Public utilities	136.5	137.8	139.2	140.6	141.5	141.8	143.2	144.9	146.4	1.0	3.5
Communications	136.7	138.0	139.4	141.1	141.9	142.2	143.4	145.0	146.7	1.2	3.4
Electric, gas, and sanitary services	136.3	137.4	138.9	140.0	140.9	141.3	143.0	144.7	145.9	.8	3.5
Wholesale and retail trade	136.6	137.0	137.7	139.6	140.7	142.0	143.8	145.5	146.4	.6	4.1
Excluding sales occupations	137.6	138.2	139.5	141.1	141.8	143.3	145.2	146.8	148.2	1.0	4.5
Wholesale trade	139.3	141.3	140.7	142.3	144.3	146.5	147.4	149.4	149.6	.1	3.7
Excluding sales occupations	139.6	140.8	141.9	143.0	144.8	146.4	147.9	149.7	151.3	1.1	4.5
Retail trade	135.2	134.8	136.2	138.3	138.9	139.6	142.1	143.5	144.8	.9	4.2
General merchandise stores	132.2	133.0	133.7	134.3	135.6	136.7	137.8	138.5	139.7	.9	3.0
Food stores	131.7	130.5	131.8	132.8	133.9	134.9	136.7	139.5	140.2	.5	4.7

See footnotes at end of table.

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22. Continued—Employment Cost Index, wages and salaries, by occupation and industry group

[June 1989 = 100]

Series	1998		1999				2000			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 2000	
Finance, insurance, and real estate	138.1	139.8	137.2	142.4	144.5	145.2	148.7	149.5	151.7	1.5	5.0
Excluding sales occupations	139.7	139.6	141.0	144.8	147.5	148.0	150.2	151.5	153.3	1.2	3.9
Banking, savings and loan, and other credit agencies	147.0	144.4	146.1	154.5	159.2	159.6	162.0	163.3	165.0	1.0	3.6
Insurance	138.7	138.5	137.4	139.8	140.2	141.5	145.5	146.6	150.7	2.8	7.5
Services	140.0	140.8	142.2	143.2	144.5	146.0	147.4	149.1	150.6	1.0	4.2
Business services	141.8	144.1	145.4	146.3	148.5	149.8	152.0	154.1	155.3	.8	4.6
Health services	137.5	137.4	138.7	139.6	140.6	142.2	143.5	145.3	146.6	.9	4.3
Hospitals	135.8	136.5	137.6	138.3	139.3	140.9	141.8	143.3	144.9	1.1	4.0
Educational services	142.8	143.5	143.9	144.2	147.5	148.2	148.9	149.6	153.4	2.5	4.0
Colleges and universities	142.8	143.6	144.1	144.4	147.2	147.9	148.9	149.4	152.5	2.1	3.6
Nonmanufacturing	136.5	137.4	137.9	139.7	141.0	142.1	143.9	145.5	146.9	1.0	4.2
White-collar workers	138.9	139.8	140.1	142.0	143.5	144.7	146.5	148.2	149.6	.9	4.3
Excluding sales occupations	139.8	140.3	141.6	143.2	144.6	145.9	147.4	149.1	150.7	1.1	4.2
Blue-collar occupations	130.5	131.1	132.4	134.0	135.1	135.8	137.4	138.9	140.3	1.0	3.8
Service occupations	134.1	135.1	136.5	137.7	137.9	139.5	140.9	142.4	143.4	.7	4.0
State and local government workers	137.6	138.5	139.0	139.6	142.2	143.5	144.3	144.7	147.2	1.7	3.5
Workers, by occupational group:											
White-collar workers	137.6	138.5	138.9	139.3	142.1	143.4	144.1	144.5	147.1	1.8	3.5
Professional specialty and technical	137.9	138.7	138.9	139.4	142.5	143.6	144.3	144.7	147.4	1.9	3.4
Executive, administrative, and managerial	138.0	139.3	140.1	140.5	142.7	144.3	144.9	145.1	147.3	1.5	3.2
Administrative support, including clerical	135.4	136.5	137.4	137.5	139.6	141.7	142.4	143.0	145.0	1.4	3.9
Blue-collar workers	135.1	136.0	136.9	137.6	139.4	140.7	141.5	142.1	143.9	1.3	3.2
Workers, by industry division:											
Services	138.4	139.2	139.5	139.9	142.9	144.0	144.6	144.9	147.9	2.1	3.5
Services excluding schools[4]	137.8	138.2	139.0	139.6	142.1	143.2	144.3	144.8	146.7	1.3	3.2
Health services	138.7	139.2	139.7	140.4	142.8	144.2	145.3	145.7	147.7	1.4	3.4
Hospitals	138.6	139.1	139.7	140.6	142.8	144.1	145.3	145.6	147.7	1.4	3.4
Educational services	138.4	139.3	139.5	139.8	142.9	144.0	144.5	144.8	148.0	2.2	3.6
Schools	138.5	139.5	139.6	140.0	143.1	144.2	144.7	144.9	148.1	2.2	3.5
Elementary and secondary	138.7	139.3	139.5	139.9	143.1	144.1	144.5	144.6	147.9	2.3	3.4
Colleges and universities	137.7	139.6	139.6	139.8	142.6	144.4	144.9	145.6	148.3	1.9	4.0
Public administration[2]	134.8	135.9	136.9	137.8	139.5	141.5	142.5	142.9	144.6	1.2	3.7

[1] Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[2] Consists of legislative, judicial, administrative, and regulatory activities.

[3] This series has the same industry and occupational coverage as the Hourly Earnings index, which was discontinued in January 1989.

[4] Includes, for example, library, social, and health services.

23. Employment Cost Index, benefits, private industry workers by occupation and industry group

[June 1989 = 100]

Series	1998		1999				2000			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 2000	
Private industry workers	144.5	145.2	145.8	147.3	148.6	150.2	153.8	155.7	157.5	1.2	6.0
Workers, by occupational group:											
White-collar workers	146.6	147.4	147.9	149.4	151.0	152.5	156.3	158.5	160.4	1.2	6.2
Blue-collar workers	141.0	141.6	142.2	143.6	144.8	146.2	150.0	151.6	153.1	1.0	5.7
Workers, by industry division:											
Goods-producing	143.0	143.2	144.3	145.2	146.3	148.2	152.3	154.2	155.7	1.0	6.4
Service-producing	144.9	145.7	146.1	147.9	149.4	150.7	154.0	156.0	157.9	1.2	5.7
Manufacturing	142.6	142.7	143.6	144.5	145.7	147.8	152.3	153.9	154.9	.6	6.3
Nonmanufacturing	145.0	145.8	146.3	148.0	149.4	150.7	154.0	156.1	158.1	1.3	5.8

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24. Employment Cost Index, private nonfarm workers by bargaining status, region, and area size

[June 1989 = 100]

Series	1998		1999				2000			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 2000	
COMPENSATION											
Workers, by bargaining status[1]											
Union	136.8	137.5	138.0	139.0	140.2	141.2	143.0	144.4	146.1	1.2	4.2
Goods-producing	135.6	136.5	136.8	138.2	139.2	140.8	143.3	144.8	146.8	1.4	5.5
Service-producing	138.0	138.5	139.2	139.7	141.0	141.4	142.5	143.9	145.2	.9	3.0
Manufacturing	136.0	136.9	137.0	138.1	139.1	141.0	144.5	145.4	147.1	1.2	5.8
Nonmanufacturing	136.9	137.4	138.1	139.2	140.3	140.8	141.7	143.4	145.0	1.1	3.3
Nonunion	139.3	140.1	140.8	142.5	143.8	145.2	147.4	149.1	150.6	1.0	4.7
Goods-producing	137.7	138.3	139.7	140.5	141.8	143.1	145.4	147.2	148.4	.8	4.7
Service-producing	139.7	140.6	141.1	143.0	144.4	145.7	148.0	149.6	151.2	1.1	4.7
Manufacturing	138.9	139.4	140.7	141.7	143.0	144.4	146.5	148.2	149.2	.7	4.3
Nonmanufacturing	139.1	140.0	140.6	142.4	143.8	145.1	147.4	149.1	150.7	1.1	4.8
Workers, by region[1]											
Northeast	138.7	139.5	140.5	141.5	143.2	144.3	146.3	147.6	149.3	1.2	4.3
South	137.6	138.1	139.1	140.7	141.8	143.0	145.0	146.7	147.6	.6	4.1
Midwest (formerly North Central)	140.9	141.4	141.7	143.6	145.0	146.3	148.9	150.7	152.2	1.0	5.0
West	138.5	140.0	140.3	142.1	143.3	144.7	147.0	148.8	150.8	1.3	5.2
Workers, by area size[1]											
Metropolitan areas	139.1	139.8	140.4	142.0	143.3	144.7	146.9	148.6	150.1	1.0	4.7
Other areas	138.2	139.4	140.5	141.8	143.1	143.6	146.0	147.7	148.8	.7	4.0
WAGES AND SALARIES											
Workers, by bargaining status[1]											
Union	132.4	133.1	133.6	134.7	135.7	136.5	137.2	138.5	140.0	1.1	3.2
Goods-producing	131.0	131.7	132.3	133.8	134.9	136.1	137.2	138.4	140.2	1.3	3.9
Service-producing	134.1	134.8	135.4	135.8	136.8	137.2	137.6	138.9	140.1	.9	2.4
Manufacturing	132.2	133.0	133.6	134.7	135.8	137.5	138.8	139.7	141.4	1.2	4.1
Nonmanufacturing	132.4	133.1	133.7	134.6	135.6	135.9	136.4	137.8	139.2	1.0	2.7
Nonunion	137.4	138.3	139.0	140.7	142.0	143.3	145.1	146.7	148.1	1.0	4.3
Goods-producing	135.7	136.5	137.8	138.8	140.0	141.1	142.9	144.7	145.8	.8	4.1
Service-producing	137.9	138.8	139.3	141.3	142.6	143.9	145.8	147.3	148.7	1.0	4.3
Manufacturing	137.3	138.2	139.4	140.5	141.7	142.9	144.4	146.1	147.2	.8	3.9
Nonmanufacturing	137.1	138.0	138.6	140.5	141.8	143.0	145.0	146.6	148.0	1.0	4.4
Workers, by region[1]											
Northeast	135.4	136.4	137.1	138.2	139.9	140.9	142.3	143.7	145.3	1.1	3.9
South	136.5	136.7	137.9	139.4	140.2	141.5	143.0	144.6	145.3	.5	3.6
Midwest (formerly North Central)	137.5	138.0	138.9	141.0	142.4	143.6	145.3	147.1	148.6	1.0	4.4
West	136.7	138.4	138.2	140.2	141.3	142.6	144.7	146.3	148.2	1.3	4.9
Workers, by area size[1]											
Metropolitan areas	136.9	137.7	138.3	139.9	141.2	142.5	144.1	145.7	147.1	1.0	4.2
Other areas	134.7	136.0	137.1	138.4	139.8	140.2	142.2	143.7	144.7	.7	3.5

[1] The indexes are calculated differently from those for the occupation and industry groups. For a detailed description of the index calculation, see the *Monthly Labor Review* Technical Note, "Estimation procedures for the Employment Cost Index," May 1982.

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25. Percent of full-time employees participating in employer-provided benefit plans, and in selected features within plans, medium and large private establishments, selected years, 1980–97

Item	1980	1982	1984	1986	1988	1989	1991	1993	1995	1997
Scope of survey (in 000's)	21,352	21,043	21,013	21,303	31,059	32,428	31,163	28,728	33,374	38,409
Number of employees (in 000's):										
With medical care	20,711	20,412	20,383	20,238	27,953	29,834	25,865	23,519	25,546	29,340
With life insurance	20,498	20,201	20,172	20,451	28,574	30,482	29,293	26,175	29,078	33,495
With defined benefit plan	17,936	17,676	17,231	16,190	19,567	20,430	18,386	16,015	17,417	19,202
Time-off plans										
Participants with:										
Paid lunch time	10	9	9	10	11	10	8	9	–	–
Average minutes per day	–	25	26	27	29	26	30	29	–	–
Paid rest time	75	76	73	72	72	71	67	68	–	–
Average minutes per day	–	25	26	26	26	26	28	26	–	–
Paid funeral leave	–	–	–	88	85	84	80	83	80	81
Average days per occurrence	–	–	–	3.2	3.2	3.3	3.3	3.0	3.3	3.7
Paid holidays	99	99	99	99	96	97	92	91	89	89
Average days per year	10.1	10.0	9.8	10.0	9.4	9.2	10.2	9.4	9.1	9.3
Paid personal leave	20	24	23	25	24	22	21	21	22	20
Average days per year	–	3.8	3.6	3.7	3.3	3.1	3.3	3.1	3.3	3.5
Paid vacations	100	99	99	100	98	97	96	97	96	95
Paid sick leave [1]	62	67	67	70	69	68	67	65	58	56
Unpaid maternity leave	–	–	–	–	33	37	37	60	–	–
Unpaid paternity leave	–	–	–	–	16	18	26	53	–	–
Unpaid family leave	–	–	–	–	–	–	–	–	84	93
Insurance plans										
Participants in medical care plans	97	97	97	95	90	92	83	82	77	76
Percent of participants with coverage for:										
Home health care	–	–	46	66	76	75	81	86	78	85
Extended care facilities	58	62	62	70	79	80	80	82	73	78
Physical exam	–	–	8	18	28	28	30	42	56	63
Percent of participants with employee contribution required for:										
Self coverage	26	27	36	43	44	47	51	61	67	69
Average monthly contribution	–	–	$11.93	$12.80	$19.29	$25.31	$26.60	$31.55	$33.92	$39.14
Family coverage	46	51	58	63	64	66	69	76	78	80
Average monthly contribution	–	–	$35.93	$41.40	$60.07	$72.10	$96.97	$107.42	$118.33	$130.07
Participants in life insurance plans	96	96	96	96	92	94	94	91	87	87
Percent of participants with:										
Accidental death and dismemberment insurance	69	72	74	72	78	71	71	76	77	74
Survivor income benefits	–	–	–	10	8	7	6	5	7	6
Retiree protection available	–	64	64	59	49	42	44	41	37	33
Participants in long-term disability insurance plans	40	43	47	48	42	45	40	41	42	43
Participants in sickness and accident insurance plans	54	51	51	49	46	43	45	44	–	–
Participants in short-term disability plans [1]	–	–	–	–	–	–	–	–	53	55
Retirement plans										
Participants in defined benefit pension plans	84	84	82	76	63	63	59	56	52	50
Percent of participants with:										
Normal retirement prior to age 65	55	58	63	64	59	62	55	52	52	52
Early retirement available	98	97	97	98	98	97	98	95	96	95
Ad hoc pension increase in last 5 years	–	–	47	35	26	22	7	6	4	10
Terminal earnings formula	53	52	54	57	55	64	56	61	58	56
Benefit coordinated with Social Security	45	45	56	62	62	63	54	48	51	49
Participants in defined contribution plans	–	–	–	60	45	48	48	49	55	57
Participants in plans with tax-deferred savings arrangements	–	–	–	33	36	41	44	43	54	55
Other benefits										
Employees eligible for:										
Flexible benefits plans	–	–	–	2	5	9	10	12	12	13
Reimbursement accounts [2]	–	–	–	5	12	23	36	52	38	32
Premium conversion plans	–	–	–	–	–	–	–	–	5	7

[1] The definitions for paid sick leave and short-term disability (previously sickness and accident insurance) were changed for the 1995 survey. Paid sick leave now includes only plans that specify either a maximum number of days per year or unlimited days. Short-terms disability now includes all insured, self-insured, and State-mandated plans available on a per-disability basis, as well as the unfunded per-disability plans previously reported as sick leave. Sickness and accident insurance, reported in years prior to this survey, included only insured, self-insured, and State-mandated plans providing per-disability benefits at less than full pay.

[2] Prior to 1995, reimbursement accounts included premium conversion plans, which specifically allow medical plan participants to pay required plan premiums with pretax dollars. Also, reimbursement accounts that were part of flexible benefit plans were tabulated separately.

NOTE: Dash indicates data not available.

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26. Percent of full-time employees participating in employer-provided benefit plans, and in selected features within plans, small private establishments and State and local governments, 1987, 1990, 1992, 1994, and 1996

Item	Small private establishments				State and local governments			
	1990	1992	1994	1996	1987	1990	1992	1994
Scope of survey (in 000's)	32,466	34,360	35,910	39,816	10,321	12,972	12,466	12,907
Number of employees (in 000's):								
With medical care	22,402	24,396	23,536	25,599	9,599	12,064	11,219	11,192
With life insurance	20,778	21,990	21,955	24,635	8,773	11,415	11,095	11,194
With defined benefit plan	6,493	7,559	5,480	5,883	9,599	11,675	10,845	11,708
Time-off plans								
Participants with:								
Paid lunch time	8	9	–	–	17	11	10	–
Average minutes per day	37	37	–	–	34	36	34	–
Paid rest time	48	49	–	–	58	56	53	–
Average minutes per day	27	26	–	–	29	29	29	–
Paid funeral leave	47	50	50	51	56	63	65	62
Average days per occurrence	2.9	3.0	3.1	3.0	3.7	3.7	3.7	3.7
Paid holidays	84	82	82	80	81	74	75	73
Average days per year[1]	9.5	9.2	7.5	7.6	10.9	13.6	14.2	11.5
Paid personal leave	11	12	13	14	38	39	38	38
Average days per year	2.8	2.6	2.6	3.0	2.7	2.9	2.9	3.0
Paid vacations	88	88	88	86	72	67	67	66
Paid sick leave [2]	47	53	50	50	97	95	95	94
Unpaid leave	17	18	–	–	57	51	59	–
Unpaid paternity leave	8	7	–	–	30	33	44	–
Unpaid family leave	–	–	47	48	–	–	–	93
Insurance plans								
Participants in medical care plans	69	71	66	64	93	93	90	87
Percent of participants with coverage for:								
Home health care	79	80	–	–	76	82	87	84
Extended care facilities	83	84	–	–	78	79	84	81
Physical exam	26	28	–	–	36	36	47	55
Percent of participants with employee contribution required for:								
Self coverage	42	47	52	52	35	38	43	47
Average monthly contribution	$25.13	$36.51	$40.97	$42.63	$15.74	$25.53	$28.97	$30.20
Family coverage	67	73	76	75	71	65	72	71
Average monthly contribution	$109.34	$150.54	$159.63	$181.53	$71.89	$117.59	$139.23	$149.70
Participants in life insurance plans	64	64	61	62	85	88	89	87
Percent of participants with:								
Accidental death and dismemberment insurance	78	76	79	77	67	67	74	64
Survivor income benefits	1	1	2	1	1	1	1	2
Retiree protection available	19	25	20	13	55	45	46	46
Participants in long-term disability insurance plans	19	23	20	22	31	27	28	30
Participants in sickness and accident insurance plans	6	26	26	–	14	21	22	21
Participants in short-term disability plans [2]	–	–	–	29	–	–	–	–
Retirement plans								
Participants in defined benefit pension plans	20	22	15	15	93	90	87	91
Percent of participants with:								
Normal retirement prior to age 65	54	50	–	47	92	89	92	92
Early retirement available	95	95	–	92	90	88	89	87
Ad hoc pension increase in last 5 years	7	4	–	–	33	16	10	13
Terminal earnings formula	58	54	–	53	100	100	100	99
Benefit coordinated with Social Security	49	46	–	44	18	8	10	49
Participants in defined contribution plans	31	33	34	38	9	9	9	9
Participants in plans with tax-deferred savings arrangements	17	24	23	28	28	45	45	24
Other benefits								
Employees eligible for:								
Flexible benefits plans	1	2	3	4	5	5	5	5
Reimbursement accounts [3]	8	14	19	12	5	31	50	64
Premium conversion plans	–	–	–	7	–	–	–	–

[1] Methods used to calculate the average number of paid holidays were revised in 1994 to count partial days more precisely. Average holidays for 1994 are not comparable with those reported in 1990 and 1992.

[2] The definitions for paid sick leave and short-term disability (previously sickness and accident insurance) were changed for the 1996 survey. Paid sick leave now includes only plans that specify either a maximum number of days per year or unlimited days. Short-term disability now includes all insured, self-insured, and State-mandated plans available on a per-disability basis, as well as the unfunded per-disability plans previously reported as sick leave. Sickness and accident insurance, reported in years prior to this survey, included only insured, self-insured, and State-mandated plans providing per-disability benefits at less than full pay.

[3] Prior to 1996, reimbursement accounts included premium conversion plans, which specifically allow medical plan participants to pay required plan premiums with pretax dollars. Also, reimbursement accounts that were part of flexible benefit plans were tabulated separately.

NOTE: Dash indicates data not available.

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27. Work stoppages involving 1,000 workers or more

Measure	Annual totals		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.[P]	Feb.[P]	Mar.[P]	Apr.[P]
Number of stoppages:															
Beginning in period	34	17	2	3	2	1	1	2	0	1	0	0	1	2	6
In effect during period	34	21	4	6	6	6	3	5	2	2	1	1	2	4	7
Workers involved:															
Beginning in period (in thousands)	387	73	19.0	9.6	2.2	1.7	11.0	19.1	.0	2.0	.0	.0	17.0	5.7	26.7
In effect during period (in thousands)	387	80	23.4	22.0	21.6	16.3	15.4	34.5	10.1	5.0	3.0	3.0	20.0	25.7	29.7
Days idle:															
Number (in thousands)	5,116	1,995	272.4	314.8	309.4	266.4	118.8	176.2	67.1	63.6	63.0	60.0	298.0	327.6	272.2
Percent of estimated working time[1]	.02	.01	.01	.01	.01	.01	[2]	.01	[2]	[2]	[2]	[2]	.01	.01	.01

[1] Agricultural and government employees are included in the total employed and total working time; private household, forestry, and fishery employees are excluded. An explanation of the measurement of idleness as a percentage of the total time worked is found in " 'Total economy' measures of strike idleness," *Monthly Labor Review*, October 1968, pp. 54–56.

[2] Less than 0.005.

[P] = preliminary.

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28. Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS															
All items	163.0	166.6	168.2	168.3	168.3	168.8	169.8	171.2	171.3	171.5	172.4	172.8	172.8	173.7	174.0
All items (1967 = 100)	488.3	499.0	503.9	504.1	504.1	505.8	508.7	512.8	513.2	513.6	516.5	517.5	517.6	520.3	521.2
Food and beverages	161.1	164.6	165.5	165.7	165.9	166.6	166.8	167.1	167.2	167.8	167.9	168.7	169.2	169.4	169.6
Food	160.7	164.1	165.1	165.2	165.4	166.1	166.3	166.5	166.6	167.3	167.3	168.1	168.7	168.9	169.1
Food at home	161.1	164.2	165.1	165.1	165.4	166.3	166.3	166.4	166.5	167.5	167.3	168.3	168.9	169.0	169.1
Cereals and bakery products	181.1	185.0	185.2	184.8	185.9	185.6	186.0	186.1	187.2	188.6	187.7	189.6	189.9	188.6	190.1
Meats, poultry, fish, and eggs	147.3	147.9	149.2	150.5	149.8	150.2	151.3	152.4	152.9	153.9	154.9	155.8	156.8	156.9	156.8
Dairy and related products[1]	150.8	159.6	164.1	164.6	162.1	160.4	160.9	159.1	160.6	159.6	159.5	160.5	161.0	161.6	161.9
Fruits and vegetables	198.2	203.1	202.2	201.2	204.5	208.4	203.0	201.7	201.6	204.3	199.9	201.0	202.5	204.6	206.2
Nonalcoholic beverages and beverage materials	133.0	134.3	134.6	133.9	134.7	137.1	138.4	138.5	137.6	137.3	137.5	138.5	138.2	138.0	137.4
Other foods at home	150.8	153.5	153.7	153.0	153.3	154.3	154.4	155.1	154.0	155.4	156.2	156.6	156.9	156.7	155.8
Sugar and sweets	150.2	152.3	153.3	152.1	152.3	154.8	154.4	154.6	152.4	153.7	154.0	154.1	154.6	154.6	153.9
Fats and oils	146.9	148.3	149.0	145.3	145.1	147.0	145.6	145.9	144.8	147.0	146.6	148.1	148.9	148.7	149.7
Other foods	165.5	168.9	168.7	169.0	169.4	169.8	170.5	171.6	170.7	172.1	173.4	173.5	173.7	173.4	172.0
Other miscellaneous foods[1,2]	102.6	104.9	104.3	103.9	105.7	104.3	106.4	107.0	105.2	106.4	108.4	108.8	109.5	107.7	106.8
Food away from home[1]	161.1	165.1	166.2	166.5	166.8	167.2	167.6	167.9	168.1	168.3	168.6	169.1	169.5	170.0	170.3
Other food away from home[1,2]	101.6	105.2	106.8	106.9	106.9	107.5	107.9	107.9	108.0	108.1	108.1	108.7	109.3	110.0	110.5
Alcoholic beverages	165.7	169.7	170.5	171.2	171.8	172.4	173.0	173.5	173.6	173.8	174.4	175.2	175.6	175.5	175.9
Housing	160.4	163.9	165.0	164.9	164.8	166.0	167.1	167.8	167.9	168.1	169.6	170.6	170.9	171.4	171.7
Shelter	182.1	187.3	188.5	188.6	188.6	190.1	191.0	192.2	192.3	192.4	193.3	194.1	194.7	194.6	195.2
Rent of primary residence	172.1	177.5	178.8	179.8	180.3	181.1	181.5	182.0	182.3	182.7	183.2	183.9	184.6	185.3	186.1
Lodging away from home	109.0	112.3	113.1	108.5	105.8	111.3	115.1	120.9	119.4	117.5	120.5	122.8	123.0	118.1	118.5
Owners' equivalent rent of primary residence[3]	187.8	192.9	194.2	194.9	195.2	196.2	196.6	196.9	197.2	197.6	198.2	198.6	199.2	199.9	200.5
Tenants' and household insurance[1,2]	99.8	101.3	102.2	102.1	102.2	102.4	102.4	102.6	103.1	103.8	103.9	104.2	104.0	104.2	104.2
Fuels and utilities	128.5	128.8	130.3	130.0	129.6	129.9	132.9	131.8	131.7	132.4	138.9	141.3	140.9	143.8	143.1
Fuels	113.7	113.5	115.0	114.6	114.1	114.3	117.6	116.3	116.1	116.8	124.0	126.5	125.9	129.1	128.3
Fuel oil and other fuels	90.0	91.4	97.6	100.7	106.3	114.4	147.2	130.1	123.7	121.6	120.9	120.8	120.8	133.7	137.6
Gas (piped) and electricity	121.2	120.9	122.0	121.4	120.3	119.8	120.6	120.7	121.0	122.0	130.2	133.0	132.4	134.8	133.6
Household furnishings and operations	126.6	126.7	126.6	126.4	126.4	127.0	127.2	127.9	128.2	128.1	128.1	128.6	128.6	129.0	128.7
Apparel	133.0	131.3	134.6	133.6	130.1	126.8	129.2	132.5	133.3	132.2	128.3	124.5	125.3	130.4	132.8
Men's and boys' apparel	131.8	131.1	134.0	133.2	131.5	129.2	130.0	131.5	131.6	132.6	129.4	126.4	126.8	129.1	130.4
Women's and girls' apparel	126.0	123.3	128.4	126.6	121.8	116.0	120.0	125.9	126.7	124.4	119.2	113.9	115.6	124.2	127.9
Infants' and toddlers' apparel[1]	126.1	129.0	132.4	132.6	133.0	133.3	133.1	133.9	132.3	131.7	130.5	128.1	126.7	127.4	130.8
Footwear	128.0	125.7	126.1	126.4	123.7	121.6	122.1	124.7	126.7	126.1	123.9	120.3	120.7	124.9	125.3
Transportation	141.6	144.4	147.3	147.6	148.3	148.3	149.7	153.4	152.9	153.1	155.7	155.0	153.2	154.7	154.4
Private transportation	137.9	140.5	143.3	143.6	144.4	144.4	145.6	149.2	148.7	148.8	151.4	150.6	148.6	150.4	150.4
New and used motor vehicles[2]	100.1	100.1	100.5	100.9	101.1	100.8	100.3	100.4	100.8	101.0	100.8	100.6	100.4	100.4	100.8
New vehicles	143.4	142.9	142.3	143.1	143.6	143.3	143.0	143.3	143.5	143.3	142.9	142.5	141.9	141.4	141.6
Used cars and trucks[1]	150.6	152.0	156.4	156.1	155.0	153.9	153.0	153.0	154.0	155.4	155.7	155.3	155.2	156.2	157.9
Motor fuel	92.2	100.7	110.0	109.3	112.2	112.6	118.1	131.7	128.7	128.3	139.0	136.1	128.4	135.2	133.1
Gasoline (all types)	91.6	100.1	109.4	108.7	111.5	111.9	117.3	130.9	127.9	127.6	138.3	135.4	127.7	134.3	132.3
Motor vehicle parts and equipment	101.1	100.5	100.5	101.2	100.8	100.8	100.9	101.4	101.0	101.1	101.2	101.5	101.5	101.7	101.7
Motor vehicle maintenance and repair	167.1	171.9	173.2	173.6	173.8	174.6	175.2	175.7	175.9	176.3	176.8	177.2	178.2	178.7	179.4
Public transportation	190.3	197.7	201.5	202.2	201.2	199.5	204.2	209.8	209.2	210.4	212.6	213.7	215.7	213.0	208.0
Medical care	242.1	250.6	252.8	253.3	254.2	255.5	257.0	258.1	258.8	259.4	260.5	261.4	262.6	263.1	263.7
Medical care commodities	221.8	230.7	233.2	233.7	234.6	235.2	235.5	236.3	237.0	237.5	238.2	238.6	239.2	239.4	239.6
Medical care services	246.8	255.1	257.1	257.7	258.5	260.1	262.0	263.2	263.9	264.4	265.6	266.7	268.0	268.7	269.4
Professional services	222.2	229.2	230.9	231.4	231.7	233.1	234.9	236.1	236.6	237.1	237.9	238.3	238.9	239.3	239.7
Hospital and related services	287.5	299.5	302.9	303.9	306.3	308.4	310.5	311.5	312.7	313.5	315.6	318.1	321.3	322.5	323.6
Recreation[2]	101.1	102.1	101.8	101.9	102.0	102.3	102.5	102.9	102.9	103.1	103.4	103.7	103.9	103.8	103.8
Video and audio[1,2]	101.1	100.7	100.1	100.1	100.1	100.5	100.8	100.9	100.3	101.3	101.5	101.3	101.6	101.5	101.0
Education and communication[2]	100.3	101.2	102.1	102.2	102.3	102.7	102.2	102.0	101.8	101.8	101.5	102.0	102.8	102.9	103.6
Education[2]	102.1	107.0	109.6	109.3	109.3	110.2	110.6	110.6	110.7	110.9	111.5	111.8	113.0	114.9	115.3
Educational books and supplies	250.8	261.7	269.0	255.7	256.0	273.9	278.3	276.9	276.7	276.8	277.5	278.1	280.2	284.8	285.2
Tuition, other school fees, and child care	294.2	308.4	315.9	316.3	316.3	317.3	318.0	318.3	318.7	319.2	320.9	321.7	325.4	330.8	332.1
Communication[1,2]	98.7	96.0	95.3	95.9	95.9	96.0	94.7	94.3	93.8	93.7	92.6	93.3	93.7	92.1	93.1
Information and information processing[1,2]	98.5	95.5	94.7	95.3	95.4	95.5	94.1	93.6	93.1	93.0	91.8	92.5	93.0	91.3	92.3
Telephone services[1,2]	100.7	100.1	99.8	100.6	100.7	100.9	99.4	98.9	98.6	98.5	97.2	98.2	98.9	97.0	98.3
Information and information processing other than telephone services[1,4]	39.9	30.5	28.7	28.2	28.2	28.0	27.6	27.2	26.7	26.6	26.0	25.7	25.2	25.0	24.7
Personal computers and peripheral equipment[1,2]	78.2	53.5	48.2	47.0	47.2	46.4	45.1	44.2	42.7	42.4	41.2	40.3	39.5	38.9	38.3
Other goods and services	237.7	258.3	263.2	263.0	263.0	264.7	266.7	268.0	271.9	270.2	269.6	272.2	271.6	274.7	273.0
Tobacco and smoking products	274.8	355.8	373.3	369.8	369.1	375.1	383.0	387.3	404.4	393.5	388.5	400.7	394.1	408.0	396.7
Personal care[1]	156.7	161.1	162.4	162.8	162.9	163.4	163.8	164.3	164.8	165.1	165.4	165.7	166.2	166.6	167.0
Personal care products[1]	148.3	151.8	153.4	153.3	152.5	152.8	152.6	153.5	153.4	153.0	153.6	153.7	154.3	154.3	153.4
Personal care services[1]	166.0	171.4	172.9	173.9	174.3	174.9	175.6	176.2	176.2	177.3	177.9	178.2	179.3	179.9	180.3

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28. Continued—Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Miscellaneous personal services	234.7	243.0	245.6	246.0	246.6	247.6	248.9	249.4	250.9	251.7	252.0	252.9	253.6	254.0	255.1
Commodity and service group:															
Commodities	141.9	144.4	146.4	146.2	146.1	146.2	147.4	149.2	149.3	149.2	149.7	149.3	148.6	150.3	150.4
Food and beverages	161.1	164.6	165.5	165.7	165.9	166.6	166.8	167.1	167.2	167.8	167.9	169.4	169.2	169.4	169.6
Commodities less food and beverages	130.5	132.5	134.9	134.6	134.4	134.0	135.7	138.4	138.4	138.0	138.6	137.7	136.4	138.8	138.9
Nondurables less food and beverages	132.6	137.5	141.9	141.3	140.9	140.5	143.9	148.5	148.5	147.6	149.1	147.5	145.6	149.9	149.9
Apparel	133.0	131.3	134.6	133.6	130.1	126.8	129.2	132.5	133.3	132.2	128.3	124.5	125.3	130.4	132.8
Nondurables less food, beverages, and apparel	137.4	146.0	151.2	150.7	152.1	153.1	157.2	162.7	162.3	161.5	165.8	165.4	162.0	165.9	164.7
Durables	127.6	126.0	125.9	126.0	125.9	125.7	125.3	125.6	125.6	125.8	125.4	125.2	124.7	124.8	125.0
Services	184.2	188.8	190.2	190.5	190.5	191.6	192.4	193.3	193.5	193.8	195.3	196.3	197.0	197.2	197.6
Rent of shelter[3]	189.6	195.0	196.3	196.3	196.3	198.0	198.9	200.1	200.2	200.3	201.2	202.1	202.7	202.6	203.3
Transporatation services	187.9	190.7	191.9	192.7	192.8	193.0	193.7	195.0	195.2	195.7	196.1	196.5	197.4	197.2	197.0
Other services	216.9	223.1	225.1	226.0	226.5	227.4	227.4	227.8	228.0	228.4	228.7	229.9	231.3	231.5	232.6
Special indexes:															
All items less food	163.4	167.0	168.8	168.8	168.8	169.3	170.5	172.0	172.2	172.2	173.3	173.6	173.5	174.6	174.9
All items less shelter	157.2	160.2	162.0	162.1	162.1	162.3	163.3	164.8	164.9	165.1	166.0	166.2	166.0	167.4	167.5
All items less medical care	158.6	162.0	163.6	163.6	163.6	164.1	165.0	166.4	166.5	166.6	167.6	167.9	167.9	168.8	169.1
Commodities less food	132.0	134.0	136.3	136.1	135.9	135.6	137.2	139.9	139.9	139.4	140.1	139.2	138.0	140.3	140.4
Nondurables less food	134.6	139.4	143.7	143.1	142.8	142.4	145.7	150.1	150.1	149.3	150.7	149.3	147.5	151.5	151.6
Nondurables less food and apparel	139.2	147.5	152.3	151.9	153.2	154.2	158.0	163.0	162.7	161.9	166.0	165.7	162.6	166.2	165.1
Nondurables	146.9	151.2	154.0	153.7	153.6	153.7	155.6	158.1	158.2	158.0	158.8	158.4	157.6	160.0	160.1
Services less rent of shelter[3]	191.8	195.8	197.4	197.9	198.0	198.6	199.2	199.9	200.2	200.9	202.9	204.2	205.0	205.7	205.8
Services less medical care services	178.4	182.7	184.1	184.3	184.3	185.3	186.0	186.9	187.1	187.4	188.9	189.9	190.5	190.7	191.1
Energy	102.9	106.6	111.6	111.2	112.2	112.5	116.7	122.2	120.7	121.0	129.6	129.7	125.9	130.6	129.3
All items less energy	170.9	174.4	175.7	175.8	175.7	176.3	176.9	177.8	178.1	178.2	178.3	178.7	179.1	179.6	180.1
All items less food and energy	173.4	177.0	178.3	178.4	178.2	178.8	179.5	180.5	180.9	180.9	181.0	181.3	181.7	182.3	182.8
Commodities less food and energy	143.2	144.1	145.3	145.0	144.2	143.6	144.2	145.3	145.9	145.5	144.5	143.8	143.7	145.1	145.6
Energy commodities	92.1	100.0	109.1	108.7	111.8	112.8	120.6	131.7	128.4	127.9	137.6	135.0	127.9	135.2	133.6
Services less energy	190.6	195.7	197.2	197.5	197.7	198.9	199.7	200.7	200.9	201.2	201.9	202.7	203.5	203.5	204.1
CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS															
All items	159.7	163.2	165.0	165.1	165.1	165.6	166.5	167.9	168.0	168.2	169.2	169.4	169.3	170.4	170.6
All items (1967 = 100)	475.6	486.2	491.5	491.7	491.8	493.2	495.9	500.0	500.4	501.1	504.1	504.7	504.2	507.6	508.2
Food and beverages	160.4	163.8	164.7	164.9	165.2	165.9	166.1	166.4	166.5	167.2	167.3	168.0	168.6	168.8	169.0
Food	160.0	163.4	164.4	164.5	164.7	165.4	165.6	165.9	166.0	166.7	166.8	167.6	189.9	168.3	168.5
Food at home	160.0	163.0	164.0	164.0	164.2	165.1	165.1	165.3	165.4	166.4	166.3	167.3	156.8	168.1	168.1
Cereals and bakery products	180.9	184.7	185.0	184.5	185.7	185.5	185.8	185.9	186.9	188.4	187.3	189.2	161.0	188.4	189.9
Meats, poultry, fish, and eggs	147.0	147.6	148.8	150.1	149.4	149.8	150.8	152.0	152.5	153.5	154.6	155.4	202.5	156.6	156.4
Dairy and related products[1]	150.4	159.4	164.0	164.6	161.9	159.9	160.4	158.7	160.2	159.3	159.4	160.5	138.2	161.6	161.9
Fruits and vegetables	197.0	201.8	201.0	199.8	202.8	207.0	201.7	200.5	200.5	203.1	198.9	200.0	201.5	203.6	204.7
Nonalcoholic beverages and beverage materials	131.8	133.2	133.4	132.7	133.5	136.0	137.6	137.8	136.7	136.4	136.7	137.5	137.4	137.1	136.6
Other foods at home	150.2	152.8	152.9	152.3	152.7	153.7	153.8	154.5	153.4	154.9	155.6	156.0	156.2	156.1	155.3
Sugar and sweets	150.1	152.2	153.2	152.0	152.3	154.8	154.3	154.5	152.3	153.6	153.9	154.2	154.4	154.4	153.8
Fats and oils	146.5	147.9	148.6	144.9	144.7	146.8	145.2	145.7	144.5	146.9	146.4	147.9	148.6	148.5	149.4
Other foods	165.4	168.8	168.5	168.8	169.4	169.8	170.5	171.6	170.7	172.2	173.4	173.5	173.6	173.5	172.0
Other miscellaneous foods[1,2]	102.6	104.6	103.8	103.4	105.2	103.9	106.2	106.7	104.7	106.1	108.0	108.4	109.0	107.5	106.3
Food away from home[1]	161.1	165.0	166.1	166.5	166.8	167.1	167.6	167.9	168.1	168.3	168.6	169.1	169.5	170.0	170.3
Other food away from home[1,2]	101.6	105.1	106.6	106.8	106.9	107.4	107.8	107.8	108.3	108.5	108.4	108.8	109.6	110.4	110.9
Alcoholic beverages	164.6	168.8	169.5	170.4	171.0	171.6	172.2	172.8	172.9	172.9	173.6	174.4	174.7	174.4	174.8
Housing	156.7	160.0	161.0	161.1	161.1	162.0	162.9	163.4	163.6	163.9	165.5	166.4	166.6	167.3	167.5
Shelter	176.6	181.6	182.8	183.1	183.3	184.5	185.2	186.0	186.2	186.5	187.2	187.9	188.4	188.7	189.3
Rent of primary residence	171.7	177.1	178.4	179.3	179.9	180.7	181.1	181.5	181.8	182.2	182.7	183.4	184.1	184.8	185.6
Lodging away from home[2]	109.0	122.2	113.1	108.4	105.7	110.8	114.5	119.9	118.7	117.8	120.9	123.1	122.5	118.3	118.6
Owners' equivalent rent of primary residence[3]	171.1	175.7	176.8	177.4	177.8	178.6	179.0	179.2	179.6	179.9	180.4	180.8	181.3	181.9	182.4
Tenants' and household insurance[1,2]	100.0	101.6	102.4	102.3	102.4	102.6	102.6	102.8	103.3	104.0	104.1	104.4	104.2	104.4	104.4
Fuels and utilities	128.4	128.7	130.1	129.8	129.2	129.5	132.0	131.2	131.1	131.9	138.7	141.0	140.4	143.4	142.5
Fuels	113.3	113.0	114.4	114.0	113.5	113.6	116.3	115.4	115.2	116.0	123.3	125.7	125.0	128.2	127.2
Fuel oil and other fuels	90.3	91.7	97.7	100.7	106.0	114.0	144.5	129.6	123.0	120.9	120.2	120.1	120.1	133.1	136.7
Gas (piped) and electricity	120.8	120.4	121.5	120.9	119.8	119.4	120.1	120.2	120.5	121.6	129.9	132.5	131.8	134.4	133.0
Household furnishings and operations	125.0	124.7	124.5	124.2	124.2	124.5	124.6	125.3	125.6	125.5	125.3	125.7	125.7	126.1	125.8
Apparel	131.6	130.1	133.1	132.3	129.0	125.9	127.9	131.0	131.8	130.9	127.3	123.6	124.0	128.7	131.3
Men's and boys' apparel	131.4	131.2	134.0	133.3	131.6	129.3	129.9	131.5	131.5	132.7	129.5	126.6	126.8	128.8	130.3
Women's and girls' apparel	123.9	121.3	126.0	124.4	119.8	114.2	118.0	123.5	124.3	122.1	117.4	112.2	113.2	121.5	125.5
Infants' and toddlers' apparel[1]	126.7	130.3	134.1	134.3	134.8	134.9	134.7	135.7	134.1	133.4	132.0	129.8	128.4	129.0	132.6
Footwear	128.7	126.2	126.6	126.9	124.2	122.3	122.6	124.7	127.1	126.6	124.6	120.9	121.5	124.8	125.5
Transportation	140.5	143.4	146.6	146.9	147.6	147.7	149.1	152.9	152.2	152.5	155.5	154.4	152.3	154.2	154.0
Private transportation	138.0	140.7	143.9	144.2	145.0	145.1	146.4	150.1	149.5	149.7	152.8	151.6	149.3	151.4	151.3
New and used motor vehicles[2]	100.3	100.4	101.2	101.5	101.5	101.2	100.7	100.8	101.2	101.5	101.4	101.1	100.9	101.0	101.4

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28. Continued—Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
New vehicles	144.6	144.0	143.5	144.3	144.7	144.5	144.2	144.5	144.7	144.5	144.1	143.7	143.1	142.5	142.7
Used cars and trucks[1]	152.0	153.3	157.7	157.3	156.3	155.3	154.4	154.4	155.4	156.8	157.1	156.6	156.5	157.5	159.3
Motor fuel	92.2	100.8	110.0	109.5	112.3	112.9	118.6	132.0	128.5	128.5	140.1	136.2	128.0	135.3	133.1
Gasoline (all types)	91.7	100.2	109.4	108.9	111.7	112.3	117.9	131.2	127.8	127.9	139.4	135.5	127.3	134.6	132.3
Motor vehicle parts and equipment	100.5	100.0	99.8	100.6	100.2	100.3	100.5	100.9	100.6	100.5	100.5	100.8	100.7	100.9	101.0
Motor vehicle maintenance and repair	168.2	173.3	174.7	175.1	175.2	176.1	176.6	177.2	177.4	177.8	178.3	178.7	179.6	180.2	180.9
Public transportation	187.1	193.1	196.3	197.0	196.0	194.8	198.8	203.4	202.9	203.9	205.5	206.9	208.7	206.4	202.4
Medical care	241.4	249.7	251.9	252.5	253.2	254.5	256.2	257.3	258.0	258.5	259.7	260.6	261.7	262.2	262.8
Medical care commodities	218.6	226.8	229.1	229.5	230.2	230.7	231.0	231.8	232.4	232.9	233.7	234.2	234.6	235.0	135.2
Medical care services	246.6	254.9	257.0	257.6	258.4	259.9	261.9	263.1	263.8	264.4	265.6	266.6	267.9	268.5	269.2
Professional services	223.7	230.8	232.5	233.1	233.4	234.8	236.7	238.0	238.6	239.0	239.9	240.3	240.9	241.3	241.8
Hospital and related services	283.6	295.5	298.9	299.8	302.1	304.1	306.4	307.5	308.7	309.5	311.7	314.2	317.1	318.2	319.2
Recreation[2]	100.9	101.3	101.1	101.0	101.2	101.4	101.6	102.0	102.0	102.3	102.5	102.7	102.9	102.8	102.8
Video and audio[1,2]	101.1	100.5	99.9	99.9	99.8	100.2	100.4	100.6	100.0	101.0	101.2	100.9	101.3	101.1	100.7
Education and communication[2]	100.4	101.5	102.3	102.5	102.5	103.0	102.5	102.2	102.1	102.1	101.7	102.2	103.0	102.9	103.7
Education[2]	102.1	107.2	109.7	109.4	109.4	110.5	110.9	111.0	111.1	111.3	111.8	112.1	113.2	115.1	115.4
Educational books and supplies	253.1	264.1	271.8	256.5	256.9	276.6	281.3	280.0	279.9	280.0	280.9	281.5	283.6	288.6	289.0
Tuition, other school fees, and child care	288.5	302.8	310.0	310.4	310.4	311.7	312.7	312.8	313.4	313.8	315.4	316.2	319.2	324.7	325.7
Communication[1,2]	99.1	96.9	96.3	96.9	97.0	97.1	95.7	95.3	94.8	94.7	93.6	94.3	94.8	93.1	94.2
Information and information processing[1,2]	99.0	96.5	95.9	96.6	96.6	96.7	95.3	94.8	94.4	94.3	93.0	93.9	94.4	92.6	93.8
Telephone services[1,2]	100.7	100.2	100.0	100.8	100.9	101.1	99.6	99.1	98.8	98.7	97.4	98.4	99.1	97.1	98.6
Information and information processing other than telephone services[1,4]	41.2	31.6	29.9	29.3	29.3	28.9	28.6	28.2	27.6	27.5	27.0	26.6	26.1	25.9	25.5
Personal computers and peripheral equipment[1,2]	77.9	53.1	48.1	46.9	46.9	45.7	44.5	43.6	42.0	41.8	40.7	39.8	39.1	38.5	37.8
Other goods and services	236.1	261.9	267.9	267.4	267.3	269.3	271.7	273.3	278.0	275.4	274.5	277.9	276.8	280.9	278.2
Tobacco and smoking products	274.8	356.2	374.0	370.4	369.7	375.7	383.6	387.8	404.9	393.7	388.7	400.9	394.2	408.2	397.0
Personal care[1]	156.8	161.3	162.6	163.0	163.1	163.5	163.9	164.3	164.6	164.9	165.3	165.5	166.1	166.5	166.8
Personal care products[1]	149.3	152.5	154.1	154.0	153.1	153.4	153.2	154.1	153.9	153.4	154.0	154.1	155.0	155.1	153.9
Personal care services[1]	166.3	171.7	173.2	174.4	174.7	175.3	176.1	176.6	176.6	177.7	178.3	178.6	179.7	180.3	180.8
Miscellaneous personal services	234.0	243.1	245.5	245.9	246.7	247.6	248.9	249.4	250.4	251.2	251.4	252.2	253.0	253.4	254.5
Commodity and service group:															
Commodities	141.8	144.7	146.8	146.6	146.6	146.6	147.8	149.8	149.9	149.9	150.6	150.1	149.3	151.0	151.0
Food and beverages	160.4	163.8	164.7	164.9	165.2	165.9	166.1	166.4	166.5	167.2	167.3	168.0	168.6	168.8	169.0
Commodities less food and beverages	130.6	133.2	165.9	135.6	135.4	135.1	136.8	139.6	139.6	139.3	140.3	139.2	137.7	140.2	140.2
Nondurables less food and beverages	132.1	138.1	142.9	142.2	142.0	141.7	145.1	150.2	150.2	149.4	151.5	149.7	147.2	151.8	151.6
Apparel	131.6	130.1	133.1	132.3	129.0	125.9	127.9	131.0	131.8	130.9	127.3	123.6	124.0	128.7	131.3
Nondurables less food, beverages, and apparel	137.0	147.2	153.1	152.5	153.9	155.0	159.3	165.7	165.2	164.4	169.6	168.7	164.6	169.3	167.6
Durables	127.3	126.0	126.3	126.4	126.3	126.0	125.6	125.8	126.0	126.2	125.9	125.6	125.2	125.3	125.6
Services	181.0	185.3	186.7	187.1	187.2	187.9	188.5	189.2	189.4	189.8	191.2	192.2	193.0	193.4	193.9
Rent of shelter[3]	170.1	174.9	176.1	176.3	176.5	177.7	178.4	179.1	179.3	179.6	180.3	181.0	181.5	181.7	182.3
Transporatation services	185.4	187.9	189.0	189.8	189.9	190.2	190.8	191.8	192.0	192.4	192.6	193.0	193.8	193.7	193.9
Other services	213.7	219.6	221.6	222.3	222.9	223.8	223.7	224.0	224.2	224.6	224.7	225.9	227.3	227.3	228.4
Special indexes:															
All items less food	159.5	163.1	165.0	165.1	165.1	165.4	166.4	168.0	168.2	168.3	169.5	169.6	169.4	170.7	170.9
All items less shelter	155.0	158.1	160.1	160.1	160.1	160.3	161.3	162.8	163.0	163.1	164.3	164.3	163.9	165.4	165.5
All items less medical care	155.8	159.2	161.0	161.1	161.1	161.4	162.3	163.6	163.8	164.0	165.0	165.1	165.0	166.2	166.4
Commodities less food	132.0	134.6	137.2	137.0	136.8	136.5	138.2	141.0	141.0	140.7	141.7	140.6	139.1	141.6	141.6
Nondurables less food	134.1	140.0	144.6	144.0	143.8	143.6	146.8	151.7	151.7	150.9	152.9	151.2	148.9	153.3	153.1
Nondurables less food and apparel	138.7	148.4	153.8	153.4	154.7	155.8	159.8	165.7	165.3	164.5	169.4	168.7	164.9	169.2	167.7
Nondurables	146.5	151.3	154.3	154.0	154.0	154.2	156.0	158.8	158.9	158.8	159.9	159.4	158.3	160.8	160.8
Services less rent of shelter[3]	170.7	174.1	175.4	175.8	175.9	176.4	176.9	177.4	177.7	178.2	180.2	181.3	181.9	182.5	182.7
Services less medical care services	175.4	179.5	180.8	181.1	181.2	181.9	182.4	183.1	183.3	183.7	185.1	186.0	186.6	187.2	187.6
Energy	102.1	106.1	111.4	111.0	112.1	112.5	116.7	122.9	121.0	121.5	130.9	130.1	125.7	130.9	129.3
All items less energy	167.6	171.1	172.4	172.6	172.5	172.8	173.3	174.1	174.5	174.6	174.6	174.9	175.3	176.0	176.5
All items less food and energy	169.6	173.1	174.5	174.7	174.5	174.8	175.3	176.2	176.7	176.7	176.6	176.8	177.2	178.0	178.6
Commodities less food and energy	142.7	144.3	145.7	145.4	144.6	144.1	144.6	145.6	146.4	146.0	145.0	144.5	144.2	145.7	146.1
Energy commodities	92.3	100.3	109.4	109.1	112.1	113.1	120.4	132.0	128.3	128.3	139.1	135.4	127.7	135.4	133.5
Services less energy	187.7	192.6	194.0	194.4	194.7	195.5	196.2	196.9	197.1	197.5	198.0	198.8	199.5	200.0	200.6

[1] Not seasonally adjusted.

[2] Indexes on a December 1997 = 100 base.

[3] Indexes on a December 1982 = 100 base.

[4] Indexes on a December 1988 = 100 base.

– Data not available.

NOTE: Index applies to a month as a whole, not to any specific date.

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29. Consumer Price Index: U.S. city average and available local area data: all items

[1982–84 = 100, unless otherwise indicated]

Area	Pricing schedule[1]	All Urban Consumers							Urban Wage Earners						
		1999		2000					1999		2000				
		Sept	Oct.	June	July	Aug.	Sept.	Oct.	Sept.	Oct.	June	July	Aug.	Sept.	Oct.
U.S. city average	M	167.9	168.2	172.4	172.8	172.8	173.7	174.0	164.7	165.0	169.2	169.4	169.3	170.4	170.6
Region and area size[2]															
Northeast urban	M	174.8	175.5	179.0	179.8	179.9`	180.7	181.2	171.9	172.5	175.9	176.7	176.6	177.6	178.0
Size A—More than 1,500,000	M	175.7	176.4	179.7	180.5	180.8`	181.7	182.1	171.8	172.5	172.5	176.5	176.7	177.7	178.0
Size B/C—50,000 to 1,500,000[3]	M	105.1	105.3	107.7	108.2	108.0	108.3	108.8	104.7	105.0	107.3	107.7	107.4	107.9	108.4
Midwest urban[4]	M	164.3	164.3	169.7	168.8	168.2	170.0	170.1	160.6	160.6	166.2	165.1	164.3	166.4	166.4
Size A—More than 1,500,000	M	165.7	165.7	171.3	170.5	170.0	171.5	171.5	161.1	161.1	166.9	165.9	165.3	167.0	166.9
Size B/C—50,000 to 1,500,000[3]	M	105.1	105.0	108.4	107.7	107.1	108.6	108.8	105.1	105.0	108.7	107.7	106.9	108.7	108.7
Size D—Nonmetropolitan (less than 50,000)	M	158.6	158.7	163.1	163.2	162.5	164.5	164.9	157.1	157.2	161.8	161.7	160.9	163.0	163.4
South urban	M	163.2	163.6	167.5	168.0	168.0	168.5	168.5	161.9	161.9	165.8	166.3	166.1	166.8	166.8
Size A—More than 1,500,000	M	162.7	163.2	167.2	167.9	167.9	168.4	168.6	160.4	160.9	165.0	166.7	166.5	166.1	166.3
Size B/C—50,000 to 1,500,000[3]	M	104.8	105.1	107.6	107.8	107.8	108.1	108.1	104.6	104.9	107.4	107.6	107.5	107.9	107.9
Size D—Nonmetropolitan (less than 50,000)	M	164.1	164.1	167.1	167.7	167.8	168.2	167.6	164.8	164.8	168.1	168.6	168.7	169.2	168.8
West urban	M	170.0	170.4	174.3	175.2	175.9	176.6	177.2	165.8	166.2	169.9	170.8	171.2	172.1	172.7
Size A—More than 1,500,000	M	171.2	171.6	175.8	176.8	177.6	178.4	179.0	165.3	165.6	169.6	170.6	171.2	172.1	172.7
Size B/C—50,000 to 1,500,000[3]	M	105.2	105.5	107.7	108.1	108.3	108.8	109.0	105.1	105.4	107.4	107.9	108.0	108.6	108.9
Size classes:															
A[5]	M	152.2	152.6	156.4	156.8	157.0	157.8	158.1	150.8	151.2	155.1	155.4	155.4	156.4	156.6
B/C[3]	M	105.0	105.2	107.8	107.9	107.8	108.3	108.5	104.8	105.0	107.7	107.7	107.4	108.2	108.3
D	M	163.7	163.8	167.5	167.8	167.6	168.7	168.7	163.0	163.1	166.8	167.0	166.8	167.9	168.1
Selected local areas[6]															
Chicago–Gary–Kenosha, IL–IN–WI	M	169.7	169.7	176.0	174.6	173.7	174.8	175.4	164.1	164.0	170.4	168.9	168.0	169.2	169.8
Los Angeles–Riverside–Orange County, CA	M	167.2	167.2	171.0	171.7	172.2	173.3	173.8	160.7	160.7	164.3	165.0	165.3	166.3	166.9
New York, NY–Northern NJ–Long Island, NY–NJ–CT–PA	M	178.2	178.9	182.0	182.8	183.1	184.4	184.6	173.9	174.5	177.6	178.4	178.5	179.9	180.2
Boston–Brockton–Nashua, MA–NH–ME–CT	1	176.8	–	–	183.2	–	184.3	–	175.2	–	–	182.3	-	183.2	–
Cleveland–Akron, OH	1	164.2	–	–	168.3	–	170.5	–	156.4	–	–	160.5	-	162.8	–
Dallas–Ft Worth, TX	1	159.8	–	–	166.2	–	166.9	–	159.6	–	–	166.2	-	166.8	–
Washington–Baltimore, DC–MD–VA–WV[7]	1	105.4	–	–	108.4	–	108.7	–	105.3	–	–	108.2	-	108.7	–
Atlanta, GA	2	–	166.5	171.3	–	172.1	–	171.9	–	164.0	168.9	–	169.6	–	169.6
Detroit–Ann Arbor–Flint, MI	2	–	165.9	170.9	–	170.1	–	171.9	–	160.4	165.8	–	164.6	–	166.5
Houston–Galveston–Brazoria, TX	2	–	151.2	154.1	–	154.4	–	157.1	–	149.9	153.1	-	153.1	–	155.4
Miami–Ft. Lauderdale, FL	2	–	164.1	168.0	–	168.4	–	169.6	–	161.9	165.7	–	165.8	–	167.1
Philadelphia–Wilmington–Atlantic City, PA–NJ–DE–MD	2	–	174.4	176.6	–	177.5	–	177.9	–	174.3	176.1	–	177.1	–	177.2
San Francisco–Oakland–San Jose, CA	2	–	175.2	179.1	–	181.7	–	183.4	–	171.2	175.2	–	177.8	–	179.3
Seattle–Tacoma–Bremerton, WA	2	–	174.7	179.2	–	180.3	–	182.1	–	170.2	174..5		175.4	–	177.5

[1] Foods, fuels, and several other items priced every month in all areas; most other goods and services priced as indicated:
M—Every month.
1—January, March, May, July, September, and November.
2—February, April, June, August, October, and December.

[2] Regions defined as the four Census regions.

[3] Indexes on a December 1996 = 100 base.

[4] The "North Central" region has been renamed the "Midwest" region by the Census Bureau. It is composed of the same geographic entities.

[5] Indexes on a December 1986 = 100 base.

[6] In addition, the following metropolitan areas are published semiannually and appear in tables 34 and 39 of the January and July issues of the *CPI Detailed Report*: Anchorage, AK; Cincinnati–Hamilton, OH–KY–IN; Denver–Boulder–Greeley, CO; Honolulu, HI; Kansas City, MO–KS; Milwaukee–Racine, WI; Minneapolis–St. Paul, MN–WI; Pittsburgh, PA; Portland–Salem, OR–WA; St Louis, MO–IL; San Diego, CA; Tampa–St. Petersburg–Clearwater, FL.

[7] Indexes on a November 1996 = 100 base.

– Data not available.

NOTE: Local area CPI indexes are byproducts of the national CPI program. Each local index has a smaller sample size and is, therefore, subject to substantially more sampling and other measurement error. As a result, local area indexes show greater volatility than the national index, although their long-term trends are similar. Therefore, the Bureau of Labor Statistics strongly urges users to consider adopting the national average CPI for use in their escalator clauses. Index applies to a month as a whole, not to any specific date.

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30. Annual data: Consumer Price Index, U.S. city average, all items and major groups

[1982–84 = 100]

Series	1991	1992	1993	1994	1995	1996	1997	1998	1999
Consumer Price Index for All Urban Consumers:									
All items:									
Index	136.2	140.3	144.5	148.2	152.4	156.9	160.5	163.0	166.6
Percent change	4.2	3.0	3.0	2.6	2.8	3.0	2.3	1.6	2.2
Food and beverages:									
Index	136.8	138.7	141.6	144.9	148.9	153.7	157.7	161.1	164.6
Percent change	3.6	1.4	2.1	2.3	2.8	3.2	2.6	2.2	2.2
Housing:									
Index	133.6	137.5	141.2	144.8	148.5	152.8	156.8	160.4	163.9
Percent change	4.0	2.9	2.7	2.5	2.6	2.9	2.6	2.3	2.2
Apparel:									
Index	128.7	131.9	133.7	133.4	132.0	131.7	132.9	133.0	131.3
Percent change	3.7	2.5	1.4	–.2	–1.0	–.2	.9	.1	–1.3
Transportation:									
Index	123.8	126.5	130.4	134.3	139.1	143.0	144.3	141.6	144.4
Percent change	2.7	2.2	3.1	3.0	3.6	2.8	0.9	–1.9	2.0
Medical care:									
Index	177.0	190.1	201.4	211.0	220.5	228.2	234.6	242.1	250.6
Percent change	8.7	7.4	5.9	4.8	4.5	3.5	2.8	3.2	3.5
Other goods and services:									
Index	171.6	183.3	192.9	198.5	206.9	215.4	224.8	237.7	258.3
Percent change	7.9	6.8	5.2	2.9	4.2	4.1	4.4	5.7	8.7
Consumer Price Index for Urban Wage Earners and Clerical Workers:									
All items:									
Index	134.3	138.2	142.1	145.6	149.8	154.1	157.6	159.7	163.2
Percent change	4.1	2.9	2.8	2.5	2.9	2.9	2.3	1.3	2.2

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31. Producer Price Indexes, by stage of processing

[1982 = 100]

Grouping	Annual average		1999			2000									
	1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Finished goods	130.7	133.0	135.1	134.9	134.9	134.7	136.0	136.8	136.7	137.5	138.6	138.3	138.1	139.2	140.0
Finished consumer goods	128.9	132.0	134.5	134.3	134.3	133.9	135.7	136.7	136.5	137.6	139.1	138.6	138.5	139.9	140.5
Finished consumer foods	134.3	135.1	135.8	135.4	135.6	135.0	136.0	136.0	137.3	138.0	137.6	137.4	136.9	137.1	137.8
Finshed consumer goods excluding foods	126.4	130.5	133.7	133.6	133.6	133.3	135.4	136.8	136.0	137.2	139.6	139.0	139.0	140.8	141.5
Nondurable goods less food	122.2	127.9	131.5	131.6	131.7	131.4	134.3	136.4	135.3	136.9	140.5	139.7	139.9	142.7	142.4
Durable goods	132.9	133.0	134.9	134.6	134.4	134.1	133.9	133.8	133.9	134.0	133.4	133.2	132.7	132.5	135.1
Capital equipment	137.6	137.6	138.5	138.3	138.3	138.4	138.5	138.5	138.5	138.7	138.5	138.6	138.4	138.4	139.8
Intermediate materials, supplies, and components	123.0	123.2	125.0	125.2	125.4	125.9	126.9	127.8	128.0	128.3	129.8	130.1	129.9	131.0	130.8
Materials and components for manufacturing	126.1	124.6	125.9	125.9	125.9	126.4	127.0	127.6	128.2	128.4	128.6	129.0	128.6	128.5	128.5
Materials for food manufacturing	123.2	120.8	122.2	120.9	118.2	117.6	117.5	118.1	119.6	120.6	120.6	120.5	119.1	118.9	119.1
Materials for nondurable manufacturing	126.7	124.9	127.7	127.8	128.2	128.6	129.7	131.3	132.3	133.2	133.7	135.0	134.2	133.6	133.8
Materials for durable manufacturing	128.0	125.1	126.5	126.7	127.2	128.6	129.6	129.7	130.0	129.6	129.4	129.3	129.1	129.4	129.2
Components for manufacturing	125.9	125.7	125.7	125.7	125.8	125.9	125.9	126.0	126.1	126.0	126.2	126.2	126.2	126.3	126.2
Materials and components for construction	146.8	148.9	149.1	149.4	149.8	150.4	150.8	151.3	151.6	151.1	151.2	150.5	150.3	150.3	150.2
Processed fuels and lubricants	81.1	84.6	89.3	90.2	90.6	91.5	94.8	97.4	95.7	96.7	103.3	103.9	104.6	110.0	108.9
Containers	140.8	142.5	146.3	146.5	146.5	147.2	147.2	148.1	151.6	152.8	153.3	153.3	153.1	153.5	153.4
Supplies	134.8	134.2	134.8	135.0	135.1	135.2	135.6	136.0	136.4	136.6	137.1	137.3	136.9	137.3	137.6
Crude materials for further processing	96.8	98.2	104.0	109.2	103.5	105.8	110.3	112.9	111.3	115.4	125.6	120.8	119.2	124.8	128.3
Foodstuffs and feedstuffs	103.9	98.7	98.8	99.5	96.9	96.5	97.6	101.4	103.4	104.6	101.9	99.4	95.4	97.6	99,5
Crude nonfood materials	88.4	94.3	103.8	111.9	104.3	108.3	115.1	116.7	112.7	118.6	137.3	131.1	131.2	139.1	143.5
Special groupings:															
Finished goods, excluding foods	129.5	132.3	134.7	134.7	134.6	134.5	135.9	136.9	136.4	137.2	138.8	138.4	138.4	139.6	140.5
Finished energy goods	75.1	78.8	83.5	83.6	83.6	83.8	87.5	90.9	89.2	91.5	97.7	96.2	96.3	100.6	99.7
Finished goods less energy	141.1	143.0	144.2	144.0	144.0	143.6	144.3	144.3	144.6	145.0	144.7	144.7	144.5	144.6	145.8
Finished consumer goods less energy	142.5	145.2	146.6	146.3	146.4	145.8	146.7	146.7	147.2	147.6	147.3	147.2	147.0	147.1	148.3
Finished goods less food and energy	143.7	146.1	147.5	147.4	147.4	147.0	147.5	147.5	147.5	147.8	147.5	147.5	147.4	147.5	149.0
Finished consumer goods less food and energy	147.7	151.7	153.6	153.4	153.4	152.8	153.6	153.6	153.5	153.8	153.6	153.5	153.4	153.6	155.1
Consumer nondurable goods less food and energy	159.1	166.3	168.1	168.2	168.2	167.3	169.0	169.1	168.9	169.4	169.4	169.4	169.8	170.3	170.8
Intermediate materials less foods and feeds	123.4	123.9	125.7	126.0	126.2	126.8	127.8	128.8	128.9	129.2	130.7	131.0	131.0	132.1	131.8
Intermediate foods and feeds	116.2	111.1	112.4	111.6	109.7	109.3	110.0	111.0	111.9	113.2	113.4	112.7	110.2	111.2	111.6
Intermediate energy goods	80.8	84.6	89.0	89.9	90.3	91.2	94.5	97.1	95.4	96.5	103.0	103.6	104.3	109.6	108.5
Intermediate goods less energy	132.4	131.7	132.9	133.0	133.0	133.5	133.9	134.5	135.1	135.2	135.5	135.7	135.3	135.4	135.4
Intermediate materials less foods and energy	133.5	133.1	134.2	134.4	134.6	135.1	135.5	136.1	136.6	136.7	137.0	137.2	137.0	137.0	137.0
Crude energy materials	68.6	78.5	88.7	98.9	87.9	92.0	100.2	102.5	97.9	105.8	130.6	123.4	124.2	134.3	140.5
Crude materials less energy	113.6	107.9	109.8	110.5	109.5	110.2	111.5	114.1	115.1	115.8	113.4	110.9	107.4	109.1	110.1
Crude nonfood materials less energy	142.1	135.2	141.7	142.6	146.0	149.8	151.3	150.9	149.2	148.5	146.7	144.2	142.3	142.6	141.2

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32. Producer Price Indexes for the net output of major industry groups

[December 1984 = 100, unless otherwise indicated]

SIC	Industry	Annual average		1999			2000									
		1998	1999	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
–	**Total mining industries**	70.8	78.0	87.7	95.1	86.7	89.5	95.8	98.9	95.7	100.0	118.4	114.8	115.4	122.6	128.7
10	Metal mining	73.2	70.3	76.3	73.4	72.6	73.9	75.3	73.3	71.8	71.7	73.7	72.8	72.8	73.6	74.7
12	Coal mining (12/85 = 100)	89.5	87.3	86.0	86.1	85.4	85.3	84.7	84.8	85.9	86.0	85.1	85.4	83.5	83.9	83.9
13	Oil and gas extraction (12/85 = 100)	68.3	78.5	91.2	101.6	90.4	94.2	102.6	107.0	102.7	108.3	133.1	128.3	129.6	139.3	147.3
14	Mining and quarrying of nonmetallic minerals, except fuels	132.2	134.0	134.4	134.4	134.4	135.0	135.3	135.7	136.7	137.5	137.2	138.4	137.9	138.0	138.1
–	**Total manufacturing industries**	126.2	128.3	130.2	130.3	130.5	130.8	132.2	132.9	132.6	133.4	134.2	133.6	133.4	134.6	134.8
20	Food and kindred products	126.3	126.3	127.5	127.1	126.7	126.7	127.2	127.4	128.1	129.1	129.4	129.3	128.2	128.4	128.6
21	Tobacco manufactures	243.1	325.7	344.4	344.5	345.0	329.4	348.6	347.3	341.8	347.1	342.2	342.3	350.5	350.5	351.6
22	Textile mill products	118.6	116.3	116.1	115.9	116.1	116.2	116.4	116.5	116.5	116.3	116.6	116.8	116.8	116.7	116.6
23	Apparel and other finished products made from fabrics and similar materials	124.8	125.3	125.6	125.4	125.3	125.2	125.2	125.6	125.7	125.6	125.6	125.8	125.6	125.6	125.9
24	Lumber and wood products, except furniture	157.0	161.8	160.0	159.6	160.6	161.4	161.6	162.1	161.7	159.0	158.7	157.2	155.8	155.4	155.3
25	Furniture and fixtures	139.7	141.3	142.0	142.0	142.1	142.4	142.5	143.0	143.2	143.3	143.5	143.7	143.6	143.5	143.6
26	Paper and allied products	136.2	136.4	139.9	140.2	140.4	141.0	141.5	143.2	145.4	146.9	147.3	147.3	147.3	147.6	147.6
27	Printing, publishing, and allied industries	174.0	177.6	178.6	179.1	179.2	180.4	180.8	181.1	182.0	181.7	183.1	183.0	183.1	183.2	184.0
28	Chemicals and allied products	148.7	149.7	152.8	153.0	152.9	153.6	154.5	155.2	155.5	156.9	156.5	158.0	157.5	158.4	159.3
29	Petroleum refining and related products	66.3	76.8	87.0	89.5	91.8	94.0	104.1	111.0	105.6	111.4	119.9	112.6	112.8	124.8	121.3
30	Rubber and miscellaneous plastics products	122.1	122.2	122.9	123.3	123.4	123.5	123.5	123.5	123.7	123.3	124.4	124.8	125.0	124.9	124.6
31	Leather and leather products	137.1	136.5	137.0	137.0	137.0	137.5	137.5	137.4	137.6	137.5	137.2	137.5	138.0	138.3	138.2
32	Stone, clay, glass, and concrete products	129.3	132.6	133.6	133.7	133.5	134.4	134.6	134.7	135.0	134.8	135.1	134.9	134.6	134.9	134.4
33	Primary metal industries	120.9	115.8	117.1	117.1	117.4	118.6	119.5	120.0	120.3	120.5	120.2	119.9	120.1	120.5	120.4
34	Fabricated metal products, except machinery and transportation transportation equipment	128.7	129.1	129.4	129.6	129.7	129.9	130.0	130.3	130.4	130.3	130.3	130.3	130.4	130.5	130.5
35	Machinery, except electrical	117.7	117.3	117.1	117.1	117.0	117.1	117.3	117.4	117.4	117.5	117.5	117.6	117.5	117.6	117.6
36	Electrical and electronic machinery, equipment, and supplies	110.4	109.5	109.1	109.1	108.9	108.7	108.6	108.6	108.6	108.6	108.5	108.6	108.1	108.0	108.1
37	Transportation	133.6	134.5	136.7	136.2	136.2	136.3	136.5	136.4	136.5	136.1	136.0	136.0	135.6	135.5	138.4
38	Measuring and controlling instruments; photographic, medical, and optical goods; watches and clocks	126.0	125.7	125.2	125.3	125.6	126.0	126.2	126.0	126.0	126.3	126.2	126.5	126.6	126.5	126.4
39	Miscellaneous manufacturing industries (12/85 = 100)	129.7	130.3	130.4	130.2	130.5	130.7	131.1	130.8	130.9	131.3	130.7	131.0	131.1	130.7	131.0
	Service industries:															
42	Motor freight transportation and warehousing (06/93 = 100)	111.6	114.8	115.5	115.5	115.8	116.5	117.0	118.1	118.2	118.8	119.0	118.8	120.1	120.6	121.4
43	U.S. Postal Service (06/89 = 100)	132.3	135.3	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2
44	Water transportation (12/92 = 100)	105.6	113.0	116.7	116.7	116.1	116.4	117.0	117.8	118.6	119.8	124.1	124.8	128.1	126.6	126.5
45	Transportation by air (12/92 = 100)	124.5	130.8	133.1	133.4	134.2	141.0	141.6	144.3	145.4	149.6	147.2	147.6	148.3	151.3	151.2
46	Pipelines, except natural gas (12/92 = 100)	99.2	98.3	98.3	98.2	98.2	102.1	101.9	101.9	101.9	101.9	102.1	102.5	102.5	102.4	102.7

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33. Annual data: Producer Price Indexes, by stage of processing

[1982 = 100]

Index	1991	1992	1993	1994	1995	1996	1997	1998	1999
Finished goods									
Total	121.7	123.2	124.7	125.5	127.9	131.3	131.8	130.7	133.0
Foods	124.1	123.3	125.7	126.8	129.0	133.6	134.5	134.3	135.1
Energy	78.1	77.8	78.0	77.0	78.1	83.2	83.4	75.1	78.8
Other	131.1	134.2	135.8	137.1	140.0	142.0	142.4	143.7	146.1
Intermediate materials, supplies, and components									
Total	114.4	114.7	116.2	118.5	124.9	125.7	125.6	123.0	123.2
Foods	115.3	113.9	115.6	118.5	119.5	125.3	123.2	123.2	120.8
Energy	85.1	84.3	84.6	83.0	84.1	89.8	89.0	80.8	84.3
Other	121.4	122.0	123.8	127.1	135.2	134.0	134.2	133.5	133.1
Crude materials for further processing									
Total	101.2	100.4	102.4	101.8	102.7	113.8	111.1	96.8	98.2
Foods	105.5	105.1	108.4	106.5	105.8	121.5	112.2	103.9	98.7
Energy	80.4	78.8	76.7	72.1	69.4	85.0	87.3	68.6	78.5
Other	97.5	94.2	94.1	97.0	105.8	105.7	103.5	84.5	91.1

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34. U.S. export price indexes by Standard International Trade Classification

[1995 = 100, unless otherwise indicated]

SITC Rev. 3	Industry	1999			2000									
		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
0	**Food and live animals**	86.4	86.3	85.6	86.3	86.9	86.8	87.5	88.3	87.5	85.8	83.6	85.9	87.3
01	Meat and meat preparations	97.4	97.7	100.9	100.1	98.0	99.4	102.2	105.1	109.5	108.2	103.7	105.2	107.9
04	Cereals and cereal preparations	69.5	70.1	68.5	71.0	74.1	74.4	74.0	75.0	71.6	66.9	64.0	67.8	70.8
05	Vegetables, fruit, and nuts, prepared fresh or dry	96.6	94.3	91.2	90.9	89.0	88.6	90.6	90.1	87.8	91.3	88.6	91.9	89.7
2	**Crude materials, inedible, except fuels**	78.1	77.8	78.9	80.0	82.2	83.2	84.2	85.2	84.4	82.9	82.9	83.7	83.7
21	Hides, skins, and furskins, raw	88.6	87.8	90.5	91.1	89.5	87.7	85.5	86.5	86.7	89.7	95.4	100.5	104.7
22	Oilseeds and oleaginous fruits	82.3	78.1	79.6	80.5	84.8	86.0	88.3	89.1	86.3	80.3	78.0	83.8	81.3
24	Cork and wood	83.5	83.8	85.0	86.4	86.5	87.2	87.4	86.7	86.7	86.5	88.4	87.0	88.2
25	Pulp and waste paper	77.1	78.7	80.9	84.3	88.3	90.0	93.8	99.0	97.6	95.9	91.7	90.7	89.8
26	Textile fibers and their waste	64.5	63.4	62.5	61.2	65.7	68.6	68.9	69.0	69.6	67.7	70.7	72.2	72.2
27	Crude fertilizers and crude minerals	93.1	93.8	94.1	94.3	94.0	93.5	93.0	93.0	93.3	93.3	93.1	91.5	90.7
28	Metalliferous ores and metal scrap	75.1	77.3	78.4	80.0	80.7	80.9	80.4	79.6	78.2	78.0	78.7	78.7	79.6
3	**Mineral fuels, lubricants, and related products**	119.5	121.4	126.6	129.5	138.5	152.1	137.2	142.3	144.9	151.2	147.6	166.3	157.1
32	Coal, coke, and briquettes	97.6	97.6	97.5	96.1	96.1	96.1	94.7	94.5	93.8	93.8	93.1	93.1	93.3
33	Petroleum, petroleum products, and related materials	131.3	133.4	140.1	143.6	159.6	179.2	152.0	163.1	168.2	178.3	172.3	203.3	188.8
4	**Animal and vegetable oils, fats, and waxes**	81.9	79.0	78.0	75.8	74.3	70.8	71.6	70.1	67.1	64.6	63.2	61.7	60.5
5	**Chemicals and related products, n.e.s.**	93.3	93.3	93.6	93.8	94.2	94.4	95.8	95.8	95.5	94.7	94.6	94.1	94.5
54	Medicinal and pharmaceutical products	99.8	99.8	100.3	100.2	100.4	100.2	99.9	100.0	99.7	100.5	100.3	100.2	100.2
55	Essential oils; polishing and cleaning preparations	102.3	103.5	103.4	103.4	103.3	103.0	103.2	103.1	102.9	103.3	103.3	103.3	103.4
57	Plastics in primary forms (12/92 = 100)	94.4	94.9	95.0	94.8	94.8	95.5	97.7	98.4	98.1	97.0	95.4	92.8	92.9
58	Plastics in nonprimary forms (12/92 = 100)	97.9	97.8	98.0	97.8	98.6	100.1	100.2	99.8	99.3	99.4	99.4	99.3	98.6
59	Chemical materials and products, n.e.s.	98.9	98.8	99.1	99.2	99.9	99.6	99.4	99.3	99.1	99.3	99.2	99.2	99.1
6	**Manufactured goods classified chiefly by materials**	97.8	98.0	98.3	98.3	99.0	99.7	99.9	100.1	100.4	100.7	100.9	101.1	100.8
62	Rubber manufactures, n.e.s.	108.2	108.2	108.5	104.7	103.7	103.6	103.7	104.6	104.4	104.8	104.7	104.7	104.6
64	Paper, paperboard, and articles of paper, pulp, and paperboard	87.2	87.6	87.2	87.6	87.8	88.4	89.1	90.5	89.8	90.4	90.3	90.0	89.9
66	Nonmetallic mineral manufactures, n.e.s.	106.0	106.0	105.8	105.8	106.0	106.2	106.4	106.4	106.5	106.3	106.3	106.1	105.8
68	Nonferrous metals	90.2	90.7	92.3	93.4	98.8	101.9	100.3	98.1	100.1	103.0	105.1	105.0	105.2
7	**Machinery and transport equipment**	97.4	97.5	97.2	97.4	97.3	97.3	97.3	97.4	97.3	97.3	97.3	97.4	97.3
71	Power generating machinery and equipment	110.2	111.0	111.0	111.8	111.8	111.8	111.9	112.0	112.0	112.4	112.3	112.4	112.4
72	Machinery specialized for particular industries	106.0	106.1	104.7	106.2	106.3	106.1	106.2	106.2	106.5	106.4	106.5	106.3	106.4
74	General industrial machines and parts, n.e.s., and machine parts	107.7	107.7	107.9	107.5	107.6	108.0	108.2	108.2	108.2	108.3	108.1	108.2	108.3
75	Computer equipment and office machines	70.5	70.4	70.2	70.1	68.7	68.7	68.5	68.5	68.2	68.3	67.8	67.8	67.8
76	Telecommunications and sound recording and reproducing apparatus and equipment	96.6	96.6	96.7	96.4	97.0	96.6	96.4	97.0	96.9	96.9	96.7	96.8	96.5
77	Electrical machinery and equipment	87.4	87.3	86.7	86.4	86.6	86.3	86.4	86.3	85.7	85.7	85.8	85.7	85.2
78	Road vehicles	103.1	103.1	103.1	103.5	103.6	104.0	103.9	103.9	103.9	103.9	103.9	104.0	103.9
87	**Professional, scientific, and controlling instruments and apparatus**	105.5	105.6	105.3	105.2	105.4	105.7	105.7	105.7	105.8	106.4	106.4	106.5	106.6

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35. U.S. import price indexes by Standard International Trade Classification

[1995 = 100, unless otherwise indicated]

SITC Rev. 3	Industry	1999			2000									
		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
0	**Food and live animals**	91.0	92.4	94.7	93.7	93.6	93.1	94.0	92.3	91.3	91.5	91.5	91.2	91.4
01	Meat and meat preparations	98.4	97.7	98.4	97.8	98.2	99.1	100.2	100.2	99.1	98.1	98.9	98.9	95.5
03	Fish and crustaceans, mollusks, and other aquatic invertebrates	105.0	107.5	106.8	106.8	107.9	108.0	111.0	109.6	109.1	110.7	113.5	112.5	110.8
05	Vegetables, fruit, and nuts, prepared fresh or dry	96.5	97.2	103.6	102.0	102.1	101.2	100.7	96.8	95.7	97.2	97.6	97.8	101.0
07	Coffee, tea, cocoa, spices, and manufactures thereof	62.0	66.0	70.6	67.2	64.7	61.0	61.1	59.8	59.5	56.8	55.8	54.5	53.9
1	**Beverages and tobacco**	111.5	111.5	112.0	111.2	111.4	111.7	111.9	112.4	113.0	112.5	112.9	113.6	113.6
11	Beverages	108.5	108.5	108.7	107.9	108.2	108.5	108.7	109.4	110.1	109.4	109.9	110.7	110.6
2	**Crude materials, inedible, except fuels**	90.8	90.3	92.2	93.6	94.7	94.3	93.8	91.9	90.7	90.7	89.6	88.8	89.8
24	Cork and wood	116.7	114.9	118.7	117.7	117.0	118.6	117.6	112.9	110.1	107.0	102.2	99.5	101.5
25	Pulp and waste paper	63.9	66.8	68.2	70.5	72.0	72.4	75.1	77.0	80.1	80.7	81.4	82.0	83.4
28	Metalliferous ores and metal scrap	98.4	98.0	99.0	101.4	105.7	104.0	101.7	99.6	100.7	101.2	102.1	101.6	102.5
29	Crude animal and vegetable materials, n.e.s.	112.1	106.5	111.9	121.1	124.3	111.9	110.1	106.7	92.7	101.8	101.3	103.0	104.3
3	**Mineral fuels, lubricants, and related products**	128.0	134.7	141.2	145.2	165.7	165.4	148.5	154.3	172.0	170.6	172.1	189.8	186.1
33	Petroleum, petroleum products, and related materials	127.4	132.6	141.4	146.1	167.9	166.6	147.1	154.2	171.0	168.5	170.0	188.9	182.0
34	Gas, natural and manufactured	141.1	161.5	150.2	147.8	161.4	170.5	171.5	167.5	195.4	202.9	205.4	215.8	237.4
5	**Chemicals and related products, n.e.s.**	91.8	92.1	92.0	92.2	92.7	92.8	93.4	94.3	94.1	95.5	95.9	95.4	95.2
52	Inorganic chemicals	87.2	87.7	88.0	88.3	89.0	88.8	89.8	90.7	91.5	92.5	92.6	92.5	93.5
53	Dying, tanning, and coloring materials	90.6	91.4	89.7	88.9	89.3	88.4	88.0	87.4	86.1	87.6	88.6	87.9	87.0
54	Medicinal and pharmaceutical products	97.4	97.8	97.3	98.2	98.2	97.3	97.3	97.3	96.8	97.5	97.3	96.8	96.0
55	Essential oils; polishing and cleaning preparations	91.8	92.3	90.2	89.6	89.6	89.7	89.4	89.9	89.6	89.9	89.4	88.9	87.6
57	Plastics in primary forms (12/92 = 100)	93.8	93.9	94.0	93.7	93.0	93.9	93.9	94.0	94.3	95.5	95.4	95.3	95.7
58	Plastics in nonprimary forms (12/92 = 100)	78.9	79.4	79.7	79.3	79.0	80.4	80.3	80.8	80.8	81.5	80.9	80.8	79.9
59	Chemical materials and products, n.e.s.	98.6	98.4	99.5	100.0	101.6	100.6	100.0	100.9	99.7	100.2	100.0	101.0	100.6
6	**Manufactured goods classified chiefly by materials**	93.3	93.9	93.9	94.5	95.5	98.0	97.5	97.1	97.6	98.0	98.7	97.9	97.7
62	Rubber manufactures, n.e.s.	94.9	94.4	94.4	92.7	92.8	92.3	92.4	92.5	91.8	92.1	91.9	91.7	91.6
64	Paper, paperboard, and articles of paper, pulp, and paperboard	84.4	87.4	86.2	86.6	86.9	87.1	88.8	89.6	89.1	89.5	89.4	91.4	91.7
66	Nonmetallic mineral manufactures, n.e.s.	101.2	101.6	101.2	100.8	101.2	100.8	100.9	100.7	100.5	100.9	100.9	100.8	100.1
68	Nonferrous metals	94.8	95.4	95.6	98.9	104.4	115.1	110.3	106.9	110.7	112.5	118.6	114.5	115.7
69	Manufactures of metals, n.e.s.	95.6	95.9	95.9	95.7	96.1	96.1	95.9	95.9	95.7	95.8	95.4	95.5	95.3
7	**Machinery and transport equipment**	89.9	89.8	89.7	89.8	89.8	89.6	89.7	89.8	89.6	89.6	89.5	89.3	89.2
72	Machinery specialized for particular industries	97.8	98.2	97.8	97.7	97.9	97.3	97.1	97.0	96.1	96.7	96.6	95.9	95.8
74	General industrial machines and parts, n.e.s., and machine parts	97.3	97.3	97.0	97.0	96.7	97.0	96.9	96.7	96.2	96.7	96.4	96.1	95.5
75	Computer equipment and office machines	61.4	61.4	61.7	61.5	61.4	61.0	60.5	60.2	60.0	59.9	59.9	59.7	59.0
76	Telecommunications and sound recording and reproducing apparatus and equipment	86.0	85.9	85.6	85.2	85.2	84.9	84.5	84.7	84.6	84.3	84.2	84.2	84.1
77	Electrical machinery and equipment	82.6	82.2	82.1	82.4	82.2	82.2	83.0	83.5	83.3	82.8	82.7	82.7	82.7
78	Road vehicles	102.4	102.4	102.3	102.4	102.6	102.6	102.7	102.7	102.8	102.8	102.7	102.6	102.9
85	Footwear	100.8	100.8	100.8	100.8	100.9	100.7	100.5	100.7	100.3	100.9	101.0	100.9	100.7
88	Photographic apparatus, equipment, and supplies, and optical goods, n.e.s.	92.2	92.5	92.5	92.2	91.7	91.8	91.8	91.9	91.6	92.5	92.1	91.4	91.4

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36. U.S. export price indexes by end-use category

[1995 = 100]

Category	1999			2000									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
ALL COMMODITIES	95.1	95.3	95.2	95.4	95.8	96.3	96.2	96.4	96.3	96.2	96.0	96.5	96.4
Foods, feeds, and beverages	87.4	86.7	86.0	86.3	87.2	87.1	87.8	88.3	87.1	85.1	82.8	85.3	86.1
Agricultural foods, feeds, and beverages	86.4	85.6	84.9	85.4	86.0	86.2	87.1	87.7	86.2	84.0	81.3	84.3	84.9
Nonagricultural (fish, beverages) food products	99.7	99.2	99.5	98.3	100.9	97.8	97.0	96.6	98.1	97.9	99.7	98.1	99.8
Industrial supplies and materials	90.4	91.1	91.7	92.1	93.6	95.2	94.6	95.2	95.2	95.5	95.3	96.5	96.0
Agricultural industrial supplies and materials	77.5	76.6	76.7	75.2	76.9	77.7	78.2	78.2	78.2	77.9	80.3	81.9	82.2
Fuels and lubricants	114.4	115.9	120.4	122.7	131.3	143.6	127.8	132.9	135.6	141.2	137.9	155.0	146.8
Nonagricultural supplies and materials, excluding fuel and building materials	88.3	89.1	89.3	89.7	90.4	91.0	91.9	92.1	91.9	91.7	91.6	91.2	91.4
Selected building materials	87.8	87.7	88.6	89.2	89.5	90.1	90.4	90.0	89.9	89.6	90.5	89.4	90.3
Capital goods	96.2	96.3	96.0	96.1	96.0	96.0	96.1	96.1	96.1	96.1	96.1	96.1	96.1
Electric and electrical generating equipment	98.3	98.4	98.5	98.3	98.8	98.8	98.7	98.9	99.2	99.1	99.7	99.7	99.2
Nonelectrical machinery	92.4	92.5	92.1	92.1	91.9	91.8	91.9	91.9	91.7	91.6	91.6	91.5	91.4
Automotive vehicles, parts, and engines	104.0	103.9	103.8	103.9	103.8	104.2	104.2	104.2	104.1	104.4	104.4	104.5	104.4
Consumer goods, excluding automotive	102.2	102.2	102.4	102.4	102.5	102.3	102.4	102.4	102.3	102.5	102.4	102.2	102.1
Nondurables, manufactured	102.4	102.5	102.9	102.8	102.6	102.4	102.3	102.4	102.1	102.4	102.4	102.2	102.2
Durables, manufactured	100.8	100.9	100.8	101.0	101.4	101.0	101.3	101.3	101.3	101.5	101.4	101.3	101.2
Agricultural commodities	84.5	83.7	83.1	83.2	84.0	84.4	85.1	85.6	84.4	82.6	80.9	83.5	84.1
Nonagricultural commodities	96.3	96.6	96.6	96.8	97.2	97.6	97.4	97.7	97.6	97.8	97.7	98.0	97.8

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37. U.S. import price indexes by end-use category

[1995 = 100]

Category	1999			2000									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
ALL COMMODITIES	95.4	96.2	96.8	97.2	99.2	99.3	97.9	98.3	99.6	99.7	99.9	101.3	100.6
Foods, feeds, and beverages	91.6	93.0	94.8	93.6	93.3	92.5	93.3	91.9	91.1	91.1	91.3	90.7	90.6
Agricultural foods, feeds, and beverages	86.1	87.2	89.8	88.4	87.6	86.6	86.7	85.2	84.1	83.7	83.2	82.5	82.7
Nonagricultural (fish, beverages) food products	106.3	108.2	107.7	107.2	108.1	108.3	110.8	109.8	109.7	110.5	112.9	112.5	111.4
Industrial supplies and materials	104.3	106.9	109.4	111.0	118.6	119.8	114.3	115.9	121.8	121.8	122.8	127.9	126.6
Fuels and lubricants	128.1	134.3	140.7	144.2	164.7	163.7	147.7	153.3	170.6	169.2	170.9	188.3	184.2
Petroleum and petroleum products	127.3	132.5	140.9	145.8	167.5	166.2	147.4	154.0	170.4	168.0	169.6	188.3	182.2
Paper and paper base stocks	78.5	81.8	81.2	82.1	82.8	83.1	85.6	86.8	87.0	87.5	87.6	89.8	90.4
Materials associated with nondurable supplies and materials	88.3	88.8	89.1	89.2	89.7	90.4	91.2	92.1	91.7	92.7	93.4	92.9	93.0
Selected building materials	110.0	108.3	111.1	110.5	110.1	112.1	111.9	109.1	105.0	103.4	100.2	98.6	99.3
Unfinished metals associated with durable goods	93.0	94.4	94.8	97.4	100.3	107.1	104.3	102.0	105.0	106.5	109.5	105.9	106.0
Nonmetals associated with durable goods	87.5	87.5	87.4	87.2	88.0	87.6	87.8	87.8	87.0	87.7	87.5	87.2	86.8
Capital goods	81.9	81.8	81.7	81.7	81.6	81.3	81.4	81.2	80.9	80.9	80.7	80.6	80.3
Electric and electrical generating equipment	91.7	91.8	91.1	91.8	91.8	92.1	93.9	94.2	94.3	94.1	93.7	93.6	93.4
Nonelectrical machinery	78.6	78.5	78.4	78.3	78.2	77.9	77.7	77.5	77.1	77.1	77.0	76.8	76.4
Automotive vehicles, parts, and engines	102.0	102.0	102.0	102.1	102.2	102.2	102.3	102.6	102.7	102.8	102.6	102.5	102.6
Consumer goods, excluding automotive	97.5	97.6	97.5	97.5	97.4	97.1	97.1	97.0	96.5	96.8	96.8	96.7	96.6
Nondurables, manufactured	100.5	100.7	100.6	100.4	100.4	100.3	100.3	100.1	99.5	99.8	100.0	99.8	99.8
Durables, manufactured	94.1	94.2	94.1	94.1	93.8	93.5	93.4	93.4	93.2	93.4	93.2	93.1	92.9
Nonmanufactured consumer goods	100.0	98.8	99.8	101.5	102.0	100.1	100.3	99.7	98.0	99.5	99.2	99.6	99.8

38. U.S. international price indexes for selected categories of services

[1990 = 100, unless otherwise indicated]

Category	1998	1999				2000		
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
Air freight (inbound) (9/90 = 100)	87.4	88.0	86.2	87.9	90.7	88.9	88.4	88.5
Air freight (outbound) (9/92 = 100)	95.2	92.7	92.8	92.7	91.7	91.7	92.8	92.6
Air passenger fares (U.S. carriers)	103.1	104.5	112.3	114.2	106.8	107.3	113.3	115.5
Air passenger fares (foreign carriers)	101.1	98.9	106.3	108.6	102.2	102.6	107.9	109.1
Ocean liner freight (inbound)	104.2	102.6	133.7	148.0	139.4	136.3	143.0	142.8

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39. Indexes of productivity, hourly compensation, and unit costs, quarterly data seasonally adjusted

[1992 = 100]

Item	Quarterly indexes												
			1998				1999				2000		
	III	IV	I	II	III	IV	I	II	III	IV	I	II	III
Business													
Output per hour of all persons	108.3	108.5	109.7	110.0	110.6	111.6	112.6	112.8	114.2	116.3	116.7	118.7	119.5
Compensation per hour	113.5	115.3	117.1	118.5	120.0	121.4	123.0	124.5	126.1	127.3	128.4	130.6	132.4
Real compensation per hour	100.4	101.5	102.9	103.8	104.7	105.5	106.4	106.9	107.6	107.8	107.7	108.5	109.2
Unit labor costs	104.8	106.3	106.7	107.7	108.5	108.8	109.3	110.4	110.5	109.5	110.0	110.0	110.8
Unit nonlabor payments	118.5	116.8	116.4	115.1	114.6	114.6	115.1	114.1	114.3	116.8	118.2	120.0	119.9
Implicit price deflator	109.9	110.2	110.3	110.5	110.7	110.9	111.4	111.8	111.9	112.2	113.0	113.7	114.1
Nonfarm business													
Output per hour of all persons	108.0	108.1	109.3	109.8	110.3	111.2	112.0	112.1	113.6	115.8	116.3	118.1	119.1
Compensation per hour	113.0	114.7	116.4	117.9	119.4	120.8	122.1	123.6	125.2	126.5	127.8	129.6	131.6
Real compensation per hour	100.0	101.0	102.3	103.2	104.2	104.9	105.7	106.1	106.8	107.2	107.1	107.7	108.5
Unit labor costs	104.7	106.1	106.5	107.5	108.3	108.5	109.0	110.2	110.3	109.3	109.8	109.7	110.5
Unit nonlabor payments	119.5	117.8	117.4	116.3	115.8	115.8	116.7	115.7	116.1	118.6	120.1	121.8	121.9
Implicit price deflator	110.1	110.4	110.5	110.7	111.0	111.2	111.8	112.2	112.4	112.7	113.6	114.1	114.7
Nonfinancial corporations													
Output per hour of all employees	110.8	111.6	112.3	113.4	114.9	115.8	117.1	118.2	119.7	121.5	121.3	122.9	124.4
Compensation per hour	112.1	113.7	115.2	116.6	118.0	119.3	120.9	122.4	124.0	125.3	126.1	128.0	129.9
Real compensation per hour	99.2	100.1	101.2	102.1	103.0	103.7	104.6	105.1	105.8	106.1	105.8	106.4	107.1
Total unit costs	101.1	101.5	102.0	102.3	102.1	102.6	102.5	103.0	103.2	103.0	104.0	104.3	104.7
Unit labor costs	101.2	101.9	102.6	102.8	102.7	103.0	103.2	103.5	103.6	103.1	1-4/-	104.2	104.4
Unit nonlabor costs	100.8	100.4	100.5	100.9	100.2	101.6	100.7	101.4	102.1	102.5	104.2	104.9	105.5
Unit profits	160.3	156.5	150.4	147.2	151.4	144.5	149.7	147.5	143.3	145.7	152.2	156.3	154.1
Unit nonlabor payments	116.0	114.7	113.2	112.7	113.3	112.5	113.2	113.2	112.6	113.5	116.4	118.0	117.9
Implicit price deflator	106.1	106.1	106.1	106.1	106.2	106.2	106.5	106.7	106.6	106.6	108.1	108.8	108.9
Manufacturing													
Output per hour of all persons	118.7	120.1	121.3	122.7	125.1	126.8	128.9	130.4	131.9	135.1	138.4	140.3	142.8
Compensation per hour	111.5	113.3	115.2	116.6	118.1	119.4	120.7	122.4	124.1	125.5	127.0	128.2	130.3
Real compensation per hour	98.6	99.8	101.2	102.1	103.0	103.7	104.4	105.1	105.9	106.4	106.5	106.6	107.5
Unit labor costs	93.9	94.4	95.0	95.1	94.4	94.1	93.6	93.8	94.1	92.9	91.8	91.4	91.2

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40. Annual indexes of multifactor productivity and related measures, selected years

[1996 = 100, unless otherwise indicated]

Item	1960	1970	1980	1990	1991	1992	1993	1994	1995	1996	1997	1998
Private business												
Productivity:												
Output per hour of all persons	45.6	63.0	75.8	90.2	91.3	94.8	95.4	96.6	97.3	100.0	102.0	104.8
Output per unit of capital services	110.4	111.1	101.5	99.3	96.1	97.7	98.5	100.3	99.7	100.0	100.5	100.1
Multifactor productivity	65.2	80.0	88.3	95.3	94.4	96.6	97.1	98.1	98.4	100.0	101.1	102.6
Output	27.5	42.0	59.4	83.6	82.6	85.7	88.5	92.8	95.8	100.0	105.2	110.6
Inputs:												
Labor input	54.0	61.0	71.9	89.4	88.3	89.3	91.8	95.6	98.0	100.0	103.7	106.4
Capital services	24.9	37.8	58.6	84.2	86.0	87.7	89.8	92.6	96.0	100.0	104.7	110.4
Combined units of labor and capital input	42.3	52.4	67.3	87.7	87.5	88.8	91.1	94.6	97.3	100.0	104.0	107.7
Capital per hour of all persons	41.3	56.7	74.7	90.8	95.0	97.0	96.8	96.3	97.6	100.0	101.5	104.7
Private nonfarm business												
Productivity:												
Output per hour of all persons	48.7	64.9	77.3	90.3	91.4	94.8	95.3	96.5	97.5	100.0	101.7	104.5
Output per unit of capital services	120.1	118.3	105.7	100.0	96.6	97.9	98.8	100.3	99.9	100.0	100.2	99.8
Multifactor productivity	69.1	82.6	90.5	95.6	94.7	96.6	97.1	98.1	98.6	100.0	100.9	102.4
Output	27.2	41.9	59.6	83.5	82.5	85.5	88.4	92.6	95.8	100.0	105.1	110.6
Inputs:												
Labor input	50.1	59.3	70.7	89.2	88.0	89.0	91.8	95.4	97.8	100.0	103.8	106.6
Capital services	22.6	35.5	56.4	83.5	85.4	87.3	89.5	92.3	95.9	100.0	104.9	110.8
Combined units of labor and capital input	39.3	50.7	65.9	87.3	87.1	88.4	91.0	94.4	97.2	100.0	104.2	108.0
Capital per hour of all persons	40.5	54.8	73.1	90.3	94.7	96.8	96.5	96.3	97.6	100.0	101.5	104.7
Manufacturing (1992 = 100)												
Productivity:												
Output per hour of all persons	41.8	54.2	70.1	92.8	95.0	100.0	101.9	105.0	109.0	112.8	117.1	124.3
Output per unit of capital services	124.3	116.5	100.9	101.6	97.5	100.0	101.1	104.0	105.0	104.5	105.6	106.5
Multifactor productivity	72.7	84.4	86.6	99.3	98.3	100.0	100.4	102.6	105.0	106.1	109.8	113.2
Output	38.5	56.5	75.3	97.3	95.4	100.0	103.3	108.7	113.4	116.9	123.5	130.7
Inputs:												
Hours of all persons	92.0	104.2	107.5	104.8	100.4	100.0	101.4	103.6	104.0	103.7	105.5	105.2
Capital services	30.9	48.5	74.7	95.8	97.9	100.0	102.2	104.5	108.0	111.9	116.9	122.8
Energy	51.3	85.4	92.5	99.9	100.1	100.0	103.7	107.3	109.5	107.0	103.9	109.2
Nonenergy materials	38.2	44.8	75.0	92.5	93.6	100.0	105.7	111.3	112.8	120.4	120.4	127.2
Purchased business services	28.2	48.8	73.7	92.5	92.1	100.0	103.0	105.1	110.0	108.9	114.2	116.8
Combined units of all factor inputs	52.9	67.0	87.0	98.0	97.0	100.0	102.9	106.0	107.9	110.2	112.5	115.5

– Data not available.

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41. Annual indexes of productivity, hourly compensation, unit costs, and prices, selected years

[1992 = 100]

Item	1960	1970	1980	1989	1990	1991	1993	1994	1995	1996	1997	1998	1999
Business													
Output per hour of all persons	48.8	67.0	80.4	93.9	95.2	96.3	100.5	101.9	102.6	105.4	107.6	110.5	114.0
Compensation per hour	13.7	23.5	54.2	85.8	90.7	95.0	102.5	104.5	106.7	110.1	113.3	119.3	125.2
Real compensation per hour	60.0	78.9	89.5	95.9	96.5	97.5	99.9	99.7	99.3	99.7	100.4	104.3	107.3
Unit labor costs	28.0	35.1	67.4	91.3	95.3	98.7	101.9	102.6	104.1	104.5	105.3	107.9	109.9
Unit nonlabor payments	25.2	31.6	61.5	91.8	93.9	97.0	102.5	106.4	109.4	113.3	117.1	115.2	115.1
Implicit price deflator	27.0	33.9	65.2	91.5	94.8	98.1	102.2	104.0	106.0	107.7	109.7	110.6	111.8
Nonfarm business													
Output per hour of all persons	51.9	68.9	82.0	94.2	95.3	96.4	100.5	101.8	102.8	105.4	107.3	110.2	113.4
Compensation per hour	14.3	23.7	54.6	85.8	90.5	95.0	102.2	104.3	106.6	109.8	112.9	118.6	124.4
Real compensation per hour	62.8	79.5	90.0	95.9	96.3	97.5	99.6	99.5	99.2	99.5	100.0	103.8	106.5
Unit labor costs	27.5	34.4	66.5	91.1	95.0	98.5	101.7	102.5	103.7	104.2	105.1	107.7	109.7
Unit nonlabor payments	24.6	31.3	60.5	91.3	93.6	97.1	103.0	106.9	110.4	113.5	118.0	116.3	116.8
Implicit price deflator	26.5	33.3	64.3	91.2	94.5	98.0	102.2	104.1	106.1	107.6	109.8	110.8	112.3
Nonfinancial corporations													
Output per hour of all employees	55.4	70.4	81.1	94.6	95.4	97.6	100.8	103.2	104.3	107.6	110.2	114.2	119.2
Compensation per hour	15.6	25.3	56.4	86.2	90.8	95.2	102.1	104.3	106.2	109.1	112.0	117.4	123.2
Real compensation per hour	68.3	84.7	93.1	96.3	96.6	97.8	99.6	99.5	98.9	98.8	99.3	102.7	105.5
Total unit costs	26.8	34.8	68.4	92.0	95.9	98.8	101.0	101.1	102.0	101.2	101.4	102.2	102.9
Unit labor costs	28.1	35.9	69.6	91.1	95.2	97.5	101.3	101.0	101.9	101.4	101.6	102.8	103.4
Unit nonlabor costs	23.3	31.9	65.1	94.6	98.0	102.1	100.2	101.3	102.2	100.6	100.8	100.8	101.7
Unit profits	50.2	44.4	68.8	97.3	94.3	93.0	113.2	131.7	139.0	152.2	156.7	148.3	146.5
Unit nonlabor payments	30.2	35.1	66.0	95.3	97.1	99.7	103.5	109.0	111.6	113.8	115.0	112.9	113.1
Implicit price deflator	28.8	35.6	68.4	92.5	95.8	98.3	102.1	103.7	105.1	105.5	106.1	106.1	106.6
Manufacturing													
Output per hour of all persons	41.9	54.3	70.3	90.5	92.9	95.0	102.0	105.2	109.3	113.1	117.6	123.9	131.6
Compensation per hour	14.9	23.7	55.6	86.6	90.8	95.6	102.7	105.6	107.9	109.3	111.4	117.3	123.2
Real compensation per hour	65.2	79.5	91.7	96.8	96.6	98.1	100.2	100.8	100.4	99.0	98.8	102.6	105.5
Unit labor costs	35.5	43.7	79.1	95.8	97.7	100.6	100.7	100.4	98.7	96.6	94.8	94.6	93.6
Unit nonlabor payments	26.8	29.4	80.2	95.4	99.6	98.9	101.0	102.9	107.2	110.1	109.7	104.6	–
Implicit price deflator	30.2	34.9	79.8	95.5	98.9	99.6	100.9	101.9	103.9	104.9	103.9	100.7	–

– Data not available.

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42. Annual indexes of output per hour for selected 3-digit SIC industries

[1987 = 100]

Industry	SIC	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Mining												
Gold and silver ores	104	101.5	113.3	122.3	127.4	141.6	159.8	160.8	144.2	138.3	159.0	186.3
Bituminous coal and lignite mining	122	111.7	117.3	118.7	122.4	133.0	141.2	148.1	155.9	168.0	176.6	187.3
Crude petroleum and natural gas	131	101.0	98.0	97.0	97.9	102.1	105.9	112.4	119.4	123.9	125.2	128.7
Crushed and broken stone	142	101.3	98.7	102.2	99.8	105.0	103.6	108.7	105.4	107.2	114.0	111.9
Manufacturing												
Meat products	201	100.1	99.2	97.1	99.6	104.6	104.3	101.2	102.3	97.4	103.2	102.8
Dairy products	202	108.4	107.7	107.3	108.3	111.4	109.6	111.8	116.4	116.0	119.5	119.7
Preserved fruits and vegetables	203	97.0	97.8	95.6	99.2	100.5	106.8	107.6	109.1	109.1	111.7	116.5
Grain mill products	204	101.3	107.6	105.4	104.9	107.8	109.2	108.4	115.4	108.0	118.7	128.7
Bakery products	205	96.8	96.1	92.7	90.6	93.8	94.4	96.4	97.3	95.6	99.3	102.1
Sugar and confectionery products	206	99.5	101.8	103.2	102.0	99.8	104.5	106.2	108.3	113.8	117.1	123.2
Fats and oils	207	108.9	116.4	118.1	120.1	114.1	112.6	111.8	120.3	110.1	120.0	138.3
Beverages	208	105.6	112.2	117.0	120.0	127.1	126.4	130.1	133.5	135.0	135.5	137.4
Miscellaneous food and kindred products	209	107.0	99.1	99.2	101.7	101.5	105.2	100.9	102.9	109.1	103.9	113.2
Cigarettes	211	101.2	109.0	113.2	107.6	111.6	106.5	126.6	142.9	147.2	147.2	152.2
Broadwoven fabric mills, cotton	221	99.6	99.8	103.1	111.2	110.3	117.8	122.1	134.0	137.3	130.9	135.1
Broadwoven fabric mills, manmade	222	99.2	106.3	111.3	116.2	126.2	131.7	142.5	145.3	147.6	161.9	167.3
Narrow fabric mills	224	108.4	92.7	96.5	99.6	112.9	111.4	120.1	118.9	126.3	107.7	114.1
Knitting mills	225	96.6	108.0	107.5	114.0	119.3	127.9	134.1	138.3	150.3	149.9	149.9
Textile finishing, except wool	226	90.3	88.7	83.4	79.9	78.6	79.3	81.2	78.5	79.2	94.0	100.5
Carpets and rugs	227	98.6	97.8	93.2	89.2	96.1	97.1	93.3	95.8	100.2	100.3	103.0
Yarn and thread mills	228	102.1	104.2	110.2	111.4	119.6	126.6	130.7	137.4	147.4	150.1	154.2
Miscellaneous textile goods	229	101.6	109.1	109.2	104.6	106.5	110.4	118.5	123.7	123.1	117.9	120.3
Men's and boys' furnishings	232	100.1	100.1	102.1	108.4	109.1	108.4	111.7	123.4	134.7	152.4	166.9
Women's and misses' outerwear	233	101.4	96.8	104.1	104.3	109.4	121.8	127.4	135.5	141.6	151.5	153.1
Women's and children's undergarments	234	105.4	94.6	102.1	113.6	117.4	124.5	138.0	161.3	174.5	196.3	215.2
Hats, caps, and millinery	235	99.0	96.4	89.2	91.1	93.6	87.2	77.7	84.3	82.2	83.5	99.4
Miscellaneous apparel and accessories	238	101.3	88.4	90.6	91.8	91.3	94.0	105.5	116.8	120.1	105.2	109.8
Miscellaneous fabricated textile products	239	96.6	95.7	99.9	100.7	107.5	108.5	107.8	109.2	105.6	117.0	118.0
Sawmills and planing mills	242	100.7	99.6	99.8	102.6	108.1	101.9	103.3	110.2	115.6	117.5	120.4
Millwork, plywood, and structural members	243	98.8	97.1	98.0	98.0	99.9	97.0	94.5	92.7	92.4	89.9	92.5
Wood containers	244	103.1	108.8	111.2	113.1	109.4	100.1	100.9	106.1	106.7	106.6	107.0
Wood buildings and mobile homes	245	97.8	98.8	103.1	103.0	103.1	103.8	98.3	97.0	96.7	101.1	99.7
Miscellaneous wood products	249	95.9	102.4	107.7	110.5	114.2	115.3	111.8	115.4	114.4	123.1	132.3
Household furniture	251	99.4	102.0	104.5	107.1	110.5	110.6	112.5	116.9	121.6	121.8	127.5
Office furniture	252	94.3	97.5	95.0	94.1	102.5	103.2	100.5	101.1	106.4	117.9	113.8
Public building and related furniture	253	109.6	113.7	119.8	120.2	140.6	161.0	157.4	173.3	181.5	186.5	205.3
Partitions and fixtures	254	95.7	92.4	95.6	93.0	102.7	107.4	98.9	101.2	97.5	121.4	127.7
Miscellaneous furniture and fixtures	259	103.6	101.9	103.5	102.1	99.5	103.6	104.7	110.0	113.2	102.2	123.1
Pulp mills	261	99.6	107.4	116.7	128.3	137.3	122.5	128.9	131.9	132.6	104.4	108.9
Paper mills	262	103.9	103.6	102.3	99.2	103.3	102.4	110.2	118.6	111.6	107.0	110.8
Paperboard mills	263	105.5	101.9	100.6	101.4	104.4	108.4	114.9	119.5	118.0	124.2	127.6
Paperboard containers and boxes	265	99.7	101.5	101.3	103.4	105.2	107.9	108.4	105.1	106.3	110.1	114.4
Miscellaneous converted paper products	267	101.1	101.6	101.4	105.3	105.5	107.9	110.6	113.3	113.6	121.7	124.8
Newspapers	271	96.9	95.2	90.6	85.8	81.5	79.4	79.9	79.0	77.4	79.0	83.0
Periodicals	272	97.9	98.3	93.9	89.5	92.9	89.5	81.9	87.8	89.1	100.1	97.6
Books	273	99.1	94.1	96.6	100.8	97.7	103.5	103.0	101.6	99.3	102.2	97.1
Miscellaneous publishing	274	96.7	89.0	92.2	95.9	105.8	104.5	97.5	94.8	93.6	114.5	114.2
Commercial printing	275	100.0	101.1	102.5	102.0	108.0	106.9	106.5	107.2	108.3	109.2	110.7
Manifold business forms	276	98.7	89.7	93.0	89.1	94.5	91.1	82.0	76.9	75.2	78.9	76.4
Greeting cards	277	100.1	109.1	100.6	92.7	96.7	91.4	89.0	92.5	90.8	92.2	104.5
Blankbooks and bookbinding	278	95.6	94.2	99.4	96.1	103.6	98.7	105.4	108.7	114.5	115.3	124.7
Printing trade services	279	99.9	94.3	99.3	100.6	112.0	115.3	111.0	116.7	126.2	124.2	127.6
Industrial inorganic chemicals	281	105.7	104.3	106.8	109.7	109.7	105.6	102.3	109.3	110.1	116.1	145.7
Plastics materials and synthetics	282	98.8	99.7	100.9	100.0	107.5	112.0	125.3	128.3	125.3	133.8	142.6
Drugs	283	101.0	102.8	103.8	104.5	99.5	99.9	104.9	108.7	112.1	112.6	105.3
Soaps, cleaners, and toilet goods	284	102.0	100.6	103.8	105.3	104.4	108.7	111.2	118.6	120.9	130.4	129.2
Paints and allied products	285	101.4	103.3	106.3	104.3	102.9	108.8	116.7	118.0	125.6	127.2	128.8
Industrial organic chemicals	286	109.9	110.4	101.4	95.8	94.6	92.2	99.9	98.6	99.0	112.9	111.3
Agricultural chemicals	287	103.7	104.3	104.7	99.5	99.5	103.8	105.0	108.5	110.0	120.4	117.0

See footnotes at end of table.

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42. Continued--Annual indexes of output per hour for selected 3-digit SIC industries

[1987 = 100]

Industry	SIC	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Miscellaneous chemical products	289	95.4	95.2	97.3	96.1	101.8	107.1	105.7	107.8	110.1	120.2	120.9
Petroleum refining	291	105.3	109.6	109.2	106.6	111.3	120.1	123.8	132.3	142.0	149.2	155.8
Asphalt paving and roofing materials	295	98.3	95.3	98.0	94.1	100.4	108.0	104.9	111.2	113.1	120.8	129.5
Miscellaneous petroleum and coal products	299	98.4	101.9	94.8	90.6	101.5	104.2	96.3	87.4	87.1	97.2	100.7
Tires and inner tubes	301	102.9	103.8	103.0	102.4	107.8	116.5	124.1	131.1	138.8	148.5	145.2
Hose and belting and gaskets and packing	305	103.7	96.3	96.1	92.4	97.8	99.7	102.7	104.6	107.4	112.4	111.7
Fabricated rubber products, n.e.c.	306	104.2	105.5	109.0	109.9	115.2	123.1	119.1	121.5	121.0	125.5	133.2
Miscellaneous plastics products, n.e.c.	308	100.5	101.8	105.7	108.3	114.4	116.7	120.8	121.0	124.7	130.2	134.6
Footwear, except rubber	314	101.3	101.1	101.1	94.4	104.2	105.2	113.0	117.1	126.1	129.4	111.6
Flat glass	321	91.9	90.7	84.5	83.6	92.7	97.7	97.6	99.6	101.5	107.6	114.0
Glass and glassware, pressed or blown	322	100.6	100.2	104.8	102.3	108.9	108.7	112.9	115.7	121.4	128.2	135.1
Products of purchased glass	323	95.9	90.1	92.6	97.7	101.5	106.2	105.9	106.1	122.0	125.3	120.0
Cement, hydraulic	324	103.2	110.2	112.4	108.3	115.1	119.9	125.6	124.3	128.7	133.1	134.1
Structural clay products	325	98.8	103.1	109.6	109.8	111.4	106.8	114.0	112.6	119.6	116.1	115.4
Pottery and related products	326	99.6	97.1	98.6	95.8	99.5	100.3	108.4	109.3	119.3	116.1	127.6
Concrete, gypsum, and plaster products	327	100.8	102.4	102.3	101.2	102.5	104.6	101.5	104.5	107.3	109.2	113.4
Miscellaneous nonmetallic mineral products	329	103.0	95.5	95.4	94.0	104.3	104.5	106.3	107.8	110.4	112.7	117.1
Blast furnace and basic steel products	331	112.6	108.1	109.7	107.8	117.0	133.6	142.4	142.6	147.5	155.0	152.3
Iron and steel foundries	332	104.0	105.4	106.1	104.5	107.2	112.1	113.0	112.7	116.2	121.7	121.7
Primary nonferrous metals	333	107.8	106.1	102.3	110.7	101.9	107.9	105.3	111.0	110.8	116.0	125.0
Nonferrous rolling and drawing	335	95.5	93.6	92.7	91.0	96.0	98.3	101.2	99.2	104.0	112.3	115.0
Nonferrous foundries (castings)	336	102.6	105.1	104.0	103.6	103.6	108.5	112.1	117.8	122.3	126.4	131.1
Miscellaneous primary metal products	339	106.6	105.0	113.7	109.1	114.5	111.3	134.5	152.2	149.6	140.9	139.7
Metal cans and shipping containers	341	106.5	108.5	117.6	122.9	127.8	132.3	140.9	144.2	155.2	160.8	155.8
Cutlery, handtools, and hardware	342	97.8	101.7	97.3	96.8	100.1	104.0	109.2	111.3	118.2	113.1	115.2
Plumbing and heating, except electric	343	103.7	101.5	102.6	102.0	98.4	102.0	109.1	109.2	118.6	127.2	131.3
Fabricated structural metal products	344	100.4	96.9	98.8	100.0	103.9	104.8	107.7	105.8	106.5	110.0	112.5
Metal forgings and stampings	346	101.5	99.8	95.6	92.9	103.7	108.7	108.5	109.3	113.6	120.2	125.9
Metal services, n.e.c.	347	108.3	102.4	104.7	99.4	111.6	120.6	123.0	127.7	128.4	123.5	128.5
Ordnance and accessories, n.e.c.	348	97.7	89.8	82.1	81.5	88.6	84.6	83.6	87.6	87.5	100.5	94.6
Miscellaneous fabricated metal products	349	101.4	95.9	97.5	97.4	101.1	102.0	103.2	106.6	108.3	106.2	112.4
Engines and turbines	351	106.8	110.7	106.5	105.8	103.3	109.2	122.3	122.7	136.6	134.2	142.8
Farm and garden machinery	352	106.3	110.7	116.5	112.9	113.9	118.6	125.0	134.7	137.2	141.0	148.7
Construction and related machinery	353	106.5	108.3	107.0	99.1	102.0	108.2	117.7	122.1	123.3	131.8	137.1
Metalworking machinery	354	101.0	103.5	101.1	96.4	104.3	107.4	109.9	114.8	114.9	118.6	120.2
Special industry machinery	355	104.6	108.3	107.5	108.3	106.0	113.6	121.2	132.3	134.0	130.1	125.9
General industrial machinery	356	105.9	101.5	101.5	101.6	101.6	104.8	106.7	109.0	109.4	110.1	112.4
Computer and office equipment	357	121.4	124.2	138.1	149.6	195.7	258.6	328.6	469.4	681.3	937.0	1345.8
Refrigeration and service machinery	358	102.1	106.0	103.6	100.7	104.9	108.6	110.7	112.7	114.7	114.8	121.3
Industrial machinery, n.e.c.	359	106.5	107.1	107.3	109.0	117.0	118.5	127.4	138.8	141.4	129.7	127.6
Electric distribution equipment	361	105.4	105.0	106.3	106.5	119.6	122.2	131.8	143.0	143.9	143.9	147.8
Electrical industrial apparatus	362	104.6	107.4	107.7	107.1	117.1	132.9	134.9	150.8	154.3	163.9	162.6
Household appliances	363	103.0	104.7	105.8	106.5	115.0	123.4	131.4	127.3	127.4	138.1	151.7
Electric lighting and wiring equipment	364	101.9	100.2	99.9	97.5	105.7	107.8	113.4	113.7	116.9	121.4	129.3
Communications equipment	366	110.5	107.2	121.4	124.5	146.7	150.3	166.0	170.9	190.3	221.0	228.4
Electronic components and accessories	367	109.0	119.8	133.4	154.7	189.3	217.9	274.1	401.5	514.9	610.5	764.4
Miscellaneous electrical equipment & supplies	369	102.8	99.6	90.6	98.6	101.3	108.2	110.5	114.1	123.1	124.6	130.5
Motor vehicles and equipment	371	103.2	103.3	102.4	96.6	104.2	106.2	108.8	106.7	107.2	116.5	125.7
Aircraft and parts	372	100.6	98.2	96.9	108.2	112.3	115.2	109.6	107.9	113.0	114.1	140.4
Ship and boat building and repairing	373	99.4	97.6	103.7	96.3	102.7	106.2	103.8	98.0	99.2	104.3	101.6
Railroad equipment	374	113.5	135.3	141.1	146.9	147.9	151.0	152.5	150.0	148.3	183.2	191.7
Motorcycles, bicycles, and parts	375	92.6	94.6	93.8	99.8	108.4	130.9	125.1	120.3	125.5	120.6	127.8
Guided missiles, space vehicles, parts	376	104.1	110.6	116.5	110.5	110.5	122.1	118.9	121.0	129.4	126.6	132.1
Search and navigation equipment	381	104.8	105.8	112.7	118.9	122.1	129.1	132.1	149.5	142.2	148.9	148.8
Measuring and controlling devices	382	103.7	101.7	106.4	113.1	119.9	124.0	133.8	146.4	150.5	143.0	147.3
Medical instruments and supplies	384	105.2	107.9	116.9	118.7	123.5	127.3	126.7	131.5	139.8	146.3	159.4
Ophthalmic goods	385	112.6	123.3	121.2	125.1	144.5	157.8	160.6	167.2	188.2	202.6	211.7
Photographic equipment & supplies	386	105.6	113.0	107.8	110.2	116.4	126.9	132.7	129.5	128.7	121.6	125.9
Jewelry, silverware, and plated ware	391	100.1	102.9	99.3	95.8	96.7	96.7	99.5	100.2	102.6	117.2	111.7
Musical instruments	393	101.8	96.1	97.1	96.9	96.0	95.6	88.7	86.9	78.8	83.9	83.5

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42. Continued--Annual indexes of output per hour for selected 3-digit SIC industries

[1987 = 100]

Industry	SIC	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Toys and sporting goods	394	104.8	106.0	108.1	109.7	104.9	114.2	109.7	113.6	119.9	125.1	134.8
Pens, pencils, office, and art supplies	395	108.3	112.9	118.2	116.8	111.3	111.6	129.9	135.2	144.1	127.9	147.6
Costume jewelry and notions	396	102.0	93.8	105.3	106.7	110.8	115.8	129.0	143.7	142.2	116.1	122.9
Miscellaneous manufactures	399	102.1	100.9	106.5	109.2	109.5	107.7	106.1	108.1	112.8	109.3	109.5
Transportation												
Railroad transportation	4011	108.4	114.6	118.5	127.8	139.6	145.4	150.3	156.2	167.0	170.1	–
Trucking, except local [1]	4213	105.2	109.3	111.1	116.9	123.4	126.6	129.5	125.4	130.9	132.4	130.1
U.S. postal service [2]	431	99.9	99.7	104.0	103.7	104.5	107.1	106.6	106.5	104.7	108.3	109.5
Air transportation [1]	4512,13,22 (pts.)	99.5	95.8	92.9	92.5	96.9	100.2	105.7	108.6	111.1	111.6	108.5
Utitlities												
Telephone communications	481	106.2	111.6	113.3	119.8	127.7	135.5	142.2	148.1	159.5	160.9	171.2
Radio and television broadcasting	483	103.1	106.2	104.9	106.1	108.3	106.7	110.1	109.6	105.8	101.1	100.8
Cable and other pay TV services	484	102.0	99.7	92.5	87.5	88.3	86.7	85.6	86.7	84.4	87.6	88.0
Electric utilities	491,3 (pt.)	104.9	107.7	110.1	113.4	115.2	120.6	126.8	135.0	146.5	150.5	157.2
Gas utilities	492,3 (pt.)	108.3	111.2	105.8	109.6	111.1	121.8	125.6	137.1	145.9	158.6	153.4
Trade												
Lumber and other building materials dealers	521	101.0	99.1	103.6	101.3	105.4	110.5	118.3	117.6	121.7	122.2	133.0
Paint, glass, and wallpaper stores	523	102.8	101.7	106.0	99.4	106.5	114.7	130.2	135.3	140.2	143.8	166.0
Hardware stores	525	108.6	115.2	110.5	102.5	107.2	105.8	112.7	108.5	112.1	111.2	125.3
Retail nurseries, lawn and garden supply stores	526	106.7	103.4	83.9	88.5	100.4	106.6	116.6	117.2	136.6	128.1	136.1
Department stores	531	99.2	97.0	94.2	98.2	100.9	105.7	108.6	110.9	118.4	123.5	129.4
Variety stores	533	101.9	124.4	151.2	154.2	167.7	184.7	190.1	203.2	229.2	247.6	262.5
Miscellaneous general merchandise stores	539	100.8	109.8	116.4	121.8	136.1	159.7	160.9	163.9	164.9	168.2	189.9
Grocery stores	541	98.9	95.4	94.6	93.7	93.3	92.8	92.5	91.2	89.4	89.2	90.2
Meat and fish (seafood) markets	542	99.0	97.6	96.8	88.4	95.8	93.7	91.1	89.1	81.1	84.7	89.9
Retail bakeries	546	89.8	83.3	89.7	94.7	94.0	86.5	87.2	86.8	81.7	75.4	65.0
New and used car dealers	551	103.4	102.5	106.1	104.1	106.5	107.6	108.7	107.1	108.2	107.8	108.0
Auto and home supply stores	553	103.2	101.6	102.7	99.0	100.0	98.7	102.6	105.7	104.6	104.2	107.0
Gasoline service stations	554	103.0	105.2	102.6	104.3	109.7	115.2	120.4	126.3	125.1	125.0	130.6
Men's and boy's wear stores	561	106.0	109.6	113.7	119.2	118.2	115.5	117.9	117.5	125.7	132.2	145.5
Women's clothing stores	562	97.8	99.5	101.5	103.0	112.2	113.4	119.3	128.5	142.3	145.8	154.8
Family clothing stores	565	102.0	104.9	104.5	106.4	111.7	114.5	120.4	133.8	138.8	142.1	145.6
Shoe stores	566	102.7	107.2	106.1	105.1	111.5	113.2	126.3	134.5	146.9	143.5	136.4
Furniture and homefurnishings stores	571	98.6	100.9	101.8	101.5	108.4	107.6	108.8	112.0	118.6	119.4	121.6
Household appliance stores	572	98.5	103.5	102.8	105.2	113.9	117.0	121.2	138.7	141.8	155.5	184.5
Radio, television, computer, and music stores	573	118.6	114.6	119.6	128.3	137.8	152.7	177.0	196.7	204.6	215.1	258.9
Eating and drinking places	581	102.8	102.2	104.0	103.1	102.5	102.8	101.1	100.9	99.5	100.5	101.1
Drug and proprietary stores	591	101.9	102.5	103.6	104.7	103.6	105.4	105.7	106.9	109.6	115.4	117.7
Liquor stores	592	98.2	101.1	105.2	105.9	108.4	100.7	99.1	103.7	112.8	108.9	113.9
Used merchandise stores	593	105.3	104.9	100.3	98.6	110.4	112.1	115.4	117.3	129.8	138.0	158.4
Miscellaneous shopping goods stores	594	100.7	104.2	104.2	105.0	102.7	106.5	111.9	117.8	120.0	123.7	131.5
Nonstore retailers	596	105.6	110.8	108.8	109.3	122.1	127.5	143.3	146.1	165.5	177.2	193.5
Fuel dealers	598	95.6	92.0	84.4	85.3	84.4	92.7	100.7	114.2	115.8	113.4	112.0
Retail stores, n.e.c.	599	105.9	103.1	113.7	103.2	111.6	117.3	125.0	126.2	139.5	147.3	157.6
Finance and services												
Commercial banks	602	102.8	104.8	107.7	110.1	111.0	118.5	121.7	126.4	129.7	133.0	133.0
Hotels and motels	701	97.6	95.0	96.1	99.1	107.8	106.2	109.6	110.1	109.7	107.9	108.8
Laundry, cleaning, and garment services	721	97.2	99.7	101.8	99.2	98.3	98.9	104.0	105.5	108.7	108.0	113.5
Photographic studios, portrait	722	100.1	94.9	96.6	92.8	97.7	105.9	117.4	129.3	126.6	133.7	153.4
Beauty shops	723	95.1	99.6	96.8	94.8	99.6	95.7	99.8	103.5	106.3	107.5	108.4
Barber shops	724	108.8	111.6	100.2	94.1	112.1	120.8	117.7	114.6	127.6	149.0	153.0
Funeral services and crematories	726	102.5	97.9	90.9	89.5	103.2	98.2	103.8	99.7	97.1	101.3	107.0
Automotive repair shops	753	105.7	108.1	106.9	98.7	103.3	104.0	112.3	119.5	114.1	115.2	121.2
Motion picture theaters	783	107.1	114.3	115.8	116.0	110.8	109.8	106.5	101.4	100.5	99.8	101.3

[1] Refers to output per employee.

[2] Refers to ouput per full-time equivalent employee year on fiscal basis.

n.e.c. = not elsewhere classified.

Dash indicates data not available.

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43. Unemployment rates, approximating U.S. concepts, in nine countries, quarterly data seasonally adjusted

Country	Annual average		1998		1999				2000	
	1998	1999	III	IV	I	II	III	IV	I	II
United States	4.5	4.2	4.5	4.4	4.3	4.3	4.2	4.1	4.1	4.0
Canada	8.3	7.6	8.2	8.1	7.9	7.8	7.6	7.0	6.8	6.7
Australia	8.0	7.2	8.1	7.7	7.5	7.4	7.1	7.0	6.8	6.7
Japan	4.1	4.7	4.3	4.5	4.7	4.8	4.8	4.7	4.9	4.8
France	11.9	11.2	11.8	11.6	11.5	11.4	11.3	10.9	10.2	9.8
Germany	9.3	8.7	9.1	8.9	8.8	8.8	8.8	8.7	8.4	8.3
Italy[1]	12.0	11.5	12.0	12.0	11.8	11.7	11.5	11.2	11.2	10.8
Sweden	8.4	7.1	8.5	7.6	7.1	6.9	7.1	7.1	6.8	6.0
United Kingdom	6.3	6.1	6.3	6.2	6.2	6.1	5.9	5.9	5.8	5.5

[1] Quarterly rates are for the first month of the quarter.

NOTE: Quarterly figures for France, Germany, and the United Kingdom calculated by applying annual adjustment factors to current published data, and therefore should be viewed as less precise indicators of unemployment under U.S. concepts than the annual figures. See Notes on the data" for information on breaks in series. For further qualifications and historical data, see *Comparative Civilian Labor Force Statistics, Ten Countries,1959–1998* (Bureau of Labor Statistics, Oct. 22, 1999).

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44. Annual data: Employment status of the working-age population, approximating U.S. concepts, 10 countries

[Numbers in thousands]

Employment status and country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Civilian labor force										
United States[1]	125,840	126,346	128,105	129,200	131,056	132,304	133,943	136,297	137,673	139,368
Canada	14,241	14,330	14,362	14,505	14,627	14,750	14,900	15,153	15,418	15,721
Australia	8,444	8,490	8,562	8,619	8,776	9,001	9,127	9,221	9,347	9,470
Japan	63,050	64,280	65,040	65,470	65,780	65,990	66,450	67,200	67,240	67,100
France	24,300	24,490	24,550	24,650	24,760	24,820	25,090	25,180	25,360	25,590
Germany[2]	29,410	39,130	39,040	39,140	39,210	39,100	39,180	39,450	39,430	–
Italy	22,670	22,940	22,910	22,570	22,450	22,460	22,570	22,680	22,960	23,130
Netherlands	6,640	6,750	6,950	7,090	7,190	7,270	7,370	7,530	7,720	–
Sweden	4,597	4,591	4,520	4,443	4,418	4,460	4,459	4,418	4,402	4,430
United Kingdom	28,730	28,610	28,410	28,310	28,280	28,480	28,620	28,760	28,870	29,090
Participation rate[3]										
United States[1]	66.5	66.2	66.4	66.3	66.6	66.6	66.8	67.1	67.1	67.1
Canada	67.1	66.5	65.7	65.4	65.2	64.9	64.7	64.9	65.1	65.6
Australia	64.6	64.1	63.9	63.6	63.9	64.6	64.6	64.3	64.4	64.2
Japan	62.6	63.2	63.4	63.3	63.1	62.9	63.0	63.2	62.8	62.4
France	56.0	56.0	55.8	55.6	55.5	55.2	55.5	55.3	55.4	55.7
Germany[2]	55.3	58.9	58.3	58.0	57.6	57.3	57.4	57.6	57.6	–
Italy	47.2	47.7	47.5	47.9	47.3	47.1	47.1	47.2	47.6	47.8
Netherlands	56.1	56.5	57.8	58.5	59.0	59.3	59.8	60.7	62.0	–
Sweden	67.4	67.0	65.7	64.5	63.7	64.1	64.0	63.3	62.8	63.2
United Kingdom	64.1	63.7	63.1	62.8	62.5	62.7	62.7	62.8	62.7	62.9
Employed										
United States[1]	118,793	117,718	118,492	120,259	123,060	124,900	126,708	129,558	131,463	133,488
Canada	13,084	12,851	12,760	12,858	13,112	13,357	13,463	13,774	14,140	14,531
Australia	7,859	7,676	7,637	7,680	7,921	8,235	8,344	8,429	8,597	8,785
Japan	61,710	62,920	63,620	63,810	63,860	63,890	64,200	64,900	64,450	63,930
France	22,100	22,140	21,990	21,740	21,710	21,890	21,960	22,060	22,390	22,760
Germany[2]	27,950	36,920	36,420	36,030	35,890	35,900	35,680	35,540	35,720	–
Italy	21,080	21,360	21,230	20,270	19,940	19,820	19,920	19,990	20,210	20,460
Netherlands	6,230	6,350	6,560	6,620	6,670	6,760	6,900	7,130	7,410	–
Sweden	4,513	4,447	4,265	4,028	3,992	4,056	4,019	3,973	4,034	4,117
United Kingdom	26,740	26,090	25,530	25,340	25,550	26,000	26,280	26,740	27,050	27,330
Employment-population ratio[4]										
United States[1]	62.8	61.7	61.5	61.7	62.5	62.9	63.2	63.8	64.1	64.3
Canada	61.7	59.7	58.4	58.0	58.4	58.8	58.5	59.0	59.7	60.6
Australia	60.1	57.9	57.0	56.6	57.7	59.1	59.1	58.8	59.2	59.6
Japan	61.3	61.8	62.0	61.7	61.3	60.9	60.9	61.0	60.2	59.4
France	50.9	50.6	49.9	49.0	48.7	48.7	48.5	48.4	48.9	49.6
Germany[2]	52.6	55.5	54.4	53.4	52.8	52.6	52.2	51.9	52.2	–
Italy	43.9	44.5	44.0	43.0	42.0	41.5	41.6	41.6	41.9	42.3
Netherlands	52.6	53.2	54.5	54.7	54.7	55.1	55.9	57.5	59.5	–
Sweden	66.1	64.9	62.0	58.5	57.6	58.3	57.7	56.9	57.6	58.7
United Kingdom	59.6	58.0	56.7	56.2	56.5	57.2	57.6	58.3	58.7	59.1
Unemployed										
United States[1]	7,047	8,628	9,613	8,940	7,996	7,404	7,236	6,739	6,210	6,210
Canada	1,157	1,480	1,602	1,647	1,515	1,393	1,437	1,379	1,277	1,190
Australia	585	814	925	939	856	766	783	791	750	685
Japan	1,340	1,360	1,420	1,660	1,920	2,100	2,250	2,300	2,790	3,170
France	2,210	2,350	2,560	2,910	3,050	2,920	3,130	3,120	2,980	2,830
Germany[2]	1,460	2,210	2,620	3,110	3,320	3,200	3,500	3,910	3,710	–
Italy	1,590	1,580	1,680	2,300	2,510	2,640	2,650	2,690	2,750	2,670
Netherlands	410	400	390	470	520	510	470	400	310	–
Sweden	84	144	255	415	426	404	440	445	368	313
United Kingdom	1,990	2,520	2,880	2,970	2,730	2,480	2,340	2,020	1,820	1,760
Unemployment rate										
United States[1]	5.6	6.8	7.5	6.9	6.1	5.6	5.4	4.9	4.5	4.2
Canada	8.1	10.3	11.2	11.4	10.4	9.4	9.6	9.1	8.3	7.6
Australia	6.9	9.6	10.8	10.9	9.7	8.5	8.6	8.6	8.0	7.2
Japan	2.1	2.1	2.2	2.5	2.9	3.2	3.4	3.4	4.1	4.7
France	9.1	9.6	10.4	11.8	12.3	11.8	12.5	12.4	11.8	11.1
Germany[2]	5.0	5.6	6.7	7.9	8.5	8.2	8.9	9.9	9.4	9.0
Italy	7.0	6.9	7.3	10.2	11.2	11.8	11.7	11.9	12.0	11.5
Netherlands	6.2	5.9	5.6	6.6	7.2	7.0	6.4	5.3	4.0	–
Sweden	1.8	3.1	5.6	9.3	9.6	9.1	9.9	10.1	8.4	7.1
United Kingdom	6.9	8.8	10.1	10.5	9.7	8.7	8.2	7.0	6.3	6.1

[1] Data for 1994 are not directly comparable with data for 1993 and earlier years. For additional information, see the box note under "Employment and Unemployment Data" in the notes to this section.

[2] Data from 1991 onward refer to unified Germany. See *Comparative Civilian Labor Force Statistics, Ten Countries, 1959–1998*, October 22, 1999, on the Internet at **http://stats.bls.gov/flsdata.htm**.

[3] Labor force as a percent of the working-age population.

[4] Employment as a percent of the working-age population.

NOTE: See "Notes on the data" for information on breaks in series for the United States, France, Germany, Italy, the Netherlands, and Sweden. Dash indicates data not available.

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45. Annual indexes of manufacturing productivity and related measures, 12 countries

[1992 = 100]

Item and country	1960	1970	1980	1987	1988	1989	1990	1991	1993	1994	1995	1996	1997	1998
Output per hour														
United States	–	–	71.9	94.4	98.0	97.1	97.8	98.3	102.1	108.3	114.9	117.3	122.1	127.9
Canada	40.7	59.2	75.3	91.3	91.1	92.4	95.3	95.1	102.5	106.2	108.9	107.3	111.0	111.7
Japan	14.0	38.0	63.9	81.2	84.8	89.5	95.4	99.4	100.5	101.8	109.3	115.8	121.4	120.4
Belgium	18.0	32.9	65.4	88.9	92.0	96.9	96.8	99.1	102.5	108.4	113.2	114.7	121.8	122.6
Denmark	29.9	52.7	90.3	90.6	94.1	99.6	99.1	99.6	104.5	–	–	–	–	–
France	21.8	43.1	66.7	81.8	87.4	91.9	93.5	96.9	100.6	108.5	114.4	114.9	123.2	127.4
Germany	29.2	52.0	77.2	88.1	91.5	94.6	99.0	101.9	100.6	107.9	111.2	115.1	121.8	127.1
Italy	19.6	36.8	64.1	85.1	86.7	89.4	92.5	95.2	102.9	105.6	109.3	110.3	113.4	113.6
Netherlands	18.6	38.1	69.2	91.6	93.7	97.1	98.6	99.6	101.4	112.7	117.7	119.7	125.7	127.8
Norway	36.7	57.8	76.7	93.3	92.1	94.6	96.6	97.5	100.6	101.4	102.0	102.0	101.9	104.1
Sweden	27.6	52.8	74.0	90.1	90.8	93.8	95.0	95.0	106.7	116.1	122.4	125.4	133.6	136.5
United Kingdom	31.2	44.7	56.1	79.4	82.3	86.2	88.3	92.2	104.0	106.8	104.8	103.2	104.0	105.1
Output														
United States	–	–	77.3	97.9	104.5	104.0	102.5	98.7	103.5	112.2	119.6	121.6	128.8	135.0
Canada	34.2	60.5	85.4	103.2	109.3	110.8	106.6	98.8	105.1	113.2	118.8	120.2	128.0	133.0
Japan	10.7	38.8	59.9	78.4	84.6	90.2	96.3	101.4	96.0	95.4	100.6	106.7	111.1	103.6
Belgium	30.7	57.6	78.2	88.8	93.3	99.1	101.0	100.7	97.0	101.4	104.2	104.2	109.0	111.8
Denmark	40.8	68.0	91.3	99.3	100.8	104.3	102.7	101.7	99.0	109.3	114.7	117.8	120.3	126.5
France	31.0	64.1	88.7	87.2	92.2	97.2	99.1	99.8	95.7	100.3	104.8	104.5	110.2	114.6
Germany	41.5	70.9	85.3	88.0	90.9	94.0	99.1	102.8	91.8	93.5	93.7	92.5	95.8	100.7
Italy	21.4	44.7	78.4	88.2	94.5	98.1	99.6	99.2	96.4	102.2	107.2	106.7	110.4	112.5
Netherlands	31.7	59.5	77.4	89.5	92.8	96.9	100.1	100.6	98.2	104.2	107.8	108.4	114.1	116.6
Norway	56.5	89.1	103.6	110.7	105.3	101.3	100.2	98.3	102.7	106.7	109.0	110.1	113.3	116.4
Sweden	46.5	81.7	91.8	107.7	110.2	111.6	110.6	103.6	101.3	115.7	130.1	132.9	140.3	146.4
United Kingdom	67.7	90.3	87.2	94.4	101.4	105.4	105.3	100.0	101.4	106.1	107.8	108.2	109.6	110.0
Total hours														
United States	92.1	104.4	107.5	103.8	106.6	107.1	104.8	100.4	101.4	103.6	104.0	103.7	105.5	105.6
Canada	84.1	102.1	113.5	113.0	120.0	119.9	111.9	103.8	102.6	106.6	109.1	112.0	115.4	119.0
Japan	76.3	102.3	93.8	96.6	99.8	100.8	100.9	102.0	95.6	93.7	92.0	92.2	91.5	86.1
Belgium	170.7	174.7	119.7	100.0	101.5	102.3	104.3	101.5	94.7	93.6	92.0	90.8	89.5	91.2
Denmark	136.5	129.0	101.1	109.6	107.2	104.7	103.7	102.1	94.8	–	–	–	–	–
France	142.1	148.7	133.1	106.6	105.5	105.8	105.9	103.0	95.1	92.4	91.6	91.0	89.5	89.9
Germany	142.3	136.3	110.5	99.9	99.3	99.3	100.1	100.9	91.3	86.7	84.3	80.4	78.6	79.3
Italy	109.0	121.2	122.4	103.6	108.9	109.7	107.7	104.2	93.6	96.7	98.0	96.7	97.4	99.0
Netherlands	170.6	156.2	111.8	97.7	99.0	99.8	101.5	101.0	96.9	92.4	91.6	90.5	90.8	91.2
Norway	154.0	154.3	135.0	118.6	114.3	107.1	103.7	100.8	102.1	105.2	106.9	107.9	111.1	111.9
Sweden	168.3	154.7	124.0	119.5	121.4	119.0	116.4	109.0	94.9	99.6	106.3	106.0	105.0	107.3
United Kingdom	217.3	202.1	155.3	118.9	123.2	122.3	119.2	108.5	97.5	99.4	102.9	104.8	105.4	104.7
Compensation per hour														
United States	14.9	23.7	55.6	80.7	84.0	86.6	90.8	95.6	102.7	105.6	107.9	109.3	113.4	119.4
Canada	10.4	17.8	47.7	75.3	77.8	82.5	89.5	94.7	99.6	100.4	103.6	102.8	106.7	110.8
Japan	4.3	16.5	58.6	77.9	79.2	84.2	90.7	95.9	104.6	106.7	109.5	110.9	113.9	115.8
Belgium	5.4	13.7	52.5	79.7	81.1	85.9	90.1	97.3	104.8	106.1	109.2	112.0	115.2	116.0
Denmark	4.6	13.3	49.6	80.1	82.9	87.7	92.7	95.9	104.6	–	–	–	–	–
France	4.3	10.3	40.8	78.6	81.6	86.0	90.6	96.2	102.8	105.0	107.6	109.5	112.3	113.9
Germany	8.1	20.7	53.6	76.0	79.1	83.2	89.4	95.1	105.9	111.7	117.7	123.7	126.6	127.6
Italy	1.6	4.7	28.2	66.7	69.3	75.9	84.4	93.6	107.5	107.8	112.8	120.9	125.9	124.8
Netherlands	6.4	20.2	64.4	87.8	87.7	88.5	90.8	95.2	103.7	108.2	110.6	113.2	115.8	118.3
Norway	4.7	11.8	39.0	78.5	83.3	87.2	92.3	97.5	101.5	104.4	109.2	113.6	119.1	126.4
Sweden	4.1	10.8	37.4	67.3	71.7	79.4	87.6	95.4	98.0	101.1	106.2	113.4	118.3	121.5
United Kingdom	3.1	6.3	33.2	64.8	67.7	72.9	80.9	90.5	104.3	106.5	107.4	108.2	111.4	117.8
Unit labor costs: National currency basis														
United States	–	–	77.2	85.5	85.7	89.2	92.8	97.2	100.6	97.6	93.9	93.2	92.9	93.4
Canada	25.5	30.0	63.3	82.5	85.5	89.2	93.9	99.6	97.2	94.5	95.2	95.8	96.2	99.2
Japan	30.9	43.3	91.7	96.0	93.4	94.0	95.0	96.5	104.1	104.9	100.1	95.8	93.8	96.2
Belgium	30.1	41.7	80.3	89.7	88.1	88.7	93.0	98.1	102.3	97.9	96.4	97.6	94.6	94.7
Denmark	15.4	25.2	55.0	88.4	88.2	88.1	93.6	96.3	100.1	93.0	93.8	92.7	95.9	94.0
France	19.5	24.0	61.2	96.2	93.4	93.6	96.8	99.3	102.2	96.8	94.1	95.3	91.2	89.4
Germany	27.8	39.8	69.4	86.3	86.5	87.9	90.3	93.3	105.3	103.6	105.9	107.5	103.9	100.4
Italy	8.0	12.7	44.0	78.3	79.9	84.9	91.3	98.4	104.4	102.1	103.2	109.6	111.1	109.8
Netherlands	34.4	52.9	93.0	95.9	93.6	91.1	92.1	95.5	102.3	96.0	94.0	94.6	92.2	92.5
Norway	12.9	20.4	50.8	84.1	90.4	92.2	95.6	100.0	100.9	102.9	107.1	111.4	116.9	121.4
Sweden	14.9	20.5	50.6	74.7	79.0	84.7	92.3	100.4	91.8	87.0	86.8	90.4	88.5	89.0
United Kingdom	9.8	14.1	59.1	81.6	82.2	84.6	91.6	98.2	100.3	99.7	102.5	104.8	107.1	112.1
Unit labor costs: U.S. dollar basis														
United States	–	–	77.2	85.5	85.7	89.2	92.8	97.2	100.6	97.6	93.9	93.2	92.9	93.4
Canada	31.8	34.7	65.4	75.2	83.9	91.0	97.2	105.0	91.1	83.6	83.8	84.9	83.9	80.8
Japan	10.9	15.3	51.3	84.2	92.4	86.3	83.1	90.9	118.8	130.1	135.1	111.7	98.3	93.1
Belgium	19.4	27.0	88.3	77.2	77.0	72.3	89.5	92.3	95.1	94.2	105.2	101.4	84.9	83.8
Denmark	13.5	20.3	58.9	77.9	79.0	72.6	91.3	90.8	93.2	88.3	101.1	96.5	87.6	84.7
France	21.1	23.0	76.7	84.7	82.9	77.7	94.1	93.1	95.5	92.4	99.9	98.6	82.6	80.2
Germany	10.4	17.1	59.6	74.9	76.9	73.0	87.3	87.8	99.4	99.8	115.5	111.6	93.5	89.1
Italy	16.0	24.9	63.3	74.4	75.6	76.2	93.8	97.6	81.8	78.1	78.0	87.5	80.3	77.9
Netherlands	16.0	25.7	82.3	83.2	83.2	75.5	88.9	89.8	96.8	92.8	103.0	98.6	83.0	82.0
Norway	11.3	17.8	63.9	77.5	86.1	82.9	95.0	95.7	88.3	90.7	105.0	107.1	102.5	99.9
Sweden	16.8	23.0	69.6	68.5	75.0	76.4	90.8	96.6	68.6	65.7	70.8	78.5	67.5	65.2
United Kingdom	15.6	19.2	77.8	75.7	82.9	78.5	92.5	98.2	85.3	86.5	91.6	95.6	99.3	105.2

– Data not available.

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46. Occupational injury and illness rates by industry,[1] United States

Industry and type of case[2]	Incidence rates per 100 full-time workers[3]											
	1987	1988	1989[1]	1990	1991	1992	1993[4]	1994[4]	1995[4]	1996[4]	1997[4]	1998[4]
PRIVATE SECTOR[5]												
Total cases	8.3	8.6	8.6	8.8	8.4	8.9	8.5	8.4	8.1	7.4	7.1	6.7
Lost workday cases	3.8	4.0	4.0	4.1	3.9	3.9	3.8	3.8	3.6	3.4	3.3	3.1
Lost workdays	69.9	76.1	78.7	84.0	86.5	93.8	–	–	–	–	–	–
Agriculture, forestry, and fishing[5]												
Total cases	11.2	10.9	10.9	11.6	10.8	11.6	11.2	10.0	9.7	8.7	8.4	7.9
Lost workday cases	5.7	5.6	5.7	5.9	5.4	5.4	5.0	4.7	4.3	3.9	4.1	3.9
Lost workdays	94.1	101.8	100.9	112.2	108.3	126.9	–	–	–	–	–	–
Mining												
Total cases	8.5	8.8	8.5	8.3	7.4	7.3	6.8	6.3	6.2	5.4	5.9	4.9
Lost workday cases	4.9	5.1	4.8	5.0	4.5	4.1	3.9	3.9	3.9	3.2	3.7	2.9
Lost workdays	144.0	152.1	137.2	119.5	129.6	204.7	–	–	–	–	–	–
Construction												
Total cases	14.7	14.6	14.3	14.2	13.0	13.1	12.2	11.8	10.6	9.9	9.5	8.8
Lost workday cases	6.8	6.8	6.8	6.7	6.1	5.8	5.5	5.5	4.9	4.5	4.4	4.0
Lost workdays	135.8	142.2	143.3	147.9	148.1	161.9	–	–	–	–	–	–
General building contractors:												
Total cases	14.2	14.0	13.9	13.4	12.0	12.2	11.5	10.9	9.8	9.0	8.5	8.4
Lost workday cases	6.5	6.4	6.5	6.4	5.5	5.4	5.1	5.1	4.4	4.0	3.7	3.9
Lost workdays	134.0	132.2	137.3	137.6	132.0	142.7	–	–	–	–	–	–
Heavy construction, except building:												
Total cases	14.5	15.1	13.8	13.8	12.8	12.1	11.1	10.2	9.9	9.0	8.7	8.2
Lost workday cases	6.4	7.0	6.5	6.3	6.0	5.4	5.1	5.0	4.8	4.3	4.3	4.1
Lost workdays	139.1	162.3	147.1	144.6	160.1	165.8	–	–	–	–	–	–
Special trades contractors:												
Total cases	15.0	14.7	14.6	14.7	13.5	13.8	12.8	12.5	11.1	10.4	10.0	9.1
Lost workday cases	7.1	7.0	6.9	6.9	6.3	6.1	5.8	5.8	5.0	4.8	4.7	4.1
Lost workdays	135.7	141.1	144.9	153.1	151.3	168.3	–	–	–	–	–	–
Manufacturing												
Total cases	11.9	13.1	13.1	13.2	12.7	12.5	12.1	12.2	11.6	10.6	10.3	9.7
Lost workday cases	5.3	5.7	5.8	5.8	5.6	5.4	5.3	5.5	5.3	4.9	4.8	4.7
Lost workdays	95.5	107.4	113.0	120.7	121.5	124.6	–	–	–	–	–	–
Durable goods:												
Total cases	12.5	14.2	14.1	14.2	13.6	13.4	13.1	13.5	12.8	11.6	11.3	10.7
Lost workday cases	5.4	5.9	6.0	6.0	5.7	5.5	5.4	5.7	5.6	5.1	5.1	5.0
Lost workdays	96.8	111.1	116.5	123.3	122.9	126.7	–	–	–	–	–	–
Lumber and wood products:												
Total cases	18.9	19.5	18.4	18.1	16.8	16.3	15.9	15.7	14.9	14.2	13.5	13.2
Lost workday cases	9.6	10.0	9.4	8.8	8.3	7.6	7.6	7.7	7.0	6.8	6.5	6.8
Lost workdays	176.5	189.1	177.5	172.5	172.0	165.8	–	–	–	–	–	–
Furniture and fixtures:												
Total cases	15.4	16.6	16.1	16.9	15.9	14.8	14.6	15.0	13.9	12.2	12.0	11.4
Lost workday cases	6.7	7.3	7.2	7.8	7.2	6.6	6.5	7.0	6.4	5.4	5.8	5.7
Lost workdays	103.6	115.7	–	–	–	128.4	–	–	–	–	–	–
Stone, clay, and glass products:												
Total cases	14.9	16.0	15.5	15.4	14.8	13.6	13.8	13.2	12.3	12.4	11.8	11.8
Lost workday cases	7.1	7.5	7.4	7.3	6.8	6.1	6.3	6.5	5.7	6.0	5.7	6.0
Lost workdays	135.8	141.0	149.8	160.5	156.0	152.2	–	–	–	–	–	–
Primary metal industries:												
Total cases	17.0	19.4	18.7	19.0	17.7	17.5	17.0	16.8	16.5	15.0	15.0	14.0
Lost workday cases	7.4	8.2	8.1	8.1	7.4	7.1	7.3	7.2	7.2	6.8	7.2	7.0
Lost workdays	145.8	161.3	168.3	180.2	169.1	175.5	–	–	–	–	–	–
Fabricated metal products:												
Total cases	17.0	18.8	18.5	18.7	17.4	16.8	16.2	16.4	15.8	14.4	14.2	13.9
Lost workday cases	7.2	8.0	7.9	7.9	7.1	6.6	6.7	6.7	6.9	6.2	6.4	6.5
Lost workdays	121.9	138.8	147.6	155.7	146.6	144.0	–	–	–	–	–	–
Industrial machinery and equipment:												
Total cases	11.3	12.1	12.1	12.0	11.2	11.1	11.1	11.6	11.2	9.9	10.0	9.5
Lost workday cases	4.4	4.7	4.8	4.7	4.4	4.2	4.2	4.4	4.4	4.0	4.1	4.0
Lost workdays	72.7	82.8	86.8	88.9	86.6	87.7	–	–	–	–	–	–
Electronic and other electrical equipment:												
Total cases	7.2	8.0	9.1	9.1	8.6	8.4	8.3	8.3	7.6	6.8	6.6	5.9
Lost workday cases	3.1	3.3	3.9	3.8	3.7	3.6	3.5	3.6	3.3	3.1	3.1	2.8
Lost workdays	55.9	64.6	77.5	79.4	83.0	81.2	–	–	–	–	–	–
Transportation equipment:												
Total cases	13.5	17.7	17.7	17.8	18.3	18.7	18.5	19.6	18.6	16.3	15.4	14.6
Lost workday cases	5.7	6.6	6.8	6.9	7.0	7.1	7.1	7.8	7.9	7.0	6.6	6.6
Lost workdays	105.7	134.2	138.6	153.7	166.1	186.6	–	–	–	–	–	–
Instruments and related products:												
Total cases	5.8	6.1	5.6	5.9	6.0	5.9	5.6	5.9	5.3	5.1	4.8	4.0
Lost workday cases	2.4	2.6	2.5	2.7	2.7	2.7	2.5	2.7	2.4	2.3	2.3	1.9
Lost workdays	43.9	51.5	55.4	57.8	64.4	65.3	–	–	–	–	–	–
Miscellaneous manufacturing industries:												
Total cases	10.7	11.3	11.1	11.3	11.3	10.7	10.0	9.9	9.1	9.5	8.9	8.1
Lost workday cases	4.6	5.1	5.1	5.1	5.1	5.0	4.6	4.5	4.3	4.4	4.2	3.9
Lost workdays	81.5	91.0	97.6	113.1	104.0	108.2	–	–	–	–	–	–

See footnotes at end of table.

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46. Continued—Occupational injury and illness rates by industry,[1] United States

Industry and type of case[2]	Incidence rates per 100 full-time workers[3]											
	1987	1988	1989[1]	1990	1991	1992	1993[4]	1994[4]	1995[4]	1996[4]	1997[4]	1998[4]
Nondurable goods:												
Total cases	11.1	11.4	11.6	11.7	11.5	11.3	10.7	10.5	9.9	9.2	8.8	8.2
Lost workday cases	5.1	5.4	5.5	5.6	5.5	5.3	5.0	5.1	4.9	4.6	4.4	4.3
Lost workdays	93.5	101.7	107.8	116.9	119.7	121.8	–	–	–	–	–	–
Food and kindred products:												
Total cases	17.7	18.5	18.5	20.0	19.5	18.8	17.6	17.1	16.3	15.0	14.5	13.6
Lost workday cases	8.6	9.2	9.3	9.9	9.9	9.5	8.9	9.2	8.7	8.0	8.0	7.5
Lost workdays	153.7	169.7	174.7	202.6	207.2	211.9	–	–	–	–	–	–
Tobacco products:												
Total cases	8.6	9.3	8.7	7.7	6.4	6.0	5.8	5.3	5.6	6.7	5.9	6.4
Lost workday cases	2.5	2.9	3.4	3.2	2.8	2.4	2.3	2.4	2.6	2.8	2.7	3.1
Lost workdays	46.4	53.0	64.2	62.3	52.0	42.9	–	–	–	–	–	–
Textile mill products:												
Total cases	9.0	9.6	10.3	9.6	10.1	9.9	9.7	8.7	8.2	7.8	6.7	6.7
Lost workday cases	3.6	4.0	4.2	4.0	4.4	4.2	4.1	4.0	4.1	3.6	3.1	3.4
Lost workdays	65.9	78.8	81.4	85.1	88.3	87.1	–	–	–	–	–	–
Apparel and other textile products:												
Total cases	7.4	8.1	8.6	8.8	9.2	9.5	9.0	8.9	8.2	7.4	7.0	6.2
Lost workday cases	3.1	3.5	3.8	3.9	4.2	4.0	3.8	3.9	3.6	3.3	3.1	2.6
Lost workdays	59.5	68.2	80.5	92.1	99.9	104.6	–	–	–	–	–	–
Paper and allied products:												
Total cases	12.8	13.1	12.7	12.1	11.2	11.0	9.9	9.6	8.5	7.9	7.3	7.1
Lost workday cases	5.8	5.9	5.8	5.5	5.0	5.0	4.6	4.5	4.2	3.8	3.7	3.7
Lost workdays	122.3	124.3	132.9	124.8	122.7	125.9	–	–	–	–	–	–
Printing and publishing:												
Total cases	6.7	6.6	6.9	6.9	6.7	7.3	6.9	6.7	6.4	6.0	5.7	5.4
Lost workday cases	3.1	3.2	3.3	3.3	3.2	3.2	3.1	3.0	3.0	2.8	2.7	2.8
Lost workdays	55.1	59.8	63.8	69.8	74.5	74.8	–	–	–	–	–	–
Chemicals and allied products:												
Total cases	7.0	7.0	7.0	6.5	6.4	6.0	5.9	5.7	5.5	4.8	4.8	4.2
Lost workday cases	3.1	3.3	3.2	3.1	3.1	2.8	2.7	2.8	2.7	2.4	2.3	2.1
Lost workdays	58.8	59.0	63.4	61.6	62.4	64.2	–	–	–	–	–	–
Petroleum and coal products:												
Total cases	7.3	7.0	6.6	6.6	6.2	5.9	5.2	4.7	4.8	4.6	4.3	3.9
Lost workday cases	3.1	3.2	3.3	3.1	2.9	2.8	2.5	2.3	2.4	2.5	2.2	1.8
Lost workdays	65.9	68.4	68.1	77.3	68.2	71.2	–	–	–	–	–	–
Rubber and miscellaneous plastics products:												
Total cases	15.9	16.3	16.2	16.2	15.1	14.5	13.9	14.0	12.9	12.3	11.9	11.2
Lost workday cases	7.6	8.1	8.0	7.8	7.2	6.8	6.5	6.7	6.5	6.3	5.8	5.8
Lost workdays	130.8	142.9	147.2	151.3	150.9	153.3	–	–	–	–	–	–
Leather and leather products:												
Total cases	12.4	11.4	13.6	12.1	12.5	12.1	12.1	12.0	11.4	10.7	10.6	9.8
Lost workday cases	5.8	5.6	6.5	5.9	5.9	5.4	5.5	5.3	4.8	4.5	4.3	4.5
Lost workdays	114.5	128.2	130.4	152.3	140.8	128.5	–	–	–	–	–	–
Transportation and public utilities												
Total cases	8.4	8.9	9.2	9.6	9.3	9.1	9.5	9.3	9.1	8.7	8.2	7.3
Lost workday cases	4.9	5.1	5.3	5.5	5.4	5.1	5.4	5.5	5.2	5.1	4.8	4.3
Lost workdays	108.1	118.6	121.5	134.1	140.0	144.0	–	–	–	–	–	–
Wholesale and retail trade												
Total cases	7.7	7.8	8.0	7.9	7.6	8.4	8.1	7.9	7.5	6.8	6.7	6.5
Lost workday cases	3.4	3.5	3.6	3.5	3.4	3.5	3.4	3.4	3.2	2.9	3.0	2.8
Lost workdays	56.1	60.9	63.5	65.6	72.0	80.1	–	–	–	–	–	–
Wholesale trade:												
Total cases	7.4	7.6	7.7	7.4	7.2	7.6	7.8	7.7	7.5	6.6	6.5	6.5
Lost workday cases	3.7	3.8	4.0	3.7	3.7	3.6	3.7	3.8	3.6	3.4	3.2	3.3
Lost workdays	64.0	69.2	71.9	71.5	79.2	82.4	–	–	–	–	–	–
Retail trade:												
Total cases	7.8	7.9	8.1	8.1	7.7	8.7	8.2	7.9	7.5	6.9	6.8	6.5
Lost workday cases	3.3	3.4	3.4	3.4	3.3	3.4	3.3	3.3	3.0	2.8	2.9	2.7
Lost workdays	52.9	57.6	60.0	63.2	69.1	79.2	–	–	–	–	–	–
Finance, insurance, and real estate												
Total cases	2.0	2.0	2.0	2.4	2.4	2.9	2.9	2.7	2.6	2.4	2.2	1.9
Lost workday cases	.9	.9	.9	1.1	1.1	1.2	1.2	1.1	1.0	.9	0.9	0.7
Lost workdays	14.3	17.2	17.6	27.3	24.1	32.9	–	–	–	–	–	–
Services												
Total cases	5.5	5.4	5.5	6.0	6.2	7.1	6.7	6.5	6.4	6.0	5.6	5.2
Lost workday cases	2.7	2.6	2.7	2.8	2.8	3.0	2.8	2.8	2.8	2.6	2.5	2.4
Lost workdays	45.8	47.7	51.2	56.4	60.0	68.6	–	–	–	–	–	–

[1] Data for 1989 and subsequent years are based on the *Standard Industrial Classification Manual*, 1987 Edition. For this reason, they are not strictly comparable with data for the years 1985–88, which were based on the *Standard Industrial Classification Manual*, 1972 Edition, 1977 Supplement.

[2] Beginning with the 1992 survey, the annual survey measures only nonfatal injuries and illnesses, while past surveys covered both fatal and nonfatal incidents. To better address fatalities, a basic element of workplace safety, BLS implemented the Census of Fatal Occupational Injuries.

[3] The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as (N/EH) X 200,000, where:
N = number of injuries and illnesses or lost workdays;
EH = total hours worked by all employees during the calendar year; and
200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

[4] Beginning with the 1993 survey, lost workday estimates will not be generated. As of 1992, BLS began generating percent distributions and the median number of days away from work by industry and for groups of workers sustaining similar work disabilities.

[5] Excludes farms with fewer than 11 employees since 1976.

– Data not available.

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47. Fatal occupational injuries by event or exposure, 1993–98

Event or exposure[1]	Fatalities			
	1993–97	1997[2]	1998	
	Average	Number	Number	Percent
Total	6,335	6,238	6,026	100
Transportation incidents	2,611	2,605	2,630	44
Highway incident	1,334	1,393	1,431	24
Collision between vehicles, mobile equipment	652	640	701	12
Moving in same direction	109	103	118	2
Moving in opposite directions, oncoming	234	230	271	4
Moving in intersection	132	142	142	2
Vehicle struck stationary object or equipment	249	282	306	5
Noncollision incident	360	387	373	6
Jackknifed or overturned—no collision	267	298	300	5
Nonhighway (farm, industrial premises) incident	388	377	384	6
Overturned	214	216	216	4
Aircraft	315	261	223	4
Worker struck by a vehicle	373	367	413	7
Water vehicle incident	106	109	112	2
Railway	83	93	60	1
Assaults and violent acts	1,241	1,111	960	16
Homicides	995	860	709	12
Shooting	810	708	569	9
Stabbing	75	73	61	1
Other, including bombing	110	79	79	1
Self-inflicted injuries	215	216	223	4
Contact with objects and equipment	1,005	1,035	941	16
Struck by object	573	579	517	9
Struck by falling object	369	384	317	5
Struck by flying object	65	54	58	1
Caught in or compressed by equipment or objects	290	320	266	4
Caught in running equipment or machinery	153	189	129	2
Caught in or crushed in collapsing materials	124	118	140	2
Falls	668	716	702	12
Fall to lower level	591	653	623	10
Fall from ladder	94	116	111	2
Fall from roof	139	154	156	3
Fall from scaffold, staging	83	87	97	2
Fall on same level	52	44	51	1
Exposure to harmful substances or environments	586	554	572	9
Contact with electric current	320	298	334	6
Contact with overhead power lines	128	138	153	3
Contact with temperature extremes	43	40	46	1
Exposure to caustic, noxious, or allergenic substances	120	123	104	2
Inhalation of substances	70	59	48	1
Oxygen deficiency	101	90	87	1
Drowning, submersion	80	72	75	1
Fires and explosions	199	196	205	3
Other events or exposures[3]	26	21	16	-

[1] Based on the 1992 BLS Occupational Injury and Illness Classification Structures.

[2] The BLS news release issued August 12, 1998, reported a total of 6,218 fatal work injuries for calendar year 1997. Since then, an additional 20 job-related fatalities were identified, bringing the total job-related fatality count for 1997 to 6,238.

[3] Includes the category "Bodily reaction and exertion."

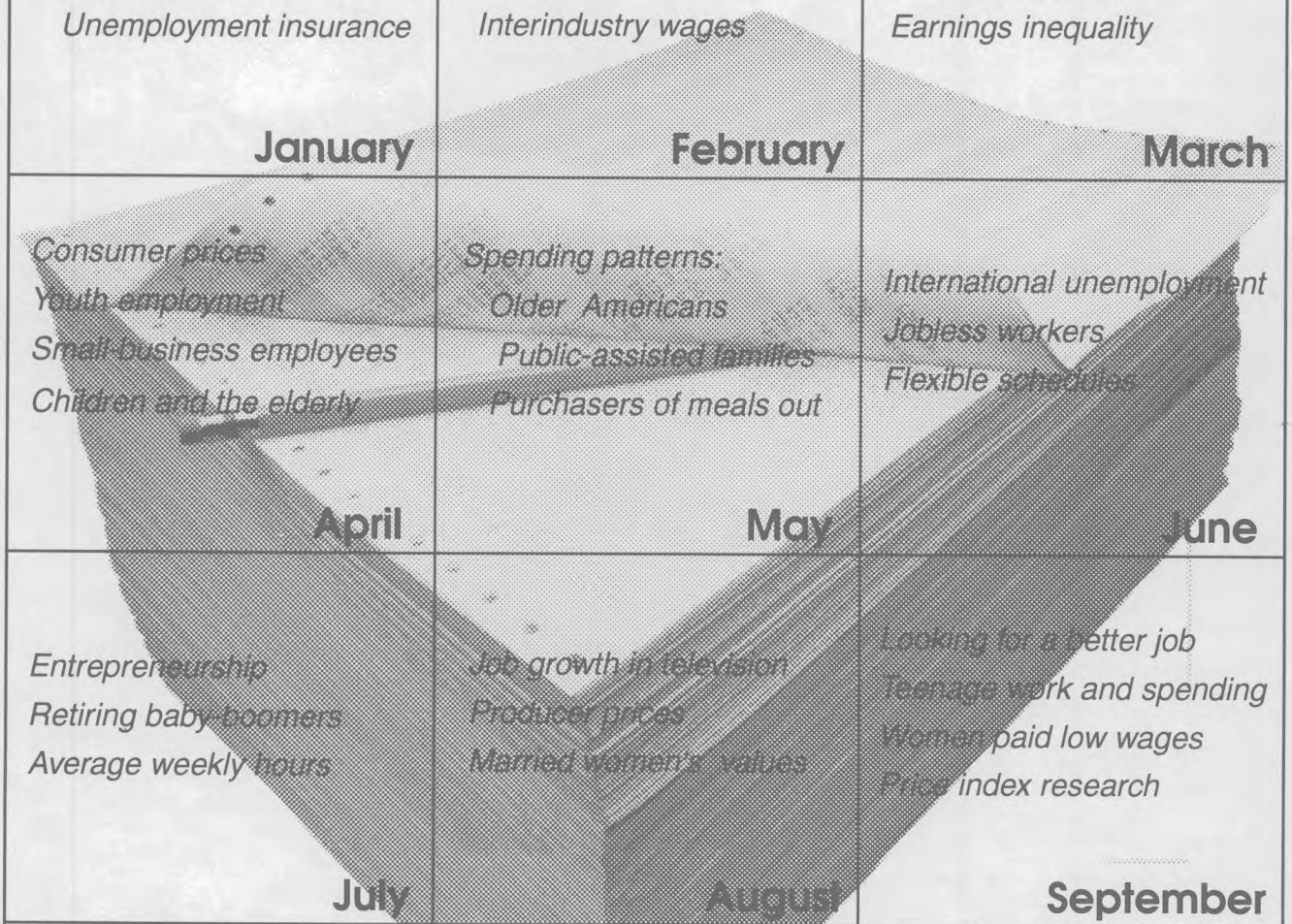
NOTE: Totals for major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding. Dash indicates less than 0.5 percent.

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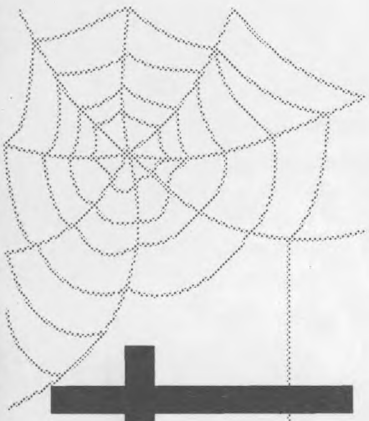
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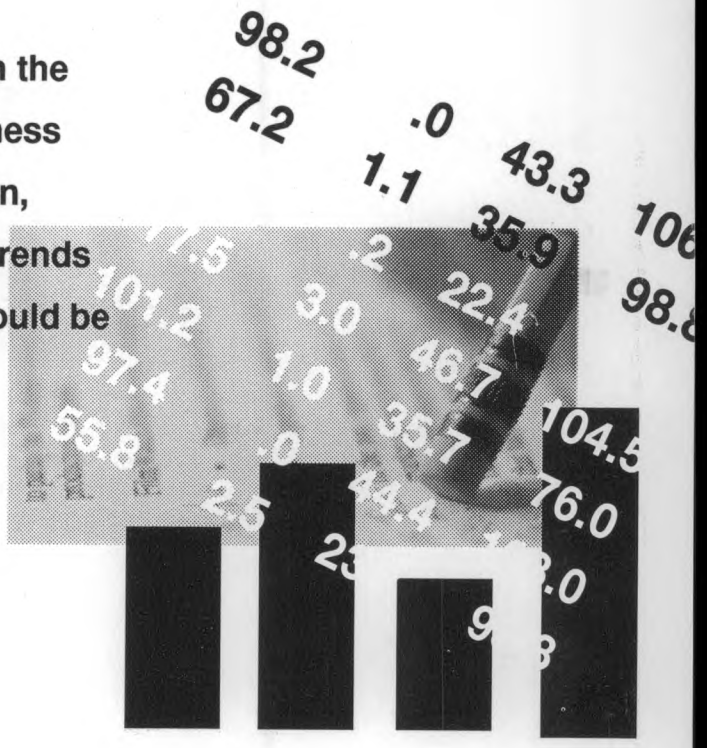
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