

September 2008



M O N T H L Y L A B O R  
**REVIEW**

U.S. Department of Labor

U.S. Bureau of Labor Statistics



**The  
effect of  
business  
ownership  
change on  
occupational  
employment  
and wages**

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**The NLSY97 Conference**

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### The September Review

Our first article this month examines the effect of changes in business ownership on workers related to the types of jobs they hold. Analyzing micro-data from the Occupational Employment Statistics (OES) survey, Dina Itkin demonstrates that there are differential outcomes by occupation on employment and wage levels resulting from new ownership. Among a number of areas of inquiry, she identifies the industry sectors most affected by ownership change. Further, she investigates the relationship between changes in occupational composition resulting from new ownership and the employment size of the affected business. The author identifies some limitations of the study, noting, for instance, that some staffing changes might be in transition and only partially captured using her methodology.

Bruce J. Bergman compares mass layoff activity in the New York City area with that of the Nation as a whole in the years prior to and after the 2001 recession. With the largest metropolitan workforce in the country, trends in the Big Apple regarding the separation of workers from their employers are always going to be of interest. Bergman finds a “qualitatively different” pattern in the industry distribution of layoffs prior to, and after, 2001, in New York, in contrast to the national experience.

A trio of authors with a demonstrated interest in longitudinal studies provides a Conference Report in this month’s MLR focusing on information from the 1997 cohort of

the National Longitudinal Survey of Youth. In May of this past summer, BLS hosted a conference highlighting the latest research from this survey, and Dan Black, Robert Michael, and Charles Pierret provide a “brief and informal characterization” of some of the more than a dozen studies presented. They summarize the research on topics ranging from social behaviors (such as marriage and offspring and the influence of siblings) to education (including the effects of parental resources on educational attainment) to the changing characteristics of youth employment.

Finally this month, James Campbell provides his annual update to patterns of multiple jobholding among the various States.

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### A profile of the working poor

The majority of the 36.5 million persons in poverty in the United States are children or adults outside of the labor force. However, there are many people who are active participants in the labor force for at least half a year, but whose incomes still fall below the official poverty level. Each year the Bureau publishes data on these so-called “working poor.”

In 2006, it is estimated that 7.4 million individuals were in these circumstances, meaning they spent 27 weeks or more working or looking for work, but lived at or below the official poverty threshold relevant to their family structure. They made up 5.1 percent of all persons in the labor force for 27 weeks or more, down a bit from 2005.

Some of the socioeconomic factors that often are cited as contributing to labor market outcomes are found to influence who falls into the working-poor status. Persons with the least amount of education, for instance, make up a far higher percentage of the working poor – almost 14 percent – than those with a college degree (less than 2 percent). Persons in occupations that tend to be lower paying have a higher probability of being among the working poor, as do part-time, as compared to full-time, workers. Married couple families facing the extra expenses of childrearing are much more likely to be among the working poor than married couple families without children.

A Profile of the Working Poor, 2006 can be found online at <http://www.bls.gov/cps/cpswp2006.pdf>

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### Happy Birthday, TED!

Who is TED, you ask? As noted in this column before, “he” is The Editor’s Desk, a daily feature published by BLS on its Web site. TED is a reliable source of fresh content posted every business day. It was the first online-only publication available from the Bureau. Since the first issue was published in September 1998, TED hasn’t missed a day of work, as over 2,400 entries have been issued so far. Congratulations to TED, and to all who help produce this feature so reliably.

For additional information about the 10th anniversary of *The Editor’s Desk*, please go to <http://www.bls.gov/opub/ted/tenyears.htm> □

## The effect of business ownership change on occupational employment and wages

*An analysis of business establishment microdata reveals that, after a business changes ownership, employment falls, but wages rise, in occupations that performed analytical, clerical, and production work; by contrast, employment levels are maintained, but wages fall, in service occupations*

Dina Itkin

Every year, thousands of U.S. businesses are bought, sold, or merged to raise profits, reduce costs, increase market share, or otherwise interact in the dynamic economy. The national level of business ownership change peaked in the late 1990s, when the Nation was experiencing rapid economic growth, and declined gradually through 2002.<sup>1</sup> After 2003, the number and asset trade value of ownership changes rose steadily again. Volume in 2006 exceeded that in 2005 by 38 percent and surpassed a 2000 record. The year-over-year asset trade volume of ownership change as of July 2007 was up 60 percent globally and 41 percent in the United States.<sup>2</sup>

Existing literature and anecdotal evidence have found varying effects of ownership changes on company profits, labor productivity, wages, and staffing in specific industries. For example, research using Census Bureau data on manufacturing companies found that ownership changes led to reductions in employment and wages at auxiliary (support) offices, but had little effect on employment at production plants.<sup>3</sup> Two other studies—one of manufacturing firms<sup>4</sup> and the other of food-manufacturing firms<sup>5</sup>—found that ownership changes resulted in employment and wage increases overall, but led to job losses in large firms.

Trends in personnel changes in all sectors of the economy are of interest to economists, business owners, and workers, but there is little, if any, recent empirical research on the effects of ownership changes on detailed occupational employment. Such information provides insight into the specific jobs and skill sets that are in demand when firms reorganize or redirect their business strategies.

This study uses a recent large sample of business establishment microdata to examine how overall employment and occupational composition are affected when establishments undergo a change in ownership. The study resulted in a number of interesting findings: after ownership changes, (1) employment levels of occupations that performed analytical, clerical, and production work were least likely to be maintained, and most of these groups' wages shifted toward higher ranges; (2) employment levels of service occupations such as health care, education, and protection services were more likely to be maintained, but most of these groups' wages shifted toward lower ranges, on average; (3) overall, employment declines were seen in establishments that changed ownership; and (4) among the industries that contracted the most, declines were concentrated in occupations that serve a support function in the industry, rather

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than in occupations that are core to the industry's output. These findings tended to be supported across establishments of different sizes, with decreases in the share of support occupations such as office and administrative support, management, and sales occupations in all size classes.

## Methodology

This study was conducted with the use of microdata from the Occupational Employment Statistics (OES) survey. The OES program surveys approximately 200,000 establishments every 6 months, taking 3 years to collect its full sample of 1.2 million establishments. Establishments are eligible for selection again after 3 years. The data set consisted of all business establishments that reported to the OES survey twice over a period of 6 years. Those establishments were put into two subsamples on the basis of whether or not they changed ownership, as defined by a change in the Unemployment Insurance (UI) account number. Included in the study were microdata from all 50 States and the District of Columbia, from establishments that reported occupational employment for all of their employees and wage data for most of their employees.<sup>6</sup>

All establishments covered by State Unemployment Insurance have an assigned UI account number. When a firm changes ownership, it normally refiles with the Unemployment Insurance program and receives a new UI number. By contrast, the Quarterly Census of Employment and Wages (QCEW) program's Longitudinal Database (LDB) assigns each establishment a unique LDB number that does not change, even if the ownership changes. A total of 277,027 establishments reported to the OES survey exactly twice during a 6-year period from 2000 to 2006.<sup>7</sup> Of the establishments that reported twice with the same LDB number, 254,829 had the same UI number the second time they reported. These establishments serve as this study's subsample of establishments that did not change ownership (the control subsample). The remaining 22,198 establishments had different UI numbers the second time they reported and serve as the study's subsample of establishments that changed ownership (the ownership change subsample). Each establishment in either subsample has longitudinal occupational staffing data for two points in time. The first reports are included in the predecessor group, whose establishments reported data between 2000 and 2003. The second reports are included in the successor group, whose establishments reported data between 2003 and 2006.

## Limitations of the study

Elements of the OES sampling strategy may create a bias toward larger establishments in the study's subsamples. The reason is that sample selection within geographic area and industry group strata is approximately proportional to size, in order to provide the most occupational coverage. Although there are more small units in the subsamples, larger units are more likely to be selected at two points in time and included in the subsamples. This bias is enhanced by the fact that the study uses unweighted employment.

Although a change in UI account number in establishments with the same LDB number represents an ownership change most of the time, limitations to this definition exist. A change in UI number does not necessarily indicate a change in ownership (it could be the result of a change in the type of business entity, as, for example, when a business incorporates), and perhaps not all ownership changes were marked by a UI number change. To facilitate the identification of establishments that changed ownership, factors such as employment, trade names, physical addresses, and telephone numbers were used in determining whether to maintain the LDB number.

The microdata do not differentiate among types of ownership changes, such as mergers, takeovers, divestitures, or buyouts. If the ownership change represents a merger or an acquisition, then changes in the acquiring establishment are not measured; only employment data from the acquired establishment are captured in this study. For example, if an establishment was bought by another company, the study would capture predecessor and successor data only for the establishment with the same LDB number before and after the purchase. A related limitation of the study is that the data do not indicate whether labor was voluntarily or involuntarily removed, or whether it was contracted out or outsourced, after the ownership change. Also, because the time between the first and second reporting is at least 3 years for all establishments, the study might not capture staffing changes that occurred immediately before or after the ownership change. In some cases, the transition might be only partially complete at the second reporting; in other cases, the transition may already have begun at the first reporting, in anticipation of a future takeover.

## Overall employment trends

Certain industries were more likely to change ownership relative to other industries in the study subsample and to the economy as a whole. Table 1 shows, in order by column, the industry distributions of establishments that reported twice,

**Table 1. Concentration of establishments, by industry sector, in the ownership change subsample and across all establishments, 2000–06**

Industry sector	Number of units that reported twice	Number of units that changed ownership	Percent that changed ownership	Percent distribution of ownership change subsample	Average number of private-sector establishments in 2005, QCEW	Percent distribution of private sector establishments in 2005, QCEW
Total.....	277,027	22,198	8.01	100	18,294,662	100
Information.....	6,858	793	11.56	3.57	141,871	1.71
Accommodation and food services.....	15,283	1,760	11.52	7.93	572,791	6.91
Administrative and support and waste management and remediation services....	13,436	1,351	10.06	6.09	426,681	5.14
Retail trade.....	41,261	3,875	9.39	17.46	1,038,585	12.52
Manufacturing.....	40,480	3,469	8.57	15.63	365,351	4.40
Finance and insurance.....	10,713	915	8.54	4.12	462,381	5.57
Health care and social assistance.....	26,317	2,226	8.46	10.03	689,010	8.31
Wholesale trade.....	18,742	1,516	8.09	6.83	601,625	7.25
Transportation and warehousing.....	10,221	814	7.96	3.67	212,309	2.56
Real estate and rental and leasing.....	7,632	576	7.55	2.59	351,329	4.24
Mining.....	1,618	122	7.54	.55	26,313	.32
Management of companies and enterprises	2,176	162	7.44	.73	43,239	.52
Professional and technical services.....	16,163	1,126	6.97	5.07	902,710	10.88
Utilities.....	1,754	121	6.90	.55	16,260	.20
Arts, entertainment, and recreation.....	6,465	418	6.47	1.88	118,614	1.43
Other services, except public administration....	18,805	1,204	6.40	5.42	1,102,054	13.29
Construction.....	21,357	1,316	6.16	5.93	845,843	10.20
Educational services.....	11,396	273	2.40	1.23	78,410	.95

<sup>1</sup> Details do not sum to total because some industries are not listed separately and some establishments lack an industry classification. The industry sector of agriculture, forestry, fishing, and hunting is excluded

because the OES and QCEW have incomplete coverage of that sector. OES-designated government industries also are excluded.

the industry distributions of establishments that changed ownership, and the percentage of establishments that changed ownership in each industry. The industries listed are sorted by the percent that changed ownership. Industries in which at least 10 percent of establishments changed ownership were information, accommodation and food services, and administrative and support and waste management and remediation services. The two columns headed “Percent distribution...” serve as an indication of industry distribution in the ownership change subsample relative to the industry’s representation in the economy. Industries that represented a large proportion of the ownership change subsample relative to the economy as a whole included manufacturing, retail trade, information, health care and social assistance, transportation and warehousing, and accommodation and food services. At the more detailed industry level, the OES data are consistent with other findings<sup>8</sup> which show that, in 2003, most ownership changes were in business services, prepackaged software, commercial banks and bank holding companies, real estate, mortgage bankers and brokers, and oil and gas and petroleum refining.

Overall, there was a decline in total employment from the predecessor group to the successor group after owner-

ship changes. Total employment in the predecessor group was 2,018,250, and total employment in the successor group was 1,890,986, a decrease of more than 6.31 percent.<sup>9</sup> This employment decrease occurred despite overall private-sector employment growth of 2.82 percent between 2002 and 2005.<sup>10</sup> Almost half (10,677) of the 22,198 establishments that changed ownership experienced a decrease in employment, 9,517 saw an increase in employment, and the remaining 2,004 had no change in employment. Although employment decreased overall in the ownership change subsample, employment change varied by industry, establishment size, and occupation.

The distribution of the ownership change subsample and the control subsample is shown by establishment size in table 2. In the control subsample, there was an aggregate shift toward medium and large sizes, while in establishments that changed ownership, there was an aggregate shift toward smaller sizes. After establishments changed ownership, the concentration of establishments increased in the 1-to-9-employee and 10-to-49-employee size classes and decreased in the three larger size classes. The concentration in the 1-to-9-employee size class grew by nearly 5 percent in the ownership change subsample, while it grew by

**Table 2.** Concentration of establishments in the OES sample, by size, in the ownership change subsample and the control subsample, 2000–06

Size of establishment	Ownership change subsample				Control subsample			
	Number of predecessor units	Number of successor units	Difference between number of predecessor and successor units	Percent change	Number of predecessor units	Number of successor units	Difference between number of predecessor and successor units	Percent change
Total.....	22,198	22,198	...	...	254,829	254,829	...	...
1–9 employees.....	5,277	5,530	253	4.79	69,585	70,721	1,136	1.63
10–49 employees.....	9,094	9,151	57	.63	108,834	107,500	-1,334	-1.23
50–249 employees.....	6,199	5,973	-226	-3.65	60,024	60,101	77	.13
250–999 employees.....	1,412	1,335	-77	-5.45	14,057	14,170	113	.80
1,000 or more employees.....	216	209	-7	-3.24	2,329	2,337	8	.34

substantially less in the control subsample. Likewise, the number of 10-to-49-employee establishments increased in the ownership change subsample, while it decreased in the control subsample. These shifts suggest that, after ownership changes, the size distribution of establishments moved toward smaller establishments; that is, more establishments shrank than grew. Because these numbers capture only overall total concentrations at two different times, the last section of this article examines employment changes by establishment size.

### Changes by occupational group

*Changes in employment levels.* After ownership changes, changes in employment were spread across several occupations, with more than half of the occupational groups seeing declines in employment and other occupational groups seeing employment increases. Table 3 presents the changes in employment in each occupational group after ownership changed. As shown in the column headed “Employment difference,” the occupations that decreased in employment level were production; office and administrative support; sales and related; management; computer and mathematical science; business and financial operations; architecture and engineering; transportation and material moving; building and grounds cleaning and maintenance; personal care and service; installation, maintenance, and repair; arts, design, entertainment, sports, and media; construction and extraction; and legal occupations.

At the other end of the spectrum, the occupational groups that grew after ownership changes were health care practitioner and technical; protective service; health care support; education, training, and library; food prepara-

tion and serving; community and social services; and life, physical, and social science occupations. Because changes in level do not convey growth or decline relative to other occupational groups, an analysis of the employment shares of total predecessor and successor employment follows.

*Relative changes in employment shares.* Table 3 also shows the percentage-point difference between the predecessor and successor employment shares in both subsamples. Occupational groups are labeled “less likely” or “more likely” to be retained, on the basis of their change in employment share in the ownership change subsample relative to the control subsample. Employees who were less likely to be retained are in occupations whose employment shares (1) shrank in the ownership change subsample while they grew in the control subsample, (2) grew in the ownership change subsample by less than they grew in the control subsample, or (3) shrank in the ownership change subsample by more than they shrank in the control subsample. This set of occupations (those which are less likely to be retained) is plotted to the right of the diagonal in chart 1. For each occupational group shown in the chart, the further the point that is associated with it lies from the origin and the diagonal, the greater is the difference between the employment shares in establishments that changed ownership and in establishments that did not change ownership.

Employees who performed analytical, clerical, and production work were less likely to be retained after ownership changes. The occupational groups that shrank in the ownership change subsample while they grew in the control subsample (occupational groups located in quadrant IV) were computer and mathematical science; busi-

**Table 3. Occupational employment level and difference in share in the ownership change subsample and the control subsample, 2000–06**

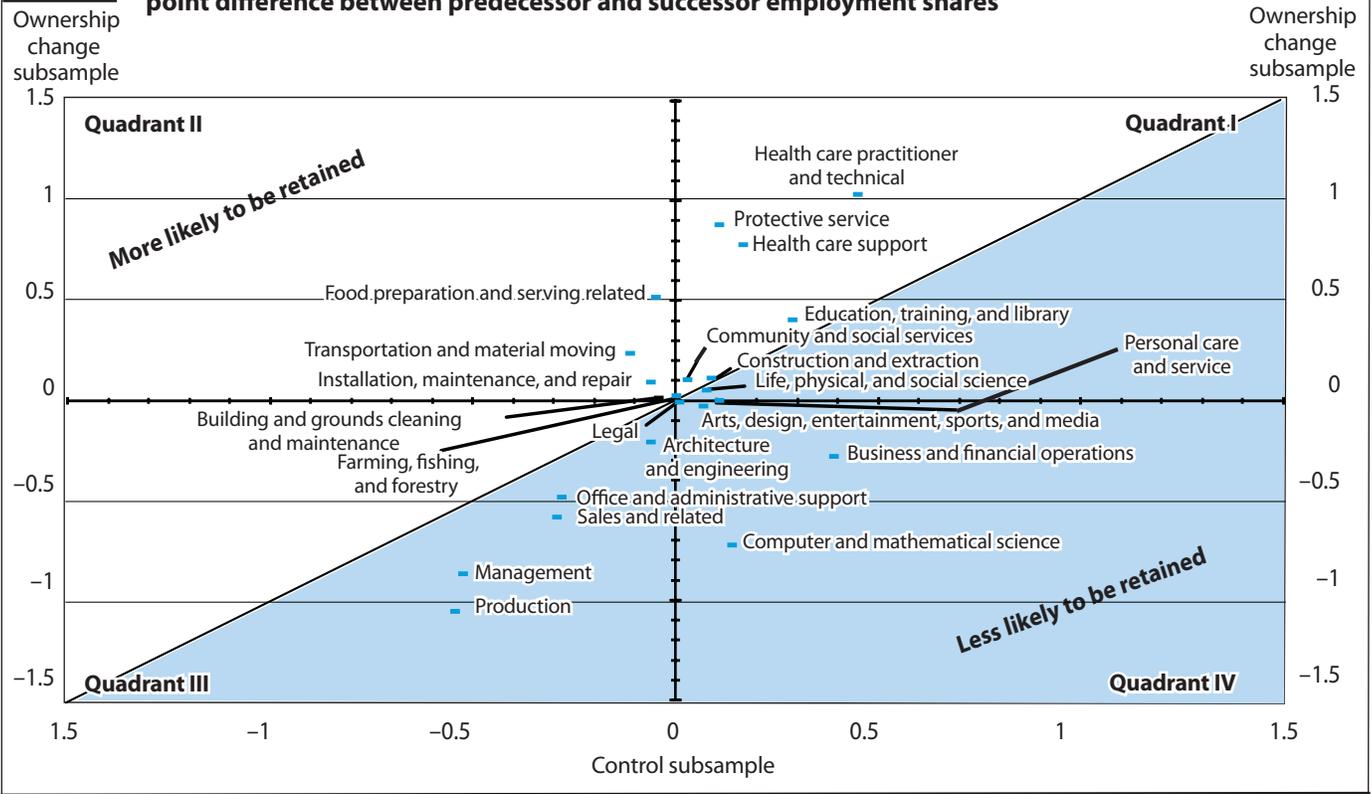
Occupational Group	Percentage-point difference between predecessor and successor employment share		Ownership change subsample					Control subsample				
	Ownership change subsample <sup>1</sup>	Control subsample	Pred-cessor employment	Suc-cessor employment	Employ-ment difference	Pred-cessor employment share (percent)	Suc-cessor employment share (percent)	Pred-cessor employment	Suc-cessor employment	Employ-ment difference	Pred-cessor employment share (percent)	Suc-cessor employment share (percent)
<b>Occupational groups less likely to be retained</b>												
Computer and mathematical science ...	-0.72	0.14	67,063	49,262	-17,801	3.32	2.61	432,022	472,447	40,425	2.04	2.19
Business and financial operations .....	-.28	.39	74,172	64,278	-9,894	3.68	3.40	635,571	733,116	97,545	3.00	3.39
Arts, design, entertain-ment, sports, and media ..	-.03	.07	19,136	17,435	-1,701	.95	.92	216,138	235,383	19,245	1.02	1.09
Legal .....	-.01	.01	4,818	4,293	-525	.24	.23	86,609	91,014	4,405	.41	.42
Production .....	-1.05	-.54	320,946	280,789	-40,157	15.90	14.85	2,217,795	2,149,982	-67,813	10.49	9.95
Management .....	-.86	-.52	94,876	72,694	-22,182	4.70	3.84	980,344	888,859	-91,485	4.63	4.11
Sales and related .....	-.58	-.29	199,818	176,232	-23,586	9.90	9.32	1,794,334	1,771,712	-22,622	8.48	8.20
Office and administrative support .....	-.48	-.28	321,625	292,198	-29,427	15.94	15.45	3,336,426	3,348,698	12,272	15.77	15.49
Architecture and engineering.....	-.21	-.06	48,962	41,897	-7,065	2.43	2.22	404,330	400,902	-3,428	1.91	1.85
Life, physical, and social science .....	.05	.08	10,939	11,263	324	.54	.60	176,926	198,318	21,392	.84	.92
<b>Occupational groups more likely to be retained</b>												
Food preparation and serving related .....	.53	-.03	113,913	116,778	2,865	5.64	6.18	1,069,685	1,086,022	16,337	5.06	5.02
Transportation and material moving .....	.23	-.11	173,556	166,968	-6,588	8.60	8.83	1,670,394	1,684,016	13,622	7.90	7.79
Installation, maintenance, and repair.....	.09	-.06	82,013	78,499	-3,514	4.06	4.15	798,334	802,064	3,730	3.77	3.71
Building and grounds cleaning and maintenance.....	.01	-.04	65,291	61,425	-3,866	3.24	3.25	772,076	780,072	7,996	3.65	3.61
Protective service.....	.87	.11	68,638	80,719	12,081	3.40	4.27	551,749	587,624	35,875	2.61	2.72
Health care support .....	.77	.17	66,298	76,718	10,420	3.28	4.06	577,304	626,014	48,710	2.73	2.90
Health care practitioner and technical .....	1.02	.45	106,778	119,360	12,582	5.29	6.31	1,306,749	1,432,698	125,949	6.18	6.63
Education, training, and library .....	.40	.29	42,235	47,190	4,955	2.09	2.50	2,262,029	2,375,172	113,143	10.69	10.99
Community and social services .....	.10	.03	17,429	18,266	837	.86	.97	307,033	321,000	13,967	1.45	1.48
Construction and extraction.....	.11	.09	58,491	56,922	-1,569	2.90	3.01	858,143	896,039	37,896	4.06	4.14
<b>Groups with a change of less than 0.01 in either subsample</b>												
Personal care and service .....	( <sup>2</sup> )	.11	55,579	52,035	-3,544	2.75	2.75	607,194	643,456	36,262	2.87	2.98
Farming, fishing, and forestry.....	.02	( <sup>2</sup> )	5,674	5,765	91	.28	.30	90,503	93,366	2,863	.43	.43

<sup>1</sup> Numbers are affected by rounding.

<sup>2</sup> Slight negative differences.

<sup>3</sup> Slight positive difference.

**Chart 1. The effect of business ownership change on different types of occupations, 2000–06: percentage-point difference between predecessor and successor employment shares**



ness and financial operations; arts, design, entertainment, sports, and media; and legal occupations. The following occupational groups shrank by more in the ownership change subsample than they shrank in the control subsample (occupational groups located to the right of the diagonal in quadrant III): production, management, sales and related, office and administrative support, and architecture and engineering occupations. Life, physical, and social science occupations grew in the ownership change subsample, but by less than they grew in the control subsample (the occupational group located to the right of the diagonal in quadrant I).

By contrast, employees who were more likely to be retained were in occupations that (1) grew in the ownership change subsample while they shrank in the control subsample or (2) grew in the ownership change subsample by more than they grew in the control subsample. (None shrank in the ownership change subsample by less than they shrank in the control subsample.) The set of occupations in which employees were more likely to be retained is plotted to the left of the diagonal in the chart.

Service-related jobs, such as health care, education, and

protection, were the most likely to be retained after ownership changes. The occupational groups that grew in the ownership change subsample while they shrank in the control subsample (those occupations located in quadrant II) were food preparation and serving related; transportation and material moving; installation, maintenance, and repair; and building and grounds cleaning and maintenance occupations. Occupational groups that grew by more in the ownership change subsample than in the control subsample (those located to the left of the diagonal in quadrant I) included protective service; health care support; health care practitioner and technical; education, training, and library; community and social services; and construction and extraction occupations. The types of jobs that were less likely or more likely to be retained after ownership changes varied by industry, as the next section details.

### Changes within occupational groups

Examining detailed changes within occupational groups helps uncover trends among different business functions, such as human resources, marketing, and sales. The occupations discussed in this section and listed in table 4

**Table 4. Difference between predecessor and successor occupational employment level and share in the ownership change subsample, by detailed occupation, 2000–06**

Occupation	Predecessor employment level	Successor employment level	Predecessor employment share	Successor employment share	Difference in share <sup>1</sup>	Percent change in share <sup>1</sup>
<b>Management occupations</b>						
Chief executives .....	4,000	2,514	0.2	0.13	-0.07	-32.95
Marketing managers.....	3,802	2,286	.19	.12	-.07	-35.83
Compensation and benefits managers.....	534	783	.03	.04	.01	56.23
<b>Business and financial operations occupations</b>						
Claims adjusters, examiners, and investigators.....	1,973	1,249	.10	.07	-.03	-32.41
Compliance officers, except agriculture, construction, health and safety, and transportation .....	1,172	1,660	.06	.09	.03	51.12
Logisticians .....	698	1,536	.03	.08	.05	134.68
Management analysts .....	10,323	6,430	.51	.34	-.17	-33.53
Financial analysts.....	5,110	3,170	.25	.17	-.09	-33.81
<b>Computer and mathematical science occupations</b>						
Computer programmers.....	9,777	4,261	.48	.23	-.26	-53.49
Computer systems analysts .....	14,673	9,258	.73	.49	-.24	-32.65
Network systems and data communications analysts.....	2,149	4,562	.11	.24	.13	126.48
Operations research analysts .....	2,603	1,418	.13	.08	-0.05	-41.86
<b>Architecture and engineering occupations</b>						
Aerospace engineers.....	1,518	932	.08	.05	-.03	-34.44
Electrical and electronics drafters .....	864	1,143	.04	.06	.02	41.12
Mechanical engineering technicians .....	1,441	873	.07	.05	-.03	-35.29
<b>Community and social services occupations</b>						
Child, family, and school social workers.....	1,574	2,309	.08	.12	.04	56.54
<b>Education, training, and library occupations</b>						
Middle school teachers, except special and vocational education .....	2,456	3,440	.12	.18	.06	49.47
Special education teachers, middle school .....	575	732	.03	.04	.01	35.79
Special education teachers, secondary school.....	688	1,076	.03	.06	.02	66.86
Teacher assistants.....	5,092	8,839	.25	.47	.22	85.26
<b>Arts, design, entertainment, sports, and media occupations</b>						
Graphic designers .....	1,609	1,968	.08	.10	.02	30.61
Merchandise displayers and window trimmers.....	867	1,081	.04	.06	.01	33.02
Coaches and scouts .....	530	719	.03	.04	.01	44.49
Radio and television announcers .....	522	1,019	.03	.05	.03	108.11
Reporters and correspondents .....	593	1,113	.03	.06	.03	100.34
Technical writers.....	972	633	.05	.03	-.01	-30.50
<b>Health care practitioner and technical occupations</b>						
Physician assistants .....	1,716	669	.09	.04	-.05	-58.35
Respiratory therapists.....	1,676	2,391	.08	.13	.04	52.29
Diagnostic medical sonographers .....	663	852	.03	.05	.01	37.08
Radiologic technologists and technicians .....	2,943	3,901	.15	.21	.06	41.50
Psychiatric technicians .....	646	1,377	.03	.07	.04	127.50
Surgical technologists .....	1,557	2,016	.08	.11	.03	38.26
Medical records and health information technicians .....	2,568	3,259	.13	.17	.05	35.46
<b>Health care support occupations</b>						
Home health aides.....	15,642	21,588	.78	1.14	.37	47.30
Medical assistants .....	3,033	3,916	.15	.21	.06	37.79
Medical equipment preparers.....	641	1,190	.03	.06	.03	97.80
<b>Protective service occupations</b>						
Private detectives and investigators .....	742	1,306	.04	.07	.03	87.77
<b>Personal care and service occupations</b>						
Nonfarm animal caretakers .....	516	1,231	.03	.07	.04	154.30
Residential advisors.....	565	828	.03	.04	.02	56.43
<b>Sales and related occupations</b>						
Securities, commodities, and financial services sales agents .....	3,039	1,943	.15	0.1	-.05	-31.74
Travel agents.....	663	826	.03	.04	.01	32.83

See footnote at end of table.

**Table 4.** Continued—Difference between predecessor and successor occupational employment level and share in the ownership change subsample, by detailed occupation, 2000–06

Occupation	Predecessor employment level	Successor employment level	Predecessor employment share	Successor employment share	Difference in share <sup>1</sup>	Percent change in share <sup>1</sup>
Demonstrators and product promoters .....	2,493	939	.12	.05	-.07	-59.76
Real estate sales agents .....	560	758	.03	.04	.01	44.77
<b>Office and administrative support occupations</b>						
Payroll and timekeeping clerks .....	3,241	4,104	.16	.22	.06	35.12
Credit authorizers, checkers, and clerks.....	1,855	979	.09	.05	-.04	-43.63
Interviewers, except eligibility and loan.....	2,987	3,761	.15	.20	.05	34.39
Meter readers, utilities.....	639	839	.03	.04	.01	40.06
Legal secretaries .....	1,758	1,117	.09	.06	-.03	-32.15
Medical secretaries .....	3,331	5,994	.17	.32	.15	92.12
Insurance claims and policy processing clerks.....	1,631	2,621	.08	.14	.06	71.53
Office machine operators, except computer .....	1,825	1,135	.09	.06	-.03	-33.63
<b>Farming, fishing, and forestry occupations</b>						
Farmworkers, farm and ranch animals .....	550	1,025	.03	.05	.03	98.53
<b>Construction and extraction occupations</b>						
Helpers—pipelayers, plumbers, pipefitters, and steamfitters.....	1,294	788	.06	.04	-.02	-34.95
<b>Installation, maintenance, and repair occupations</b>						
Control and valve installers and repairers, except mechanical door.....	729	903	.04	.05	.01	32.41
Telecommunications line installers and repairers.....	2,791	3,477	.14	.18	.05	32.97
Coin, vending, and amusement machine servicers and repairers .....	605	885	.03	.05	.02	56.00
<b>Production occupations</b>						
Aircraft structure, surfaces, rigging, and systems assemblers .....	1,737	508	.09	.03	-.06	-68.76
Electrical and electronic equipment assemblers.....	10,291	5,960	.51	.32	-.19	-38.18
Engine and other machine assemblers.....	2,275	1,219	.11	.06	-.05	-42.77
Slaughterers and meatpackers.....	10,402	5,007	.52	.26	-.25	-48.62
Forging machine setters, operators, and tenders, metal and plastic .....	1,831	696	.09	.04	-.05	-59.43
Cutting, punching, and press machine setters, operators, and tenders, metal and plastic.....	11,262	6,789	.56	.36	-.20	-35.66
Multiple machine tool setters, operators, and tenders, metal and plastic .....	4,935	2,717	.24	.14	-.10	-41.23
Bindery workers.....	1,710	674	.08	.04	-.05	-57.97
Extruding and forming machine setters, operators, and tenders, synthetic and glass fibers.....	1,729	931	.09	.05	-.04	-42.59
Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders .....	1,554	1,018	.08	.05	-.02	-30.13
Helpers—production workers.....	13,215	16,798	.65	.89	.23	35.66
<b>Transportation and material moving occupations</b>						
Bus drivers, transit and intercity.....	4,929	2,464	.24	.13	-.11	-46.64
Service station attendants .....	794	975	.04	.05	.01	31.3
Crane and tower operators.....	669	853	.03	.05	.01	36.25

<sup>1</sup> Numbers are affected by rounding.

are the 70 occupations with substantial growth or decline<sup>11</sup> after the ownership changes and with employment of at least 500 in the predecessor and successor groups. The table shows each occupation's employment level and employment share in the ownership change subsample's predecessor group and successor group, and the difference between them. The occupations are categorized by occupational group. Residual ("all other") occupations are not shown.

*Changes in employment levels.* Occupations with the greatest decline in employment level (by more than 1,500 employees) across all occupational groups in the ownership change subsample were computer programmers, computer systems analysts, four "assembly" production occupations, management analysts, transit and intercity bus drivers, financial analysts, demonstrators and product promoters, and marketing managers. Occupations that exhibited the greatest growth in employment level (by more than 1,500

employees) were home health aides, teacher assistants, production worker helpers, medical secretaries, and network systems and data communications analysts.

*Relative changes in employment shares.* It is useful to examine in detail the occupational groups that fared poorly after ownership changes. Table 4 also shows (see columns titled “Predecessor employment share” and “Successor employment share”) that, in the computer and mathematical science group, which shrank the most in the ownership change subsample and grew in the control subsample, there were decreases in the employment shares of computer programmers, operations research analysts, and computer systems analysts. Network systems and data communications analysts, by contrast, were in higher demand. Among business and financial operations occupations, which had the second-largest difference in employment in the ownership change subsample relative to occupations in the control subsample, financial analysts and management analysts were most likely to be cut. Meanwhile, logisticians and compliance officers (except agriculture, construction, health and safety, and transportation) were most likely to grow. In the management group, compensation and benefits managers saw the greatest employment increase after ownership changes, while marketing managers saw decreases in employment share.

One possible interpretation of these observations is that if the establishment is acquired by an establishment with similar staff, the employees who are more likely to be let go are those who appear to have redundant occupations. For example, an establishment that is acquired may no longer need a separate information technology or marketing department. Instead, it may have an increased need for occupations such as network systems and data communications analysts or human resources personnel to facilitate the organizational transition. Other occupations that deal more directly with customers or output, such as home health aides, medical secretaries, teacher assistants, and production assembly workers, might need to be retained in order to maintain good customer service or productivity. These occupations tend to be closely related to the core output of the establishment, while the others tend to serve as operational support. The decline in certain technical jobs also might be explained by outsourcing, although this interpretation is not examined here.<sup>12</sup>

### **Occupational composition by wage range**

A brief analysis of occupational employment share by wage range reveals that, after ownership changed, the

wages of the employees performing analytical and administrative work shifted upwards, while the wages of the employees performing low-skilled service work or physical labor shifted downwards. Until November 2005, the OES microdata included data on detailed occupational employment in the wage ranges defined in table 5.<sup>13</sup> Different occupational groups generally have their employment distributions concentrated in different wage ranges. For instance, management and computer and mathematical occupations were employed mostly in wage ranges starting at \$21.50 to \$27.24 and running through \$55.50 to \$69.99. Production and personal care and service occupations, however, were employed mostly in ranges beginning at \$6.75 to \$8.49 and going through \$17.00 to \$21.49. (The actual employment distributions are not shown in the table.)

A shift in employment concentration from relatively lower paid employees to relatively higher paid employees occurred in several occupational groups. In these groups, either high-paid workers were retained or hired more often than low-paid workers, or low-paid workers were more likely to lose their jobs after ownership changes. A shift from low to high wage ranges occurred in analytical and administrative occupational groups such as management; architecture and engineering; computer and mathematical science; business and financial operations; health care practitioner and technical; community and social services; office and administrative support; and arts, design, entertainment, sports, and media, among other occupations. If high pay is correlated with tenure and knowledge, then high-earning workers may be the most costly to replace. This shift from low to high wage ranges also may be a result of businesses laying off workers with less tenure: although workers in analytical and administrative occupations were less likely to be retained after ownership changes, the employees who remained had higher wages.

Conversely, employees who performed low-skilled service, physical labor, or personal service work exhibited a shift toward lower wage ranges, possibly because the low-paid workers were retained or hired at higher rates than their higher paid counterparts or because higher paid workers received pay cuts. Among these workers were food preparation and serving related, sales and related, protective service, personal care and service, construction and extraction, production, transportation and material moving, and health care support occupations. Although many of these lower skilled service, physical-labor-intensive, or personal service occupations were most likely to be retained after ownership changes, they experienced

**Table 5. Difference between predecessor and successor employment shares, by hourly wage range, ownership change subsample, 2000–06<sup>1</sup>**

Occupational major group	Difference between predecessor and successor percent employment, by wage range, excluding 2006 and November 2005 successors and corresponding predecessors											
	Under \$6.75	\$6.75 to \$8.49	\$8.50 to \$10.74	\$10.75 to \$13.49	\$13.50 to \$16.99	\$17.00 to \$21.49	\$21.50 to \$27.24	\$27.25 to \$34.49	\$34.50 to \$43.74	\$43.75 to \$55.49	\$55.50 to \$69.99	\$70.00 and over
<b>Wages shifted higher</b>												
Management.....	-0.33	-0.25	-0.70	-0.99	-1.80	-1.73	-2.74	-1.24	0.61	3.51	2.50	3.15
Architecture and engineering.....	-	-0.08	.12	-.29	-.49	-2.66	-3.75	.91	2.66	2.03	1.12	.46
Computer and mathematical science .....	.08	-.16	-1.27	.22	-2.31	-2.18	-.26	4.37	2.59	-.27	-.51	-.29
Business and financial operations .....	.45	.23	-.63	1.15	-2.48	-3.65	-1.29	.87	2.51	1.63	.92	.29
Health care practitioner and technical .....	-.64	-1.31	-3.16	-3.18	-1.42	-3.97	.55	7.04	4.69	.47	.36	.57
Office and administrative support.....	-.17	.36	-3.77	1.67	2.36	-.55	.22	.01	-.09	-.03	( <sup>2</sup> )	( <sup>3</sup> )
Community and social services .....	-2.82	-3.02	-3.90	3.90	2.27	3.46	1.14	.53	-1.74	-	-	-
Building and grounds cleaning and maintenance .....	-2.23	-8.69	11.12	.52	.54	-.78	-.29	-.05	-.11	-.01	-	-
Farming, fishing, and forestry.....	-27.17	2.11	11.51	6.23	3.31	1.22	1.75	-	-	-	-	-
Arts, design, entertainment, sports, and media .....	-1.34	.83	1.70	1.66	-1.09	-2.97	-3.89	3.27	1.13	1.06	.14	-.50
Life, physical, and social science .....	-	.17	-.18	2.22	-2.22	-4.56	-5.46	.92	.63	2.05	2.75	2.36
Legal .....	-	-.08	-.49	-5.10	2.28	1.20	-3.55	-1.29	-2.90	-.52	2.00	8.17
<b>Wages shifted lower</b>												
Food preparation and serving related .....	6.49	.30	-4.73	-.96	-.91	-.20	.02	.01	.00	-.02	-	-
Protective service.....	-2.17	-1.10	10.00	5.79	-.68	-2.26	-4.30	-3.80	-1.15	-.30	-.03	-
Education, training, and library .....	-.88	.99	.14	14.65	-5.56	-7.21	2.35	-2.96	-4.47	1.66	.93	.35
Personal care and service .....	-2.42	8.77	12.32	-2.25	-5.62	-6.25	-3.10	-.99	-.42	-.03	-	-
Construction and extraction.....	2.26	1.90	.45	4.30	.62	-1.66	-3.88	-2.86	-.99	-.10	-.03	-
Installation, maintenance, and repair.....	.51	-.45	-.96	1.96	-2.37	2.22	-2.98	2.18	-.04	-.02	-.01	-
Production.....	.51	6.02	-3.47	-3.55	-3.03	2.61	-.34	1.29	.03	-.03	-.01	-
Transportation and material moving.....	2.63	4.24	-3.76	-.11	-.92	1.30	-.74	.01	-.33	-.34	-.66	-1.34
Health care support .....	-2.37	2.14	6.11	-4.13	-1.77	-.19	.23	.03	-.05	-	-	-
Sales and related .....	4.37	-.37	-1.14	1.04	-1.29	-1.35	-1.22	.17	.04	.03	-.07	-.20

<sup>1</sup> Excludes 2006 and November 2005 successors and corresponding predecessors.

<sup>2</sup> Slight negative difference.

<sup>3</sup> Slight positive difference.

NOTE: Dash indicates fewer than 10 establishments reporting occupations.

downward shifts in their wages. This phenomenon could have occurred either because management was more likely to spare cheaper labor and employees in these occupations were willing to work at lower wages or because higher wage workers were replaced with lower wage workers. Table 5 shows the difference between the predecessor and successor employment shares for each occupational group

in each wage range.<sup>14</sup> This study does not examine wage range shifts in detailed occupations within occupational groups; therefore, it does not explain whether an occupational group's wages shifted to lower ranges because more low-paid occupations were hired within the group or because more high-paid occupations within the group were laid off or accepted pay cuts.

**Table 6. Employment by industry sector, in the ownership change subsample and across all establishments, 2000–06**

Industry	Total employment in predecessor units	Total employment in successor units	Difference between predecessor and successor employment	Percent change from predecessor to successor employment	Percent change between 2002 and 2005 average annual employment, QCEW
Information.....	112,318	80,285	-32,033	-28.52	-9.16
Professional and technical services <sup>1</sup> .....	80,795	61,069	-19,726	-24.41	6.02
Management of companies and enterprises <sup>1</sup> .....	26,810	21,305	-5,505	-20.53	2.81
Finance and insurance.....	75,040	60,222	-14,818	-19.75	4.13
Manufacturing.....	490,076	425,913	-64,163	-13.09	-6.70
Transportation and warehousing <sup>1</sup> .....	88,433	78,448	-9,985	-11.29	2.74
Retail trade.....	247,052	229,464	-17,588	-7.12	1.58
Utilities.....	14,661	13,766	-895	-6.10	-7.02
Construction <sup>1</sup> .....	62,733	61,213	-1,520	-2.42	8.76
Real estate and rental and leasing <sup>1</sup> .....	12,794	12,524	-270	-2.11	4.79
Wholesale trade <sup>1</sup> .....	74,235	72,673	-1,562	-2.10	2.41
Other services, except public administration <sup>1</sup> .....	28,956	28,785	-171	-.59	1.84
Accommodation and food services.....	119,095	119,452	357	.30	6.61
Arts, entertainment, and recreation.....	21,136	21,495	359	1.70	3.86
Educational services.....	80,642	84,732	4,090	5.07	9.91
Administrative and support and waste management and remediation services.....	175,422	185,003	9,581	5.46	6.35
Health care and social assistance.....	286,663	309,902	23,239	8.11	7.01
Mining <sup>1</sup> .....	5,672	9,630	3,958	69.78	10.76

<sup>1</sup> Ownership change subsample employment difference and overall employment difference had opposite signs.

NOTE: Table excludes agriculture, forestry, fishing, and hunting

because the OES and QCEW have incomplete coverage of this sector. Table also excludes OES-designated government industries.

## Sectors most affected by ownership changes

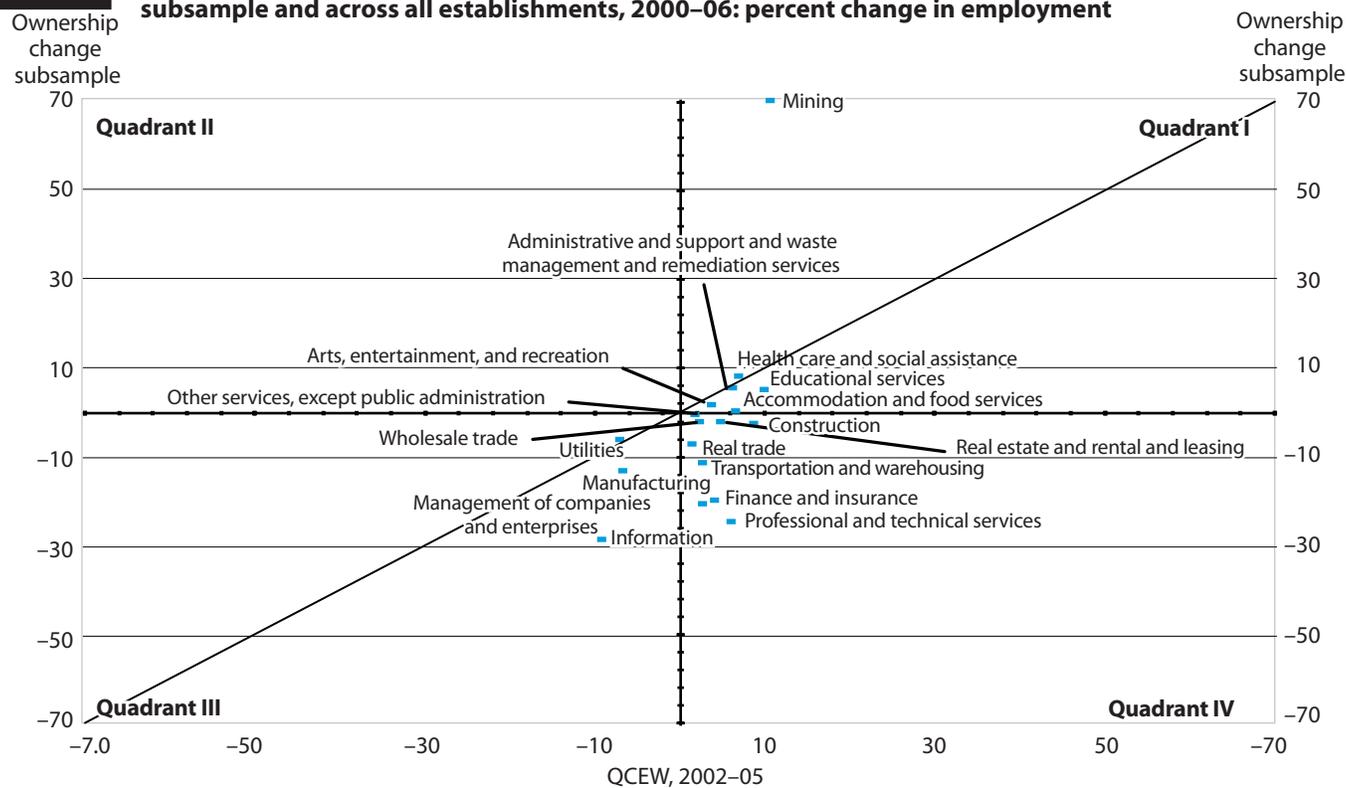
Table 6 shows total employment by industry sector in the ownership change subsample predecessor and successor groups, as well as the employment change and the percent change in employment from the predecessor to the successor groups.<sup>15</sup> To provide a basis for comparison with all establishments in the economy, the last column contains the percent change between 2002 and 2005 QCEW average annual private-sector employment. (See also chart 2.)

About half of the sectors contracted in the ownership change subsample while they grew overall in the economy: professional and technical services; management of companies and enterprises; finance and insurance; transportation and warehousing; retail trade; construction; real estate and rental and leasing; wholesale trade; and other services, except public administration. Moreover, all sectors except mining and except health care and social assistance either shrank in the ownership change subsample while they grew overall, or grew in the subsample by a smaller percentage than they grew overall. The information and manufacturing sectors contracted substantially more in the

ownership change subsample than they contracted across all establishments. In the information sector, employment in establishments that changed ownership fell by 29 percent, while employment in all establishments in this sector fell by 9 percent over the same period. Sectors that grew in the ownership change subsample, but by less than the industry grew as whole, were accommodation and food services; arts, entertainment, and recreation; administrative and support and waste management and remediation services; and educational services. Mining grew the most in the ownership change subsample relative to the economy. Much of this growth was due to oil and gas extraction and will be discussed in the next section.

That some industries experienced particularly large employment declines in the ownership change subsample relative to the economy as a whole might explain some large declines in occupational groups that are central to those industries. For instance, in May 2006, sales and related occupations made up 54 percent of the retail trade industry. The large employment drop in retail trade establishments that changed ownership (despite overall expansion) between 2000 and 2006 might explain the cross-industry observation that sales and related occu-

**Chart 2. The effect of business ownership change on industry employment in the ownership change subsample and across all establishments, 2000–06: percent change in employment**



pations shrank by more in the ownership change subsample than they shrank across establishments in the control subsample. Similarly, one might speculate that the contraction in professional and technical services establishments and in information establishments contributed to the large decline in computer and mathematical science occupations. Likewise, the contraction in manufacturing establishments might have contributed to the large decline in production occupations, which made up 53 percent of the manufacturing sector in May 2006. Without a closer look at the data, however, the relationship between the decline in the industry sector and the overall employment decline of core occupations is not entirely clear. To see whether industries are more likely to reduce or retain employment in core occupations or in operational support occupations, the next section examines changes in the occupational composition of detailed industries.

### Occupational change by detailed industry

In every establishment, workers in certain occupations are central to its industry’s core business function, and these

workers tend to be employed in relatively high concentrations. Establishments also employ operational support, or auxiliary, workers in occupations that support the core business function. Occupations that serve as support in some industries can be the core of other industries. For example, in the accounting services industry, billing clerks might be a core occupation while janitors are an operational support occupation. By contrast, in the building services industry, janitors might be considered the core occupation while billing clerks are an operational support occupation. Core occupations can be thought of as those most directly related to the establishment’s output.

Earlier studies of OES data show that when establishments shrink, they tend to shed support jobs at higher rates than they shed core occupations.<sup>16</sup> In what follows, 10 industries are examined in further detail to see whether, when the declines in employment accompany ownership changes, the declines also are concentrated in support occupations. The results show that 5 of the highlighted industries experienced a shift in their employment concentration from support to core occupations after an ownership change, 3 others experienced a shift in employment concentration from core occupations to support oc-

cupations, and 2 had little difference in the overall mix of core and support occupations after the change.

The 10 industries that contracted the most after ownership changes were computer systems design and related services, wired telecommunication carriers, motor vehicle parts manufacturing, department stores, grocery stores, securities and commodity contracts intermediation and brokerage, management of companies and enterprises, scheduled air transportation, depository credit intermediation, and plastics product manufacturing. These industries either expanded in the overall economy or shrank by a lesser magnitude in the overall economy than they did in the ownership change subsample. At the other end of the spectrum, oil and gas extraction experienced the highest growth in the ownership change subsample (767 percent) and the third-highest increase in employment level after ownership changes, and the industry grew by a substantially greater magnitude in the subsample than it did in the economy. Tables 7–10 show how the employment of core and support occupations changed after an ownership change in these selected industries. The percentage of industry employment in the predecessor establishments represents each occupational group's employment share in the industry, out of total industry employment of the predecessor establishments. Likewise, the percentage of industry employment in the successor establishments represents each occupational group's employment share in the industry, out of total industry employment in the successor establishments.

*Industries with increased concentrations of core occupations.*

In most industries with large employment declines, a change in ownership resulted in an increased employment share of core occupations and a decreased share of operational support occupations. For example, as shown in table 7, in scheduled air transportation there was an increase in the share of core occupations—personal care and service occupations, which include flight attendants; and transportation and material moving occupations, which include pilots. At the same time, there was a decrease in the share of support occupations—office and administrative support; and installation, maintenance, and repair occupations. It is possible that the decrease was due to increased outsourcing in the industry, although this article does not examine that possibility.

Similarly, wired telecommunications carriers that changed ownership had increased shares of installation, maintenance, and repair; computer and mathematical science; and architecture and engineering occupations, and decreased shares of office and administrative support, management, and business

and financial operations occupations. Finally, in securities and commodity contracts intermediation and brokerage, there likewise was an increase in the shares of core occupations such as business and financial operations occupations and sales and related occupations (the latter of which includes securities, commodities, and financial services sales agents) and a decline in support occupations, with computer and mathematical science occupations falling from 28 percent before the ownership changes to 14 percent afterwards and office and administrative support occupations dropping from 19 percent to 15 percent of total employment.

In depository credit intermediation (which shrank in the ownership change subsample, but grew overall in the economy), which consists of credit unions and commercial banks, the share of core business and financial operations occupations rose from 14 percent to 18 percent of total employment. The share of core office and administrative support occupations, which include tellers and similar core occupations employed in banks, was relatively stable at 61 percent, and sales and related occupations increased from 4 percent to 6 percent of total employment in the industry. The share of support occupations, such as management, computer and mathematical science, and legal occupations, fell.

Like the aforementioned industries, management of companies and enterprises (which shrank in the ownership change subsample, but grew overall in the economy), in which operational support is the core business function, had increases in all core occupations and decreases in nonessential functions. This observation confirms previous behavioral research which found that when company headquarters and auxiliary offices undergo mergers or acquisitions, their chief executives tend to protect their immediate subordinates, managers, and administrators.<sup>17</sup>

*Industries with decreased concentrations of core occupations.*

Sometimes a change in ownership resulted in a decreased employment share of core occupations and an increased share of operational support occupations. Industries that followed this trend included service industries such as grocery stores and department stores. In department stores and grocery stores, sales and related occupations represent the core of the business function. After an ownership change, the share of sales and related occupations in department stores fell from 73 percent to 67 percent, as shown in table 8. Similarly, in grocery stores, the share of sales and related occupations fell from 38 percent to 36 percent. In both of these industries, the share of management occupations and office and administrative support occupations rose after a change in ownership.

In plastics product manufacturing establishments, the

**Table 7. Industries with increased concentrations of core occupations, 2000–06**

Occupational major group	Predecessor employment	Successor employment	Predecessor employment share	Successor employment share	Percentage-point difference
<b>NAICS 4811, Scheduled air transportation</b>					
Total, all occupations.....	25,159	20,549	...	...	...
Management .....	376	188	1.49	.91	-.58
Business and financial operations .....	767	684	3.05	3.33	.28
Computer and mathematical science .....	115	139	.46	.68	.22
Architecture and engineering .....	640	170	2.54	.83	-1.72
Legal .....	11	11	.04	.05	.01
Arts, design, entertainment, sports, and media ...	133	89	.53	.43	-.10
Health care practitioner and technical .....	12	15	.05	.07	.03
Protective service .....	11	7	.04	.03	-.01
Food preparation and serving related .....	91	65	.36	.32	-.05
Personal care and service .....	6,892	6,234	27.39	30.34	2.94
Sales and related .....	178	153	.71	.74	.04
Office and administrative support .....	7,356	5,902	29.24	28.72	-.52
Installation, maintenance, and repair .....	3,531	1,761	14.03	8.57	-5.46
Transportation and material moving .....	4,968	5,074	19.75	24.69	4.95
<b>NAICS 5171, Wireless telecommunication carriers</b>					
Total, all occupations .....	42,629	30,277	...	...	...
Management .....	3,351	834	7.86	2.75	-5.11
Business and financial operations .....	4,807	3,293	11.28	10.88	-.40
Computer and mathematical science .....	5,915	5,990	13.88	19.78	5.91
Architecture and engineering .....	3,116	2,570	7.31	8.49	1.18
Life, physical, and social science .....	416	152	.98	.50	-.47
Legal .....	161	33	.38	.11	-.27
Arts, design, entertainment, sports, and media ...	575	78	1.35	.26	-1.09
Health care practitioner and technical .....	4	7	.01	.02	.01
Protective service .....	12	6	.03	.02	-.01
Building and grounds cleaning and maintenance .....	26	13	.06	.04	-.02
Sales and related .....	4,114	2,543	9.65	8.40	-1.25
Office and administrative support .....	13,138	7,404	30.82	24.45	-6.37
Construction and extraction .....	8	5	.02	.02	-.002
Installation, maintenance, and repair .....	6,937	7,277	16.27	24.03	7.76
Production .....	3	33	.01	.11	.10
Transportation and material moving .....	21	39	.05	.13	.08
<b>NAICS 5231, Securities and commodity contracts intermediation and brokerage</b>					
Total, all occupations .....	9,093	3,482	...	...	...
Management .....	1,711	687	18.82	19.73	.91
Business and financial operations .....	1,370	1,214	15.07	34.87	19.80
Computer and mathematical science .....	2,533	489	27.86	14.04	-13.81
Legal .....	119	26	1.31	.75	-.56
Sales and related .....	992	540	10.91	15.51	4.60
Office and administrative support .....	1,735	509	19.08	14.62	-4.46
<b>NAICS 5221, Depository credit intermediation</b>					
Total, all occupations.....	28,275	21,465	...	...	...
Management .....	2,881	1,774	10.19	8.26	-1.93
Business and financial operations .....	3,860	3,762	13.65	17.52	3.87
Computer and mathematical science .....	2,718	1,378	9.61	6.42	-3.20
Architecture and engineering .....	88	59	.31	.27	-.04
Life, physical, and social science .....	45	49	.16	.23	.07
Legal .....	80	19	.28	.09	-.19
Arts, design, entertainment, sports, and media ...	116	59	.41	.27	-.14
Protective service .....	51	29	.18	.14	-.05
Building and grounds cleaning and maintenance .....	43	25	.15	.12	-.04

**Table 7. Continued—Industries with increased concentrations of core occupations, 2000–06**

Occupational major group	Predecessor employment	Successor employment	Predecessor employment share	Successor employment share	Percentage-point difference
Sales and related .....	1,081	1,249	3.82	5.82	1.99
Office and administrative support .....	17,255	13,010	61.03	60.59	-.44
Installation, maintenance, and repair .....	40	47	.14	.22	.08
Transportation and material moving .....	9	4	.03	.02	-.01
<b>NAICS 5511, Management of companies and enterprises</b>					
Total, all occupations .....	26,541	20,953	...	...	...
Management .....	3,829	3,691	14.43	17.62	3.19
Business and financial operations .....	3,480	3,581	13.11	17.09	3.98
Computer and mathematical science .....	1,930	1,748	7.27	8.34	1.07
Architecture and engineering .....	788	778	2.97	3.71	.74
Life, physical, and social science .....	441	324	1.66	1.55	-.12
Community and social services .....	82	64	.31	.31	.00
Legal .....	218	211	.82	1.01	.19
Education, training, and library .....	8	30	.03	.14	.11
Arts, design, entertainment, sports, and media .....	257	324	.97	1.55	.58
Health care practitioner and technical .....	736	59	2.77	.28	-2.49
Protective service .....	148	91	.56	.43	-.12
Food preparation and serving related .....	410	101	1.54	.48	-1.06
Building and grounds cleaning and maintenance .....	370	132	1.39	.63	-.76
Sales and related .....	1,369	1,066	5.16	5.09	-.07
Office and administrative support .....	7,478	6,122	28.18	29.22	1.04
Construction and extraction .....	259	139	.98	.66	-.31
Installation, maintenance, and repair .....	886	530	3.34	2.53	-.81
Production .....	1,892	670	7.13	3.20	-3.93
Transportation and material moving .....	1,400	1,283	5.27	6.12	.85

NOTE: Detailed data on employment may not sum to total employment because not all occupational groups are listed.

share of production occupations fell from 59 percent to 57 percent and the share of transportation and material moving occupations also fell. By contrast, the share of office and administrative support occupations and management occupations rose. This conjunction of events supports Donald Siegel and Frank Lichtenberg's finding that in manufacturing firms, only production personnel, as opposed to nonproduction employees, experienced relative employment declines.<sup>18</sup>

*Industries without a clear shift in either core or support occupations.* Two of the 10 industries examined in this section show little difference in the overall mix of core and support occupations. However, there was a shift in employment among the core occupations in these industries. As table 9 shows, in motor vehicle parts manufacturing the share of labor-intensive production occupations rose from 65 percent to 67 percent while architecture and engineering occupations; installation, maintenance, and repair

occupations; and transportation and material moving occupations each decreased slightly. There was little change in support occupations, such as management occupations and office and administrative support occupations.

In computer systems design and related services (which shrank in the ownership change subsample, but grew overall in the economy), there were shifts within the core and support occupational groups, but there was no clear shift toward core occupations. Among core occupations, computer and mathematical science occupations and architecture and engineering occupations saw their employment shares remain relatively stable while the share of installation, maintenance, and repair occupations, which include computer repairers, increased from 2 percent to 5 percent. Among support occupations, office and administrative support occupations shrank while sales and related occupations grew. Core detailed occupations that *increased* the most included sales engineers; logisticians; network systems and data communications

**Table 8. Industries with decreased concentrations of core occupations, 2000–06**

Occupational major group	Predecessor employment	Successor employment	Predecessor employment share	Successor employment share	Percentage-point difference
<b>NAICS 4521, Department stores</b>					
Total, all occupations.....	72,158	63,752	...	...	...
Management .....	1,072	1,026	1.49	1.61	.12
Business and financial operations .....	475	232	.66	.36	-.29
Computer and mathematical science .....	13	8	.02	.01	-.01
Arts, design, entertainment, sports, and media .....	540	571	.75	.90	.15
Health care practitioner and technical .....	637	622	.88	.98	.09
Health care support .....	35	29	.05	.05	( <sup>1</sup> )
Protective service .....	1,350	1,295	1.87	2.03	.16
Food preparation and serving related .....	759	576	1.05	.90	-.15
Building and grounds cleaning and maintenance .....	230	342	.32	.54	.22
Personal care and service .....	715	823	.99	1.29	.30
Sales and related .....	52,902	42,904	73.31	67.30	-6.02
Office and administrative support .....	11,556	13,805	16.01	21.65	5.64
Construction and extraction .....	38	24	.05	.04	-.02
Installation, maintenance, and repair .....	216	310	.30	.49	.19
Production .....	387	369	.54	.58	.04
Transportation and material moving .....	1,218	816	1.69	1.28	-.41
<b>NAICS 4451, Grocery stores</b>					
Total, all occupations.....	83,107	75,679	...	...	...
Management .....	1,186	1,107	1.43	1.46	.04
Business and financial operations .....	172	167	.21	.22	.01
Computer and mathematical science .....	9	16	.01	.02	.01
Arts, design, entertainment, sports, and media .....	241	295	.29	.39	.10
Health care practitioner and technical .....	1,554	1,830	1.87	2.42	.55
Health care support .....	368	372	.44	.49	.05
Protective service .....	451	239	.54	.32	-.23
Food preparation and serving related .....	8,731	8,915	10.51	11.78	1.27
Building and grounds cleaning and maintenance .....	883	610	1.06	.81	-.26
Personal care and service .....	807	37	.97	.05	-.92
Sales and related .....	31,705	27,393	38.15	36.19	-1.96
Office and administrative support .....	24,598	22,598	29.60	29.86	.26
Farming, fishing, and forestry .....	108	53	.13	.07	-.06
Installation, maintenance, and repair .....	386	218	.46	.29	-.18
Production .....	5,066	4,959	6.10	6.55	.46
Transportation and material moving .....	6,842	6,870	8.23	9.08	.84
<b>NAICS 3261, Plastics product manufacturing</b>					
Total, all occupations.....	19,991	17,835	...	...	...
Management .....	758	708	3.79	3.97	.18
Business and financial operations .....	265	348	1.33	1.95	.63
Computer and mathematical science .....	59	56	.30	.31	.02
Architecture and engineering .....	595	815	2.98	4.57	1.59
Life, physical, and social science .....	77	9	.39	.05	-.33
Arts, design, entertainment, sports, and media .....	29	38	.15	.21	.07
Health care practitioner and technical .....	3	12	.02	.07	.05
Building and grounds cleaning and maintenance .....	98	89	.49	.50	.01
Sales and related .....	202	282	1.01	1.58	.57
Office and administrative support .....	1,509	1,435	7.55	8.05	.50
Construction and extraction .....	346	116	1.73	.65	-1.08
Installation, maintenance, and repair .....	1,384	1,115	6.92	6.25	-.67
Production .....	11,708	10,191	58.57	57.14	-1.43
Transportation and material moving .....	2,954	2,616	14.78	14.67	-.11

<sup>1</sup> Slight negative percentage-point difference.

NOTE: Detailed data on employment may not sum to total employment because not all occupational groups are listed.

**Table 9. Industries without a clear shift in either core or support occupations, 2000–06**

Occupational major group	Predecessor employment	Successor employment	Predecessor employment share	Successor employment share	Percentage-point difference
<b>NAICS 3363, Motor vehicle parts manufacturing</b>					
Total, all occupations.....	35,706	26,443	...	...	...
Management .....	1,045	716	2.93	2.71	-.22
Business and financial operations .....	717	618	2.01	2.34	.33
Computer and mathematical science .....	132	122	.37	.46	.09
Architecture and engineering .....	2,834	1,811	7.94	6.85	-1.09
Life, physical, and social science .....	49	58	.14	.22	.08
Arts, design, entertainment, sports, and media .....	61	75	.17	.28	.11
Health care practitioner and technical .....	37	38	.10	.14	.04
Protective service .....	36	33	.10	.12	.02
Building and grounds cleaning and maintenance .....	154	103	.43	.39	-.04
Sales and related .....	474	312	1.33	1.18	-.15
Office and administrative support .....	1,610	1,287	4.51	4.87	.36
Construction and extraction .....	537	378	1.50	1.43	-.07
Installation, maintenance, and repair .....	2,075	1,186	5.81	4.49	-1.33
Production .....	23,033	17,730	64.51	67.05	2.54
Transportation and material moving .....	2,910	1,976	8.15	7.47	-.68
<b>NAICS 5415, Computer systems design and related services</b>					
Total, all occupations.....	33,688	15,081	...	...	...
Management .....	2,937	1,196	8.72	7.93	-.79
Business and financial operations .....	3,520	1,507	10.45	9.99	-.46
Computer and mathematical science.....	15,005	6,792	44.54	45.04	.50
Architecture and engineering .....	2,519	936	7.48	6.21	-1.27
Life, physical, and social science .....	113	93	.34	.62	.28
Legal .....	36	16	.11	.11	( <sup>1</sup> )
Arts, design, entertainment, sports, and media .....	595	269	1.77	1.78	.02
Protective service .....	54	24	.16	.16	( <sup>1</sup> )
Sales and related .....	1,025	801	3.04	5.31	2.27
Office and administrative support .....	6,767	2,535	20.09	16.81	-3.28
Installation, maintenance, and repair .....	533	717	1.58	4.75	3.17
Production .....	471	66	1.40	.44	-.96
Transportation and material moving .....	65	78	.19	.52	.32

<sup>1</sup> Slight negative percentage-point difference.

NOTE: Detailed data on employment may not sum to total employment because not all occupational groups are listed.

analysts; computer software engineers, systems software; computer software engineers, applications; and computer support specialists. Meanwhile, the core detailed occupations that *decreased* the most after a change in ownership included industrial engineers; computer specialists, all other; computer programmers; and computer hardware engineers.

*An example of an industry that grew after ownership changes.* The same study which found that shrinking establishments

shed support occupations first also found that growing establishments add support occupations first.<sup>19</sup> In order to contrast employment changes among industries that grew after ownership changes with those which declined, one growing industry is examined in detail.

The oil and gas extraction industry (which grew by a greater magnitude in the subsample than it did overall) exhibited a drastic shift from essential labor-intensive occupational groups to operational support occupations, despite the fact that each occupational group increased in

**Table 10. Example of an industry that grew after ownership change, 2000–06**

Occupational major group	Predecessor employment	Successor employment	Predecessor employment share	Successor employment share	Percentage-point difference
<b>NAICS 2111, Oil and gas extraction</b>					
Total, all occupations.....	441	3,824	...	...	...
Management .....	36	534	8.16	13.96	5.80
Business and financial operations .....	30	997	6.80	26.07	19.27
Computer and mathematical science .....	8	224	1.81	5.86	4.04
Architecture and engineering .....	33	329	7.48	8.60	1.12
Life, physical, and social science .....	10	400	2.27	10.46	8.19
Legal .....	2	139	.45	3.63	3.18
Sales and related .....	2	200	.45	5.23	4.78
Office and administrative support .....	68	486	15.42	12.71	-2.71
Construction and extraction .....	126	210	28.57	5.49	-23.08
Installation, maintenance, and repair .....	31	64	7.03	1.67	-5.36
Production .....	28	76	6.35	1.99	-4.36
Transportation and material moving .....	63	117	14.29	3.06	-11.23

NOTE: Detailed data on employment may not sum to total employment because not all occupational groups are listed.

employment level in the successor establishments. Core construction and extraction occupations in the industry held a dominant 29-percent share before ownership changes, but only a 6-percent share afterwards, while the share of support business and financial operations occupations increased from almost 7 percent to a dominant 26 percent after ownership changes. In addition to construction and extraction occupations, the following labor-intensive occupational groups decreased in employment share after ownership changes: installation, maintenance, and repair; production; and transportation and material moving occupations. In addition to business and financial operations occupations, the following operational support occupations increased in employment share after ownership changes: management; computer and mathematical science; architecture and engineering; life, physical, and social science; and legal occupations. These findings in the establishments that changed ownership in the oil and gas extraction industry are consistent with those of a separate study of recent trends in occupational employment across all establishments in the industry.<sup>20</sup> This research found that, during the recent spate of oil and gas price increases, the overall staffing of the industry was shifting away from extraction activities and toward exploration.

### Occupational employment by establishment size

This final section shows that changes in occupational com-

position that followed ownership changes varied by the size of the establishment. Establishments were grouped into five size classes before and after the ownership change: 1 to 9 employees; 10 to 49 employees; 50 to 249 employees; 250 to 999 employees; and 1,000 or more employees. In order to focus on changes in occupational composition within size classes, the subsample was then divided into five size groups based on deviations of fewer than two size classes: very small, small, medium, large, and very large.<sup>21</sup> Establishments chosen for the study were limited to the 21,923 out of the 22,198 establishments that changed by fewer than two size classes: 17,166 establishments that did not change size class, 2,598 establishments that decreased by one size class, and 2,159 establishments that increased by one size class.<sup>22</sup> As was done in the industry analysis, the percent employment of each occupational group in predecessor and successor establishments was calculated for every size group. The predecessor employment share represents the percentage of occupational employment out of total predecessor employment in the size group, and the successor employment share represents the percentage of occupational employment out of total successor employment in the size group. As before, growth indicates growth in the employment share, or relative importance of the occupation, not necessarily growth in the employment level. The changes in occupational share are shown in table 11.

Five occupational groups grew in establishments of all sizes: life, physical, and social science; health care practi-

**Table 11. Percentage-point difference between predecessor and successor employment share in the ownership change subsample, by establishment size, 2000–06**

Occupational major group	Establishment size				
	Very small	Small	Medium	Large	Very large
Management.....	-1.03	-1.33	-0.86	-0.33	-1.14
Business and financial operations .....	.64	.52	.13	( <sup>1</sup> )	-1.48
Computer and mathematical science .....	-.04	.15	.09	.10	-2.62
Architecture and engineering .....	-.04	.05	.06	-.11	-.26
Life, physical, and social science.....	.02	.13	.03	.06	.02
Community and social services .....	.08	.04	-.08	.18	.28
Legal .....	( <sup>1</sup> )	-.04	.03	-.06	-.04
Education, training, and library .....	.30	.10	.34	.31	1.54
Arts, design, entertainment, sports, and media.....	-.15	.23	.02	( <sup>1</sup> )	-.30
Health care practitioner and technical .....	.14	.17	.29	1.06	2.86
Health care support .....	.42	.36	.22	.97	1.58
Protective service.....	.02	.27	1.04	.83	.63
Food preparation and serving related .....	.26	-.46	-.02	.21	.79
Building and grounds cleaning and maintenance.....	.19	.04	( <sup>1</sup> )	-.48	.56
Personal care and service.....	-.40	-.07	.07	-.36	.50
Sales and related .....	-.78	-.78	-1.04	-1.19	-.73
Office and administrative support.....	-1.10	-.22	-.60	-.11	-.36
Farming, fishing, and forestry .....	.07	.08	( <sup>1</sup> )	.01	.03
Construction and extraction.....	.60	.09	-.01	.11	.04
Installation, maintenance, and repair .....	-.33	-.11	.02	.47	-.45
Production.....	.50	.45	-.03	-1.21	-2.24
Transportation and material moving .....	.64	.33	.30	-.47	.81

<sup>1</sup> Less than 0.05 percentage-point difference.

tioner and technical; health care support; education, training, and library; and protective service occupations. In contrast, three occupational groups shrank in establishments of all sizes: management occupations (with its decrease the most in small, very small, and very large establishments), sales and related occupations (with its decrease the most in medium and large establishments), and office and administrative support occupations (with its decrease the most in very small establishments). The direction and magnitude of changes in all other occupational groups, however, varied.

Analytical and production occupations—business and financial operations; architecture and engineering; legal; arts, design, entertainment, sports, and media; and production occupations—did not grow in large and very large establishments. Service occupations—personal care and service; food preparation and serving related; community and social services; health care support; health care practitioner and technical; education, training, and library; building and grounds cleaning and maintenance; and transportation and material moving occupations—tended to grow the most in very large establishments.

One interesting observation is that production occupations grew only in very small or small establishments

and shrank in larger establishments. In fact, there was an inverse correlation between the establishment size and the effect of ownership change on production occupations. This correlation may be the result of larger companies being able to capture economies of scale. Another observation is that computer and mathematical occupations were fairly stable in all but the very large establishments. After ownership changes, the share of computer and mathematical occupations fell by 2.6 percent, the largest change of all occupational groups in any establishment size.

An overview by size group also reveals some trends. Very small predecessor establishments, on the whole, were dominated by sales and related occupations and office and administrative support occupations. After ownership changes, the greatest decreases were in management, office and administrative support, and sales and related occupations, and the greatest increases were in business and financial operations and transportation and material moving occupations. In the small size group, the greatest changes were, again, decreases in management occupations and sales and related occupations and an increase in business and financial operations occupations.

In the medium size group, the greatest changes were an increase in protective service occupations and decreases in sales

and related occupations and management occupations. In the large size group, the greatest changes were an increase in health care practitioner and technical occupations and decreases in production occupations and sales and related occupations. Finally, in the very large size group, the greatest changes were an increase in health care practitioner and technical occupations and health care support occupations and decreases in computer and mathematical science, production, business and financial operations, and management occupations.

OCCUPATIONS THAT WERE LEAST LIKELY to be retained after ownership changes were those which performed analytical, clerical, and production work, and most of these groups' wages shifted toward higher ranges. These occupations tended to be support occupations in the industries in which their employment shares declined. Some of them declined in establishments of all sizes, although many shrank the most in large and very large establishments. Analytical and production occupa-

tions did not grow in large establishments.

In contrast, many of the jobs that were *more* likely to be retained after ownership changes were those which performed service work, such as health care and education, and most of these groups' wages shifted toward lower ranges. Very large establishments were most likely to retain their service occupations after changing ownership.

This article leaves room for future research on the effect of ownership changes on occupational employment and wages. The methodology for identifying specific types of ownership changes and capturing more predecessor and successor establishment staffing data can be refined. Further regression analysis can be conducted on the effect of ownership changes on core and support business functions, on wages by detailed occupation, and on staffing by industry or geographic location. OES data are an important input in understanding and predicting the labor market outcomes of business dynamics. □

## Notes

<sup>1</sup> Counts include mergers, full- or partial-interest acquisitions, divestitures, and leveraged buyouts valued at \$5 million. See *Statistical Abstract of the United States, 2006* (U.S. Census Bureau, 2007), Table 751, "Mergers and Acquisitions—Summary, 1990 to 2003."

<sup>2</sup> "What Goes Up, Must Come Down?" *Mergers & Acquisitions: The Dealermaker's Journal*, July 2007, pp. 10-11; on the Internet at [search.ebscohost.com.proxy2.library.jhu.edu/login.aspx?direct=true&db=buh&AN=25593842&site=ehost-live](http://search.ebscohost.com.proxy2.library.jhu.edu/login.aspx?direct=true&db=buh&AN=25593842&site=ehost-live) (visited Sept. 8, 2007).

<sup>3</sup> Donald Siegel and Frank Lichtenberg, "The Effect of Ownership Changes on the Employment and Wages of Central-Office and Other Personnel," *Journal of Law and Economics*, October 1990, pp. 383-408.

<sup>4</sup> Robert McGuckin and Sang Nguyen, *The impact of ownership changes: a view from labor markets* (U.S. Census Bureau, Center for Economic Studies, 2001).

<sup>5</sup> Robert McGuckin, Sang Nguyen, and Arnold Reznick, "On Measuring the Impact of Ownership Change on Labor: Evidence from U.S. Food-Manufacturing Plant-Level Data," in John Haltiwanger, Marilyn Manser, and Robert Topel (eds.), *Labor Statistics Measurement Issues*, NBER Studies in Income and Wealth, vol. 60 (Chicago, University of Chicago Press, 1998).

<sup>6</sup> Approximately 2 percent of the wage data were imputed.

<sup>7</sup> In addition, 1,233 establishments reported 3 times, and 5 firms reported 4 times; these 1,238 firms were excluded from the ownership change subsample. The exclusion of establishments that reported more than twice should not introduce significant bias into the subsample.

<sup>8</sup> See, for example, the Thomson Financial Merger and Corporate Transactions database, on the Internet at [www.census.gov/compendia/statab/2006/tables/06s0752.xls](http://www.census.gov/compendia/statab/2006/tables/06s0752.xls). Mergers, full- or partial-interest acquisitions, divestitures, and leveraged buyouts valued at \$5 million or more are listed in the database.

<sup>9</sup> The method for obtaining published OES estimates applies weights for each sample establishment in each panel of the survey in order to represent all establishments that were part of the in-scope frame from which the panel was selected. In the study presented in this article, employment was not adjusted by the unit sampling weights.

<sup>10</sup> According to QCEW annual private-sector employment figures, total employment was 107,577,281 in 2002 and 110,611,016 in 2005.

<sup>11</sup> Occupations listed are those whose employment shares grew or declined by at least 0.01 percentage point and 30 percent from the predecessor to the successor group.

<sup>12</sup> For a discussion of the outsourcing of technical jobs, see Ashkok Bardhan and Cynthia Kroll, "The New Wave of Outsourcing," Fisher Center Research Report No. 1103 (Berkeley, CA, Fisher Center for Real Estate & Urban Economics, November 2003), on the Internet at [repositories.cdlib.org/iber/fcreue/reports/1103](http://repositories.cdlib.org/iber/fcreue/reports/1103) (visited Sept. 26, 2008); Alan Blinder, "How Many U.S. Jobs Might Be Offshorable?" CEPS Working Paper No. 142 (Princeton, NJ, Center for Economic Policy Studies, March 2007), on the Internet at [www.princeton.edu/~ceps/workingpapers/142blinder.pdf](http://www.princeton.edu/~ceps/workingpapers/142blinder.pdf) (visited Sept. 26, 2008); and J. Bradford Jensen and Lori G. Kletzer, "Measuring Tradable Services and the Task Content of Offshorable Services Jobs," paper presented at the National Bureau of Economic Research Conference on Research in Income and Wealth, titled "Labor in the New Economy," November 16-17, 2007, Washington, DC, on the Internet at [people.ucsc.edu/~lkletzer/TradableServices&Job\\_task\\_content\\_110907.pdf](http://people.ucsc.edu/~lkletzer/TradableServices&Job_task_content_110907.pdf) (visited Sept. 26, 2008).

<sup>13</sup> Because the wage range definitions were revised in November 2005, the successor data collected with November 2005 and May 2006 reference dates, as well as their corresponding predecessor records, were removed from the subsample solely for this wage analysis. The wage analysis used 14,828 unique establishments (29,656 predecessor and successor records).

<sup>14</sup> The employment share of an occupational group in, for example, the wage range headed "Under \$6.75" is the percentage of employment in that occupational group out of total employment in the occupational group.

<sup>15</sup> A few establishments changed their industry classification when they reported the second time, but most that did so did not change industry sector. For consistency, the successors' industries were assigned to the predecessors'.

<sup>16</sup> Zachary Warren, "Occupational Shares in Growing and Shrinking Establishments," *Occupational Employment and Wages* (Bureau of Labor Statistics, May 2005), pp. 1-14; see especially p. 5.

<sup>17</sup> Andre Shleifer and Robert Vishny, "Value Maximization and the Acquisition Process," *Journal of Economic Perspectives*, winter 1988, pp. 7-20.

<sup>18</sup> Siegel and Lichtenberg, "The Effect of Ownership Changes."

<sup>19</sup> Warren, "Occupational Shares."

<sup>20</sup> Jeffrey Holt, "Recent Changes in Occupational Employment and Wages in Oil and Gas Extraction," internal BLS document, 2008.

<sup>21</sup> The *very small* group consisted of establishments with 1–9 employees before the ownership change and either 1–9 employees or 10–49 employees after the ownership change. The *small* group comprised establishments whose predecessors were in the 10–49-employee size class and whose successors stayed in the same size class or changed by one size class. The *medium* group encompassed establishments whose predecessors were in the 50–249-employee size class and whose successors were in the same size class or one size class below

or above it. The *large* group consisted of establishments whose predecessors were in the 250–999-employee size class and whose successors were in the same size class or one size class below or above it. Finally, the *very large* group comprised establishments whose predecessors started in the employee size class of 1,000 or more and whose successors either remained in this size class or contracted to the 250–999-employee size class.

<sup>22</sup> Excluded from the study were the 246 establishments that changed by two size classes, the 25 establishments that changed by three size classes, and the 4 establishments that changed by four size classes. Small units might have been acquired by larger corporations with the intent to expand them, so their occupational employment changes are relative extremes.

## Extended mass layoffs after 2001: a comparison of New York and the Nation

*BLS data reveal that layoff activity in New York was somewhat elevated in the years that followed the 2001 recession; a rising level of job cuts due to contractual turnover among growth industries helped transform the mass layoff experience in the metropolitan area*

Bruce J. Bergman

**W**ith the largest metropolitan workforce in the Nation, the New York area<sup>1</sup> is at or near the top of many lists. Separations due to layoffs, or, simply, layoff separations, are no exception: between 2001 and 2006, New York consistently ranked among the top 10 metropolitan areas in this category. Viewed over the longer period of 11 years for which comparable data are available, extended mass layoff actions<sup>2</sup> caused hundreds of thousands of New York area employees to be involuntarily separated from their workplaces. A question that arises, then, is, Was the New York area a standout in terms of layoffs, or did it not differ qualitatively from the Nation in that regard? To answer that question, this article examines data made available for the first time from the Bureau of Labor Statistics (BLS).

### Was New York different?

BLS data reveal that the New York area mass layoff experience not only deviated from national trends, but also underwent a significant change after 2001. While the total number of layoffs in the United States declined to the lowest levels recorded since they were first tracked in 1996, New York layoff activity remained at a relatively high level after 2001. Following widespread

worker dislocation caused by the recession and the September 11 terrorist attacks that year, what differed between the New York area and the Nation that led to divergent trends in layoff activity after 2001? The analysis that follows examines both the type of layoff and the reasons for its occurrence in the context of varying employment trends among industry sectors.

First, data from the BLS Mass Layoff Statistics program that summarize extended mass layoff activity are used to measure both the primary reasons for layoff events and the magnitude of layoffs resulting from permanent closures of the worksites.<sup>3</sup> Then the distribution of layoff separations by sector is examined, with the New York experience evaluated within the framework of employment growth and the local industry mix.

### New York and national layoff events

*Eleven-year layoff totals.* From 1996 through 2006, the New York area had 2,629 extended mass layoff events, roughly 4.5 percent of the national total. Although that figure amounted to a relatively high total for New York compared with other metropolitan areas, slightly more than 6 percent of all business establishments with at least 50 employees (the scope of the study<sup>4</sup>) were located in the New York area.

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Layoff events in the New York area resulted in separations of 439,198 employees, with approximately 1 out of every 5 events (about the same as the national proportion) resulting from a permanent worksite closure.

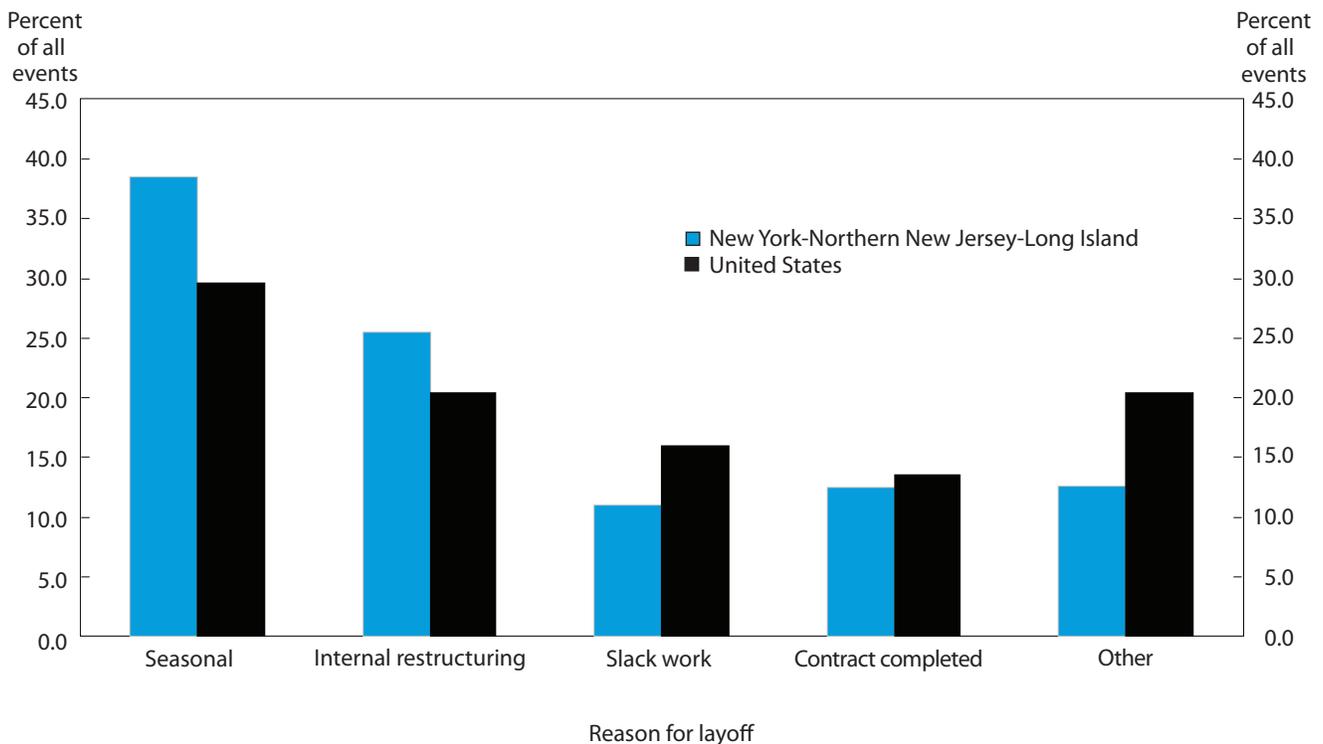
With respect to the leading causes of layoffs, a similar pattern existed between the New York area and the Nation, but with notable differences in magnitude.<sup>5</sup> (See chart 1.) Seasonal layoffs accounted for 39 percent of the extended layoff actions in the New York metropolitan area during the 11-year period. Twenty-five percent of the layoff events had to do with internal company restructuring, a category that includes all events involving financial difficulty, bankruptcy, ownership change, and reorganization. Nationally, seasonal factors and internal company restructuring accounted for a respective 30 percent and 20 percent of all layoff actions.

The other two leading justifications for job cutbacks involved slack work, indicating nonseasonal insufficient demand for the company's products or services, and the completion of a contract. In the New York area, about 12 percent of layoff events resulted from each of these factors, while nationally, slack work accounted for a greater share (16 percent) of major cutbacks.

*Annual levels and the convergence of rates.* On an annual basis, major layoff events in the New York area ranged from 147 in 1996 to 305 in 2005. (See table 1.) Although these layoffs more than doubled in 10 years, when they are compared with the number of establishments the change is seen to be less dramatic. Approximating a rate of such events per 100 establishments reveals relatively little change over the period examined:<sup>6</sup> the New York area layoff event rate remained close to 1.0, below the comparable national rate. Nationally, a spike in the layoff event rate from 1.2 to 1.9 occurred in 2001. Within 3 years, the national rate returned to its prerecession range, whereupon it continued to decline further. Less pronounced, but more protracted, was the impact in New York: the rate of layoff events rose from 0.8 to 1.2, but it stayed close to that level for the next 3 years. These differing trends eventually led to the rate in the New York area (1.3) slightly exceeding that of the Nation (1.2) in 2005. (See chart 2.)

Much has been written about the "jobless" recovery from the recession, and BLS data indicate that, in the wake of job destruction during the last recession, job creation slowed. Nevertheless, during the years after the 2001 recession, in both New York and the Nation, the unemployment rate

**Chart 1. Percent distribution of extended mass layoff events, by reason, New York-Northern New Jersey-Long Island and United States, 1996-2006**



**Table 1. Reasons for extended mass layoff events in New York-Northern New Jersey-Long Island and in the United States, 1996–2006**

Measure	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>New York-Northern New Jersey-Long Island</b>											
Total, private nonfarm.....	147	200	233	158	200	290	288	253	296	305	259
Seasonal.....	72	111	108	68	89	53	100	89	101	117	103
Total, nonseasonal, nonvacation.....	75	89	125	90	111	208	188	163	195	188	156
Contract completed.....	8	15	8	5	14	22	33	42	55	62	63
Internal company restructuring.....	42	44	53	48	54	139	77	45	67	52	47
Slack work.....	13	15	21	9	17	25	40	47	31	39	33
Other reasons.....	12	15	43	28	26	22	38	29	42	35	13
<b>United States<sup>1</sup></b>											
Total, private nonfarm.....	4,760	4,671	4,859	4,556	4,591	7,375	6,337	6,181	5,010	4,881	4,885
Seasonal.....	1,487	1,637	1,430	1,427	1,548	1,439	1,558	1,630	1,678	1,808	1,613
Total, nonseasonal, nonvacation.....	3,222	2,955	3,348	3,025	2,968	5,817	4,699	4,447	3,222	2,976	3,160
Contract completed.....	512	700	670	642	575	630	754	874	772	692	1,056
Internal company restructuring.....	1,012	798	829	926	958	1,894	1,609	1,272	989	773	818
Slack work.....	816	655	740	563	599	1,925	1,282	949	579	566	597
Other reasons.....	882	802	1,109	894	836	1,368	1,054	1,352	882	945	689
<sup>1</sup> Data on layoffs were reported by employers in all States and the District of Columbia.											

SOURCE: Bureau of Labor Statistics, Mass Layoff Statistics program.

fell to relatively low levels. But in terms of the frequency of mass layoffs, the New York area remained close to (within 14 percent of) the elevated level of layoffs that occurred in 2001, while national levels declined by more than 14 percent in 2002 and continued to decline to prerecession levels after that.

*Five-year comparisons: pre- and post-2001.* Another way to view the 2001 turning point is to compare layoffs during the 5 years prior to the recession with those occurring during the 5 years after. Prior to the recession, the New York area averaged fewer than 100 nonseasonal, nonvacation mass layoff events; by contrast, the post-2001 average was 178. Nationally, a comparison of 5-year averages also shows an increase, but much less pronounced—at 19 percent, from 3,104 to 3,701. (See table 2.)

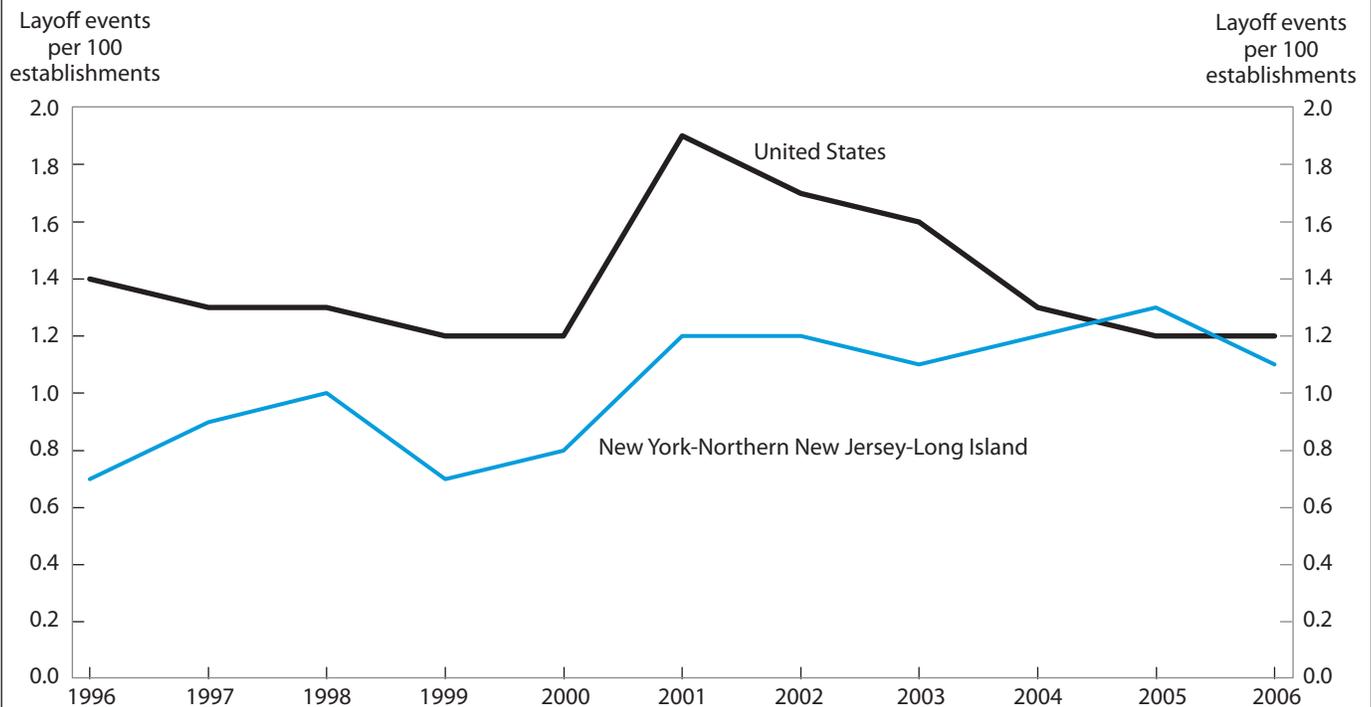
Besides identifying the magnitude of the total increase, a comparison of the two time segments reveals another difference between New York and the Nation. Nationally, internal restructuring accounted for about 20 percent of the layoff events in both periods, while contract completion remained close to 14 percent. In the New York area, the share of layoff actions due to internal restructuring fell to 21 percent over the 2002–06 period, from 26 percent during 1996–2000. Job cutbacks due to contract completion increased dramatically between the two periods: from 2000 to 2006, this reason was associated with 18 percent

of layoff events, whereas in the earlier period, only 5 percent of layoffs in the New York area were due to contract completion. More significantly, in both 2005 and 2006, contract completion caused more layoff events than did internal restructuring.

Layoffs related to contract completion in the New York area were less common prior to 2001 not only relative to the period that followed, but also compared with the Nation: during the more recent 5-year period, a greater percentage of layoffs was due to completed contracts in the New York area than in the United States as a whole.

With the increased importance of contract completion and the diminished frequency of major job cuts due to internal restructuring came a reduced likelihood of layoffs due to worksite closure.<sup>7</sup> Of the layoffs involving companies that underwent internal restructuring due to financial difficulty, reorganization, bankruptcy, or a change in ownership between 1996 and 2006, permanent worksite closings factored into about 45 percent of the events in both the New York area and the Nation. In contrast, permanent worksite closures accounted for about 3 percent of layoff events related to contract completion in the Nation. A result of an increasing share of layoffs due to contract completion was that, although the New York area tended to have a higher percentage of layoffs due to permanent worksite closures, those events became less frequent in

**Chart 2. Rate of extended mass layoff events, New York-Northern New Jersey-Long Island and United States, 1996–2006**



SOURCE: BLS Mass Layoff Statistics program; and U.S. Census Bureau, County Business Patterns.

the post-2001 period. During the 5 years prior to the recession, permanent closures accounted for 36 percent of the nonseasonal, nonvacation layoff events. In the 5 years that followed 2001, that number dropped to 25 percent. Nationally, the percentage was about 22 percent in both periods. (See tables 2 and 3.)

### What distinguished the New York area?

Historically, economic downturns were typically accompanied by an increase in the rate of layoffs. In better times, with increased production, rates tended to decrease. National data confirm this pattern, but variation may exist among areas. Locality differences in business startup activity and in labor turnover and attrition, along with resulting labor market flows, influence the extent of both unemployment and layoffs in the face of industry-level shocks.<sup>8</sup> New York's experience testifies that even with an improving economy, layoffs might increase. An examination of both employment growth and business activity, as measured by establishment entry and exit, offers some explanation.

*Business startup and migration.* BLS employment data show that overall job growth during most of the 1996–2001 period remained close to or above that of the Nation. An analysis of major metropolitan areas prepared for the Appalachian Regional Commission shows that, during that period, the New York area had relatively high business outmigration rates: about 1 percent of new and existing firms had relocated elsewhere by the end of the period.<sup>9</sup> Nevertheless, aggregate business startup rates in the New York area were even with national levels, indicating some level of strength, despite the relocations.

*Employment growth and a slow recovery.* Total nonfarm employment in the New York area grew at a rate of more than 2 percent annually between 1997 and 2000. Slowing started in early 2001, but after the terrorist attack of September 11 and through the first half of 2002, job loss in the metropolitan area accelerated to a rate of 2 percent during the first half of 2002. Job loss persisted, albeit to a lesser degree, until continuous over-the-year job growth resumed in the second quarter of 2004. In most industry sectors, employment followed a similar pattern of a de-

**Table 2. Comparisons of extended mass layoff events in New York-Northern New Jersey-Long Island and the United States, 5- and 11-year averages, 1996–2006**

Measure	11-year average	1996–2000 average	2002–2006 average
<b>New York-Northern New Jersey-Long Island</b>			
All events, number .....	239	188	280
Percentage involving internal restructuring.....	25.4	25.7	20.6
Percentage involving contract completion.....	12.4	5.3	18.2
Percentage with recall expected..	49.3	56.1	46.6
Nonseasonal, nonvacation events, number.....	144	98	178
Percentage involving permanent worksite closure.....	28.8	36.1	24.9
<b>United States<sup>1</sup></b>			
All events, number .....	5,282	4,687	5,459
Percentage involving internal restructuring.....	20.4	19.3	20.6
Percentage involving contract completion.....	13.6	13.2	15.2
Percentage with recall expected .....	50.7	55.9	48.8
Nonseasonal, nonvacation events, number.....	3,622	3,104	3,701
Percentage involving permanent worksite closure.....	21.8	22.1	21.5

<sup>1</sup> Data on layoffs were reported by employers in all States and the District of Columbia.  
 SOURCE: Bureau of Labor Statistics, Mass Layoff Statistics program.

layed return to prerecession (1996–2000) growth levels. (See table 4.)

BLS Business Employment Dynamics data provide additional information about the nature of the slow recovery. In New York State, a sustained period of expansion occurred from the first quarter of 1996 through the fourth quarter of 2000. During that time span, job creation outpaced job destruction.<sup>10</sup> The situation changed in 2001, and not until the fourth quarter of 2003 would the pace of job creation again be greater than that of job destruction. At the national level, data also show both an increase in job losses and a decline in job gains that characterize the 2001 recession. Employment in created jobs amounted to 8 percent of the total workforce in the mid-1990s; 10 years later, the job creation rate was below 7 percent. Despite a slow rate of job creation, total nonfarm employment returned to its prerecession peak sooner in the United States as a whole than it did in the New York area.

A slow local recovery is echoed in the layoff separa-

tion data. Nonseasonal, nonvacation layoffs reached their peak in 2001. (See table 5.) That year, almost 38,000 such separations were reported. Prior to 2001, the New York area had had fewer than 16,000 in 4 out of 5 years, but not until 2006 did the area total again fall below 25,000. Although the U.S. layoff peak also was in 2001, the number of separations nationally in both 2005 and 2006 was the lowest recorded between 1996 and 2006.

Initial claims for unemployment insurance related to extended mass layoffs largely followed the pattern of separations:<sup>11</sup> elevated levels during the years following 2001, not returning to prerecession levels. But between 2003 and 2005, when claims related to extended layoffs were declining throughout the Nation, claims in the New York area increased. (See table 6.)

*How much impact did these factors have on regional layoffs?* A graph of initial claims indexed to 1996 levels shows clearly that initial claims in the New York area seemed to ratchet up, even following the 2001 slowdown. (See chart 3.) At the national level, both the initial claims total and the number of initial claims due to major layoffs returned to earlier levels. So, too, did a similar return occur in 2 of the 3 States in which the New York area is located: New Jersey and Pennsylvania. These two States, as well as the Mid-Atlantic Census Division as a whole, did not experience as sharp a spike in claims due to the recession as did the Nation, and the number of claims returned closer to pre-2001 levels.

That the relative growth in initial claims from the Mid-Atlantic Census Division was more similar to U.S. growth, as opposed to that of the New York area, is somewhat surprising, given that about 45 percent of the division's unemployed resided in the New York area, and about the same percentage of the division's employed worked there. In terms of layoff separations, however, New York contributed only between one-quarter and one-third of the division's total.

In light of these numbers, some might interpret the indexes of initial claims to imply that New York area layoffs did not have a significant impact on the regional economy. BLS data on displaced workers, however, suggest that the impact of the layoffs might go beyond the number of initial claims.<sup>12</sup> Between 2003 and 2005, 431,000 New York, New Jersey, and Pennsylvania workers permanently lost jobs they had held for 3 or more years due to closures, termination of their positions or shifts, or insufficient work. Nineteen percent of all displaced workers in the Mid-Atlantic division were collecting unemployment benefits in 2006, compared with 13 percent throughout the Nation.

**Table 3. Permanent worksite closures: extended mass layoff events and separations in New York-Northern New Jersey-Long Island and in the United States, 1996–2006**

Measure	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>New York-Northern New Jersey-Long Island</b>											
Events:											
Total, private nonfarm .....	28	26	51	38	34	63	48	39	42	57	45
Internal company restructuring.....	22	17	31	29	24	45	31	16	28	31	27
Separations:											
Total, private nonfarm .....	6,620	6,034	9,545	6,565	3,655	13,011	10,326	7,395	8,079	10,202	7,423
Internal company restructuring.....	5,762	4,278	5,763	5,532	2,842	8,606	6,792	2,742	5,883	6,657	5,359
<b>United States<sup>1</sup></b>											
Events:											
Total, private nonfarm .....	757	595	662	671	755	1,240	1,155	919	746	560	621
Internal company restructuring.....	435	326	356	405	492	760	677	536	500	371	417
Separations:											
Total, private nonfarm .....	181,589	151,966	151,526	181,970	183,335	377,360	298,634	210,903	159,867	107,399	153,718
Internal company restructuring.....	109,331	86,550	87,131	121,915	134,584	266,042	192,982	132,615	110,732	76,408	112,341
<sup>1</sup> Data on layoffs were reported by employers in all States and the District of Columbia. SOURCE: Bureau of Labor Statistics, Mass Layoff Statistics program.											

More research is needed to determine whether metropolitan area mass layoffs were responsible for the higher economic cost of job displacement in the Mid-Atlantic region.

*Key patterns in reasons for layoff separations.* Up to now, this article has focused on the overall levels and types of extended mass layoff events and the related initial claims for unemployment insurance. Data show a clear difference between the 5-year periods before and after 2001 in the New York metropolitan area. An examination of local employment growth rates yields a similar dichotomy between the two periods. Data on separations by reason for layoff and by industry help validate these findings and also may help answer the question, “Was a slow local recovery solely to blame for increased job cuts?”

Separations data confirm that two significant factors contributed to the shift in layoff activity in the New York area: (1) increased slack work, reflecting a period of reduced demand *after 2001*; and (2) an increase in completed contracts, suggesting an increased number of shorter term employment contracts. Layoffs resulting from slack work peaked in New York in 2002–03, contrasting with the national total, which peaked in 2001. Beyond this factor, New York layoffs related to contract completion reached their highest levels in 11 years during 2004–05. Nationally, separations due to completed contracts were at relatively average levels during those years. Chart 4 illustrates these differences between the New York area and the Nation in the distribution of layoff separations by reason. Slack work and contract completion piggybacked

on the primary reason for major cutbacks—internal restructuring—resulting in a sustained elevated level of separations. The number of separations due to internal company restructuring peaked both nationally and in New York in 2001.

*Layoffs separations by industry.* To complete the evaluation of what distinguished the New York area, a closer look at layoff data by industry is necessary. Although data that quantify reasons associated with layoffs are not available for local industries, comparisons with national figures reveal some interesting findings.

Between 1996 and 2006, manufacturing accounted for 97,256 (or 22 percent of all) extended mass layoff separations in the New York area, followed by transportation and warehousing with 62,449 (or 14 percent) of the separations. More than 40,000 separations occurred in both the construction and the arts, entertainment, and recreation sectors. Finance and insurance, as well as accommodation and food services, recorded over 30,000 mass layoff separations, and both the information and administrative and waste services sectors experienced more than 20,000 layoffs.

Economic circumstances of sectors differ, especially with regard to competition, the use of contingent workers, and business demand. Accordingly, the 2001 slowdown did not affect all sectors in the same way. In fact, the recession was not responsible for the largest number of layoffs in every sector either. For example, manufacturing had almost 34,000 separations due to major layoffs between 1996 and 1998, the worst 3-year period the industry had

**Table 4. Percent distribution of employment among industries, and over-the-year employment change, private sector, New York-Northern New Jersey-Long Island and United States, 1996–2006**

Industry	Share of total employment	Over-the-year employment change as a percentage of base-year employment										
		1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>New York-Northern New Jersey-Long Island</b>												
Total private nonfarm .....	100.0	1.6	2.4	2.7	2.7	2.5	0.0	-2.0	-0.5	0.5	0.7	1.3
Construction and mining .....	4.5	2.5	4.6	7.1	9.3	5.9	3.1	.1	-1.1	1.4	.8	3.9
Manufacturing .....	8.4	-2.0	.1	-9	-2.3	-2.3	-6.8	-8.3	-5.5	-3.5	-3.8	-2.7
Trade, transportation, and utilities .....	22.7	.5	1.4	1.5	2.4	2.2	-.8	-2.2	-.2	.3	.1	.6
Wholesale trade.....	6.3	.0	1.2	1.3	1.0	.5	.7	-3.5	-.2	-.4	-.3	.2
Retail trade .....	11.8	1.2	1.7	2.0	3.2	3.2	-1.4	-.5	.3	.9	.7	.4
Transportation and warehousing .....	4.2	-.1	2.3	1.7	2.8	2.2	-1.9	-5.2	-2.2	-.2	-1.0	1.6
Information .....	4.4	2.8	3.3	2.5	3.4	6.5	4.8	-9.0	-6.3	-2.6	.0	1.3
Financial activities.....	11.3	-.1	1.0	2.3	1.3	1.3	-2.3	-3.5	-.7	.6	1.2	1.5
Finance and insurance .....	8.6	-.6	.7	2.2	1.0	1.3	-2.6	-4.2	-1.4	.2	1.3	1.7
Professional and business services .....	17.4	4.7	5.2	5.5	4.8	4.4	.6	-4.0	-1.3	.6	1.2	2.1
Professional and technical services.....	8.6	3.6	5.6	7.0	5.7	5.6	-.1	-4.9	-2.2	.9	2.4	4.4
Administrative and waste services.....	6.8	7.3	5.6	5.2	4.9	4.8	1.4	-4.1	-1.1	.4	-.5	-.1
Education and health services ....	18.3	2.7	2.1	2.9	2.7	1.8	2.2	3.1	2.1	1.4	1.6	2.1
Health care and social assistance .....	14.9	1.8	2.1	2.6	2.8	1.9	1.7	3.1	2.9	1.2	1.7	2.0
Leisure and hospitality.....	8.2	2.0	3.2	2.9	2.8	3.4	1.9	.7	2.3	2.8	1.4	2.0
Accommodation and food services.....	6.5	1.6	2.8	2.7	2.3	2.9	1.5	-.1	3.3	2.5	1.9	2.0
Other services, except public administration .....	4.8	2.7	2.6	3.0	4.7	2.8	1.4	1.4	1.1	2.1	2.9	.3
<b>United States<sup>1</sup></b>												
Total private nonfarm .....	100.0	2.4	.3	2.8	2.5	2.1	-.3	-1.7	-.4	1.3	1.9	2.0
Construction and mining.....	6.7	4.4	4.8	5.1	5.1	3.4	.6	-1.8	.1	3.6	5.2	5.1
Manufacturing .....	14.7	.0	1.1	.8	-1.4	-.3	-4.8	-7.2	-4.9	-1.3	-.6	-.2
Trade, transportation, and utilities .....	23.5	1.7	1.9	2.0	2.3	1.8	-.9	-1.9	-.8	1.0	1.7	1.0
Wholesale trade.....	5.3	1.6	2.6	2.3	1.7	.7	-2.7	-2.1	-.8	1.0	1.8	2.3
Retail trade .....	13.8	1.8	1.7	1.5	2.5	2.1	-.3	-1.4	-.7	.9	1.5	.3
Transportation and warehousing .....	3.9	2.5	2.3	3.5	3.2	2.6	-.9	-3.4	-.9	1.5	2.6	2.4
Information .....	3.0	3.4	4.9	.4	6.2	6.2	-.1	-6.4	-6.1	-2.2	-2.8	-.2
Financial activities.....	7.1	2.1	3.0	4.0	2.5	.5	1.6	.5	1.7	.7	1.5	2.6
Finance and insurance .....	5.3	1.6	2.9	4.3	2.5	.2	1.6	.8	1.8	.4	1.2	2.7
Professional and business services .....	14.7	4.8	6.5	5.7	5.3	4.4	-1.1	-3.0	.1	2.6	3.4	3.5
Professional and technical services.....	8.6	4.6	6.0	6.5	5.9	5.6	2.5	-3.3	-.7	2.2	4.1	4.5
Administrative and waste services.....	7.1	6.0	8.2	6.0	5.9	4.2	-4.2	-2.6	1.0	2.9	3.1	2.8
Education and health services ....	14.5	3.0	3.0	2.5	2.4	2.1	3.5	3.5	2.4	2.2	2.5	2.7
Health care and social assistance .....	12.2	2.9	2.8	2.4	2.2	1.9	3.3	3.2	2.5	2.1	2.4	2.6
Leisure and hospitality.....	11.0	2.6	2.2	1.9	2.8	2.8	1.5	-.4	1.6	2.6	2.6	2.6
Accommodation and food services.....	9.4	2.4	1.8	1.8	2.6	2.4	1.4	-.1	1.5	2.7	2.6	2.7
Other services, except public administration.....	4.8	2.6	2.9	3.1	2.2	1.6	1.7	2.2	.5	.1	-.3	.7

<sup>1</sup> Data on layoffs were reported by employers in all States and the District of Columbia.

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

**Table 5. Extended mass layoff separations by industry and reason for layoff, private nonfarm sector, New York-Northern New Jersey-Long Island, 1996–2006**

Measure	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total, private nonfarm .....	34,828	36,942	37,823	22,153	27,430	54,928	52,335	39,527	51,118	47,597	33,517
<b>Industry</b>											
Construction .....	4,006	5,599	1,305	( <sup>1</sup> )	1,009	1,159	5,007	5,468	6,041	7,982	4,353
Manufacturing .....	7,594	10,754	15,643	6,628	8,689	9,948	10,236	8,960	6,578	7,220	5,006
Wholesale trade.....	430	1,296	758	1,160	727	1,003	510	2,129	1,053	945	715
Retail trade .....	1,387	1,693	1,124	1,087	609	1,967	1,204	635	2,022	1,372	1,113
Transportation and warehousing .....	5,296	4,801	6,867	5,812	7,062	11,193	4,595	3,806	5,581	2,622	4,814
Information .....	–	( <sup>1</sup> )	1,886	246	718	2,211	4,925	3,386	6,394	3,090	2,040
Finance and insurance .....	2,554	771	2,881	1,283	1,095	6,424	7,382	1,724	4,596	2,045	570
Real estate and rental and leasing.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	554	1,775	1,350	( <sup>1</sup> )	1,784	310	–
Professional and technical services .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	475	446	3,096	1,810	1,712	2,466	4,109	1,721
Administrative and waste services .....	2,019	1,044	1,512	944	512	2,646	3,911	2,075	2,248	2,204	3,497
Health care and social assistance.....	1,774	2,196	1,033	1,015	1,594	948	704	1,607	3,095	2,603	1,503
Arts, entertainment, and recreation.....	5,267	4,260	1,561	1,209	2,381	4,147	5,117	4,925	4,048	4,307	3,810
Accommodation and food services .....	2,012	747	1,486	1,445	515	6,681	3,443	893	4,249	7,469	3,708
Other services, except public administration.....	330	946	915	459	996	926	695	628	465	376	( <sup>1</sup> )
<b>Reason</b>											
Seasonal .....	19,123	21,473	17,106	10,245	13,511	17,094	17,307	11,581	14,200	16,145	13,756
Total, nonseasonal, nonvacation.....	15,705	15,469	20,717	11,908	13,919	37,834	35,028	27,946	36,918	31,452	19,761
Contract completion.....	1,801	2,757	885	604	1,339	3,014	7,704	8,104	10,522	8,935	6,235
Internal company restructuring .....	9,571	8,309	8,152	7,578	6,038	25,013	13,920	7,979	12,187	10,453	7,934
Slack work.....	2,304	2,080	2,773	858	3,177	5,296	6,421	5,989	5,947	3,627	3,247

<sup>1</sup> Data do not meet BLS or State agency disclosure standards.

SOURCE: Bureau of Labor Statistics, Mass Layoff Statistics program.

NOTE: Dash represents zero.

during the 11 years studied. By contrast, the worst 3-year period for construction was from 2003 through 2005, when the industry recorded 19,000 separations.

The extent of layoffs related to permanent worksite closure, accounting for about 20 percent of New York area layoff separations, also is instructive regarding the variation among industries that exists with business turnover. About one-third of the annual average of 2,866 manufacturing separations per year involved closures. Of all industries, manufacturing had the highest number of separations due to workplace closings every year, with the exception of 1996 and 2001. (See table 7.) Nevertheless, in 6 of the 11 years studied, another industry in decline—wholesale trade—had a higher *percentage* of layoffs due to permanent closures. In retail trade, a large industry characterized by high turnover, closures caused about half of the layoff separations, on average, and this percentage also exceeded that of manufacturing in 6 of the 11 years examined.

### Construction separations

Looking at extended mass layoff activity in relatively high layoff sectors in the context of overall employment growth highlights additional differences between New York and the Nation. A healthy real estate market, along with in-

tensive efforts to rebuild lower Manhattan, fueled growth among the building trades. Between 1999 and 2004, New York area construction employment grew by about 13 percent, while the number of establishments grew by 14 percent. Nationally, the employee and establishment counts both grew by less than 10 percent. (See table 8.)

As regards layoffs, construction accounted for at least 10 percent of the separations in the United States every year except 2001 and 2002. In New York, a similar situation existed: during the 5 years after 2001, the construction sector averaged more than 5,500 separations per year due to extended mass layoffs, amounting to 12 percent of the total separations in the New York area. (See table 9.)

In both the New York area and the United States, the quantity of construction layoffs was disproportionate to the sector's employment. Nationally, construction accounted for about 6 percent of total private nonfarm employment. Among establishments with at least 50 employees, from which the layoff statistics were derived, construction employees amounted to yet a smaller percentage of all employees. The disparity between relative shares of total layoffs and total employment was even more evident in the New York area, where construction had a location quotient of 0.72, indicating less industry concentration compared with that of the Nation.<sup>13</sup>

**Table 6. Initial claimants for unemployment insurance resulting from extended mass layoffs, private nonfarm sector, selected areas in the Mid-Atlantic Census Division and the United States, 1996–2006**

Area	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
United States .....	805,810	879,831	1,056,462	796,917	846,267	1,457,512	1,218,143	1,200,811	903,079	834,533	950,157
Mid-Atlantic Division .....	156,959	134,635	152,283	122,073	116,224	201,435	210,161	189,699	181,403	158,413	178,957
New Jersey .....	30,489	35,347	31,910	22,353	25,945	39,114	41,868	38,747	33,841	28,075	30,517
New York .....	38,416	26,113	37,478	27,260	28,481	54,877	79,493	73,111	75,146	75,311	79,472
Pennsylvania .....	88,054	73,175	82,895	72,460	61,798	107,444	88,800	77,841	72,416	55,027	68,968
New York-Northern New Jersey- Long Island .....	21,302	27,262	32,346	21,242	27,368	46,964	47,988	36,467	51,846	50,222	40,867

SOURCE: Bureau of Labor Statistics, Mass Layoff Statistics program.

This pattern of relatively high layoff activity also was reflected in national layoff and discharge rates, as captured by the BLS Job Openings and Labor Turnover Survey (JOLTS):<sup>14</sup> between 2001 and 2006, construction recorded the highest layoff and discharge rates among all sectors.

With the use of extended mass layoff separations data, a rate similar to the turnover rate can be computed in the context of relative employment levels to help gauge extended mass layoff activity over time among establishments with at least 50 employees. This measure, too, confirms that construction tended to have the highest rate of separations among national sectors. With the exception of 2001, construction led the other sectors, with a separation rate that ranged from 4.5 percent to 7.8 percent. From 2003 through 2006, the national rate declined each year, from 5.8 percent to 4.5 percent. (See table 10.)

Rather than reflecting an industry in decline, construction layoff activity was more indicative of the short-term employment relationship that has become more characteristic of the industry. National data indicate that more than 85 percent of all construction layoffs were due to the ending of seasonal work and the completion of contracts, with specialty trade contractors having a high percentage of separations due to contract completion. Furthermore, construction employers expected a recall in 59 percent of the layoff events in the United States, above the 52-percent average for private industry as a whole. Laid-off construction workers were reemployed relatively quickly: construction had one of the shortest average jobless durations among all sectors.

## Manufacturing layoffs

In the late 1990s, manufacturing employment declined in New York, as it did throughout the Nation, but the rate of job loss worsened with the 2001 recession. Over-the-

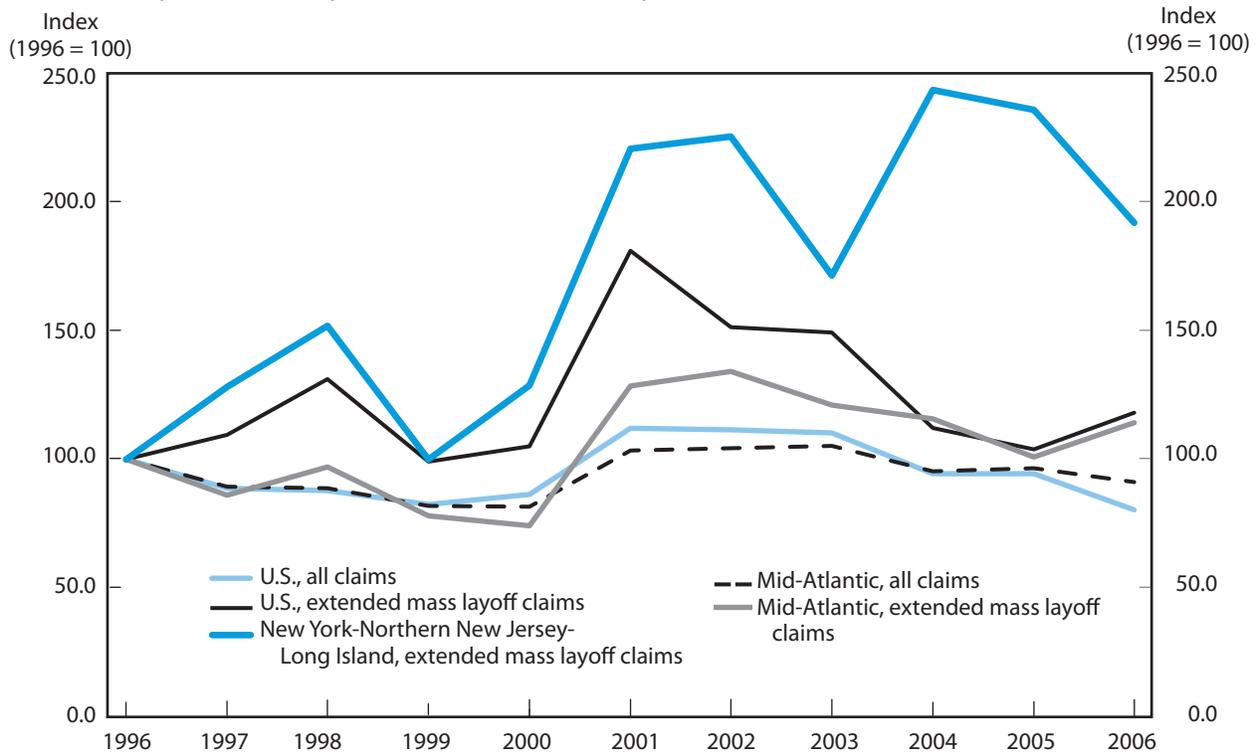
year job loss accelerated in the New York area, while it moderated nationally. The deterioration in manufacturing was particularly pronounced in the New York area, as a comparison of 2004 with 1999 figures indicates. Seventeen percent fewer manufacturing establishments were in New York, while the decline in the Nation was 6 percent. Among establishments employing at least 50 employees, the decline was more significant: by 2004, the number of manufacturers of that size contracted by 23 percent in the New York area, while the number of like-sized manufacturing establishments in the United States dropped by 14 percent.

Manufacturing accounted for a dwindling, but significant, share of national employment, declining steadily from about 25 percent in 1996 to about 18 percent in 2006. Meanwhile, at least 25 percent (ranging up to 47 percent in 1998) of all extended mass layoff separations occurred in the sector each year. In New York, the story was different: the only years that manufacturing accounted for at least one-quarter of the separations were between 1997 and 2000, when the area economy was adding jobs at its fastest pace during the 11 years studied. Since 2004, when manufacturing amounted to 7 percent of total New York area employment, the sector has accounted for 15 percent or less of the layoff separations in New York.

Nationwide, manufacturing separations due to extended mass layoffs reached their height in 2001, with 627,930, a rate of 4.7 percent. Since then, both levels and rates have declined, and between 2004 and 2006, the rate of manufacturing separations in the United States was not more than 2.5 percent. Above the private-industry average, the manufacturing separations rate was still well behind that of construction.

In the New York area, however, a relatively high number of major manufacturing job cuts failed to color the total extended mass layoff picture as it did nationally. The primary reason was that manufacturing was less

**Chart 3. Indexes of initial unemployment insurance claims, New York-Northern New Jersey-Long Island, United States, and Mid-Atlantic Division, 1996–2006**



SOURCES: BLS Mass Layoff Statistics program, Employment and Training Administration, Office of Workforce Security.

concentrated in New York than throughout the Nation: a location quotient of 0.54 indicates less of a presence for the sector in the New York area than throughout the Nation.

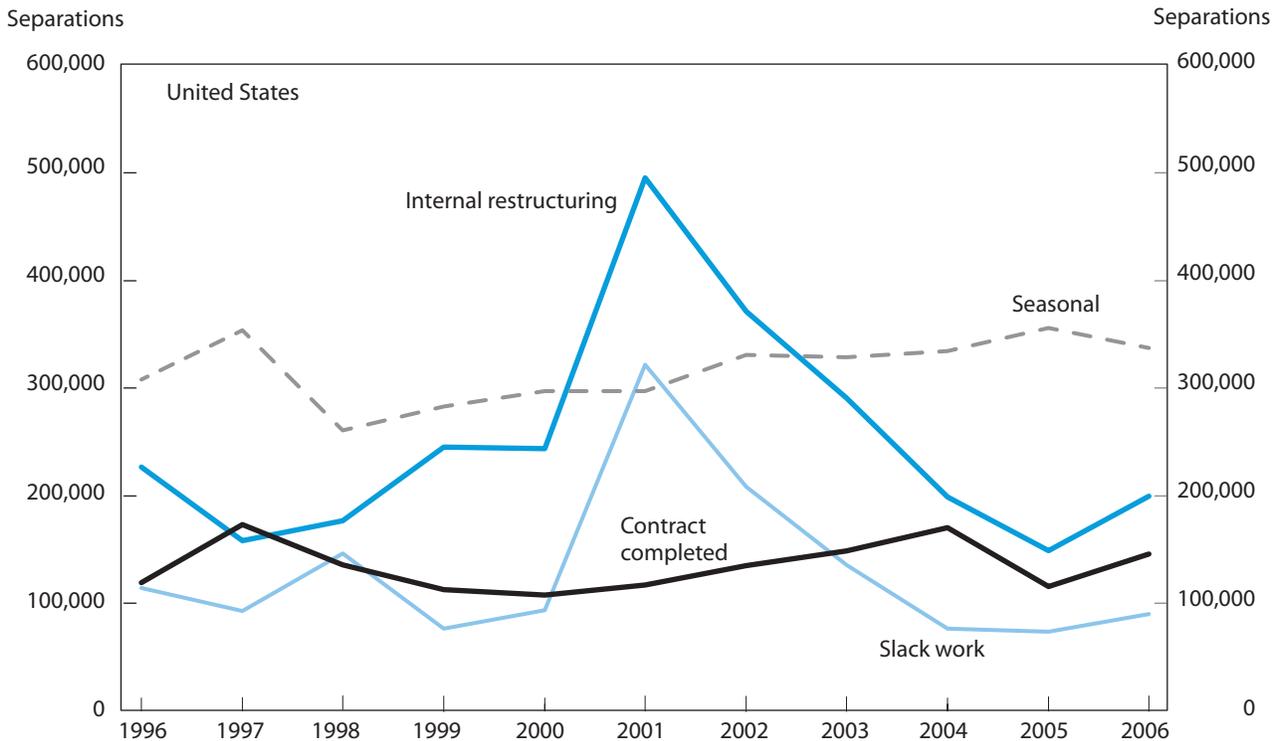
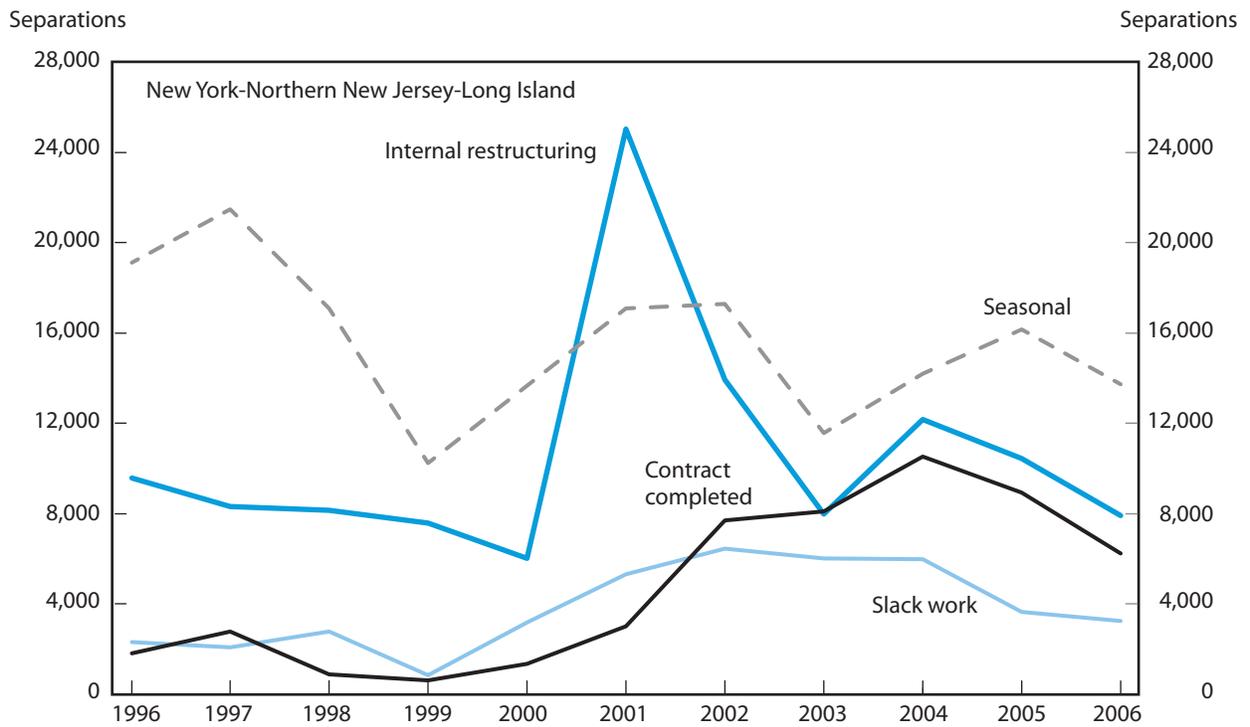
What accounted for the sharper decline in New York area manufacturing employment if not mass layoffs? Production jobs may have moved out of high-priced Manhattan to lower cost areas either within New York City or beyond the metropolitan area. If such moves were partial and gradual, and did not result in at least 50 people being laid off over a 5-week period, the job cuts would not be captured in the mass layoff numbers, but the net result would be reflected in the BLS employment data.<sup>15</sup>

Beyond less industry concentration, a different factor tempered the impact of mass layoffs in manufacturing in the New York area. Four industries accounted for half of the 97,256 extended mass layoff separations in manufacturing: apparel recorded 14,906 (15.3 percent) of the separations, followed by chemical products with 12,226 (12.6 percent), food products with 11,202 (11.5 percent), and machinery with 10,795 (11.1 percent). (See table 11.)

Although the apparel industry had the highest number of extended mass layoff separations, only 15 percent of those separations in the New York area involved permanent worksite closures. (See chart 5.) The low number of separations due to the permanent closure of New York apparel manufacturers stood in stark contrast to the situation in the Nation as a whole, where 56 percent of this industry's separations involved shutdowns.

Apparel manufacturing continued to be one of the metropolitan area's primary industries, while maintaining international prominence, even with declining employment. Between 1996 and 2001, despite low business startup activity in almost every manufacturing industry, apparel startups were high. Many of the large apparel manufacturers that had remained in the New York area adapted to changing business conditions by trimming staff, as opposed to closing down permanently.<sup>16</sup> In 1996, 23 percent of all apparel establishments in the United States were located in metropolitan New York. The percentage decreased to 19 percent in 2006, while the area's employment share for the industry grew from 12 percent to 14 percent of the U.S. total during the same period. Meanwhile, the average

**Chart 4. Extended mass layoff separations, by reason for layoff, New York-Northern New Jersey-Long Island and United States, 1996-2006**



SOURCE: BLS Mass Layoff Statistics program.

**Table 7. Permanent worksite closures: extended mass layoff separations, by selected industry, New York-Northern New Jersey-Long Island, 1996–2006**

Industry	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Construction .....	–	( <sup>1</sup> )	–	–	–	( <sup>1</sup> )	–	–	–	603	624
Manufacturing .....	2,157	2,311	3,889	3,611	1,531	2,380	3,215	4,852	2,775	2,228	2,819
Wholesale trade .....	–	636	494	930	( <sup>1</sup> )	608	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	495	410
Retail trade .....	871	–	357	927	289	1,506	644	295	835	923	436
Transportation and warehousing .....	( <sup>1</sup> )	( <sup>1</sup> )	494	( <sup>1</sup> )	–	2,423	1,500	( <sup>1</sup> )	951	423	–
Information .....	–	( <sup>1</sup> )	975	–	( <sup>1</sup> )	442	1,400	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	495
Finance and insurance .....	2,256	( <sup>1</sup> )	1,882	355	( <sup>1</sup> )	( <sup>1</sup> )	931	( <sup>1</sup> )	737	655	( <sup>1</sup> )
Administrative and waste services .....	850	( <sup>1</sup> )	( <sup>1</sup> )	–	( <sup>1</sup> )	355	999	267	–	( <sup>1</sup> )	1,399

<sup>1</sup> Data do not meet BLS or State agency disclosure standards.

SOURCE: Bureau of Labor Statistics, Mass Layoff Statistics program.

NOTE: Dash represents zero.

establishment size in apparel declined in both New York and the Nation.<sup>17</sup>

The New York experience contrasted with that of the United States, in which manufacturing weighed heavily on the layoff picture. In the Nation, the sector accounted for close to 30 percent of all extended separations from 2002 to 2006. In New York, manufacturing accounted for 17 percent of the layoff separations, and between 2004 and 2006 the share fell to 14 percent.

### Transportation and warehousing layoffs

Compared with its share of national employment among establishments with at least 50 employees, transportation and warehousing consistently had a higher percentage of total separations. Since 2002, the national rate of extended mass layoffs in transportation and warehousing has been relatively close to manufacturing's national rate. Separations in this sector usually have amounted to between 5 percent and 8 percent of the U.S. total since 1996.

In the New York area, however, extended mass layoff separations in the transportation and warehousing sector accounted for 10 percent of total extended mass layoff separations, or about 4,300 separations per year, on average, between 2002 and 2006. As with manufacturing, the layoff share during this period, though relatively high, was down from earlier years: from 1996 to 2001, transportation and warehousing accounted for between 13 percent and 26 percent of New York area layoffs, averaging about 6,000 separations annually. This reduced level of layoff activity contrasts with the national experience: during the 5 years before 2001, between 49,000 and 58,000 separations occurred in the sector, while the average for the 5 years ending in 2006 was 73,000.

### Leisure and hospitality turnover

In the years that followed 2001, New York area separations due to layoffs in the arts, entertainment, and recreation sector ranged from 3,810 to 5,117, averaging 8 percent of the private-industry total, compared with 3.5 percent nationally. In New York, as well as in the United States, the sector accounted for about 2 percent of total employment.

A higher incidence of layoffs also was evident in accommodation and food services. Employment in this sector in the New York area was characterized by growth over most of the 11-year period studied, similar to the rest of the United States. After 2001, the sector accounted for about 7.5 percent of New York area layoff separations, compared with 6 percent nationally.

The difference in layoff proportions between the New York accommodation and food services sector and its national counterpart may have been influenced by higher establishment growth in the metropolitan area. Employment data show that establishment growth in New York became more concentrated among smaller sizes (outside the scope of the BLS Mass Layoff Statistics program), while nationally, the sector became increasingly more consolidated among larger establishments. Between 1999 and 2004, employment growth in the sector in New York outpaced growth in both construction and retail trade. The number of establishments grew by 16 percent, but among establishments with 50 or more employees, the increase measured just 10 percent. On a national basis, the number of accommodation and food service establishments increased by 10 percent, but those with more than 49 employees increased by 17 percent.

Accommodation and food services had a relatively high

**Table 8. Change in the number of establishments, and employment by industry and establishment size, New York-Northern New Jersey-Long Island and United States, 1999–2004**

Industry	All establishments		Establishments employing at least 50 workers	
	Employment change, 1999–2004	Establishment change, 1999–2004	Employment change, 1999–2004	Establishment change as a percentage of all establishments, 2004
<b>New York -Northern New Jersey-Long Island</b>				
Total private.....	3.7	5.0	3.2	4.5
Construction.....	12.7	13.7	11.1	2.2
Manufacturing .....	-19.4	-16.6	-22.7	10.3
Wholesale trade.....	-4.2	-3.1	-5.6	4.2
Retail trade .....	12.7	5.0	24.0	4.3
Transportation and warehousing .....	.3	8.5	13.3	7.9
Information.....	10.4	6.7	4.8	10.6
Finance and insurance .....	-6	2.0	-3.1	5.7
Real estate and rental and leasing.....	12.1	11.2	8.7	1.3
Professional and technical services .....	6.9	9.0	3.3	2.8
Administrative and waste services.....	-1.5	-3	-1.1	7.2
Health care and social assistance .....	11.4	12.3	14.2	5.1
Accommodation and food services .....	13.6	15.7	9.6	4.8
Other services, except public administration .....	8.8	6.5	4.2	1.7
<b>United States</b>				
Total private.....	3.9	5.4	4.0	5.3
Construction.....	7.2	8.9	9.4	2.8
Manufacturing .....	17.0	-5.9	-14.0	16.0
Wholesale trade.....	-1.1	-4.6	-3.1	4.8
Retail trade .....	6.0	.8	7.9	5.4
Transportation and warehousing .....	13.0	10.4	21.0	7.1
Information .....	7.4	10.4	2.1	9.1
Finance and insurance .....	8.7	12.5	3.8	3.7
Real estate and rental and leasing.....	11.3	17.0	7.5	1.4
Professional and technical services .....	17.7	14.2	11.6	2.6
Administrative and waste services .....	4.1	2.4	-9	8.5
Health care and social assistance .....	14.1	12.6	14.3	6.3
Accommodation and food services .....	11.5	9.5	17.0	7.7
Other services, except public administration.....	5.1	2.3	5.4	1.7

SOURCE: U.S. Census Bureau, County Business Patterns.

number of layoffs, despite a low industry concentration. At 0.72, the area location quotient for accommodation and food services was the same as that for construction, indicating a smaller share of local, compared with national, employment. The 2002–06 period was worse than the 5 years prior to 2001 in terms of layoff separations in the industry, and that was true at both the local and national level, despite continued growth.

### Information layoffs

Increased layoff activity despite sector growth also was evident in the information sector. Annual job gains in New York were strong between 1996 and 2001, averaging from

2.5 percent to 6.5 percent. Communications industry start-up activity was 20 percent above national averages during this period. The recession, however, hit the sector particularly hard: in 2002, job losses for the year amounted to 9 percent. Although nationally the sector continued to lose jobs, in the New York metropolitan area the information industry rebounded in 2006, finally adding employment, at a rate of 1.3 percent.

JOLTS data indicate that, between 2001 and 2006, the information sector ranked among the sectors with the lowest national layoff and discharge rates. However, in terms of extended mass layoffs, the sector experienced an above-average rate exceeding 2 percent of the U.S. employed between 2002 and 2003, as it did earlier, in 1996

**Table 9. Percent distribution of extended mass layoff separations by industry, New York-Northern New Jersey-Long Island and United States, 1996–2006**

Industry	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>New York-New Jersey-Long Island</b>											
Total, private nonfarm .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Construction .....	11.5	15.2	3.5	( <sup>1</sup> )	3.7	2.1	9.6	13.8	11.8	16.8	13.0
Manufacturing .....	21.8	29.1	41.4	29.9	31.7	18.1	19.6	22.7	12.9	15.2	14.9
Wholesale trade.....	1.2	3.5	2.0	5.2	2.7	1.8	1.0	5.4	2.1	2.0	2.1
Retail trade .....	4.0	4.6	3.0	4.9	2.2	3.6	2.3	1.6	4.0	2.9	3.3
Transportation and warehousing .....	15.2	13.0	18.2	26.2	25.7	20.4	8.8	9.6	10.9	5.5	14.4
Information .....	–	( <sup>1</sup> )	5.0	1.1	2.6	4.0	9.4	8.6	12.5	6.5	6.1
Finance and insurance .....	7.3	2.1	7.6	5.8	4.0	11.7	14.1	4.4	9.0	4.3	1.7
Real estate and rental and leasing.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.0	3.2	2.6	( <sup>1</sup> )	3.5	.7	–
Professional and technical services.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.1	1.6	5.6	3.5	4.3	4.8	8.6	5.1
Administrative and waste services.....	5.8	2.8	4.0	4.3	1.9	4.8	7.5	5.2	4.4	4.6	10.4
Health care and social assistance.....	5.1	5.9	2.7	4.6	5.8	1.7	1.3	4.1	6.1	5.5	4.5
Arts, entertainment, and recreation.....	15.1	11.5	4.1	5.5	8.7	7.5	9.8	12.5	7.9	9.0	11.4
Accommodation and food services .....	5.8	2.0	3.9	6.5	1.9	12.2	6.6	2.3	8.3	15.7	11.1
Other services, except public administration.....	.9	2.6	2.4	2.1	3.6	1.7	1.3	1.6	.9	.8	( <sup>1</sup> )
<b>United States<sup>2</sup></b>											
Total, private nonfarm .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Construction .....	11.2	14.0	10.8	13.0	12.1	7.3	9.3	10.9	12.0	13.8	13.5
Manufacturing .....	37.0	34.1	47.3	39.5	40.0	41.2	35.7	31.6	25.6	25.2	29.4
Wholesale trade.....	2.1	1.6	1.4	1.9	1.9	1.9	1.9	2.5	1.6	1.5	1.5
Retail trade .....	12.3	10.1	5.9	10.2	9.6	8.7	10.7	10.5	14.5	9.0	10.7
Transportation and warehousing .....	4.6	6.1	5.7	5.5	5.5	7.7	6.4	7.2	5.9	7.6	7.5
Information .....	5.2	6.1	4.4	2.6	1.6	4.0	4.6	5.4	3.7	2.6	2.0
Finance and insurance .....	3.0	2.2	2.3	2.4	3.4	2.2	3.0	3.3	3.4	2.1	3.3
Real estate and rental and leasing.....	.4	.4	.2	.2	.2	.5	.2	.3	.4	.3	.2
Professional and technical services .....	2.7	3.5	2.2	2.7	2.4	3.4	4.6	3.3	3.3	4.7	4.7
Administrative and waste services.....	6.4	5.3	5.4	6.8	8.5	11.0	10.6	12.2	11.4	10.6	9.8
Health care and social assistance.....	3.8	3.6	3.1	3.9	4.2	1.6	2.4	2.7	4.4	4.9	3.2
Arts, entertainment, and recreation.....	3.3	5.0	3.1	2.9	2.8	2.6	3.6	3.1	3.8	5.9	4.6
Accommodation and food services .....	4.8	5.2	4.8	4.3	4.5	5.2	4.0	4.4	6.9	8.5	7.2
Other services, except public administration .....	.8	1.2	1.2	1.3	1.2	.7	1.1	1.0	1.5	1.5	1.1

<sup>1</sup> Data do not meet BLS or State agency disclosure standards.

NOTE: Dash represents zero.

<sup>2</sup> Data on layoffs were reported by employers in all States and the District of Columbia.

SOURCE: Bureau of Labor Statistics, Mass Layoff Statistics program.

and 1997 (while the sector was expanding).

In the New York area, extended mass layoffs in the information sector resulted in about 4,000 separations, on average, between 2002 and 2006, or 6.7 percent of all metropolitan area separations. The largest number of separations during these years occurred in 2004, when the overall employment picture was starting to improve. Nationally, this sector accounted for 3.6 percent of all private-industry layoff separations. The disparity between local and national proportions, however, was consistent with the difference in employment shares: as indicated by a 1.47 location quotient, information sector employment was more highly concentrated in the New York area.

## Finance and insurance separations

After a slow period in 1996 and 1997, finance and insurance employment grew between 1 percent and 2 percent annually in the New York area prior to the 2001 recession. Employment declined between 2001 and 2003, but by 2005 growth had returned to prerecession rates, unlike growth rates in most of the other sectors in the area.

Finance and insurance layoff separations varied quite a bit from year to year, with the peak occurring in 2002, when there were more than 7,000 extended separations. In 2006, the sector saw 570 separations, the lowest num-

**Table 10. Rates of extended mass layoff separations, by industry, United States,<sup>1</sup> 1996–2006**

Industry	Average percent employment in establishments with 50 or more employees	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total, private nonfarm .....	57.4	1.7	1.7	1.7	1.5	1.5	2.4	2.1	2.0	1.7	1.5	1.5
Construction .....	36.0	6.8	7.8	5.7	5.6	4.8	4.6	5.1	5.8	5.1	4.9	4.5
Manufacturing .....	79.2	2.6	2.4	3.3	2.6	2.6	4.7	3.8	3.4	2.3	2.0	2.5
Wholesale trade.....	42.0	1.0	.7	.6	.7	.7	1.2	1.0	1.3	.7	.6	0.6
Retail trade .....	50.1	1.7	1.4	.8	1.3	1.2	1.7	1.8	1.7	1.9	1.1	1.3
Transportation and warehousing .....	67.0	1.8	2.3	2.2	1.9	1.8	4.1	3.1	3.3	2.2	2.5	2.5
Information .....	72.4	2.4	2.6	1.9	1.0	.6	2.2	2.3	2.9	1.6	1.1	.9
Finance and insurance .....	57.9	1.0	.7	.7	.7	1.0	1.0	1.2	1.2	1.0	.6	.9
Real estate and rental and leasing.....	29.3	.8	.7	.3	.3	.4	1.2	.5	.6	.7	.5	.3
Professional and technical services .....	46.1	1.0	1.3	.8	.8	.7	1.5	1.9	1.4	1.1	1.3	1.3
Administrative and waste services .....	71.2	1.5	1.1	1.1	1.2	1.4	3.1	2.6	2.9	2.2	1.7	1.6
Health care and social assistance.....	66.7	.5	.4	.4	.4	.5	.3	.3	.4	.5	.5	.3
Accommodation and food services .....	42.8	1.2	1.3	1.2	.9	1.0	1.8	1.2	1.3	1.6	1.7	1.5
Other services, except public administration.....	23.3	.9	1.4	1.3	1.3	1.2	1.1	1.5	1.2	1.5	1.4	1.1

<sup>1</sup> Data on layoffs were reported by employers in all States and the District of Columbia.

SOURCES: Bureau of Labor Statistics, Mass Layoff Statistics program and Quarterly Census of Employment and Wages.

ber recorded for finance and insurance during the 11 years studied.

In the 5 years after 2001, this sector accounted for 6.7 percent of all separations in the New York area, compared with just 3.0 percent nationally over the same period. However, the metropolitan area’s share of separations was not disproportionate to its portion of total employment: in the New York area, about 8 percent of all private-industry workers were employed in finance and insurance. Nationally, the share was between 5 percent and 6 percent. Furthermore, a slightly greater percentage of finance establishments staff at least 50 employees in the New York area compared with the Nation: about 6 percent of all finance establishments in New York employed at least 50 employees, while nationally the figure was approximately 4 percent.

Thus, even though major job cuts in finance were a significant part of the layoff activity in the New York area, they were neither extraordinary (on the basis of industry concentration and size) nor permanently damaging to the sector’s local strength. Nevertheless, BLS layoff data show that finance separations were costly: in 2005 and 2006, the longest average jobless duration, based on the average number of continued claims in the United States, was experienced by claimants laid off from finance and insurance companies. Employees from that sector also exhausted their benefits at high rates.

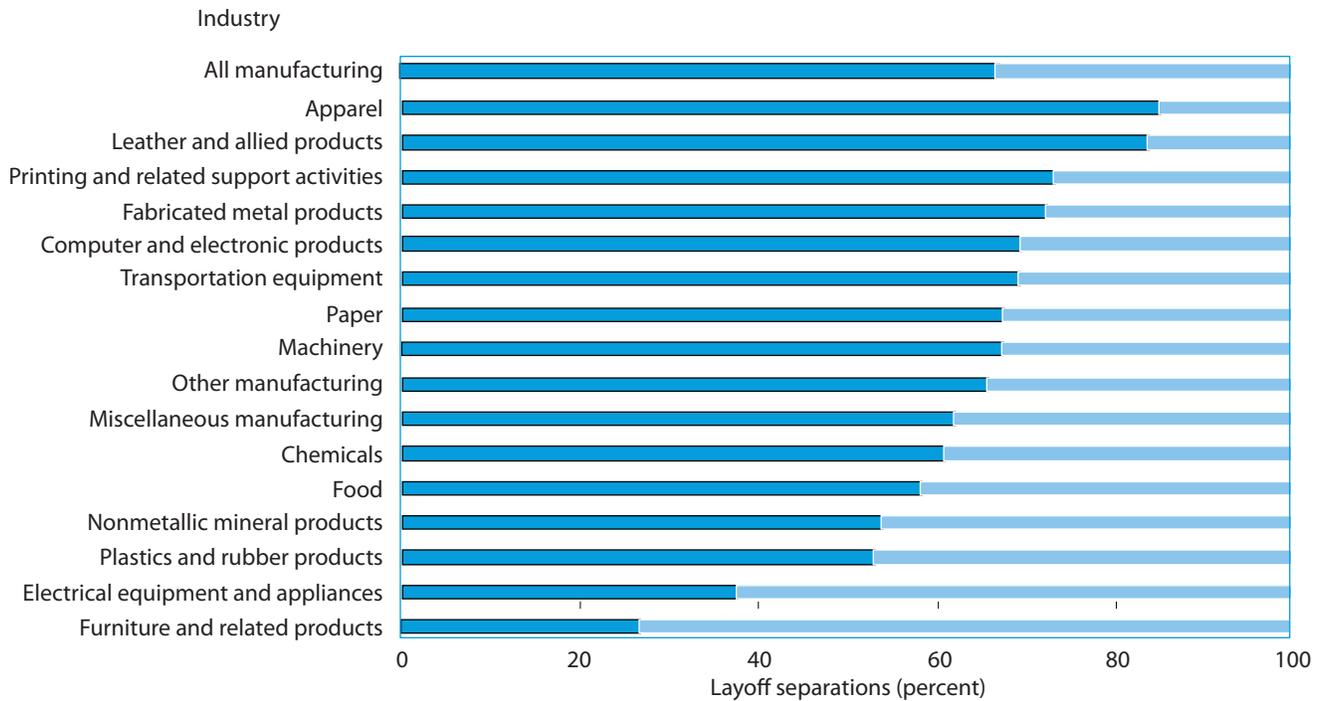
**Table 11. Total extended mass layoff separations, by selected industries, New York-Northern New Jersey-Long Island, 1996–2006**

Industry	All layoff separations	Permanent worksite closure separations
Manufacturing.....	97,256	31,768
Apparel .....	14,906	2,224
Chemicals .....	12,226	4,760
Food .....	11,202	4,666
Machinery .....	10,795	3,492
Miscellaneous manufacturing.....	9,254	3,509
Transportation equipment.....	8,760	2,681
Computer and electronic products.....	5,766	1,757
Paper .....	3,744	1,210
Printing and related support activities .....	3,520	909
Leather and allied products .....	3,318	539
Fabricated metal products.....	3,140	865
Plastics and rubber products.....	3,086	1,450
Electrical equipment and appliances .....	2,024	1,262
Nonmetallic mineral products.....	1,365	629
Primary metals .....	1,261	( <sup>1</sup> )
Furniture and related products.....	1,012	773
Textile mills .....	590	( <sup>1</sup> )
Textile product mills.....	387	( <sup>1</sup> )
Petroleum and coal products.....	325	( <sup>1</sup> )
Beverage and tobacco products....	( <sup>1</sup> )	( <sup>1</sup> )
Wood products.....	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Data do not meet BLS or State agency disclosure standards.

SOURCE: Bureau of Labor Statistics, Mass Layoff Statistics program.

**Chart 5. Percent of separations not involving permanent worksite closure in manufacturing, New York-Northern New Jersey-Long Island, 1996–2006**



SOURCE: Bureau of Labor Statistics, Mass Layoff Statistics program.

### Administrative and waste services

After continued strong growth in the late 1990s, amounting to increases of between 5 percent and 7 percent a year, employment in New York area administrative and support and waste management and remediation services (or, simply, administrative and waste services) slowed with the recession and then remained relatively unchanged. Layoffs in New York in this sector reached their peak of 3,911 in 2002. In the years that followed, administrative and waste services had at least 2,000 layoffs annually, compared with an average of 1,206 during the 5 years prior to 2001.

From 2002 through 2006, separations in administrative and waste services amounted to 4.9 percent of the total in New York, while nationally, the sector accounted for almost 11 percent of all layoffs, slightly more than its share of employment among establishments with at least 50 employees. A large number of separations due to contract completion occurred in this sector, which includes temporary help agencies and professional employer organizations.

TWO SECTORS THAT WERE RESPONSIBLE for a substantial portion of layoffs in the greater New York area prior to 2001 were the manufacturing sector and the transportation and warehousing sector. The share of area separations in these two sectors declined after 2001, while layoff activity increased in four other sectors: construction; administrative and waste services; arts, entertainment, and recreation; and accommodation and food services. The differences between the manufacturing sector and the transportation and warehousing sector, reflected in the nature of, and reason for, the layoffs, as well as the extent of related permanent closures, contributed to a fundamental change in the character of job displacement in the New York area. Particularly noteworthy is the fact that layoff displacement increased among several local industries during periods of employment growth.

The mass layoff experience in the greater New York area after 2001 was qualitatively different from what it was prior to 2001, in contrast to the national pattern. Although some of the difference might be explained by the local industry mix, other factors helped transform the character of extended mass layoffs in New York. Foremost, the New York

area experienced dramatic growth in layoff actions due to the completion of employment contracts. In 2005 and 2006, contract completion accounted for more nonseasonal layoff events than internal company restructuring did, reversing the pattern of the past. A possible explanation for this shift is that increased business activity, especially within construction, coupled with a drive to keep costs down throughout industry, led to both an increase in contracting and a decrease in costly restructuring.<sup>18</sup> Furthermore, as suggested by the analysis of New York area data presented in this article, the ability of employers to adapt to both competitive pressures and slack work by trimming staffs varied by industry. For example, large employers in apparel, a key local manufacturing industry, reduced the size of their workforce more often than permanently closing down operations.

The analysis presented herein has attempted to make

comparisons between the New York metropolitan area and the Nation over time. Additional information is needed, however, to complete an assessment of extended mass layoffs, affording opportunities for future research. Information on business turnover and job creation and destruction, by firm or establishment size in metropolitan areas, would round out the employment picture and help explain layoff trends. Beyond this benefit, the information could aid in the distribution of funds for employment services<sup>19</sup> and provide a more robust picture of industry health. As the Workforce Information Council concluded in a report about local data needs, "Understanding the impact of layoffs and plant closings on labor markets, workers, and communities requires information on other dynamic aspects of the labor market."<sup>20</sup> Indeed, local layoff data, such as those presented herein, would be greatly enhanced with local job dynamics data. □

## Notes

<sup>1</sup> The New York-Northern New Jersey-Long Island Metropolitan Statistical Area (MSA), as defined by the Office of Management and Budget in Bulletin 06-01, is composed of New York City and Nassau, Putnam, Rockland, Suffolk, and Westchester Counties in New York; Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, and Union Counties in New Jersey, and Pike County, Pennsylvania. For convenience, the New York-Northern New Jersey-Long Island MSA is referred to as the New York area, or simply New York, throughout this article.

<sup>2</sup> Each extended layoff event causes at least 50 employees to lose work for more than 30 days. If large layoffs occur gradually, in such a way that the requirement of 50 unemployment claims filed in a 5-week period is not reached, then the layoff event is not counted as an extended layoff by the Mass Layoff Statistics program. The 31-day minimum duration for qualification as a layoff limits the focus of the survey program to more permanent job dislocation. Most layoff events involving 50 or more workers last for 30 days or less. Along with the minimum required duration, in cases with no direct job loss, such as employers transferring work elsewhere without laying off workers, no information is collected, even though some displacement may result.

<sup>3</sup> The Mass Layoff Statistics program is a Federal-State program that utilizes a standardized, automated approach to identifying, describing, and tracking the effects of major job cutbacks, using data from each State's unemployment insurance database. Each month, States report on establishments with at least 50 initial claims filed against them during a consecutive 5-week period. The establishments are contacted by the State agency to determine whether these separations lasted 31 days or longer; if so, other information concerning the layoff is collected. The program also provides measures of laid-off workers' spells of unemployment to the point when regular unemployment insurance benefits are exhausted. These measures include the average number of continued claims, as well as the percentage of claimants receiving final payment. (A continued claim is a claim filed after the initial claim, either by mail, by telephone, or in person, for waiting-period credit or for payment for a certified week of unemployment.)

<sup>4</sup> An establishment is a unit at a single physical location at which predominantly one type of economic activity is conducted.

<sup>5</sup> Of the 25 categories currently used to classify justifications for a layoff, only a handful accounted for most of the separations in the New York area. Other, less frequently used reasons failed to yield publishable local-level results. Recently, the BLS concluded an in-depth review of all reasons for separation, in an effort to improve the capture and classification of economic reasons. Data published for 2007 now reflect an enhanced classification scheme. Additional and enhanced categories, as well as aggregations of related reasons, are currently available.

<sup>6</sup> Not an output of the BLS Mass Layoff Statistics program, the rates produced for these analyses were used to facilitate comparisons across years and among industry sectors. The *layoff event rate* indicates the number of layoff events per 100 establishments (in which at least 50 workers are employed). To compute this rate, establishment counts by size of establishment were derived from the U.S. Census Bureau's County Business Patterns. The *layoff separation rate*, indicating the number of extended mass layoff separations per 1,000 workers employed, was computed at the national level with employment data by size of establishment from the BLS Quarterly Census of Employment and Wages (QCEW).

<sup>7</sup> A worksite closure involves the complete shutdown of either a multiunit or a single-unit establishment, or the partial closure of a multiunit establishment wherein entire worksites affected by layoffs are closed or planned to be closed.

<sup>8</sup> See Steven J. Davis, R. Jason Faberman, and John Haltiwanger, "The Flow Approach to Labor Markets: New Data Sources and Micro-Macro Links," NBER working paper 12167 (National Bureau of Economic Research, April 2006); on the Internet at [papers.nber.org/papers/w12167.pdf](http://papers.nber.org/papers/w12167.pdf).

<sup>9</sup> "Analysis of Business Formation, Survival, and Attrition Rates of New and Existing Firms and Related Job Flows in Appalachia" (Camp Hill, PA, The Brandow Company, October 2001); on the Internet at [www.arc.gov/images/reports/bizform/analysis-final.pdf](http://www.arc.gov/images/reports/bizform/analysis-final.pdf).

<sup>10</sup> See non-seasonally-adjusted historical data on State gross job gains and losses, on the Internet at [www.bls.gov/bdm](http://www.bls.gov/bdm).

<sup>11</sup> An initial claimant is a person who files any notice of unemploy-

ment to initiate a request either for a determination of entitlement to, and eligibility for, compensation or for a subsequent period of unemployment within a benefit year or other period of eligibility.

<sup>12</sup> Important distinctions exist between extended mass layoff data and displaced worker data. In addition to tallying those who lost jobs, the displaced worker count includes workers who left jobs in anticipation of losing them. Displaced workers are persons 20 years of age and older who lost or left jobs. Displaced worker data are restricted to long-tenured employees: those who had worked for their employer for at least 3 years. Extended mass layoff data cover only separated workers, without any age or tenure restrictions. (See “Worker Displacement, 2003–2005,” BLS news release (Bureau of Labor Statistics, Aug 17, 2006), on the Internet at [www.bls.gov/news.release/archives/disp\\_08172006.pdf](http://www.bls.gov/news.release/archives/disp_08172006.pdf).)

<sup>13</sup> The location quotient is the ratio of employment in a particular industry in a certain geographical area (in this article, the New York metropolitan area) to base-industry employment (in this article, the private-sector total), divided by the ratio of employment in the same industry in the base area (the United States) to base-industry employment in the base area. For this computation, 2006 annual averages from the QCEW were used.

<sup>14</sup> “Job Openings and Labor Turnover: January 2007,” BLS news release (Bureau of Labor Statistics, Mar. 13, 2007), on the Internet at [www.bls.gov/news.release/archives/jolts\\_03132007.pdf](http://www.bls.gov/news.release/archives/jolts_03132007.pdf). Layoffs and discharges are involuntary separations initiated by the employer and include layoffs with no intent to rehire; formal layoffs lasting or expected to last more than 7 days; discharges resulting from mergers, downsizing, or closings; firings or other discharges for cause; terminations of permanent or short-term employees; and terminations of seasonal employees.

<sup>15</sup> Movement of work within the same company or to a different company, either domestically or outside the country, occurred in less than 10 percent of all nonseasonal layoff events in the United States. In 2004, the BLS Mass Layoff Statistics program added offshoring and outsourcing of work as reasons that identify job loss associated with the movement of work, within a company and to another company, domestically and out of the country. Nearly all the overseas relocations occurred in manufacturing. Nevertheless, because of publishability criteria, data on movement of work and overseas relocations were not available for the New York area. Criteria that safeguard confidentiality restrict what is published at the local level and result in the suppression of information that is available at the national level, such as additional information on relocations.

<sup>16</sup> See “New York City’s Garment Industry: A New Look?” (New York and Albany, Fiscal Policy Institute, August 2003).

<sup>17</sup> In 1996, businesses with between 50 and 999 workers accounted for 16.4 percent of U.S. apparel establishments and 71.2 percent of em-

ployment in the industry. By 2006, the share had declined to 9.6 percent of establishments and 60.8 percent of employment. It must be pointed out, however, that small apparel manufacturers, namely, those employing fewer than 50 workers (and not studied by the BLS Mass Layoff Statistics program), accounted for 90 percent of establishments in 2006.

<sup>18</sup> Without knowing the exact reasons for layoffs in each New York area industry, however, this hypothesis cannot be completely validated. Additional data limitations include employer coverage and the duration of layoffs. BLS mass layoff data cover only establishments that employ 50 or more workers. Smaller establishments were outside the scope of the survey, although layoff activity in these establishments is documented to have been significant. Between 1992 and the fourth quarter of 2006, more than half of the gross job losses were in firms with fewer than 50 employees; during that period, 87.1 percent of firms which closed were in that size class. BLS Business Employment Dynamics size class statistics are measured at the firm level rather than the establishment level. (A firm is a business organization consisting of one or more domestic establishments in the same area and industry under common ownership or control. The firm and the establishment are the same for single-establishment firms.) (See “Business Employment Dynamics: Second Quarter 2006,” BLS news release (Bureau of Labor Statistics Aug. 16, 2007), on the Internet at [www.bls.gov/news.release/archives/cewbd\\_08162007.pdf](http://www.bls.gov/news.release/archives/cewbd_08162007.pdf); and “New Quarterly Data from BLS on Business Employment Dynamics by Size of Firm,” BLS news release (Bureau of Labor Statistics, Dec. 8, 2005), on the Internet at [www.bls.gov/news.release/pdf/cewfs.pdf](http://www.bls.gov/news.release/pdf/cewfs.pdf).) Although a large percentage of job flows occurs in smaller firms, BLS data indicate that larger size classes experienced more quarters of net loss, as reflected in negative net employment change, related to the 2001 recession.

<sup>19</sup> The Workforce Reinvestment Act (Public Law 105–220—Aug. 7, 1998) mandates the development of a comprehensive workforce information system that includes “the incidence of, industrial and geographical location of, and number of workers displaced by, permanent layoffs and plant closings.” Analysis of such information, as intended by the Act, is not only for the allocation of Federal funds, but also for national, State, and local policymaking, the implementation of Federal policies, program planning and evaluation, and researching labor market dynamics.

<sup>20</sup> The Workforce Information Council is a collaboration of Federal and State agency officials that plans, guides, and oversees the U.S. workforce information system. The report, titled *Needs and Alternatives for Plant Closing and Layoff Statistics: Report to the Workforce Information Council* (Plant Closing and Layoff Statistics Work Team, Mar. 22, 2000), is on the Internet at [www.workforceinfocouncil.org/documents/wg\\_LayoffStats.zip](http://www.workforceinfocouncil.org/documents/wg_LayoffStats.zip).

## Knowing younger workers better: information from the NLSY97

*Papers from the 10th anniversary conference of the National Longitudinal Survey of Youth, 1997 cohort, addressed schooling, employment, adolescent behaviors, and many other aspects of youths' lives*

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Robert Michael,  
and Charles Pierret

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The statements in this article do not necessarily reflect the views of any of the aforementioned institutions.

For more than 40 years, the U.S. Department of Labor has undertaken a series of major, national studies that track labor force behavior. These studies follow the same men and women, year after year, and by doing so reveal much about what affects wages and hours of work, how new skills influence success in the job market, how health and schooling interact to influence careers, and how unexpected events—from plant closings and bad weather to product innovations and the openings of new markets—affect earnings. The National Longitudinal Surveys (NLS) program has become one of the Nation's most respected and influential sources of data about the work force since its inception in 1966, administered through the Employment and Training Administration until 1984 and through BLS thereafter. The NLS program consists of seven samples of men and women who have been surveyed periodically and have reported on many of their behaviors in and related to labor markets. These surveys have been used in thousands of research projects within the Government and in research universities and analytic think tanks. The studies constitute a major component of what researchers now know about the roles of schooling, intellectual ability, health, mi-

gration, community, and family in developing the “human capital” and “social capital” that influence the distribution of earnings in the United States and the level of our Nation's gross domestic product.

In May 2008, BLS hosted a conference to highlight new research using the most recent data from one of these data sources, the National Longitudinal Survey of Youth, 1997 cohort (NLSY97).<sup>1</sup> This survey of young people born from 1980 to 1984 (age 12 to 17 in the first year of the survey) has now taken place for 10 consecutive years. The face-to-face interview of these youths asks about their schooling, employment, adolescent behaviors, and many other aspects of their lives. In the data that were available for study at the time of the conference, these nearly 9,000 men and women from across the Nation were only in their early- to mid-20s, but already their reported experiences and behaviors revealed important facts that will have an impact on the labor force for decades to come. This article offers a brief and informal characterization of a few of the studies on which presenters reported at the conference. The conference presentations were based on preliminary research findings of these studies that are now undergoing peer scrutiny prior to official publication in

scholarly journals and books. (See the box.)

## Employment

*Changing characteristics of youth.* Employment of the NLSY97 youths is perhaps the central behavior of interest. One important paper concerning employment presented at the conference was written by Joseph Altonji, Prashant Bharadwaj, and Fabian Lange from Yale University and entitled “Changes in the Characteristics of American Youth: Implications for Adult Outcomes.” The paper asks what one can predict today about the labor force 20 years from now when the NLSY97 cohort will be in its peak earning years. The analysis is based on the experiences of the National Longitudinal Survey of Youth 1979 Cohort (NLSY79)—an earlier NLS cohort, fielded in 1979—with

respondents born between 1957 and 1964. The authors use the relationship between early labor-market-relevant characteristics of youths in the NLSY79 and their subsequent mid-career labor market outcomes to predict mid-career labor market outcomes of the NLSY97 cohort on the basis of their current characteristics.

The paper comprises two parts. In the first, the authors “create a set of youth characteristics that correlate with adult outcomes and are comparable across the NLSY97 and the NLSY79.” Even though the authors attempt to make the two data sets directly comparable, differences in sampling, attrition, and questions make this a complicated exercise. For example, the NLSY97 was sampled at younger ages (12–17) than the NLSY79 (14–22). Although a greater percent of youths eligible for the sample were actually interviewed in the first round of the NLSY97,

### Tenth Anniversary Conference Papers, NLSY97, May 29–30, 2008

Joseph G. Altonji, Prashant Bharadwaj, and Fabian Lange, “Changes in the Characteristics of American Youth: Implications for Adult Outcomes.”

Joseph G. Altonji, Sarah Cattan, and Iain Ware, “Sibling Influences on Teenage Risky Behaviors.”

Alison Aughinbaugh and Rosella M. Gardecki, “Attrition in the National Longitudinal Survey of Youth 1997.”

Philippe Belley, Marc Frenette, and Lance Lochner, “Post-Secondary Attendance by Parental Income: A Canada-U.S. Comparison.”

Dan A. Black, Kerwin Charles, and Seth Sanders, “The Problem with Men.”

Dan A. Black, Robert T. Michael, and Kanru Xia, “The Propensity to be an NLSY97 Respondent: Evidence from the Screener Data.”

A. Rupa Datta Parvati Krishnamurty, “High School Experience: Comparing Self-Report and Transcript Data from the NLSY97.”

Keith Finlay, “Effect of Employer Access to Criminal History Data on the Labor Market Outcomes of Ex-Offenders and Non-Offenders.”

Tricia Gladden and Charles Pierret, “Employment Before Age 16: Does it Make a Difference?”

Jeffrey Grogger, “Speech Patterns and Black-White Wage

Inequality.”

Carolyn J. Hill, Harry J. Holzer and Henry Chen, “Against the Tide: Household Structure, Opportunities, and Outcomes among White and Minority Youth,” chapters 3 and 4.

Robert Kaestner and Michael Grossman, “Effects of Weight on Adolescent Educational Attainment.”

Jennifer Manlove, Mindy E. Scott, Erum Ikramullah, Kate Perper, and Emily Lilja, “Relationship Context and the Transition to a Nonmarital Birth.”

Kristin Moore, and Kassim Mbwana, “Preventing Risky Sex and Adolescent Parenthood: Does the Effectiveness of Parenting Practices Differ For Children with Varied Risks?”

Randall J. Olsen, “The Desirability of Partner Traits and Two Decades of Change in the Marriage Market: A One-and-a-Half Sex Model of Marriage.”

Michael R. Pergamit, “Who Runs Away from Home? An Exploratory Analysis.”

James R. Walker, “Choice, Enrollment and Educational Attainment within the NLSY79 and NLSY97.”

Kenneth I. Wolpin, and Antonio Merlo, “Youth Crime and High School Completion.”

Lawrence Wu and Pamela Kaufman, “Two Decades of Change in Premarital First Births: Cohort Comparisons from the NLSY79 and NLSY97.”

NOTE: Many of those papers which are available can be found online at: <http://harrisschool.uchicago.edu/research/conferences/NLSYConf/>

subsequent attrition has been higher. Because they were younger when they were first interviewed, NLSY97 sample members had more years to drop out of the survey before age 22, when many of the characteristics that the authors study are measured. The authors devote a great deal of effort to ensuring that any differences in measured characteristics are real and not an artifact of survey differences.

The authors' most substantive finding is important: they find that the NLSY97 had more skills at the age of 22 than the NLSY79 did. The greatest advantage of the NLSY97 was in education; along all measured dimensions of educational attainment, the younger cohort was clearly superior to the older cohort. By age 22, the 1997 cohort had completed more than one-third of a year more of school, was more likely to have a high school diploma—or, failing that, to have a GED—and was much more likely to still be attending school or to have finished 14 years of school than the 1979 cohort. This skills advantage manifested itself in significant gains on the Armed Forces Qualifying Test (AFQT), the test the military uses to determine skill levels when making admission and job assignments. These gains were especially remarkable for minority youth, with African Americans' (or Blacks') scores improving by 36 percent and Hispanics' scores improving by 24 percent between the two cohorts (compared with a 5 percent improvement for Whites). Gains in parents' education were also significant, with the average NLSY97 youth having a mother with 1 year more of education and a father with three-quarters of a year more education than the mother and father of the youth's counterpart in the NLSY79.

Where the 1997 cohort falls short in comparison with the 1979 cohort is in the area of family structure. A much larger percentage (47 percent versus 25 percent) of the 1997 cohort was living in families in which one of the parents was not present. So although parents of the younger cohort had more skills to impart to their children, they had less contact with their children.

The second part of the Altonji, Bharadwaj, and Lange paper uses the reported childhood experiences from the 1979 and 1997 cohorts, along with the experiences from adulthood from the 1979 cohort, to predict outcomes for the 1997 cohort as adults. Using the characteristics derived in the first part of the paper, the authors estimate the impact that changes in skill level will have on the wage distribution when the cohort has reached middle age. Overall, they expect wages to increase by 6 percent to 7 percent, though the increase will be greater at the upper end of the distribution and lesser at the lower end. This means an increase in inequality over the next decades.

The authors suggest that increases in skills for groups

that were relatively disadvantaged in the 1979 cohort, however, will result in diminishing gaps between the sexes and among races. Black and Hispanic males will gain significantly on white males except at the very top of the wage distribution. From the bottom of the wage distribution to the 90th percentile, the wage gap should close by about 4 percentage points for both black and Hispanic males relative to white males. Similarly, wage gains for females should exceed those of males, causing the wage gap between the sexes to decrease by around 2 percentage points. Within-group inequality will grow as skills become more unequal within groups, but average skills across sex and race groups will become less unequal, resulting in less wage inequality across groups. So while the increase in inequality that has plagued the economy for the last 30 years is likely to continue, it will be based less on race and sex than it has been in the past.

The authors remind readers that their conclusions rest, necessarily, on the assumptions that the labor market premium or discount for a racial or ethnic group or for one sex or the other remains the same over time. Similarly, their expectations of the future labor market do not take into account broader questions pertaining to how the financial returns of schooling will change as markets and products develop or how the continued competitiveness of global markets might affect labor market trends. In this sense, the analysis undertaken by Altonji, Bharadwaj, and Lange offers only a partial answer to the question of how the workforce will fare in the years ahead, but their answer, cautiously constructed and conditioned as it is, uses these NLSY longitudinal data sets in the best way possible and offers a decidedly optimistic assessment of future developments in the labor force.

*Employment before age 16.* Another paper from the conference that focuses on employment is one that exploits the NLSY97's data on work history and its links across several domains to examine the consequences of employment at a very young age among the youths in the cohort. Tricia Gladden and Charles Pierret from the Bureau of Labor Statistics use the extensive data on very early employment in the NLSY97 in their paper "Employment Before Age 16: Does it Make a Difference?" They point out that collecting information on teen employment was a key reason that the survey was started. Standard labor market surveys such as the Current Population Survey only report about employment starting at age 16. However, a majority of youths in the NLSY97 reported doing some work for pay before this age. Gladden and Pierret posit that it is unclear whether early employment is ultimately beneficial

to these youths. On the one hand, early employment may teach important lessons such as responsibility, perseverance, and self-reliance and allow youths to accumulate experience that will prove useful later in their careers. On the other hand, early employment may be distracting, taking youths away from educational and developmental activities that will prove more beneficial than the menial jobs that are available to young workers. It may also introduce them to older youths who are engaged in behaviors that are not age-appropriate for the young workers. Gladden and Pierret's paper explores the correlation between youth employment and a number of outcomes in the late teen years as a first attempt to measure the effects of early employment.

The NLSY97 interviewed youths as young as 12 and asked them to report on jobs they held at any time after their 12th birthday. Because these children were not legally able to hold a job with an employer, the NLSY97 concentrated on "freelance jobs" among this group. These are informal jobs such as babysitting or yard work where the employee works directly for the ultimate consumer of the service, usually on an as-needed basis. Respondents older than 14 were also asked about traditional "employee jobs"—that is, those in which the youth worked for an employer who provided goods or services to many consumers. Restaurants and retail establishments provided typical employee jobs for teens in the sample.

Gladden and Pierret identify respondents who worked in freelance jobs between the ages of 11 and 15 and those who worked in employee jobs at 14 or 15. They then follow these youths until the age of 20, examining various outcomes along the way. Two findings are notable from this research. First, once youths enter the labor force, they tend to continue to work throughout their teen years. Between 80 percent and 90 percent of youths who worked at a given age worked again at the next age. Thus, those who start young will likely continue to work at least part of the year until age 20. Second, after controlling for standard background variables (race, sex, income, family structure, parents' education, and AFQT score) working at freelance jobs at young ages is correlated with a number of negative outcomes. Those who worked at freelance jobs before age 15 achieved less schooling by age 20; smoked, drank alcohol, and used marijuana more often before age 16; and were more likely to carry a handgun, assault someone, or be arrested by age 18 than youths who waited until age 16 for their first job. Gladden and Pierret are quick to point out that this may be largely an effect of selection—those who are likely to work at a young age may also be the type to want less schooling and to engage in substance abuse

and delinquent behavior, in which case the correlation does not imply that working per se causes these behaviors. But the link between early employment and these outcomes certainly warrants further investigation.

*Access to criminal records.* One of the attractive features of the NLSY97 data set is that it captures a lot of information that is tangentially related to employment. One of these pieces of information is the youth's criminal record—the data include information on many illegal actions that resulted in arrests, convictions, periods of incarceration, and other run-ins with the law. Incarcerations, naturally, influence labor market behavior, especially when youths are incarcerated long enough to prevent them from participating in the regular labor market. The NLSY97, being a longitudinal data set, can be used to assess the impact of the incarceration on subsequent employment.

Keith Finlay from Tulane University, in his paper "Effect of Employer Access to Criminal History Data on the Labor Market Outcomes of Ex-Offenders and Non-Offenders," uses the information about incarceration and subsequent employment along with one other piece of information—the State in which the young man or woman resides post incarceration. He points out that over the interval of interest for these cohorts of youths—1997 to 2003—some 16 States, starting with Florida in 1997, adopted the practice of releasing on the Internet information from the criminal records of all convicted felons. Finlay studies the employment experience of people who have and have not been incarcerated, in States with and without Internet reporting. An employer may have a notion that a job applicant of a particular type—age, sex, race, or ethnic group, for example—is more likely to have a criminal record. If this notion causes the employer not to hire someone of that type, this is a phenomenon called "statistical discrimination." However, argues Finlay, in a State that puts information concerning people's criminal records on the Internet—making it easy for employers to determine whether a particular job candidate is a convicted felon—employers have far less reason to "statistically discriminate" against non-felons. In short, this State policy is expected to be detrimental to the employment prospects of people who have been incarcerated but to be helpful to those from high-incarcerated groups who have not themselves been jailed.

Finlay explains that there are 369 NLSY97 respondents who have been incarcerated as adults (4.4 percent of his whole sample). For men age 19, the cumulative rates of adult incarceration were: 3 percent of white males, 8 percent of African-American males, 4 percent of Hispanic

males, and less than 1 percent of each of the three groups of females. For men age 24, however, the cumulative rates of those same six groups were dramatically higher: 8 percent of white males, 19 percent of African-American males, 12 percent of Hispanic males, and 2 percent to 3 percent of the respective groups of females.

Finlay studies the relationship between incarceration and employment, wages, and earnings; his findings confirm his expectations: “ex-offenders are less likely to be employed, have lower wages, and have lower earnings in [S]tates with Internet sites providing information about ex-offenders.” And the magnitude of this effect is considerable: in the open-records States, ex-offenders have a 5-percentage-point lower likelihood of employment, 9 percent lower hourly wages and 19 percent lower annual earnings. The evidence is less striking, but again affirming, for the effects of open records for non-offenders from groups with high rates of incarceration; however, the association is not statistically significant.

## Education

*Educational attainment.* Education is certainly a key factor in the attainment of a successful career. The NLS data sets, with their depth of information on the educational experiences of cohorts 20 years apart, provide excellent data on the change in educational attainment over the last 2 decades. James Walker of the University of Wisconsin at Madison, in his paper titled “College Choice, Enrollment and Educational Attainment in the NLSY79 and NLSY97,” provides a detailed comparison of the two cohorts and emphasizes some fascinating developments in the educational attainment of individuals in the two data sets at ages 24 or 25. He reports an increase in mean years of schooling of 0.4 year from the 1979 cohort to the 1997 cohort; median years of schooling increased from 12 years for the 1979 cohort to 13 years for the cohort of 1997. Somewhat surprisingly, the interquartile range of schooling increased dramatically, from 1.5 years in the NLSY79 to 3.5 years in the NLSY97.

Walker documents a substantial decline in the percentage of people who did not obtain a high school diploma or pass the General Educational Development (GED) tests. Among males, for example, this fraction dropped from 14.8 percent in the 1979 cohort to just 7.6 percent in the 1997 cohort. For women, the drop was a bit less dramatic, from 11.8 percent in the 1979 cohort to 7.8 percent in the 1997 cohort. One can see the same pattern of improvement in education when considering those without a high school degree—either dropouts or those with GEDs. The

percentage of men without a high school degree declined from 23.8 percent in the 1979 cohort to just 16.7 percent in the 1997 cohort. For women, the gain is again somewhat muted; in the 1979 cohort, 19.7 percent of women did not have a high school degree, but by the 1997 cohort the figure had shrunk to 15.1 percent. This decline represents a substantial improvement in human capital across these two cohorts.

Results at other levels of education are equally encouraging. About 20.9 percent of men in the 1979 cohort had a bachelor’s degree, a figure that increased to 24.2 percent in the 1997 cohort. For women, the increase was astonishing; in the 1979 cohort, 18.6 percent had a bachelor’s degree, but by the 1997 cohort, 30.4 percent of women had a bachelor’s degree. Thus, in the 1979 cohort, there were 1.12 men for each woman with a bachelor’s degree, but by the 1997 cohort, this had fallen to just 0.80 man per woman.

This striking change reflects a difference between the sexes in college enrollment rates—while men’s attendance at 4-year universities increased from 34.3 percent to 42.3 percent, women’s attendance at 4-year universities increased from 30.9 percent to 47.8 percent. The graduation rate conditional on attending 4-year universities declined for men from 60.9 percent in the 1979 cohort to 57.2 percent in the 1997 cohort. Despite the large increase in college attendance among women, their graduation rate increased from 60.2 percent to 63.6 percent. Thus, in the 1997 cohort, women were more likely than men to attend university, and those who did were more likely than men to graduate.

African Americans, too, made considerable progress, although the gains are much more concentrated in the upper end of the distribution for Blacks than for Whites. For instance, the percentage of black respondents who did not obtain either a GED or a high school diploma declined from 16.5 to 13.5 from the 1979 cohort to the 1997 cohort, whereas the corresponding percentage of white respondents declined from 11.3 to 5.8. Thus, despite starting from a smaller percentage of nongraduates, Whites experienced a greater decline in the percentage who did not obtain either a GED or high school diploma than did Blacks. Similarly, the percentage of black respondents without a high school degree was essentially unchanged, increasing from 25.2 in the 1979 cohort to 25.3 in the 1997 cohort. For Whites, however, that percentage dropped from 19.0 in the 1979 cohort to 13.2 in the 1997 cohort. Progress was even more dramatic for Hispanics. In the 1979 cohort, 36.5 percent of respondents did not have a high school degree, but this dropped to 19.6 percent in

the 1997 cohort. Thus, in one generation, African Americans replaced Hispanic Americans as the group having the highest fraction of youth without a high school degree.

At the other end of the distribution, however, African Americans showed a much more substantial improvement than did Hispanics. In the 1979 cohort, 8.5 percent of the African American population had a bachelor's degree by age 25, but this percentage grew to 15.0 by the 1997 cohort. In contrast, in the 1979 cohort, 9.4 percent of Hispanics had a bachelor's degree by age 25, but this grew much less rapidly, to 11.7 percent in the 1997 cohort. By comparison, the percentage of whites with a bachelor's degree grew from 23.9 in the 1979 cohort to 32.6 in the later cohort.

Thus, there is a very distinctive pattern among the three major race/ethnic groups. For Whites, education levels have increased across the distribution, with fewer who fail to obtain a high school degree and an ever-greater proportion obtaining a bachelor's degree. The 1980s and 1990s were a period of spectacular increase in the returns to investment of schooling, and the change in the behavior of the white Americans in the cohort is generally and properly viewed as a response to that increase in returns. In contrast, the Hispanic Americans in the cohort exhibited a modest growth in the proportion obtaining a bachelor's degree but a substantial decline in the proportion without a high school degree. Thus, the distribution of education levels among Hispanics became much more concentrated in younger cohorts. African Americans had a substantial expansion in the proportion with a bachelor's degree but virtually no change in the proportion without a high school degree. Thus, the distribution of educational levels among African Americans became more diffuse in the younger cohorts. Understanding the reasons for these three distinct changes in the distribution of educational levels will be an important goal for future research.

Walker also reports differences in educational attainment by the respondents' scores on the Armed Forces Qualification Test (AFQT). He divides the respondents into thirds ("terciles"), and reports the educational attainment of each. Here, again, the news is good: in each ability tercile the fraction without a high school degree declined and the fraction with a bachelor's degree increased. Not surprisingly, the largest drop in the proportion of people without a high school degree was in the lowest tercile of AFQT scores. In the 1979 cohort, 39.5 percent of the lowest ability third did not receive a high school degree, but this fell to 35.3 percent in the 1997 cohort. Walker also documents a large increase in the proportion of people getting a GED in this bottom tercile: 11.3 percent did so

in the 1979 cohort, whereas 14.3 percent did so in the 1997 cohort. The largest growth in the proportion with a bachelor's degree occurred in the middle tercile of AFQT scores, a rise from 18.2 percent in the 1979 cohort to 22.1 percent in the 1997 cohort.

*The effects of parental resources.* A similar pattern emerges when Walker partitions the sample into terciles by parents' income, measured in the first round for both cohorts. From the 1979 cohort to the 1997 cohort, in each tercile the proportion without a high school degree declined, and the proportion with a bachelor's degree increased. There is one important difference in the results for parental income compared with the results for the AFQT. The greatest gain in the proportion obtaining a bachelor's degree occurred in the lowest tercile of the AFQT score distribution but in the highest tercile of parental income. Indeed, there is a strong monotonic relationship between income and the percentage point gain in the proportion with a bachelor's degree: the highest tercile had an 11.4-percentage-point increase, the middle tercile had a 7.8-percentage-point increase, and the lowest tercile only had a 1.7 percentage-point increase. Thus, the correlation between the possession of a bachelor's degree and parental income became even stronger in the younger cohort.

This increased correlation of educational attainment and parental income suggests a growing importance of parental resources in determining who can afford college. In a paper they presented at the recent NLSY97 conference, Philippe Belley and Lance Lochner of the University of Western Ontario and Marc Frenette of Statistics Canada reported on a preliminary investigation that is further exploring this correlation using the NLSY97 and a Canadian longitudinal data set.<sup>2</sup> They expand upon a paper that Belley and Lochner recently published in the first issue of the *Journal of Human Capital*;<sup>3</sup> in it, Belley and Lochner use a structural model and the NLSY79 and NLSY97 to estimate the impact of parental resources on educational attainment. Consistent with several other studies, Belley and Lochner find that parental income and resources played virtually no role in the determination of enrollment rates for the 1979 cohort. For the 1997 cohort, however, parental resources were much more important in determining who attended college. The paper explains that parental income is important because students are constrained from borrowing against their future earnings. Thus, though it makes economic sense to attend college, many members of the younger cohort were able to do so only if their parents could help them financially.

Both the paper published in the *Journal of Human Cap-*

*ital* and the paper presented at the conference highlight a potentially serious problem in American higher education. In the years between the two cohorts, the cost of high-quality university education has skyrocketed. For instance, the Chicago Tribune has reported that the cost of sending an in-State student to the University of Illinois at Champaign-Urbana—an elite public institution—now exceeds \$20,000 a year. Because the growth of college tuition and fees has far outstripped the growth in federally funded student loans, one might expect that the increased costs would limit access to costly, elite schools. Nevertheless, Americans face a staggering quantity of choice in higher education with wide variation in prices. Community colleges, for example, often represent an attractive option at a price that is an order of magnitude lower than the cost at an elite school. These drastically lower prices, coupled with the possibility of living at home and avoiding additional costs, could lead one to believe that capital market constraints would not prevent aspiring college students from attending higher education.

However, there exists evidence to the contrary. In a series of papers, Todd R. Stinebrickner of the University of Western Ontario and Ralph Stinebrickner of Berea College examine the behavior of Berea College students. Berea is an especially useful college to study because it charges no tuition and provides students with a modest stipend as payment for a campus job. The policy is intended to assure that no students are excluded from Berea because they cannot afford the tuition bill. Yet, Stinebrickner and Stinebrickner find that despite the free tuition and limited direct cost of attending Berea, family income is still critically important for graduation.<sup>4</sup> The reason seems to be that there are many events and circumstances—a parent's illness or unemployment, for example—that may make it difficult for students to complete their college studies. Students from wealthier families have a larger number of options available to address these difficulties. Understanding the roles of capital markets and family resources in accessing and completing college is an important research agenda for the future.

*Obesity.* A topic that has been a focus of much research in health economics is the direction of causality in the strong link between health and schooling. Some researchers suggest that schooling affects health, others suggest that health affects schooling, and still others suggest that there are other factors—third forces—that influence both in the same direction, causing the observed positive association. One of the authors of a paper at the recent NLSY97 conference, Michael Grossman of the City University of

New York Graduate Center, has been the primary scholar in this debate over the past several decades; the paper he and his colleague, Robert Kaestner of the University of Illinois at Chicago, presented at the conference addresses one small piece of this puzzle.<sup>5</sup>

Kaestner and Grossman note that adolescent obesity has risen dramatically in recent years, and they ask whether obesity has an effect on educational attainment among adolescents. If it does, that would be one avenue through which health status influences the level of education. Kaestner and Grossman point out that a relationship between obesity and educational attainment could work in several ways logically, and economic theory alone does not shed much light on which of several potential routes of influence might dominate. Obese adolescents might suffer from discrimination from teachers and/or peers that could adversely affect their schooling, and they might also have related health troubles such as sleeping disorders and depression that could adversely affect their cognitive functioning or cause them to miss days of school. Conversely, overweight youths might engage less in sports and physical activities and even in social activities, and as a result they may spend more, not less, time studying and thus perform better academically. Kaestner and Grossman turn to the NLSY97 data for evidence.

This is a case in which a negative finding is noteworthy. After undertaking a quite thorough study, with sophisticated formal theoretical modeling and statistical analyses, the researchers conclude that there is very little evidence in the NLSY97 data that obesity has any discernible effect on the educational attainment of these young adults, either positive or negative. They study boys and girls separately, looking at the extreme tails of the distribution of weight and noting the highest grade of school attended, the highest grade completed, and whether or not the student dropped out of school. In neither estimates from very simple models nor in Kaestner and Grossman's estimates from quite complex and highly controlled models is there evidence of an effect of weight on schooling. Obesity, they conclude, does not play a direct role in the strong, positive association between health and schooling.

### Social Behaviors

Although a primary motivation for the NLS program is a better understanding of the labor market experiences of the workforce, BLS has understood the importance of investigating a wide range of other behaviors, both within the family and in the community, as forces that affect employment, marketable skills, occupation choices and

opportunities, and career trajectories, as well as hours of work, wages, and earnings. The NLS data sets have long been used for studying many types of youth and adult behaviors, and the recent conference suggests that the most recent NLSY97 data have much to contribute to our understanding of family and youth behaviors.

*Marriage and offspring.* Robert Michael of the University of Chicago, in remarks that opened the conference, pointed to both the continuity and change in demographic trends between the 1979 and 1997 cohorts. The most dramatic trend, he claimed, is found in terms of formal marriage: 8.7 percent of 18-year-old females in the 1979 cohort had married, whereas only 1.6 percent of their counterparts in the 1997 cohort had done so. By age 21 the trend was even more striking, with 33.4 percent of the females from the 1979 cohort married but only 12.1 percent from the 1997 cohort married. Similarly, 15.1 percent of 21-year-old men from the 1979 cohort were married, compared with 5.2 percent from the 1997 cohort. Although these figures reflect the well-documented decline in formal marriage in the United States, if instead one considers the percentage of the 1997 cohort who have formed a dyadic partnership, the numbers look much like the 1979 numbers for formal marriages: 33.1 percent of the females reported having formed a cohabitational partnership, and 19.1 percent of the males reported having done so. The big decline is in formal marriage, not in forming a dyadic partnership.

Concerning the percentage of young mothers, there was essentially no difference between the 1979 and 1997 cohorts—7.8 percent of women in the 1979 cohort had a child by age 18, compared with 7.6 percent of the 1997 cohort. The difference between cohorts in the percentage of those who were mothers by age 21 is also small; 23.2 percent of the NLSY79 met the criteria, compared with 23.8 percent of the NLSY97. For the males, there was a slight increase in reported parentage at age 18, with 1.3 percent of the 1979 cohort having at least one child at age 18, compared with 2.3 percent of the 1997 cohort. By age 21, 8.6 percent of the males from the 1979 cohort reported being a father, compared with 11.2 percent of the males in the 1997 cohort.

*Adolescent sexual activity.* Researchers from Child Trends, a Washington, DC, think tank that focuses on issues of child development and policy, investigated the risky behavior of adolescent sexual activity and the role that parents play in affecting this behavior.<sup>6</sup> Kristin Moore and Kassim Mbwana examined whether the youths who were 12–14 at the beginning of the survey began having

sex before age 17 (53 percent did so), whether they used contraceptives or engaged in “unsafe sex” when they did have sex (16 percent were judged to have had unsafe sex in the 12 months before age 17), whether those who were sexually active had multiple partners by the time they turned 17 (some 44 percent had two or more partners), and whether or not they had become teenage parents before turning 18 (6 percent did so). This study examined three aspects of how the teenagers’ parents’ styles of supervision, guidance, and support affected these elements of the youths’ sexual behavior. First, the authors investigated the influences of different parenting styles on sexual risk-taking by adolescents. Second, the researchers examined whether the influence of parenting style varied depending upon the risks that the adolescent faced. Finally, Moore and Mbwana examined whether parental awareness of children’s activities prevented the children from engaging in sexual activity.

The NLSY97 data have considerable detail regarding how parents guide and monitor their children’s social and private lives. One set of measures used in this study—measures that are well-explored by developmental psychologists and believed to be influential in the development of preschool and elementary school children—characterizes parental styles into a four-category typology: some parents are “authoritative” (which means they are rather strict, yet highly supportive, of their adolescent children), others are “permissive” (which means they are not strict, but are quite supportive), others are “uninvolved” (meaning they are neither strict with their children nor supportive), while still others are “authoritarian” (meaning they are strict, but not supportive). Moore and Mbwana’s study borrows this typology and uses it to analyze the influence of parenting styles on the sexual behaviors of adolescents. In particular, the study focuses on the influence of an “authoritative” (strict but supportive) style of parenting.

The findings at this stage in the investigation are robust ones: holding constant many of the known factors that affect adolescent behaviors, authoritative parenting was clearly associated with less sexual risk taking by girls, specifically through later initiation of sex, less unsafe sex, fewer sex partners, and lower rates of teenage parenting. For boys, the effects were not as strong, but where the effects were in evidence—in the age of onset of sexual activity—more authoritative parenting was associated with a delay in the age at first sex.

Greater levels of risky sexual activity occurring among adolescents’ peers, in their schools, and in their neighborhoods were also associated with a higher probability of early sex, unsafe sex, more partners, and teen parenthood;

however, little evidence was found that the importance of parenting varies by risk level. These studies concerning parenting styles control for several important factors that also influence this behavior. For example, adolescents who live with both their biological parents engage in less sexual risk taking, those whose mothers were themselves teenage parents exhibit more risky sexual behaviors, and those who grew up in an impoverished family take more sexual risks.

The last issue that the Moore and Mbwana paper explores is the influence of parental awareness of adolescents' activities, as measured by how well the parents know their child's close friends, how well they know those close friends' parents, whether they know with whom their child spends time when he or she is not at home, and how well they know their child's teachers. The findings suggest that parental awareness results in both boys and girls delaying sexual activity, engaging in less unsafe sex, and being less likely to have multiple sexual partners. The study concludes that "[p]arents matter for all adolescents" in this important arena of sexual risk taking.

*The influence of siblings.* Another paper presented at the conference also looks within the family at factors that appear to be associated with risky behaviors, but this one focuses on the influence of siblings instead of parenting styles.<sup>7</sup> Joseph Altonji of Yale, Sarah Cattan of the University of Chicago, and Iain Ware of 3iGroup point out that several studies have found substantial correlations in risky behavior between siblings, raising the possibility that adolescents may directly influence the actions of their brothers or sisters. The researchers note that there is an insightful body of literature in psychology that suggests that such sibling effects may exist, particularly for younger children who look to their older siblings for cues about appropriate teenage behaviors. The authors note, however, that much of the published empirical analyses of sibling effects are compromised by the difficulty of distinguishing direct influences from the impact of shared unobserved factors. Multivariate regressions relating the behavior of siblings undoubtedly reflect the fact that a variety of common influences affect the actions of all siblings in a household, so the fact that siblings behave similarly does not necessarily imply that one child affects his or her brother or sister. Altonji, Cattan, and Ware look at a wide range of risky activities from the NLSY97 data set and find strong positive sibling correlations. The primary contribution of the paper is their assessment of the extent to which these correlations are due to causal effects from one sibling to another.

The researchers articulate a sibling model of consumer choice that serves as a basis for their econometric identification strategy. It is based on the fact that the behavior of a child at a given point in time cannot directly influence a sibling's actions in a prior year. The authors also assume that the direction of any influence is from an older sibling to a younger sibling. They estimate a joint dynamic model of the behavior of older and younger siblings that allows for family effects, individual specific heterogeneity, and past choices. Their results suggest that smoking, drinking, and marijuana use are influenced by the example of older siblings, although much of the link between siblings reflects association rather than causation.

*Running away from home.* One of the more unusual topics explored at the recent conference addressed the issue of adolescents running away from home.<sup>8</sup> In his paper, Michael Pergamit of the Urban Institute explains what the published literature reveals about runaways. He states that nearly all the available information regarding this phenomenon comes from samples of youths in homeless shelters, in crisis centers, or living on the street; these data sources, unfortunately, do not permit analysts to compare youths who have run away with those who have not. For example, one cannot investigate the prevalence of running away using data of that nature, nor can one track how runaways and youths who have never run away differ in their developmental pathways prior to or after running away. Moreover, the information about the family and schooling experiences prior to running away are, in the shelter samples, necessarily collected after the running away episode and may thereby be tainted or shaded by the experience itself.

The NLSY97 annually asked the youths if they had ever run away from home. The survey used the definition supplied by the Department of Justice, that running away is "staying away at least one night without parents' prior knowledge or permission." Each year, as long as the youth was residing with parents and was under age 18, he or she was asked about incidents of running away occurring since the previous interview; consequently, this study captures a sample of runaways that reflects the whole set of children who ran away, not just those who ended up in shelters or crisis centers. In some cases, the data also include key information about the youth from years prior to episodes of running away. The paper exploits these features of the NLSY97 data, focusing primarily on children who were age 12 or 13 in the first year of the study.

The prevalence of running away is itself one of the most interesting findings in this paper, which estimates that of

the roughly 20 million U.S. youths born between 1980 and 1984, some 17.8 percent had run away by the age of 18. The rate is higher for females—19.8 percent—than for males—15.8 percent. It is also slightly higher for Hispanic youths than for Whites or African Americans: 19.4 percent of Hispanics and 17.4 percent of both Whites and African Americans had run away by age 18. Of all children who had run away, about half had done so only once, but approximately 10 percent had done so seven or more times; of the youths who reported incidents of running away, the average number of these incidents was 3.3. About one-third of children who ran away had done so before age 14.

In a statistical model that identified which adolescents had run away from home while controlling for several attributes, it is interesting that the sex of the adolescents was not a factor. As if to illustrate the challenge of summarizing findings from complex studies, however, the paper notes that boys who did run away did so less often than girls but that boys did so at a younger age than girls. African Americans and Hispanics were both less likely to run away than were Whites after statistical controls were introduced. Similarly, having siblings had no apparent effect on running away. Children with higher scores on the AFQT were less likely to run away, while, as one might expect, youths who had a poor relationship with parents, who scored high on measures of behavioral problems, or who had mental health problems were significantly more

likely to run away. Urban youths were much more likely to run away than youths in rural settings. The study also finds that “the more things the family does together the lower is the probability of running away.” The author notes that it will be important to track the effects of running away on the life trajectories of these young men and women as they age through their 20s and beyond. This is surely one of the key benefits of a data set like the NLSY97 that identifies behaviors and events early in life and can then reveal whether that behavior is associated with later life events, and, if so, to what extent.

THE FINDINGS BRIEFLY SUMMARIZED IN THIS ARTICLE represent about half the research papers delivered at the Tenth Anniversary Conference in May 2008. In turn, the papers presented at the conference reflect only a small portion of the new facts and relationships discovered so far by researchers working with the NLSY97 data sets. Assuming the survey respondents continue to be willing to accept the request for an hour-long interview each year, as their lives unfold over the next decade or so, researchers’ understanding of the U.S. labor market and the behavior of the cohort born between 1980 and 1984 will continue to grow. The ever-improving understanding of the forces shaping labor market experiences should help policymakers, and the deeper understanding of the consequences of private decisions should be of value to families everywhere. □

## Notes

ACKNOWLEDGMENT: The authors thank Rupa Datta and Donna Rothstein for contributions to this summary paper.

<sup>1</sup> The NLSY97 Tenth Anniversary Conference, held in 2008 at the Bureau of Labor Statistics in Washington, DC, May 29–30, was supported by grants from the Spencer Foundation, the NORC Population Research Center, and the Harris School’s Center for Human Potential and Public Policy.

<sup>2</sup> Philippe Belley, Marc Frenette, and Lance Lochner, “Post-Secondary Attendance by Parental Income: A Canada-U.S. Comparison.” Paper presented at the NLSY97 Tenth Anniversary Conference, Washington, DC, May 2008.

<sup>3</sup> Philippe Belley and Lance Lochner, “The Changing Role of Family Income and Ability in Determining Educational Achievement,” *Journal of Human Capital*, Winter 2007, pp. 37–90.

<sup>4</sup> Ralph Stinebrickner and Todd R. Stinebrickner, “Understanding Educational Outcomes of Students from Low-Income Families: Evi-

dence from a Liberal Arts College with a Full Tuition Subsidy Program,” *Journal of Human Resources*, Summer 2003, pp. 591–617.

<sup>5</sup> Robert Kaestner and Michael Grossman, “Effects of Weight on Adolescent Educational Attainment.” Paper presented at the NLSY97 Tenth Anniversary Conference, Washington, DC, May 2008.

<sup>6</sup> Kristin Moore and Kassim Mbwana, “Preventing Risky Sex and Adolescent Parenthood: Does the Effectiveness of Parenting Practices Differ For Children with Varied Risks?” Paper presented at the NLSY97 Tenth Anniversary Conference, Washington, DC, May 2008.

<sup>7</sup> Joseph G. Altonji, Sarah Cattan and Iain Ware, “Sibling Influences on Teenage Risky Behaviors.” Paper presented at the NLSY97 Tenth Anniversary Conference, Washington, DC, May 2008.

<sup>8</sup> Michael R. Pergamit, “Who Runs Away from Home? An Exploratory Analysis.” Paper presented at the NLSY97 Tenth Anniversary Conference, Washington, DC, May 2008.

## Multiple Jobholding in States in 2007

Jim Campbell

In 2007, 26 States and the District of Columbia experienced decreases in their multiple jobholding rates from 2006, 20 States recorded increases, and 4 States had no change.<sup>1</sup> The national multiple jobholding rate was unchanged in 2007, at 5.2 percent. The largest over-the-year rate decreases among the States were

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post in Idaho (−1.8 percentage points), Alaska (−1.6 points), and Wyoming (−1.3 points). Kansas experienced the largest increase among the States (+1.4 percentage points), followed by Kentucky (+0.8 point) and West Virginia (+0.7 point).

Although the U.S. multiple jobholding rate was the same as in 2006, it was 1.0 percentage point lower than in 1996, when it peaked at 6.2 percent.<sup>2</sup> Compared with 1996, 44 States and the District of Columbia had lower multiple jobholding rates in 2007, and only 6 States had higher rates. The largest declines over this period occurred in Idaho (−3.0 per-

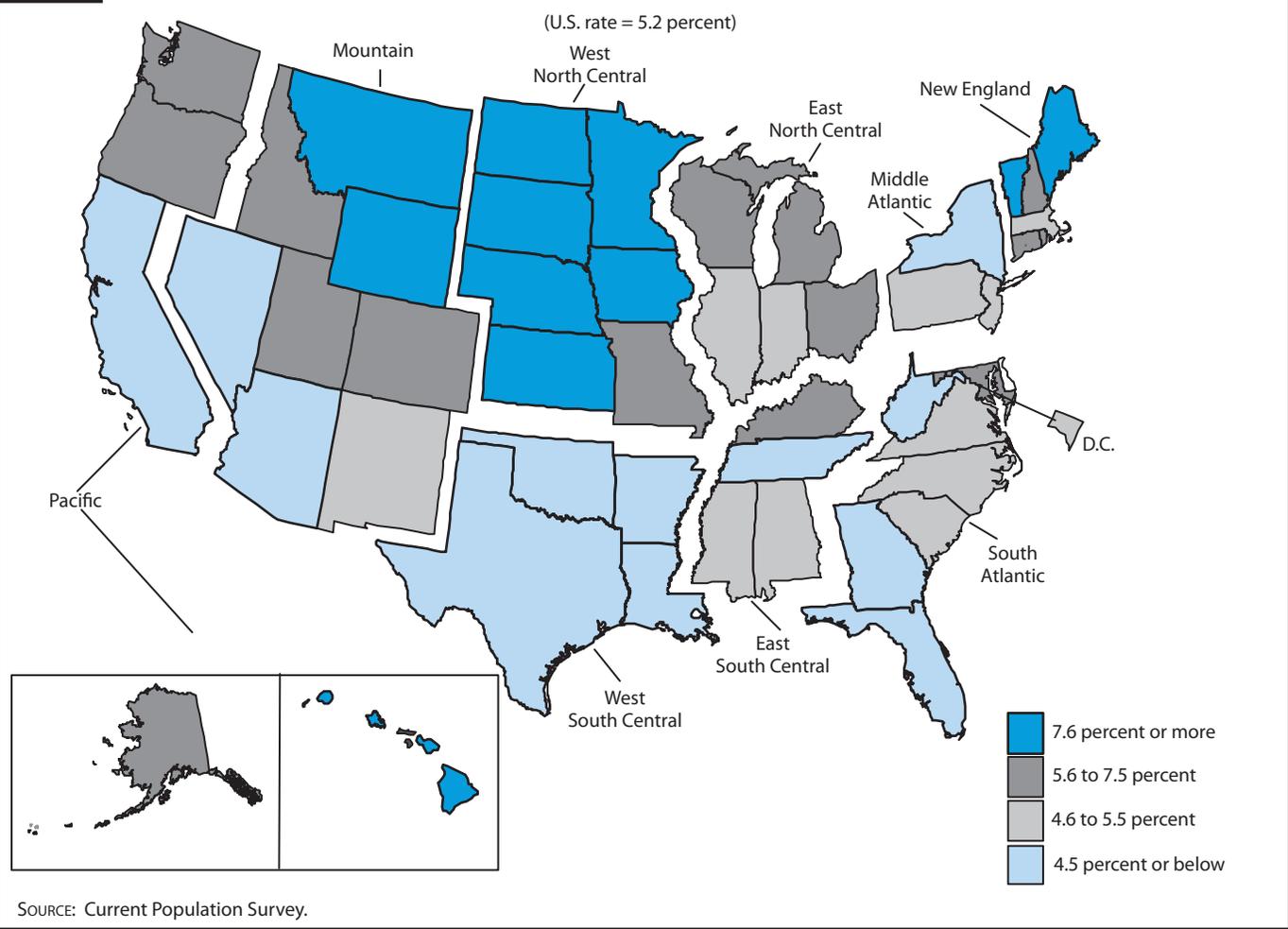
centage points), Indiana and Missouri (−2.8 points each), and Arkansas (−2.6 points). Over the 1996–2007 period, only one State had an increase in its multiple jobholding rate that was greater than 0.4 percentage point: Vermont (+0.8 point).

The multiple jobholding rates for individual States varied considerably from the U.S. average. (See chart 1.) Overall, 28 States had higher multiple jobholding rates than the national average, 20 States and the District of Columbia had lower rates, and 2 States had the same rate. Northern States generally had higher rates than southern States.

**Table 1. Multiple jobholders as a percentage of total employment by State, 2006 and 2007 annual averages**

State/area	2006	2007	State/area	2006	2007
United States .....	5.2	5.2	Missouri .....	6.7	6.2
Alabama .....	4.5	4.7	Montana .....	8.1	8.0
Alaska .....	9.0	7.4	Nebraska .....	9.9	9.7
Arizona .....	4.7	4.5	Nevada .....	4.0	3.8
Arkansas .....	5.4	4.5	New Hampshire .....	7.3	6.9
California .....	4.2	4.4	New Jersey .....	4.9	4.6
Colorado .....	5.8	6.0	New Mexico .....	5.3	5.0
Connecticut .....	5.9	6.3	New York .....	4.5	4.2
Delaware .....	4.4	4.4	North Carolina .....	5.3	5.3
District of Columbia .....	5.4	4.6	North Dakota .....	8.4	8.7
Florida .....	3.9	3.9	Ohio .....	6.4	6.3
Georgia .....	3.5	4.1	Oklahoma .....	4.7	4.4
Hawaii .....	8.0	8.2	Oregon .....	6.3	5.7
Idaho .....	8.3	6.5	Pennsylvania .....	5.5	5.3
Illinois .....	4.9	5.2	Rhode Island .....	6.9	6.6
Indiana .....	4.3	4.7	South Carolina .....	4.5	4.9
Iowa .....	8.9	8.8	South Dakota .....	9.9	10.2
Kansas .....	7.5	8.9	Tennessee .....	5.1	4.5
Kentucky .....	5.6	6.4	Texas .....	4.3	4.5
Louisiana .....	4.5	4.4	Utah .....	7.5	6.9
Maine .....	8.2	8.1	Vermont .....	9.3	9.4
Maryland .....	5.5	5.9	Virginia .....	4.9	4.8
Massachusetts .....	5.6	5.2	Washington .....	5.7	5.9
Michigan .....	5.6	5.7	West Virginia .....	3.5	4.2
Minnesota .....	8.7	8.7	Wisconsin .....	7.7	7.5
Mississippi .....	4.1	4.7	Wyoming .....	9.3	8.0

**Chart 1. Multiple jobholding rates by State, 2007 annual averages**



All seven States in the West North Central division continued to register multiple jobholding rates above that of the Nation. The northern States in the Mountain and New England divisions also continued to have relatively high rates. South Dakota recorded the highest rate, 10.2 percent, followed by Nebraska and Vermont, at 9.7 and 9.4 percent, respectively. Many of the upper Plains States with high multiple jobholding rates also have high shares of agricultural and part-time employment. In addition, multiple jobholding seems

generally to be highest in States that have low average commuting times.<sup>3</sup> Most of the States with high multiple jobholding rates in 2007 have had consistently high rates over the 1996–2007 period.

Thirteen of the 16 States in the South region, as well as the District of Columbia, had multiple jobholding rates below the U.S. figure.<sup>4</sup> Among the 9 States with rates below 4.5 percent, 6 were in the South. Nevada recorded the lowest multiple jobholding rate in 2007, 3.8 percent, followed by Florida, at 3.9 percent, and Georgia, at 4.1 percent. □

## Notes

<sup>1</sup> Data on multiple jobholders are from the Current Population Survey (CPS), a survey of about 60,000 households selected to represent the U.S. civilian noninstitutional population aged 16 years and older. The CPS is conducted monthly by the U.S. Census Bureau for the Bureau of Labor Statistics. Multiple jobholders are those who report in the reference week that they are wage or salary workers who hold two or more jobs, self-employed workers who also hold a wage or salary job, or unpaid family workers who also hold a wage or salary job.

<sup>2</sup> Annual multiple jobholding data for States became available following the redesign of the Current Population Survey in 1994.

<sup>3</sup> Average commute times are from the 2000 Census of Population and Housing.

<sup>4</sup> The South region is composed of the East South Central, South Atlantic, and West South Central divisions.

## Procrastination: an economic analysis

Most people are quite familiar with procrastination—a tendency that affects the way they complete (or do not complete) projects in the workplace, in school, at home, and elsewhere. A conventional explanation for procrastination is that people act rationally, choosing to postpone tasks because they find it difficult to muster the self-discipline to begin them earlier. In “An Economic Model of the Planning Fallacy” (NBER Working Paper Series, National Bureau of Economic Research, August 2008), Markus K. Brunnermeier, Filippos Papakonstantinou, and Jonathan A. Parker use advanced mathematics, along with data from experiments, to argue in favor of an alternative theory. They contend that the only cause of procrastination is people’s tendency to underestimate the amount of time needed to complete a project.

Various studies—in both laboratory and nonlaboratory settings—have demonstrated that when given an unpleasant task, the average person takes much longer to complete it than he or she predicted before beginning the task. The paper’s authors call the faulty reasoning behind this behavior “the planning fallacy.” Because of the planning fallacy, people often spend a disproportionately large amount of time working on projects close to the deadline. The authors explain that people do this because the utility derived from the felicitous belief that a project will be easy to complete outweighs the cost of not properly “smoothing” work over time. The researchers believe that, subconsciously, people actually do realize about how long most projects take; yet, when faced with a new project, they still consciously believe that the project will take less time.

When people are asked to complete a simple, non-onerous task in an experiment, they actually tend to complete the task slightly more quickly than they predicted beforehand. However, when people are paid on the basis of how quickly they complete either a non-onerous or a burdensome task, they tend to underestimate the amount of time necessary to finish it. By contrast, financial incentives for accurate prediction can eliminate the planning fallacy.

Brunnermeier, Papakonstantinou, and Parker argue that the results of the aforementioned experiments bolster their view that procrastination is based on the planning fallacy. The greater the anticipatory benefit to believing that the project will take little time, the stronger is the tendency to underestimate the amount of time necessary to complete it. Nevertheless, most people are aware of their penchant for postponing work; consequently, they often set intermediate deadlines in an effort to mitigate their procrastination.

## Business cycle analysis

Policymakers and business managers alike must regularly face the challenge presented by the recurrent cyclical fluctuations in the U.S. economy. Understanding the business cycle is crucial to both: policymakers must make decisions about monetary and fiscal policy in an effort to smooth out the cycles, while profit-maximizing managers must make informed decisions about their individual firms during the various stages of the business cycle. In “How the U.S. economy resembles a (very) big business” (*Economic Perspectives*, Federal Reserve Bank of Chicago, third quarter 2008), senior Bank economist Jeffrey R. Campbell analyzes the fluctuations in U.S. economic growth by treating the

U.S. economy as a very large business. This fictional business employs all of the workers in the U.S. economy, owns all of the capital, and returns all of its profits to its “shareholders,” the U.S. public. Campbell presents tools for evaluating the contributions of particular product lines to U.S. economic growth and the effect they have on the business cycle. He extends his analysis by using the same tools to measure a large firm’s exposure to macroeconomic risks.

Campbell employs two macroeconomic concepts to assess the contributions to overall economic growth made by particular sectors, as well as the sustainability of that growth: the *fundamental national product accounting identity*, which divides the total value of goods and services produced by the economy into discrete expenditure components, and the *contributions to growth formula*, which equates the rate of GDP growth with the sum of the individual component growth rates multiplied by their share of expenditures in the previous quarter.

When he applies these concepts to the U.S. economy, Campbell finds that macroeconomic risks are largely the result of periodic fluctuations in nonresidential fixed investment, which accounts for a substantial portion of overall economic activity. (Nonresidential fixed investment consists of purchases by firms of nonresidential structures, equipment, and software.) Expenditures on nondurable goods and services, which represent a very large portion of national income, fluctuate little from quarter to quarter and thus contribute only marginally to macroeconomic risks.

Campbell suggests that his methodology might be used by others to set macroeconomic benchmarks and “start a conversation about a business’s place in the larger economy.” □

## Employment and America's future

*A Future of Good Jobs? America's Challenge in the Global Economy.* By Timothy J. Bartik and Susan N. Houseman, Kalamazoo, MI, Upjohn Institute for Employment Research, 2008, 327 pp., \$20.00/paperback; \$40.00/cloth.

The papers in this volume were prepared by editors Timothy J. Bartik and Susan N. Houseman for a conference held in June 2007, in honor of the 75th anniversary of the W.E. Upjohn Unemployment Trustee Corporation. In the 15 months between the conference and the writing of this review, the state of the U.S. economy has worsened. Although the need to address the labor market and related problems identified in this excellent collection of papers is even greater now than when they were written, macroeconomic conditions make it more difficult to do so. It is as if able diagnosticians supplied the prognosis for a patient with several interacting chronic conditions, only to have the patient come down with the flu. The suggested treatment plan may have to be postponed or modified until the temporary ailment is over.

Chapter 1 provides a clear synthesis of the topics discussed by the authors of the remaining six chapters: Robert J. Lerman on education and training; Katherine Swartz on health care financing; Lori G. Kletzer on trade and immigration; Katharine G. Abraham and Susan N. Houseman on labor market issues for older workers; Paul Osterman on demand-side policies aiding lower-skill workers; and Steven Raphael

on problems and policies relating to disadvantaged workers in general and former convicts in particular. The analysis and policy proposals focus on problems facing workers in the lower 4/5 of the income distribution. The net impact of economic change in recent decades is manifested in growing income inequality, but the way in which inequality has grown has intensified the problem. Over the quarter century from 1980 to the mid-2000s, real wages have declined for the bottom 10th percentile of the wage distribution, and increased by less than 20 percent for the group between the 10th and 80th percentiles.

Presumably coincidentally, the chapters divide into two groups by authors' gender. The three by the male authors concentrate on problems faced by workers with lower levels of skill and education, whereas those written by the female authors are about issues that affect most of the population and workforce. This is not to imply that the former group is dealing with less important problems; rather, that those issues with broader impact may receive greater policy attention and political support than those affecting a smaller segment of the population.

Nearly 20 years ago, Gary Burtless edited a collection of papers on the plight of the unskilled, especially unskilled men, titled *A Future of Lousy Jobs?* (See Burtless, Gary, ed. *A Future of Lousy Jobs? The Changing Structure of U.S. Wages*, The Brookings Institution, Washington, DC 1990.) According to Burtless:

"If the demand for unskilled labor has dropped, the obvious policy response is to improve the qualifications of less skilled workers to match the developing requirements of the job market. If

the [N]ation has too many unskilled workers, rather than too many bad jobs, both efficiency and equity will be served by improving the skills of workers now lodged at the bottom."

In addition to the play on that title, the current book's most direct link with the earlier work is in the chapters by Lerman, Osterman and Raphael. The "Lousy Jobs" analysis attributed the declining economic fortunes of less skilled men to their excess supply, combined with greater demand for more skilled workers, when firms and industries changed the skill mix of their labor inputs to meet the needs of the new technologies. There are simply not enough jobs for the less skilled, and, according to Burtless, the remedy is to upgrade the education and training of those at the bottom of the economic ladder.

The three authors just mentioned are generally in accord with this diagnosis for the less skilled worker in the contemporary labor market. Rapid technological change and increased globalization, plus the declining impact of institutional protections such as unions, make the outlook for less-skilled workers even bleaker today than it was in the early 1990s. Lerman's prescription includes developing educational approaches that raise and better reward noncognitive and occupational skills that are in short supply. This will require changes in emphasis within the educational sector, favoring work-based learning, which means a need for further investment by employers in the skills of workers. Osterman also calls for enhanced programs to encourage job upgrading in skills and pay; he sees the need as well for workers to have restored institutional safeguards,

such as increased minimum wages and acceptance of unions, which will complement the incentives provided to employers to promote upgrading. Raphael recommends helping low-wage workers directly by expanding the Earned Income Tax Credit (EITC) to bring in childless adults, especially low-income married couples. He also points to the often neglected subsector of the low-wage, low-skill population and the growing number of individuals with prison records, and advocates specific policies to reduce the barriers they face to obtaining productive, legal jobs.

Katherine Swartz is concerned with reforming how the United States finances health insurance in the face of declining percentages of workers (and retirees) presently covered by employer-based plans. The three principles of her proposed strategy are:

1. Everyone should be enrolled in a health insurance plan for which they pay some minimum amount;
2. Additional premiums paid by individuals and families should be in proportion to their income; and
3. Contributions (taxes) should be collected from employers.

Swartz argues that such a comprehensive cost-sharing plan should not be more expensive than the present system of spotty coverage that emphasizes cost-shifting and contains

perverse incentives for both workers and employers.

The remaining two chapters focus on the problems facing workers who are dislocated or need to find new jobs for other reasons. Two of the initiating factors analyzed by Lori Kletzer are increasing trade and immigration. Jobs may disappear due to import competition or outsourcing, while increased inflows of foreign-born workers augment the labor supply at both the low skill and high skill ends of the labor market. The consensus among economists is that, although there is a net social gain from trade and immigration, those who experience losses are concentrated among the less skilled native-born population, worsening their income and employment prospects. Kletzer notes, however, that the largest and most comprehensive adjustment assistance program (Unemployment Insurance or UI), needs to be changed to reflect the new economic realities. Other programs are neither large enough nor appropriately targeted to offset the gaps in the present UI system.

Katharine G. Abraham and Susan N. Houseman address a problem that is caused by a major social success; more of us are living longer, healthier lives. The challenge is how to maintain living standards during these “golden years.” One response to this need to make savings and income last longer is for older workers to stay in, or return to, the labor market for more years than they perhaps had hoped.

Less certain pension and health care coverage from employers, and changes to Social Security and Medicare, both favor a trend by Americans to work more hours and retire later. However, this pressure runs up against the existence of impediments to older worker employment, on both the supply and demand sides. Funding for employment and training programs targeted on older workers is substantially below levels of a decade ago in real terms, without taking into account the increased universe of eligibility. Program implementation can be sharpened to better meet the needs of older workers but issues such as health insurance, which may act as a disincentive to employers for hiring older workers, also have to be addressed in a broader context.

As these authors individually and collectively realize, there is no one-size-fits-all solution to lowering the barriers to good jobs faced by people in various situations. The policy proposals they suggest range from incremental changes in program performance standards to a comprehensive reworking of our health care financing system. But they do all have the common goal of working toward a more equitable society, for which the authors should be applauded. □

—Stephen E. Baldwin  
Economist  
Bethesda, MD

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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 current and past experiences. 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, 17–21, 48, and 52. Seasonally adjusted labor force data in tables 1 and 4–9 and seasonally adjusted establishment survey data shown in tables 1, 12–14, and 17 are revised in the March 2007 *Review*. A brief explanation of the seasonal adjustment methodology appears in “Notes on the data.”

Revisions in the productivity data in table 54 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 ( $\$3/150 \times 100 = \$2$ ). 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:

[www.bls.gov/cps/](http://www.bls.gov/cps/)

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

[www.bls.gov/ces/](http://www.bls.gov/ces/)

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:

[www.bls.gov/lpc/](http://www.bls.gov/lpc/)

For additional information on international comparisons data, see *Internation-*

*tional Comparisons of Unemployment*, 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-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. 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; 4–29)

### 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 60,000 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*. For a discussion of changes introduced in January 2003, see “Revisions to the Current Population Survey Effective in January 2003” in the February 2003 issue of *Employment and Earnings* (available on the BLS Web site at [www.bls.gov/cps/rvcps03.pdf](http://www.bls.gov/cps/rvcps03.pdf)).

Effective in January 2003, BLS began using the X-12 ARIMA seasonal adjustment program to seasonally adjust national labor force data. This program replaced the X-11 ARIMA program which had been used since January 1980. See “Revision of Seasonally Adjusted Labor Force Series in 2003,” in the February 2003 issue of *Employment and Earnings* (available on the BLS Web site at [www.bls.gov/cps/cpsrs.pdf](http://www.bls.gov/cps/cpsrs.pdf)) for a discussion of the introduction of the use of X-12 ARIMA for seasonal adjustment of the labor force data and the effects that it had on the data.

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 160,000 businesses and government agencies, which represent approximately 400,000 individual worksites and represent all industries except agriculture. The active CES sample covers approximately one-third of all nonfarm payroll workers. Industries are classified in accordance with the 2002 North American Industry Classification System. 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 the goods-producing industries cover employees, up through the level of working supervisors, who engage directly in the manufacture or construction of the establishment's product. In private service-providing industries, data are collected for nonsupervisory workers, which include most employees except those in executive,

managerial, and supervisory positions. Those workers mentioned in tables 11–16 include production workers in manufacturing and natural resources and mining; construction workers in construction; and nonsupervisory workers in all private service-providing industries. Production and nonsupervisory workers account for about four-fifths of the total employment 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. Table 17 provides an index on private nonfarm employment based on 278 industries, and a manufacturing index based on 84 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 March 2003 benchmark was introduced in February 2004 with the release of data for January 2004, published in the March 2004 issue of the *Review*. With the release in June 2003, CES completed a conversion from the Standard Industrial Classification (SIC) system to the North American Industry Classification System (NAICS) and completed the transition from its original quota sample design to a probability-based sample design. The industry-coding update included reconstruction of historical estimates in order to preserve

time series for data users. Normally 5 years of seasonally adjusted data are revised with each benchmark revision. However, with this release, the entire new time series history for all CES data series were re-seasonally adjusted due to the NAICS conversion, which resulted in the revision of all CES time series.

Also in June 2003, the CES program introduced concurrent seasonal adjustment for the national establishment data. Under this methodology, the first preliminary estimates for the current reference month and the revised estimates for the 2 prior months will be updated with concurrent factors with each new release of data. Concurrent seasonal adjustment incorporates all available data, including first preliminary estimates for the most current month, in the adjustment process. For additional information on all of the changes introduced in June 2003, see the June 2003 issue of *Employment and Earnings* and “Recent changes in the national Current Employment Statistics survey,” *Monthly Labor Review*, June 2003, pp. 3–13.

Revisions in State data (table 11) occurred with the publication of January 2003 data. For information on the revisions for the State data, see the March and May 2003 issues of *Employment and Earnings*, and “Recent changes in the State and Metropolitan Area CES survey,” *Monthly Labor Review*, June 2003, pp. 14–19.

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. 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 Current 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).

## Quarterly Census of Employment and Wages

### Description of the series

Employment, wage, and establishment data in this section are derived from the quarterly tax reports submitted to State employment security agencies by private and State and local government employers subject to State unemployment insurance (UI) laws and from Federal, agencies subject to the Unemployment Compensation for Federal Employees (UCFE) program. Each quarter, State agencies edit and process the data and send the information to the Bureau of Labor Statistics.

The Quarterly Census of Employment and Wages (QCEW) data, also referred as ES-202 data, are the most complete enumeration of employment and wage information by industry at the national, State, metropolitan area, and county levels. They have broad economic significance in evaluating labor

market trends and major industry developments.

## Definitions

In general, the Quarterly Census of Employment and Wages monthly employment data represent the number of **covered workers** who worked during, or received pay for, the pay period that included the 12th day of the month. **Covered private industry employment** includes most corporate officials, executives, supervisory personnel, professionals, clerical workers, wage earners, piece workers, and part-time workers. It excludes proprietors, the unincorporated self-employed, unpaid family members, and certain farm and domestic workers. Certain types of nonprofit employers, such as religious organizations, are given a choice of coverage or exclusion in a number of States. Workers in these organizations are, therefore, reported to a limited degree.

Persons on paid sick leave, paid holiday, paid vacation, and the like, are included. Persons on the payroll of more than one firm during the period are counted by each UI-subject employer if they meet the employment definition noted earlier. The employment count excludes workers who earned no wages during the entire applicable pay period because of work stoppages, temporary layoffs, illness, or unpaid vacations.

**Federal employment data** are based on reports of monthly employment and quarterly wages submitted each quarter to State agencies for all Federal installations with employees covered by the Unemployment Compensation for Federal Employees (UCFE) program, except for certain national security agencies, which are omitted for security reasons. Employment for all Federal agencies for any given month is based on the number of persons who worked during or received pay for the pay period that included the 12th of the month.

An **establishment** is an economic unit, such as a farm, mine, factory, or store, that produces goods or provides services. It is typically at a single physical location and engaged in one, or predominantly one, type of economic activity for which a single industrial classification may be applied. Occasionally, a single physical location encompasses two or more distinct and significant activities. Each activity should be reported as a separate establishment if separate records are kept and the various activities are classified under different NAICS industries.

Most employers have only one establishment; thus, the establishment is the predominant reporting unit or statistical

entity for reporting employment and wages data. Most employers, including State and local governments who operate more than one establishment in a State, file a Multiple Worksite Report each quarter, in addition to their quarterly UI report. The Multiple Worksite Report is used to collect separate employment and wage data for each of the employer's establishments, which are not detailed on the UI report. Some very small multi-establishment employers do not file a Multiple Worksite Report. When the total employment in an employer's secondary establishments (all establishments other than the largest) is 10 or fewer, the employer generally will file a consolidated report for all establishments. Also, some employers either cannot or will not report at the establishment level and thus aggregate establishments into one consolidated unit, or possibly several units, though not at the establishment level.

For the Federal Government, the reporting unit is the **installation**: a single location at which a department, agency, or other government body has civilian employees. Federal agencies follow slightly different criteria than do private employers when breaking down their reports by installation. They are permitted to combine as a single statewide unit: 1) all installations with 10 or fewer workers, and 2) all installations that have a combined total in the State of fewer than 50 workers. Also, when there are fewer than 25 workers in all secondary installations in a State, the secondary installations may be combined and reported with the major installation. Last, if a Federal agency has fewer than five employees in a State, the agency headquarters office (regional office, district office) serving each State may consolidate the employment and wages data for that State with the data reported to the State in which the headquarters is located. As a result of these reporting rules, the number of reporting units is always larger than the number of employers (or government agencies) but smaller than the number of actual establishments (or installations).

Data reported for the first quarter are tabulated into **size** categories ranging from worksites of very small size to those with 1,000 employees or more. The size category is determined by the establishment's March employment level. It is important to note that each establishment of a multi-establishment firm is tabulated separately into the appropriate size category. The total employment level of the reporting multi-establishment firm is not used in the size tabulation.

Covered employers in most States report total **wages** paid during the calendar quarter, regardless of when the services were performed. A few State laws, however, specify that wages be reported for, or based on the

period during which services are performed rather than the period during which compensation is paid. Under most State laws or regulations, wages include bonuses, stock options, the cash value of meals and lodging, tips and other gratuities, and, in some States, employer contributions to certain deferred compensation plans such as 401(k) plans.

Covered employer contributions for old-age, survivors, and disability insurance (OASDI), health insurance, unemployment insurance, workers' compensation, and private pension and welfare funds are not reported as wages. Employee contributions for the same purposes, however, as well as money withheld for income taxes, union dues, and so forth, are reported even though they are deducted from the worker's gross pay.

**Wages of covered Federal workers** represent the gross amount of all payrolls for all pay periods ending within the quarter. This includes cash allowances, the cash equivalent of any type of remuneration, severance pay, withholding taxes, and retirement deductions. Federal employee remuneration generally covers the same types of services as for workers in private industry.

**Average annual wage** per employee for any given industry are computed by dividing total annual wages by annual average employment. A further division by 52 yields average weekly wages per employee. Annual pay data only approximate annual earnings because an individual may not be employed by the same employer all year or may work for more than one employer at a time.

Average weekly or annual wage is affected by the ratio of full-time to part-time workers as well as the number of individuals in high-paying and low-paying occupations. When average pay levels between States and industries are compared, these factors should be taken into consideration. For example, industries characterized by high proportions of part-time workers will show average wage levels appreciably less than the weekly pay levels of regular full-time employees in these industries. The opposite effect characterizes industries with low proportions of part-time workers, or industries that typically schedule heavy weekend and overtime work. Average wage data also may be influenced by work stoppages, labor turnover rates, retroactive payments, seasonal factors, bonus payments, and so on.

## Notes on the data

Beginning with the release of data for 2001, publications presenting data from the Covered Employment and Wages program have switched to the 2002 version of the North

American Industry Classification System (NAICS) as the basis for the assignment and tabulation of economic data by industry. NAICS is the product of a cooperative effort on the part of the statistical agencies of the United States, Canada, and Mexico. Due to difference in NAICS and Standard Industrial Classification (SIC) structures, industry data for 2001 is not comparable to the SIC-based data for earlier years.

Effective January 2001, the program began assigning Indian Tribal Councils and related establishments to local government ownership. This BLS action was in response to a change in Federal law dealing with the way Indian Tribes are treated under the Federal Unemployment Tax Act. This law requires federally recognized Indian Tribes to be treated similarly to State and local governments. In the past, the Covered Employment and Wage (CEW) program coded Indian Tribal Councils and related establishments in the private sector. As a result of the new law, CEW data reflects significant shifts in employment and wages between the private sector and local government from 2000 to 2001. Data also reflect industry changes. Those accounts previously assigned to civic and social organizations were assigned to tribal governments. There were no required industry changes for related establishments owned by these Tribal Councils. These tribal business establishments continued to be coded according to the economic activity of that entity.

To insure the highest possible quality of data, State employment security agencies verify with employers and update, if necessary, the industry, location, and ownership classification of all establishments on a 3-year cycle. Changes in establishment classification codes resulting from the verification process are introduced with the data reported for the first quarter of the year. Changes resulting from improved employer reporting also are introduced in the first quarter. For these reasons, some data, especially at more detailed geographic levels, may not be strictly comparable with earlier years.

County definitions are assigned according to Federal Information Processing Standards Publications as issued by the National Institute of Standards and Technology. Areas shown as counties include those designated as independent cities in some jurisdictions and, in Alaska, those areas designated by the Census Bureau where counties have not been created. County data also are presented for the New England States for comparative purposes, even though townships are the more common designation used in New England (and New Jersey).

The Office of Management and Budget

(OMB) defines metropolitan areas for use in Federal statistical activities and updates these definitions as needed. Data in this table use metropolitan area criteria established by OMB in definitions issued June 30, 1999 (OMB Bulletin No. 99-04). These definitions reflect information obtained from the 1990 Decennial Census and the 1998 U.S. Census Bureau population estimate. A complete list of metropolitan area definitions is available from the National Technical Information Service (NTIS), Document Sales, 5205 Port Royal Road, Springfield, Va. 22161, telephone 1-800-553-6847.

OMB defines metropolitan areas in terms of entire counties, except in the six New England States where they are defined in terms of cities and towns. New England data in this table, however, are based on a county concept defined by OMB as New England County Metropolitan Areas (NECMA) because county-level data are the most detailed available from the Quarterly Census of Employment and Wages. The NECMA is a county-based alternative to the city- and town-based metropolitan areas in New England. The NECMA for a Metropolitan Statistical Area (MSA) include: (1) the county containing the first-named city in that MSA title (this county may include the first-named cities of other MSA, and (2) each additional county having at least half its population in the MSA in which first-named cities are in the county identified in step 1. The NECMA is officially defined areas that are meant to be used by statistical programs that cannot use the regular metropolitan area definitions in New England.

FOR ADDITIONAL INFORMATION on the covered employment and wage data, contact the Division of Administrative Statistics and Labor Turnover at (202) 691-6567.

## Job Openings and Labor Turnover Survey

### Description of the series

Data for the **Job Openings and Labor Turnover Survey** (JOLTS) are collected and compiled from a sample of 16,000 business establishments. Each month, data are collected for total employment, job openings, hires, quits, layoffs and discharges, and other separations. The JOLTS program covers all private nonfarm establishments such as factories, offices, and stores, as well as Federal, State, and local government entities in the 50 States and the District of Columbia. The JOLTS sample design is a random sample drawn from a universe of more than eight million establishments compiled as part of the

operations of the Quarterly Census of Employment and Wages, or QCEW, program. This program includes all employers subject to State unemployment insurance (UI) laws and Federal agencies subject to Unemployment Compensation for Federal Employees (UCFE).

The sampling frame is stratified by ownership, region, industry sector, and size class. Large firms fall into the sample with virtual certainty. JOLTS total employment estimates are controlled to the employment estimates of the Current Employment Statistics (CES) survey. A ratio of CES to JOLTS employment is used to adjust the levels for all other JOLTS data elements. Rates then are computed from the adjusted levels.

The monthly JOLTS data series begin with December 2000. Not seasonally adjusted data on job openings, hires, total separations, quits, layoffs and discharges, and other separations levels and rates are available for the total nonfarm sector, 16 private industry divisions and 2 government divisions based on the North American Industry Classification System (NAICS), and four geographic regions. Seasonally adjusted data on job openings, hires, total separations, and quits levels and rates are available for the total nonfarm sector, selected industry sectors, and four geographic regions.

### Definitions

Establishments submit **job openings** information for the last business day of the reference month. A job opening requires that (1) a specific position exists and there is work available for that position; and (2) work could start within 30 days regardless of whether a suitable candidate is found; and (3) the employer is actively recruiting from outside the establishment to fill the position. Included are full-time, part-time, permanent, short-term, and seasonal openings. Active recruiting means that the establishment is taking steps to fill a position by advertising in newspapers or on the Internet, posting help-wanted signs, accepting applications, or using other similar methods.

Jobs to be filled only by internal transfers, promotions, demotions, or recall from layoffs are excluded. Also excluded are jobs with start dates more than 30 days in the future, jobs for which employees have been hired but have not yet reported for work, and jobs to be filled by employees of temporary help agencies, employee leasing companies, outside contractors, or consultants. The job openings rate is computed by dividing the number of job openings by the sum of employment and job openings, and multiplying that quotient by 100.

**Hires** are the total number of additions to the payroll occurring at any time during the reference month, including both new and rehired employees and full-time and part-time, permanent, short-term and seasonal employees, employees recalled to the location after a layoff lasting more than 7 days, on-call or intermittent employees who returned to work after having been formally separated, and transfers from other locations. The hires count does not include transfers or promotions within the reporting site, employees returning from strike, employees of temporary help agencies or employee leasing companies, outside contractors, or consultants. The hires rate is computed by dividing the number of hires by employment, and multiplying that quotient by 100.

**Separations** are the total number of terminations of employment occurring at any time during the reference month, and are reported by type of separation—quits, layoffs and discharges, and other separations. Quits are voluntary separations by employees (except for retirements, which are reported as other separations). Layoffs and discharges are involuntary separations initiated by the employer and include layoffs with no intent to rehire, formal layoffs lasting or expected to last more than 7 days, discharges resulting from mergers, downsizing, or closings, firings or other discharges for cause, terminations of permanent or short-term employees, and terminations of seasonal employees. Other separations include retirements, transfers to other locations, deaths, and separations due to disability. Separations do not include transfers within the same location or employees on strike.

The separations rate is computed by dividing the number of separations by employment, and multiplying that quotient by 100. The quits, layoffs and discharges, and other separations rates are computed similarly, dividing the number by employment and multiplying by 100.

## Notes on the data

The JOLTS data series on job openings, hires, and separations are relatively new. The full sample is divided into panels, with one panel enrolled each month. A full complement of panels for the original data series based on the 1987 Standard Industrial Classification (SIC) system was not completely enrolled in the survey until January 2002. The supplemental panels of establishments needed to create NAICS estimates were not completely enrolled until May 2003. The data collected up until

those points are from less than a full sample. Therefore, estimates from earlier months should be used with caution, as fewer sampled units were reporting data at that time.

In March 2002, BLS procedures for collecting hires and separations data were revised to address possible underreporting. As a result, JOLTS hires and separations estimates for months prior to March 2002 may not be comparable with estimates for March 2002 and later.

The Federal Government reorganization that involved transferring approximately 180,000 employees to the new Department of Homeland Security is not reflected in the JOLTS hires and separations estimates for the Federal Government. The Office of Personnel Management's record shows these transfers were completed in March 2003. The inclusion of transfers in the JOLTS definitions of hires and separations is intended to cover ongoing movements of workers between establishments. The Department of Homeland Security reorganization was a massive one-time event, and the inclusion of these intergovernmental transfers would distort the Federal Government time series.

Data users should note that seasonal adjustment of the JOLTS series is conducted with fewer data observations than is customary. The historical data, therefore, may be subject to larger than normal revisions. Because the seasonal patterns in economic data series typically emerge over time, the standard use of moving averages as seasonal filters to capture these effects requires longer series than are currently available. As a result, the stable seasonal filter option is used in the seasonal adjustment of the JOLTS data. When calculating seasonal factors, this filter takes an average for each calendar month after detrending the series. The stable seasonal filter assumes that the seasonal factors are fixed; a necessary assumption until sufficient data are available. When the stable seasonal filter is no longer needed, other program features also may be introduced, such as outlier adjustment and extended diagnostic testing. Additionally, it is expected that more series, such as layoffs and discharges and additional industries, may be seasonally adjusted when more data are available.

JOLTS hires and separations estimates cannot be used to exactly explain net changes in payroll employment. Some reasons why it is problematic to compare changes in payroll employment with JOLTS hires and separations, especially on a monthly basis, are: (1) the reference period for payroll employment is the pay period including the 12th of the month, while the reference period for hires and separations is the calendar month; and

(2) payroll employment can vary from month to month simply because part-time and on-call workers may not always work during the pay period that includes the 12th of the month. Additionally, research has found that some reporters systematically underreport separations relative to hires due to a number of factors, including the nature of their payroll systems and practices. The shortfall appears to be about 2 percent or less over a 12-month period.

FOR ADDITIONAL INFORMATION on the Job Openings and Labor Turnover Survey, contact the Division of Administrative Statistics and Labor Turnover at (202) 961-5870.

## Compensation and Wage Data

(Tables 1-3; 30-37)

The National Compensation Survey (NCS) produces a variety of compensation data. These include: The Employment Cost Index (ECI) and NCS benefit measures of the incidence and provisions of selected employee benefit plans. Selected samples of these measures appear in the following tables. NCS also compiles data on occupational wages and the Employer Costs for Employee Compensation (ECEC).

## 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 is a Laspeyres Index that uses fixed employment weights to measure change in labor costs free from the influence of employment shifts among occupations and industries.

The ECI provides data for the civilian economy, which includes the total private nonfarm economy excluding private households, and the public sector excluding the Federal government. Data are collected each quarter for the pay period including the 12th day of March, June, September, and December.

Sample establishments are classified by industry categories based on the 2002 North American Classification System (NAICS). Within a sample establishment, specific job categories are selected and classified into about 800 occupations according to the 2000 Standard Occupational Classification (SOC) System. Individual occupations are com-

bined to represent one of ten intermediate aggregations, such as professional and related occupations, or one of five higher level aggregations, such as management, professional, and related occupations.

Fixed employment weights are used each quarter to calculate the most aggregate series—civilian, private, and State and local government. These fixed weights are also used to derive all of the industry and occupational series indexes. Beginning with the March 2006 estimates, 2002 fixed employment weights from the Bureau's Occupational Employment Statistics survey were introduced. From March 1995 to December 2005, 1990 employment counts were used. These fixed weights ensure that changes in these indexes reflect only changes in compensation, not employment shifts among industries or occupations with different levels of wages and compensation. For the series based on bargaining status, census region and division, and metropolitan area status, fixed employment data are not available. The employment weights are reallocated within these series each quarter based on the current ECI sample. The indexes for these series, consequently, are not strictly comparable with those for aggregate, occupational, and industry 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 ECI data in these tables reflect the conversion to the 2002 North American Industry Classification System (NAICS) and the 2000 Standard Occupational Classification (SOC) system. The NAICS and SOC data shown prior to 2006 are for informational purposes only. ECI series based on NAICS and SOC became the official BLS estimates starting in March 2006.

The ECI 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 (December 2005=100) are available on the Internet: [www.bls.gov/ect/](http://www.bls.gov/ect/)

ADDITIONAL INFORMATION on the Employment Cost Index is available at [www.bls.gov/ncs/ect/home.htm](http://www.bls.gov/ncs/ect/home.htm) or by telephone at (202) 691-6199.

## National Compensation Survey Benefit Measures

### Description of the series

NCS benefit measures of employee benefits are published in two separate reports. The annual summary provides data on the incidence of (access to and participation in) selected benefits and provisions of paid holidays and vacations, life insurance plans, and other selected benefit programs. Data on percentages of establishments offering major employee benefits, and on the employer and employee shares of contributions to medical care premiums also are presented. Selected benefit data appear in the following tables. A second publication, published later, contains more detailed information about health and retirement plans.

### 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 paid entirely by the employee are included because the guarantee of insurability and availability at group premium rates are considered a benefit.

Employees are considered as having **access** to a benefit plan if it is available for their use. For example, if an employee is permitted to participate in a medical care plan offered by the employer, but the employee declines to do so, he or she is placed in the category with those having access to medical care.

Employees in contributory plans are considered as **participating** in an insurance or retirement plan if they have paid required

contributions and fulfilled any applicable service requirement. Employees in noncontributory plans are counted as participating regardless of whether they have fulfilled the service requirements.

**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

ADDITIONAL INFORMATION ON THE NCS benefit measures is available at [www.bls.gov/ncs/ebs/home.htm](http://www.bls.gov/ncs/ebs/home.htm) or by telephone at (202) 691-6199.

## 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 37.

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.

**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.

ADDITIONAL INFORMATION on work stoppages data is available at [www.bls.gov/cba/home.htm](http://www.bls.gov/cba/home.htm) or by telephone at (202) 691-6199.

## Price Data

(Tables 2; 38-46)

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—December 2003 = 100 for many Producer Price Indexes (unless otherwise noted), 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 39. 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 measured 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 homeownership 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, contact the Division of 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 2002 North American Industry Classification System and product codes developed by the U.S. Census Bureau.

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, 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 and services 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.

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, the three-digit level for the Standard International Trade 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. The trade weights currently used to compute both indexes relate to 2000.

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 ADDITIONAL INFORMATION, contact the Division of International Prices: (202) 691-7155.

## Productivity Data

(Tables 2; 47-50)

### Business and major sectors

#### Description of the series

The productivity measures relate real output to real input. As such, they encompass a fam-

ily 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, nonenergy 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 47-50 describe the relationship 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 organi-

zation 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 indexes measure the relationship between output and inputs for selected industries and industry groups, and thus reflect trends in industry efficiency over time. Industry measures include labor productivity, multifactor productivity, compensation, and unit labor costs.

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 is based on the hours of all workers or, in the case of some transportation industries, on the number of employees. For most industries, the series consists of the hours of all employees. For some trade and services industries, the series also includes the hours of partners, proprietors, and unpaid family workers.

**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 combined inputs consumed in producing that output. **Combined inputs** include capital, labor, and intermediate purchases. The measure of **capital input** 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 Census Bureau, with additional data supplied by other government agencies, trade associations, and other sources.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Industry Productivity Studies: (202) 691-5618, or visit the Web site at: [www.bls.gov/lpc/home.htm](http://www.bls.gov/lpc/home.htm)

## International Comparisons

(Tables 51-53)

### Labor force and unemployment

#### Description of the series

Tables 51 and 52 present comparative measures of the labor force, employment, and unemployment approximating U.S. concepts for the United States, Canada, Australia, Japan, and six European countries. The Bureau adjusts the figures for these selected countries, for all known major definitional differences, to the extent that data to prepare adjustments are available. 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. For further information on adjustments and comparability issues, see Constance Sorrentino, "International unemployment rates: how comparable are they?" *Monthly Labor Review*, June 2000, pp. 3-20, available on the Internet at [www.bls.gov/opub/mlr/2000/06/art1full.pdf](http://www.bls.gov/opub/mlr/2000/06/art1full.pdf).

#### 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

Foreign country data are adjusted as closely as possible to the U.S. definitions. Primary areas of adjustment address conceptual differences in upper age limits and defini-

tions of employment and unemployment, provided that reliable data are available to make these adjustments. Adjustments are made where applicable to include employed and unemployed persons above upper age limits; some European countries do not include persons older than age 64 in their labor force measures, because a large portion of this population has retired. Adjustments are made to exclude active duty military from employment figures, although a small number of career military may be included in some European countries. Adjustments are made to exclude unpaid family workers who worked fewer than 15 hours per week from employment figures; U.S. concepts do not include them in employment, whereas most foreign countries include all unpaid family workers regardless of the number of hours worked. Adjustments are made to include full-time students seeking work and available for work as unemployed when they are classified as not in the labor force.

Where possible, lower age limits are based on the age at which compulsory schooling ends in each country, rather than based on the U.S. standard of 16. Lower age limits have ranged between 13 and 16 over the years covered; currently, the lower age limits are either 15 or 16 in all 10 countries.

Some adjustments for comparability are not made because data are unavailable for adjustment purposes. For example, no adjustments to unemployment are usually made for deviations from U.S. concepts in the treatment of persons waiting to start a new job or passive jobseekers. These conceptual differences have little impact on the measures. Furthermore, BLS studies have concluded that no adjustments should be made for persons on layoff who are counted as employed in some countries because of their strong job attachment as evidenced by, for example, payment of salary or the existence of a recall date. In the United States, persons on layoff have weaker job attachment and are classified as unemployed.

The annual labor force measures are obtained from monthly, quarterly, or continuous household surveys and may be calculated as averages of monthly or quarterly data. Quarterly and monthly unemployment rates are based on household surveys. For some countries, they are calculated by applying annual adjustment factors to current published data and, therefore, are less precise indicators of unemployment under U.S. concepts than the annual figures. The labor force measures may have breaks in series over time due to changes in surveys, sources, or estimation methods. Breaks are noted in data tables.

For up-to-date information on adjustments and breaks in series, see the Technical

Notes of *Comparative Civilian Labor Force Statistics, 10 Countries*, on the Internet at [www.bls.gov/fls/flscomparelf.htm](http://www.bls.gov/fls/flscomparelf.htm), and the Notes of *Unemployment rates in 10 countries, civilian labor force basis, approximating U.S. concepts, seasonally adjusted*, on the Internet at [www.bls.gov/fls/flssec.pdf](http://www.bls.gov/fls/flssec.pdf).

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 691-5654 or [flshelp@bls.gov](mailto:flshelp@bls.gov).

## Manufacturing productivity and labor costs

### Description of the series

Table 53 presents comparative indexes of manufacturing output per hour (labor productivity), output, total hours, compensation per hour, and unit labor costs for the United States, Australia, Canada, Japan, the Republic of Korea, Taiwan, and 10 European countries.

These measures are trend comparisons—that is, series that measure changes over time—rather than level comparisons. BLS does *not* recommend using these series for level comparisons because of technical problems.

BLS constructs the comparative indexes from three basic aggregate measures—output, total labor hours, and total compensation. The hours and compensation measures refer to employees (wage and salary earners) in Belgium and Taiwan. For all other economies, the measures refer to all employed persons, including employees, self-employed persons, and unpaid family workers.

The data for recent years are based on the United Nations System of National Accounts 1993 (SNA 93). Manufacturing is generally defined according to the International Standard Industrial Classification (ISIC). However, the measures for France include parts of mining as well. For the United States and Canada, it is defined according to the North American Industry Classification System (NAICS 97).

### Definitions

**Output.** For most economies, the output measures are real value added in manufacturing from national accounts. However, output for Japan prior to 1970 and for the Netherlands prior to 1960 are indexes of industrial production. The manufacturing value added measures for the United Kingdom are essentially identical to their indexes of industrial production.

For United States, the output measure for the manufacturing sector is a chain-weighted

index of real gross product originating (deflated value added) produced by the Bureau of Economic Analysis of the U.S. Department of Commerce. Most of the other economies now also use chain-weighted as opposed to a fixed-year weights that are periodically updated.

To preserve the comparability of the U.S. measures with those of other economies, BLS uses gross product originating in manufacturing for the United States. The gross product originating series differs from the manufacturing output series that BLS publishes in its quarterly news releases on U.S. productivity and costs (and that underlies the measures that appear in tables 48 and 50 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 hours** refer to hours worked in all economies. The measures are developed from statistics of manufacturing employment and average hours. For most other economies, recent years’ aggregate hours series are obtained from national statistical offices, usually from national accounts. However, for some economies and for earlier years, BLS calculates the aggregate hours series using employment figures published with the national accounts, or other comprehensive employment series, and data on average hours worked.

**Hourly compensation** is total compensation divided by total hours. Total compensation 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. For Australia, Canada, France, and Sweden, compensation is increased to account for important taxes on payroll or employment. For the United Kingdom, compensation is reduced between 1967 and 1991 to account for subsidies.

**Labor productivity** is defined as real output per hour worked. Although the labor productivity measure presented in this release relates output to the hours worked of persons employed in manufacturing, it does not measure the specific contributions of labor as a single factor of production. Rather, it reflects the joint effects of many influences, including new technology, capital investment, capacity utilization, energy use, and managerial skills, as well as the skills and efforts of the workforce.

**Unit labor costs** are defined as the cost of labor input required to produce one unit of output. They are computed as compensation in nominal terms divided by real output. Unit labor costs can also be computed by dividing hourly compensation by output per hour, that is, by labor productivity.

### Notes on the data

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, go to <http://www.bls.gov/news.release/prod4.toc.htm> or contact the Division of Foreign Labor Statistics at (202) 691-5654.

## Occupational Injury and Illness Data

(Tables 54–55)

### 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: [www.bls.gov/iif/](http://www.bls.gov/iif/)

## 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: [www.bls.gov/iif/](http://www.bls.gov/iif/)

**1. Labor market indicators**

Selected indicators	2006	2007	2006			2007				2008	
			II	III	IV	I	II	III	IV	I	II
<b>Employment data</b>											
Employment status of the civilian noninstitutional population (household survey): <sup>1</sup>											
Labor force participation rate.....	66.2	66.0	66.2	66.2	66.3	66.2	66.0	66.0	66.0	66.0	66.1
Employment-population ratio.....	63.1	63.0	63.1	63.1	63.4	63.2	63.0	62.9	62.8	62.7	62.6
Unemployment rate.....	4.6	4.6	4.7	4.7	4.4	4.5	4.5	4.7	4.8	4.9	5.3
Men.....	4.6	4.7	4.7	4.6	4.5	4.6	4.6	4.8	4.9	5.0	5.5
16 to 24 years.....	11.2	11.6	11.2	11.4	11.0	10.8	11.5	11.8	12.2	12.7	13.3
25 years and older.....	3.5	3.6	3.6	3.5	3.3	3.6	3.5	3.6	3.7	3.8	4.2
Women.....	4.6	4.5	4.6	4.7	4.4	4.4	4.4	4.6	4.7	4.8	5.1
16 to 24 years.....	9.7	9.4	9.3	10.1	9.7	9.0	9.0	9.8	9.9	10.0	11.0
25 years and older.....	3.7	3.6	3.8	3.8	3.5	3.5	3.6	3.7	3.8	3.9	4.1
Employment, nonfarm (payroll data), in thousands: <sup>1</sup>											
Total nonfarm.....	136,086	137,626	135,910	136,528	136,982	137,310	137,625	137,837	138,078	137,831	137,640
Total private.....	114,113	115,423	113,996	114,472	114,899	115,167	115,423	115,610	115,759	115,454	115,181
Goods-producing.....	22,531	22,221	22,570	22,564	22,436	22,362	22,267	22,138	21,976	21,737	21,505
Manufacturing.....	14,155	13,883	14,200	14,138	14,033	13,953	13,890	13,822	13,772	13,644	13,537
Service-providing.....	113,556	115,405	113,340	113,964	114,546	114,948	115,358	115,699	116,102	116,094	116,135
Average hours:											
Total private.....	33.9	33.8	33.9	33.8	33.9	33.9	33.9	33.8	33.8	33.8	33.7
Manufacturing.....	41.1	41.2	41.2	41.3	41.1	41.2	41.4	41.4	41.1	41.2	40.8
Overtime.....	4.4	4.2	4.5	4.4	4.2	4.1	4.1	4.2	4.0	4.0	3.9
<b>Employment Cost Index<sup>1,2,3</sup></b>											
Total compensation:											
Civilian nonfarm <sup>4</sup> .....	3.3	3.3	.9	1.1	.6	.9	.8	1.0	.6	.8	.7
Private nonfarm.....	3.2	3.0	.9	.8	.7	.8	.9	.8	.6	.9	.7
Goods-producing <sup>5</sup> .....	2.5	2.4	1.0	.7	.5	.4	1.0	.5	.6	1.0	.7
Service-providing <sup>5</sup> .....	3.4	3.2	.8	.9	.7	.9	.9	.9	.6	.9	.7
State and local government.....	4.1	4.1	.4	2.3	.9	1.0	.6	1.8	.7	.5	.5
Workers by bargaining status (private nonfarm):											
Union.....	3.0	2.0	1.3	.6	.6	-.3	1.2	.5	.7	.8	.8
Nonunion.....	3.2	3.2	.8	.9	.6	1.0	.9	.8	.6	.9	.7

<sup>1</sup> Quarterly data seasonally adjusted.

<sup>2</sup> Annual changes are December-to-December changes. Quarterly changes are calculated using the last month of each quarter.

<sup>3</sup> The Employment Cost Index data reflect the conversion to the 2002 North American Classification System (NAICS) and the 2000 Standard Occupational Classification (SOC) system. The NAICS and SOC data shown prior to 2006 are for informational purposes only. Series based on NAICS and SOC became the official BLS estimates starting in March 2006.

<sup>4</sup> Excludes Federal and private household workers.

<sup>5</sup> Goods-producing industries include mining, construction, and manufacturing. Service-providing industries include all other private sector industries.

NOTE: Beginning in January 2003, household survey data reflect revised population controls. Nonfarm data reflect the conversion to the 2002 version of the North American Industry Classification System (NAICS), replacing the Standard Industrial Classification (SIC) system. NAICS-based data by industry are not comparable with SIC based data.

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

Selected measures	2006	2007	2006			2007				2008	
			II	III	IV	I	II	III	IV	I	II
<b>Compensation data<sup>1,2,3</sup></b>											
Employment Cost Index—compensation:											
Civilian nonfarm.....	3.3	3.3	0.9	1.1	0.6	0.9	0.8	1.0	0.6	0.8	0.7
Private nonfarm.....	3.2	3.0	.9	.8	.7	.8	.9	.8	.6	.9	.7
Employment Cost Index—wages and salaries:											
Civilian nonfarm.....	3.2	3.4	.8	1.1	.6	1.1	.7	1.0	.7	.8	.7
Private nonfarm.....	3.2	3.3	1.0	.8	.7	1.1	.8	.9	.6	.9	.7
<b>Price data<sup>1</sup></b>											
Consumer Price Index (All Urban Consumers): All Items.....	3.2	2.8	1.6	.0	-5	1.8	1.5	.1	.7	1.7	2.5
Producer Price Index:											
Finished goods.....	3.0	3.9	1.7	-9	.1	2.2	1.9	.1	1.8	2.9	4.0
Finished consumer goods.....	3.5	4.5	2.1	-1.3	-2	2.8	2.5	.2	1.9	3.5	5.2
Capital equipment.....	1.6	1.8	.2	.0	1.3	.3	-1	-1	1.2	.9	.4
Intermediate materials, supplies, and components.....	6.5	4.0	3.0	-4	-8	1.5	3.2	.1	2.0	4.8	7.0
Crude materials.....	1.4	12.2	1.8	1.2	4.0	5.7	3.8	-2.4	11.9	16.0	14.9
<b>Productivity data<sup>4</sup></b>											
Output per hour of all persons:											
Business sector.....	1.0	1.6	.8	-1.5	1.2	.2	3.6	6.4	.9	2.2	2.3
Nonfarm business sector.....	1.0	1.6	.8	-1.6	1.8	.7	2.2	6.0	1.8	2.6	2.2
Nonfinancial corporations <sup>5</sup> .....	1.3	-	-1.8	3.1	1.3	.7	2.1	2.9	.9	1.0	-

<sup>1</sup> 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.

<sup>2</sup> Excludes Federal and private household workers.

<sup>3</sup> The Employment Cost Index data reflect the conversion to the 2002 North American Classification System (NAICS) and the 2000 Standard Occupational Classification (SOC) system. The NAICS and SOC data shown prior to 2006 are for informational purposes

only. Series based on NAICS and SOC became the official BLS estimates starting in March 2006.

<sup>4</sup> 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.

<sup>5</sup> Output per hour of all employees.

## 3. Alternative measures of wage and compensation changes

Components	Quarterly change					Four quarters ending—					
	2007			2008		2007			2008		
	II	III	IV	I	II	II	III	IV	I	II	
Average hourly compensation: <sup>1</sup>											
All persons, business sector.....	1.9	3.6	4.4	5.0	3.8	4.4	4.8	3.7	3.7	4.2	
All persons, nonfarm business sector.....	.8	3.3	5.4	5.2	3.6	4.2	4.6	3.6	3.6	4.3	
Employment Cost Index—compensation: <sup>2</sup>											
Civilian nonfarm <sup>3</sup> .....	.8	1.0	.6	.8	.7	3.3	3.3	3.3	3.3	3.1	
Private nonfarm.....	.9	.8	.6	.9	.7	3.1	3.1	3.0	3.2	3.0	
Union.....	1.2	.5	.7	.8	.8	2.1	2.0	2.0	3.1	2.7	
Nonunion.....	.9	.8	.6	.9	.7	3.3	3.2	3.2	3.2	3.0	
State and local government.....	.6	1.8	.7	.5	.5	4.8	4.3	4.1	3.6	3.5	
Employment Cost Index—wages and salaries: <sup>2</sup>											
Civilian nonfarm <sup>3</sup> .....	.7	1.0	.7	.8	.7	3.4	3.3	3.4	3.2	3.2	
Private nonfarm.....	.8	.9	.6	.9	.7	3.3	3.4	3.3	3.2	3.1	
Union.....	.9	.7	.3	.8	1.1	2.5	2.7	2.3	2.6	2.9	
Nonunion.....	.8	.9	.7	.9	.7	3.4	3.4	3.5	3.3	3.2	
State and local government.....	.5	1.7	.7	.6	.5	3.8	3.5	3.5	3.5	3.4	

<sup>1</sup> Seasonally adjusted. "Quarterly average" is percent change from a quarter ago, at an annual rate.

<sup>2</sup> The Employment Cost Index data reflect the conversion to the 2002 North American Classification System (NAICS) and the 2000 Standard

Occupational Classification (SOC) system. The NAICS and SOC data shown prior to 2006 are for informational purposes only. Series based on NAICS and SOC became the official BLS estimates starting in March 2006.

<sup>3</sup> Excludes Federal and private household workers.

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

[Numbers in thousands]

Employment status	Annual average		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>TOTAL</b>															
Civilian noninstitutional population <sup>1</sup>	228,815	231,867	231,958	232,211	232,461	232,715	232,939	233,156	232,616	232,809	232,995	233,198	233,405	233,627	233,864
Civilian labor force	151,428	153,124	153,182	152,886	153,506	153,306	153,828	153,866	153,824	153,374	153,784	153,957	154,534	154,390	154,603
Participation rate	66.2	66.0	66.0	65.8	66.0	65.9	66.0	66.0	66.1	65.9	66.0	66.0	66.2	66.1	66.1
Employed	144,427	146,047	146,045	145,753	146,260	146,016	146,647	146,211	146,248	145,993	145,969	146,331	146,046	145,891	145,819
Employment-population ratio <sup>2</sup>	63.1	63.0	63.0	62.8	62.9	62.7	63.0	62.7	62.9	62.7	62.6	62.7	62.6	62.4	62.4
Unemployed	7,001	7,078	7,137	7,133	7,246	7,291	7,181	7,655	7,576	7,381	7,815	7,626	8,487	8,499	8,784
Unemployment rate	4.6	4.6	4.7	4.7	4.7	4.7	4.8	4.7	5.0	4.9	4.8	5.1	5.0	5.5	5.7
Not in the labor force	77,387	78,743	78,776	79,325	78,955	79,409	79,111	79,290	78,792	79,436	79,211	79,241	78,871	79,237	79,261
<b>Men, 20 years and over</b>															
Civilian noninstitutional population <sup>1</sup>	102,145	103,555	103,598	103,723	103,847	103,973	104,087	104,197	103,866	103,961	104,052	104,152	104,258	104,371	104,490
Civilian labor force	77,562	78,596	78,619	78,526	78,689	78,664	79,075	79,004	78,864	78,748	78,838	78,776	78,878	79,037	79,327
Participation rate	75.9	75.9	75.9	75.7	75.8	75.7	76.0	75.8	75.9	75.7	75.8	75.6	75.7	75.7	75.9
Employed	74,431	75,337	75,324	75,274	75,332	75,274	75,834	75,499	75,427	75,362	75,197	75,148	75,001	74,998	75,094
Employment-population ratio <sup>2</sup>	72.9	72.8	72.7	72.6	72.5	72.4	72.9	72.5	72.6	72.5	72.3	72.2	71.9	71.9	71.9
Unemployed	3,131	3,259	3,295	3,252	3,357	3,389	3,240	3,505	3,437	3,386	3,641	3,628	3,877	4,038	4,234
Unemployment rate	4.0	4.1	4.2	4.1	4.3	4.3	4.1	4.4	4.4	4.3	4.6	4.6	4.9	5.1	5.3
Not in the labor force	24,584	24,959	24,979	25,197	25,158	25,309	25,012	25,193	25,002	25,213	25,214	25,376	25,380	25,334	25,163
<b>Women, 20 years and over</b>															
Civilian noninstitutional population <sup>1</sup>	109,992	111,330	111,367	111,479	111,590	111,703	111,805	111,903	111,739	111,822	111,902	111,990	112,083	112,183	112,290
Civilian labor force	66,585	67,516	67,566	67,616	67,795	67,623	67,776	67,866	67,982	67,816	68,159	68,176	68,390	68,446	68,303
Participation rate	60.5	60.6	60.7	60.7	60.8	60.5	60.6	60.6	60.8	60.6	60.9	60.9	61.0	61.0	60.8
Employed	63,834	64,799	64,792	64,826	65,033	64,827	64,980	64,912	65,098	64,950	65,055	65,260	65,138	65,238	65,167
Employment-population ratio <sup>2</sup>	58.0	58.2	58.2	58.2	58.3	58.0	58.1	58.0	58.3	58.1	58.1	58.3	58.1	58.2	58.0
Unemployed	2,751	2,718	2,774	2,790	2,762	2,796	2,796	2,954	2,885	2,865	3,104	2,916	3,252	3,208	3,135
Unemployment rate	4.1	4.0	4.1	4.1	4.1	4.1	4.1	4.4	4.2	4.2	4.6	4.3	4.8	4.7	4.6
Not in the labor force	43,407	43,814	43,801	43,863	43,795	44,080	44,029	44,037	43,756	44,006	43,743	43,814	43,693	43,737	43,988
<b>Both sexes, 16 to 19 years</b>															
Civilian noninstitutional population <sup>1</sup>	16,678	16,982	16,993	17,009	17,024	17,040	17,048	17,056	17,012	17,027	17,041	17,056	17,064	17,073	17,084
Civilian labor force	7,281	7,012	6,997	6,744	7,021	7,020	6,977	6,996	6,978	6,810	6,787	7,005	7,266	6,907	6,973
Participation rate	43.7	41.3	41.2	39.7	41.2	41.2	40.9	41.0	41.0	40.0	39.8	41.1	42.6	40.5	40.8
Employed	6,162	5,911	5,930	5,653	5,895	5,914	5,832	5,801	5,724	5,681	5,717	5,923	5,907	5,655	5,558
Employment-population ratio <sup>2</sup>	36.9	34.8	34.9	33.2	34.6	34.7	34.2	34.0	33.6	33.4	33.5	34.7	34.6	33.1	32.5
Unemployed	1,119	1,101	1,067	1,092	1,126	1,105	1,145	1,196	1,254	1,130	1,070	1,082	1,358	1,253	1,415
Unemployment rate	15.4	15.7	15.3	16.2	16.0	15.7	16.4	17.1	18.0	16.6	15.8	15.4	18.7	18.1	20.3
Not in the labor force	9,397	9,970	9,996	10,264	10,003	10,020	10,071	10,059	10,034	10,216	10,254	10,051	9,798	10,166	10,110
<b>White<sup>3</sup></b>															
Civilian noninstitutional population <sup>1</sup>	186,264	188,253	188,312	188,479	188,644	188,813	188,956	189,093	188,787	188,906	189,019	189,147	189,281	189,428	189,587
Civilian labor force	123,834	124,935	124,945	124,596	125,316	125,151	125,430	125,460	125,340	124,940	125,190	125,171	125,762	125,704	125,971
Participation rate	66.5	66.4	66.3	66.1	66.4	66.3	66.4	66.3	66.4	66.1	66.2	66.2	66.4	66.4	66.4
Employed	118,833	119,792	119,713	119,340	119,992	119,883	120,194	119,889	119,858	119,534	119,574	119,667	119,667	119,518	119,542
Employment-population ratio <sup>2</sup>	63.8	63.6	63.6	63.3	63.6	63.5	63.6	63.4	63.5	63.3	63.3	63.3	63.2	63.1	63.1
Unemployed	5,002	5,143	5,232	5,256	5,324	5,268	5,235	5,571	5,482	5,406	5,616	5,504	6,101	6,186	6,428
Unemployment rate	4.0	4.1	4.2	4.2	4.2	4.2	4.2	4.4	4.4	4.3	4.5	4.4	4.9	4.9	5.1
Not in the labor force	62,429	63,319	63,368	63,883	63,329	63,662	63,526	63,633	63,447	63,966	63,829	63,975	63,519	63,724	63,616
<b>Black or African American<sup>3</sup></b>															
Civilian noninstitutional population <sup>1</sup>	27,007	27,485	27,498	27,541	27,584	27,627	27,666	27,704	27,640	27,675	27,709	27,746	27,780	27,816	27,854
Civilian labor force	17,314	17,496	17,593	17,524	17,483	17,430	17,453	17,538	17,713	17,632	17,702	17,753	17,742	17,716	17,767
Participation rate	64.1	63.7	64.0	63.6	63.4	63.1	63.1	63.3	64.1	63.7	63.9	64.0	63.9	63.7	63.8
Employed	15,765	16,051	16,172	16,176	16,046	15,946	15,980	15,961	16,090	16,169	16,116	16,234	16,029	16,085	16,040
Employment-population ratio <sup>2</sup>	58.4	58.4	58.8	58.7	58.2	57.7	57.8	57.6	58.2	58.4	58.2	58.5	57.7	57.8	57.6
Unemployed	1,549	1,445	1,421	1,347	1,437	1,483	1,473	1,577	1,623	1,463	1,586	1,520	1,713	1,632	1,726
Unemployment rate	8.9	8.3	8.1	7.7	8.2	8.5	8.4	9.0	9.2	8.3	9.0	8.6	9.7	9.2	9.7
Not in the labor force	9,693	9,989	9,905	10,017	10,101	10,197	10,212	10,165	9,927	10,043	10,007	9,992	10,038	10,100	10,088

See footnotes at end of table.

#### 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		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>Hispanic or Latino ethnicity</b>															
Civilian noninstitutional population <sup>1</sup> .....	30,103	31,383	31,423	31,520	31,617	31,714	31,809	31,903	31,643	31,732	31,820	31,911	31,998	32,087	32,179
Civilian labor force.....	20,694	21,602	21,613	21,781	21,872	21,778	21,872	21,888	21,698	21,755	21,775	21,917	22,102	22,131	22,071
Participation rate.....	68.7	68.8	68.8	69.1	69.2	68.7	68.8	68.6	68.6	68.6	68.4	68.7	69.1	69.0	68.6
Employed.....	19,613	20,382	20,345	20,578	20,619	20,554	20,623	20,517	20,320	20,401	20,269	20,404	20,573	20,420	20,435
Employment-population ratio <sup>2</sup> .....	65.2	64.9	64.7	65.3	65.2	64.8	64.8	64.3	64.2	64.3	63.7	63.9	64.3	63.6	63.5
Unemployed.....	1,081	1,220	1,269	1,204	1,253	1,224	1,249	1,371	1,378	1,354	1,507	1,512	1,529	1,711	1,636
Unemployment rate.....	5.2	5.6	5.9	5.5	5.7	5.6	5.7	6.3	6.3	6.2	6.9	6.9	6.9	7.7	7.4
Not in the labor force.....	9,409	9,781	9,809	9,738	9,745	9,936	9,938	10,016	9,946	9,977	10,045	9,994	9,896	9,956	10,108

<sup>1</sup> The population figures are not seasonally adjusted.

<sup>2</sup> Civilian employment as a percent of the civilian noninstitutional population.

<sup>3</sup> Beginning in 2003, persons who selected this race group only; persons who selected more than one race group are not included. Prior to 2003, persons who reported more than one race were included in the group they identified as the main race.

NOTE: Estimates for the above race groups (white and black or African American) do not sum to totals because data are not presented for all races. In addition, persons whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race. Beginning in January 2003, data reflect revised population controls used in the household survey.

#### 5. Selected employment indicators, monthly data seasonally adjusted

[In thousands]

Selected categories	Annual average		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>Characteristic</b>															
Employed, 16 years and older..	144,427	146,047	146,045	145,753	146,260	146,016	146,647	146,211	146,248	145,993	145,969	146,331	146,046	145,891	145,819
Men.....	77,502	78,254	78,237	78,066	78,229	78,177	78,604	78,260	78,157	78,113	77,948	78,038	77,954	77,794	77,823
Women.....	66,925	67,792	67,808	67,687	68,030	67,838	68,043	67,951	68,091	67,880	68,021	68,293	68,092	68,097	67,996
Married men, spouse present.....	45,700	46,314	46,307	46,193	46,235	46,189	46,339	46,213	46,063	46,136	45,961	45,964	45,862	45,911	46,120
Married women, spouse present.....	35,272	35,832	35,938	35,794	35,712	35,449	35,689	35,565	35,536	35,648	35,749	36,177	36,171	36,270	36,185
<b>Persons at work part time<sup>1</sup></b>															
All industries:															
Part time for economic reasons.....	4,162	4,401	4,332	4,517	4,499	4,401	4,513	4,665	4,769	4,884	4,914	5,220	5,233	5,416	5,724
Slack work or business conditions.....	2,658	2,877	2,751	2,955	2,991	2,788	3,008	3,174	3,247	3,291	3,323	3,558	3,595	3,816	4,194
Could only find part-time work.....	1,189	1,210	1,210	1,175	1,166	1,215	1,223	1,236	1,163	1,222	1,362	1,323	1,281	1,336	1,286
Part time for noneconomic reasons.....	19,591	19,756	19,957	19,779	19,812	19,337	19,539	19,526	19,613	19,348	19,409	19,809	19,428	19,496	19,406
Nonagricultural industries:															
Part time for economic reasons.....	4,071	4,317	4,259	4,466	4,397	4,302	4,453	4,577	4,677	4,790	4,797	5,125	5,164	5,308	5,599
Slack work or business conditions.....	2,596	2,827	2,711	2,916	2,922	2,745	2,981	3,120	3,174	3,231	3,238	3,513	3,531	3,744	4,156
Could only find part-time work.....	1,178	1,199	1,205	1,152	1,153	1,207	1,205	1,219	1,149	1,216	1,354	1,331	1,288	1,328	1,277
Part time for noneconomic reasons.....	19,237	19,419	19,569	19,469	19,451	19,157	19,224	19,225	19,296	19,019	19,072	19,456	19,047	19,106	19,051

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

NOTE: Beginning in January 2003, data reflect revised population controls used in the household survey.

**6. Selected unemployment indicators, monthly data seasonally adjusted**

[Unemployment rates]

Selected categories	Annual average		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>Characteristic</b>															
Total, 16 years and older.....	4.6	4.6	4.7	4.7	4.7	4.8	4.7	5.0	4.9	4.8	5.1	5.0	5.5	5.5	5.7
Both sexes, 16 to 19 years.....	15.4	15.7	15.3	16.2	16.0	15.7	16.4	17.1	18.0	16.6	15.8	15.4	18.7	18.1	20.3
Men, 20 years and older.....	4.0	4.1	4.2	4.1	4.3	4.3	4.1	4.4	4.4	4.3	4.6	4.6	4.9	5.1	5.3
Women, 20 years and older.....	4.1	4.0	4.1	4.1	4.1	4.1	4.1	4.4	4.2	4.2	4.6	4.3	4.8	4.7	4.6
White, total <sup>1</sup> .....	4.0	4.1	4.2	4.2	4.2	4.2	4.2	4.4	4.4	4.3	4.5	4.4	4.9	4.9	5.1
Both sexes, 16 to 19 years.....	13.2	13.9	13.8	14.4	14.3	14.0	14.7	14.4	15.6	14.4	13.2	13.8	16.4	16.6	19.0
Men, 16 to 19 years.....	14.6	15.7	15.5	16.5	16.4	15.9	17.8	16.8	19.0	17.1	14.7	15.2	17.7	17.8	22.2
Women, 16 to 19 years.....	11.7	12.1	12.0	12.2	12.2	12.0	11.8	12.1	12.3	11.8	11.7	12.4	14.9	15.3	15.6
Men, 20 years and older.....	3.5	3.7	3.8	3.8	3.9	3.8	3.7	3.9	3.9	3.9	4.1	4.1	4.4	4.5	4.7
Women, 20 years and older.....	3.6	3.6	3.6	3.7	3.5	3.6	3.7	4.0	3.8	3.8	4.1	3.7	4.1	4.2	4.1
Black or African American, total <sup>1</sup> .....	8.9	8.3	8.1	7.7	8.2	8.5	8.4	9.0	9.2	8.3	9.0	8.6	9.7	9.2	9.7
Both sexes, 16 to 19 years.....	29.1	29.4	27.0	31.2	28.9	27.9	29.7	34.7	35.7	31.7	31.3	24.5	32.3	29.6	32.0
Men, 16 to 19 years.....	32.7	33.8	31.1	33.2	33.9	36.0	34.6	39.5	41.3	32.6	38.9	27.9	40.1	35.5	38.0
Women, 16 to 19 years.....	25.9	25.3	23.5	29.4	24.2	20.1	24.9	30.1	28.5	30.9	25.4	21.9	25.2	23.9	26.5
Men, 20 years and older.....	8.3	7.9	7.6	6.8	7.5	8.2	7.9	8.4	8.3	7.9	8.4	8.4	8.9	9.3	10.0
Women, 20 years and older.....	7.5	6.7	6.9	6.5	7.1	7.1	7.0	7.0	7.3	6.5	7.5	7.4	8.2	7.4	7.5
Hispanic or Latino ethnicity.....	5.2	5.6	5.9	5.5	5.7	5.6	5.7	6.3	6.3	6.2	6.9	6.9	6.9	7.7	7.4
Married men, spouse present.....	2.4	2.5	2.7	2.5	2.5	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.9	3.0	3.2
Married women, spouse present.....	2.9	2.8	2.9	3.1	2.9	2.9	3.0	3.1	3.1	3.1	3.3	3.0	3.1	3.3	3.3
Full-time workers.....	4.5	4.6	4.6	4.6	4.7	4.7	4.6	4.9	4.8	4.8	5.0	5.0	5.5	5.5	5.7
Part-time workers.....	5.1	4.9	5.1	4.9	4.7	5.0	5.0	5.6	5.4	5.0	5.3	4.9	5.5	5.4	5.5
<b>Educational attainment<sup>2</sup></b>															
Less than a high school diploma.....	6.8	7.1	7.2	6.7	7.5	7.4	7.6	7.6	7.7	7.3	8.2	7.8	8.3	8.7	8.5
High school graduates, no college <sup>3</sup> .....	4.3	4.4	4.5	4.4	4.6	4.6	4.5	4.7	4.6	4.7	5.1	5.0	5.2	5.1	5.2
Some college or associate degree.....	3.6	3.6	3.6	3.7	3.4	3.5	3.3	3.7	3.6	3.7	3.8	3.9	4.3	4.2	4.5
Bachelor's degree and higher <sup>4</sup> .....	2.0	2.0	2.1	2.1	2.0	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.3	2.4

<sup>1</sup> Beginning in 2003, persons who selected this race group only; persons who selected more than one race group are not included. Prior to 2003, persons who reported more than one race were included in the group they identified as the main race.

<sup>2</sup> Data refer to persons 25 years and older.

**7. Duration of unemployment, monthly data seasonally adjusted**

[Numbers in thousands]

Weeks of unemployment	Annual average		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Less than 5 weeks.....	2,614	2,542	2,496	2,610	2,537	2,508	2,633	2,793	2,634	2,639	2,767	2,484	3,244	2,712	2,835
5 to 14 weeks.....	2,121	2,232	2,220	2,201	2,330	2,454	2,157	2,330	2,396	2,396	2,525	2,495	2,469	2,999	2,823
15 weeks and over.....	2,266	2,303	2,402	2,375	2,392	2,367	2,398	2,520	2,503	2,377	2,400	2,626	2,773	2,916	3,118
15 to 26 weeks.....	1,031	1,061	1,091	1,124	1,112	1,052	1,014	1,182	1,124	1,079	1,118	1,272	1,223	1,328	1,440
27 weeks and over.....	1,235	1,243	1,311	1,252	1,280	1,315	1,384	1,338	1,380	1,299	1,282	1,353	1,550	1,587	1,678
Mean duration, in weeks.....	16.8	16.8	17.3	16.9	16.6	17.0	17.2	16.6	17.5	16.8	16.2	16.9	16.6	17.5	17.1
Median duration, in weeks.....	8.3	8.5	8.9	8.6	8.9	8.7	8.7	8.4	8.8	8.4	8.1	9.3	8.3	10.0	9.7

NOTE: Beginning in January 2003, data reflect revised population controls used in the household survey.

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

[Numbers in thousands]

Reason for unemployment	Annual average		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Job losers <sup>1</sup> .....	3,321	3,515	3,629	3,632	3,622	3,731	3,609	3,857	3,796	3,854	4,154	4,014	4,282	4,370	4,407
On temporary layoff.....	921	976	983	981	963	1,064	979	975	1,040	971	1,056	1,099	1,113	1,077	1,037
Not on temporary layoff.....	2,400	2,539	2,646	2,652	2,660	2,668	2,630	2,882	2,756	2,883	3,098	2,915	3,169	3,292	3,370
Job leavers.....	827	793	823	794	839	790	783	798	830	769	781	850	870	833	861
Reentrants.....	2,237	2,142	2,082	2,076	2,154	2,103	2,160	2,343	2,201	2,112	2,117	2,134	2,460	2,498	2,705
New entrants.....	616	627	602	603	685	709	669	697	667	648	681	624	828	748	811
<b>Percent of unemployed</b>															
Job losers <sup>1</sup> .....	47.4	49.7	50.8	51.1	49.6	50.9	50.0	50.1	50.7	52.2	53.7	52.7	50.7	51.7	50.2
On temporary layoff.....	13.2	13.8	13.8	13.8	13.2	14.5	13.6	12.7	13.9	13.2	13.7	14.4	13.2	12.7	11.8
Not on temporary layoff.....	34.3	35.9	37.1	37.3	36.4	36.4	36.4	37.5	36.8	39.0	40.1	38.2	37.5	39.0	38.4
Job leavers.....	11.8	11.2	11.5	11.2	11.5	10.8	10.8	10.4	11.1	10.4	10.1	11.2	10.3	9.9	9.8
Reentrants.....	32.0	30.3	29.2	29.2	29.5	28.7	29.9	30.4	29.4	28.6	27.4	28.0	29.1	29.6	30.8
New entrants.....	8.8	8.9	8.4	8.5	9.4	9.7	9.3	9.1	8.9	8.8	8.8	8.2	9.8	8.9	9.2
<b>Percent of civilian labor force</b>															
Job losers <sup>1</sup> .....	2.2	2.3	2.4	2.4	2.4	2.4	2.3	2.5	2.5	2.5	2.7	2.6	2.8	2.8	2.9
Job leavers.....	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.6	.6	.5	.6
Reentrants.....	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.4	1.4	1.4	1.4	1.6	1.6	1.7
New entrants.....	.4	.4	.4	.4	.4	.5	.4	.5	.4	.4	.4	.4	.5	.5	.5

<sup>1</sup> Includes persons who completed temporary jobs.

NOTE: Beginning in January 2003, data reflect revised population controls used in the household survey.

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

[Civilian workers]

Sex and age	Annual average		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Total, 16 years and older.....	4.6	4.6	4.7	4.7	4.7	4.8	4.7	5.0	4.9	4.8	5.1	5.0	5.5	5.5	5.7
16 to 24 years.....	10.5	10.5	10.6	10.8	11.0	10.8	10.7	11.8	11.7	11.3	11.3	11.0	13.0	12.6	13.4
16 to 19 years.....	15.4	15.7	15.3	16.2	16.0	15.7	16.4	17.1	18.0	16.6	15.8	15.4	18.7	18.1	20.3
16 to 17 years.....	17.2	17.5	17.0	18.6	18.6	17.5	19.0	19.6	20.4	18.3	18.6	19.7	21.2	23.3	24.9
18 to 19 years.....	14.1	14.5	14.0	14.6	14.3	14.3	14.4	15.4	15.9	15.5	14.0	13.2	17.5	15.6	17.3
20 to 24 years.....	8.2	8.2	8.5	8.4	8.8	8.6	8.0	9.4	8.7	8.9	9.3	8.9	10.4	10.1	10.2
25 years and older.....	3.6	3.6	3.7	3.6	3.7	3.7	3.7	3.9	3.8	3.8	4.0	3.9	4.1	4.3	4.4
25 to 54 years.....	3.8	3.7	3.8	3.8	3.8	3.8	3.8	4.1	3.9	3.9	4.2	4.2	4.4	4.5	4.6
55 years and older.....	3.0	3.1	3.2	3.2	3.1	3.1	3.0	3.2	3.2	3.2	3.4	3.0	3.3	3.3	3.6
Men, 16 years and older.....	4.6	4.7	4.7	4.7	4.9	4.9	4.7	5.1	5.1	4.9	5.2	5.1	5.6	5.7	6.1
16 to 24 years.....	11.2	11.6	11.5	11.6	12.2	12.0	11.8	12.8	13.1	12.5	12.5	12.0	14.1	13.8	15.2
16 to 19 years.....	16.9	17.6	16.9	18.0	18.3	18.1	19.5	19.8	21.8	18.7	17.8	16.9	20.7	19.9	23.4
16 to 17 years.....	18.6	19.4	19.3	21.7	21.9	19.0	21.4	22.1	24.0	20.5	22.0	22.2	23.3	26.2	29.4
18 to 19 years.....	15.7	16.5	15.4	15.2	16.2	16.8	17.8	18.4	19.5	18.0	15.2	14.5	19.6	17.1	19.9
20 to 24 years.....	8.7	8.9	9.2	8.9	9.5	9.3	8.6	9.8	9.4	9.9	10.3	9.9	11.0	11.2	11.6
25 years and older.....	3.5	3.6	3.6	3.6	3.7	3.7	3.6	3.8	3.8	3.7	4.0	4.0	4.2	4.3	4.6
25 to 54 years.....	3.6	3.7	3.7	3.7	3.8	3.8	3.7	4.0	4.0	3.8	4.1	4.3	4.4	4.6	4.9
55 years and older.....	3.0	3.2	3.4	3.4	3.3	3.1	3.1	3.2	3.2	3.2	3.3	3.0	3.4	3.4	3.7
Women, 16 years and older.....	4.6	4.5	4.6	4.6	4.5	4.6	4.6	4.9	4.7	4.7	5.0	4.8	5.3	5.2	5.2
16 to 24 years.....	9.7	9.4	9.6	10.0	9.8	9.6	9.4	10.7	10.1	9.9	10.0	9.8	11.9	11.2	11.4
16 to 19 years.....	13.8	13.8	13.6	14.4	13.7	13.3	13.4	14.4	14.2	14.5	13.8	14.0	16.6	16.3	17.1
16 to 17 years.....	15.9	15.7	14.8	15.5	15.6	16.1	17.1	17.3	17.2	16.2	15.5	17.5	19.0	20.3	20.4
18 to 19 years.....	12.4	12.5	12.6	13.9	12.3	11.6	10.7	12.3	12.1	12.8	12.8	11.8	15.2	13.9	14.6
20 to 24 years.....	7.6	7.3	7.7	7.9	7.9	7.7	7.4	8.8	8.0	7.7	8.1	7.7	9.6	8.8	8.7
25 years and older.....	3.7	3.6	3.8	3.7	3.7	3.7	3.8	3.9	3.8	3.8	4.1	3.9	4.1	4.2	4.2
25 to 54 years.....	3.9	3.8	3.9	3.9	3.8	3.9	4.0	4.1	3.9	4.0	4.2	4.0	4.4	4.4	4.3
55 years and older <sup>1</sup> .....	2.9	3.0	3.5	3.4	3.0	3.0	2.8	2.9	3.4	3.3	3.4	2.8	2.8	3.4	4.3

<sup>1</sup> Data are not seasonally adjusted.

NOTE: Beginning in January 2003, data reflect revised population controls used in the household survey.

**10. Unemployment rates by State, seasonally adjusted**

State	June 2007	May 2007 <sup>P</sup>	June 2008 <sup>P</sup>	State	June 2007	May 2007 <sup>P</sup>	June 2008 <sup>P</sup>
Alabama.....	3.5	4.7	4.7	Missouri.....	5.0	6.0	5.7
Alaska.....	6.1	6.9	6.7	Montana.....	3.1	4.2	4.1
Arizona.....	3.6	4.4	4.8	Nebraska.....	3.1	3.2	3.3
Arkansas.....	5.4	5.1	5.0	Nevada.....	4.8	6.2	6.4
California.....	5.3	6.8	7.0	New Hampshire.....	3.6	4.0	4.0
Colorado.....	3.7	4.9	5.1	New Jersey.....	4.2	5.4	5.3
Connecticut.....	4.4	5.4	5.5	New Mexico.....	3.5	3.8	3.9
Delaware.....	3.3	4.1	4.2	New York.....	4.6	5.2	5.3
District of Columbia.....	5.7	6.6	6.3	North Carolina.....	4.7	5.9	5.9
Florida.....	4.0	5.6	5.5	North Dakota.....	3.2	3.3	3.2
Georgia.....	4.4	5.7	5.6	Ohio.....	5.7	6.3	6.6
Hawaii.....	2.6	3.6	3.8	Oklahoma.....	4.4	3.5	3.9
Idaho.....	2.7	3.6	3.8	Oregon.....	5.2	5.6	5.5
Illinois.....	5.0	6.4	6.8	Pennsylvania.....	4.3	5.2	5.2
Indiana.....	4.5	5.3	5.9	Rhode Island.....	5.0	7.2	7.5
Iowa.....	3.8	3.9	4.0	South Carolina.....	5.7	6.5	6.1
Kansas.....	4.1	4.6	4.3	South Dakota.....	2.9	2.9	2.8
Kentucky.....	5.5	6.2	6.3	Tennessee.....	4.6	6.4	6.5
Louisiana.....	3.7	4.0	3.8	Texas.....	4.3	4.5	4.4
Maine.....	4.7	5.4	5.3	Utah.....	2.7	3.2	3.3
Maryland.....	3.6	4.0	4.0	Vermont.....	3.8	4.9	4.7
Massachusetts.....	4.5	4.9	5.2	Virginia.....	3.0	3.9	4.0
Michigan.....	7.1	8.5	8.5	Washington.....	4.5	5.3	5.4
Minnesota.....	4.5	5.4	5.3	West Virginia.....	4.5	5.3	5.3
Mississippi.....	6.3	6.9	7.0	Wisconsin.....	4.8	4.4	4.6
				Wyoming.....	3.1	2.9	3.2

<sup>P</sup> = preliminary

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

State	June 2007	May 2007 <sup>P</sup>	June 2008 <sup>P</sup>	State	June 2007	May 2007 <sup>P</sup>	June 2008 <sup>P</sup>
Alabama.....	2,182,845	2,206,959	2,193,795	Missouri.....	3,030,362	3,031,728	3,013,754
Alaska.....	352,104	360,020	359,753	Montana.....	501,499	503,998	504,237
Arizona.....	3,021,368	3,068,807	3,071,144	Nebraska.....	985,015	996,099	994,983
Arkansas.....	1,366,002	1,383,946	1,374,363	Nevada.....	1,334,388	1,394,653	1,394,472
California.....	18,182,148	18,446,229	18,431,325	New Hampshire.....	738,169	745,382	746,147
Colorado.....	2,701,057	2,765,873	2,759,853	New Jersey.....	4,467,625	4,516,789	4,505,006
Connecticut.....	1,861,099	1,886,487	1,886,827	New Mexico.....	942,437	949,666	951,334
Delaware.....	442,229	446,064	446,101	New York.....	9,528,910	9,590,326	9,620,555
District of Columbia.....	323,288	331,839	328,482	North Carolina.....	4,526,537	4,561,644	4,559,713
Florida.....	9,135,410	9,263,932	9,250,317	North Dakota.....	365,424	373,012	372,443
Georgia.....	4,811,005	4,901,799	4,889,808	Ohio.....	5,980,866	6,005,619	5,988,368
Hawaii.....	649,855	663,369	663,245	Oklahoma.....	1,734,455	1,735,085	1,733,393
Idaho.....	755,181	755,212	752,324	Oregon.....	1,927,115	1,945,592	1,938,370
Illinois.....	6,705,295	6,824,185	6,775,620	Pennsylvania.....	6,297,400	6,405,503	6,394,738
Indiana.....	3,208,264	3,229,677	3,219,283	Rhode Island.....	577,971	571,560	572,128
Iowa.....	1,659,989	1,679,525	1,672,261	South Carolina.....	2,133,783	2,150,865	2,142,982
Kansas.....	1,479,438	1,494,578	1,491,211	South Dakota.....	442,728	444,744	444,627
Kentucky.....	2,045,058	2,047,456	2,041,828	Tennessee.....	3,033,878	3,062,538	3,043,947
Louisiana.....	1,989,101	2,008,102	2,012,118	Texas.....	11,484,815	11,712,220	11,682,351
Maine.....	703,976	708,936	710,175	Utah.....	1,360,251	1,388,270	1,380,611
Maryland.....	2,975,302	3,017,148	3,012,875	Vermont.....	353,877	352,292	353,420
Massachusetts.....	3,409,437	3,391,913	3,409,561	Virginia.....	4,051,667	4,125,326	4,124,453
Michigan.....	5,023,547	5,007,445	4,990,167	Washington.....	3,402,395	3,451,292	3,449,748
Minnesota.....	2,931,395	2,951,882	2,935,404	West Virginia.....	808,350	816,375	813,277
Mississippi.....	1,311,772	1,341,915	1,327,847	Wisconsin.....	3,087,244	3,089,857	3,078,458
				Wyoming.....	287,901	290,173	290,369

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

<sup>P</sup> = preliminary

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

[In thousands]

Industry	Annual average		2007							2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>P</sup>	July <sup>P</sup>	
<b>TOTAL NONFARM.....</b>	136,086	137,623	137,682	137,756	137,837	137,977	138,037	138,078	138,002	137,919	137,831	137,764	137,717	137,666	137,615	
<b>TOTAL PRIVATE.....</b>	114,113	115,420	115,512	115,544	115,610	115,715	115,759	115,745	115,666	115,557	115,454	115,363	115,264	115,170	115,094	
<b>GOODS-PRODUCING.....</b>	22,531	22,221	22,242	22,176	22,138	22,101	22,049	21,976	21,907	21,816	21,737	21,628	21,577	21,500	21,454	
<b>Natural resources and mining.....</b>	684	723	726	727	727	727	735	739	744	744	750	752	760	767	778	
Logging.....	64.4	60.8	59.9	59.5	59.7	59.1	59.9	60.6	60.7	60.2	60.1	60.8	59.5	57.4	57.9	
Mining.....	619.7	662.1	666.3	667.2	667.4	667.8	675.0	677.9	683.2	684.0	689.7	690.9	700.6	709.6	719.9	
Oil and gas extraction.....	134.5	146.0	146.3	147.0	147.3	148.9	152.3	153.1	154.5	153.8	155.2	154.2	158.3	160.5	162.8	
Mining, except oil and gas <sup>1</sup> .....	220.3	224.5	225.4	226.4	226.7	226.9	226.0	225.2	227.0	225.7	226.2	225.8	229.6	230.4	231.7	
Coal mining.....	78.0	77.6	77.4	77.6	78.0	78.1	78.7	78.3	78.6	78.7	79.2	79.3	80.5	80.8	80.7	
Support activities for mining.....	264.9	291.6	294.6	293.8	293.4	292.0	296.7	299.6	301.7	304.5	308.3	310.9	312.7	318.7	325.4	
Construction.....	7,691	7,614	7,632	7,605	7,589	7,577	7,520	7,465	7,426	7,382	7,343	7,284	7,246	7,197	7,175	
Construction of buildings.....	1,804.9	1,761.0	1,765.3	1,751.2	1,749.4	1,736.6	1,716.4	1,702.4	1,690.2	1,673.0	1,668.2	1,648.2	1,634.9	1,623.9	1,622.8	
Heavy and civil engineering.....	985.1	1,001.2	1,002.3	999.0	998.8	999.5	999.0	993.8	984.6	977.6	976.9	967.4	965.3	959.9	958.6	
Specialty trade contractors.....	4,901.1	4,851.9	4,863.9	4,854.7	4,840.3	4,841.3	4,804.8	4,768.4	4,750.8	4,731.8	4,697.5	4,668.0	4,645.6	4,613.3	4,593.6	
<b>Manufacturing.....</b>	14,155	13,884	13,884	13,844	13,822	13,797	13,794	13,772	13,737	13,690	13,644	13,592	13,571	13,536	13,501	
Production workers.....	10,137	9,979	9,985	9,956	9,958	9,934	9,944	9,933	9,922	9,879	9,847	9,799	9,784	9,749	9,731	
<b>Durable goods.....</b>	8,981	8,816	8,817	8,792	8,778	8,761	8,763	8,739	8,718	8,685	8,652	8,607	8,594	8,575	8,558	
Production workers.....	6,355	6,257	6,258	6,239	6,245	6,232	6,242	6,220	6,214	6,182	6,152	6,112	6,100	6,078	6,070	
Wood products.....	558.8	519.7	523.4	518.5	513.1	511.8	509.0	507.2	503.5	498.6	492.9	490.9	482.4	477.6	473.7	
Nonmetallic mineral products.....	509.6	503.4	504.4	501.2	501.0	500.9	499.5	496.4	494.4	492.2	487.7	486.3	482.1	479.6	477.5	
Primary metals.....	464.0	456.0	456.4	452.7	451.6	451.5	452.6	452.2	452.3	451.4	451.3	450.1	448.7	448.1	447.4	
Fabricated metal products.....	1,553.1	1,563.3	1,564.2	1,562.8	1,565.0	1,568.0	1,565.6	1,562.7	1,560.9	1,557.1	1,556.9	1,544.1	1,544.2	1,539.2	1,537.4	
Machinery.....	1,183.2	1,188.2	1,192.5	1,187.5	1,186.2	1,189.0	1,189.9	1,191.0	1,193.8	1,191.7	1,195.1	1,193.1	1,195.1	1,195.6	1,201.7	
Computer and electronic products <sup>1</sup> .....	1,307.5	1,271.9	1,268.3	1,265.6	1,260.5	1,256.5	1,260.5	1,257.6	1,256.3	1,251.9	1,254.1	1,253.8	1,250.1	1,246.1	1,243.6	
Computer and peripheral equipment.....	196.2	186.9	186.2	186.1	185.9	185.1	185.5	185.4	184.9	185.9	186.0	186.7	186.2	184.3	185.6	
Communications equipment.....	136.2	128.6	127.5	128.5	128.5	128.1	129.5	129.0	129.5	128.7	129.4	130.9	130.4	131.5	129.6	
Semiconductors and electronic components.....	457.9	444.5	443.7	439.9	437.4	435.8	437.0	434.9	433.5	429.7	428.7	426.7	424.2	422.1	421.9	
Electronic instruments.....	444.5	444.0	443.1	442.5	442.0	441.9	443.0	443.7	444.3	442.9	446.2	445.7	445.6	444.6	443.4	
Electrical equipment and appliances.....	432.7	427.2	427.7	426.1	426.0	427.2	426.6	423.8	421.6	420.8	419.9	421.5	422.1	422.7	423.5	
Transportation equipment.....	1,768.9	1,710.9	1,704.7	1,705.7	1,706.1	1,689.3	1,693.5	1,684.7	1,678.1	1,672.0	1,651.1	1,630.6	1,636.8	1,637.1	1,628.8	
Furniture and related products.....	560.1	534.5	536.1	533.0	530.6	528.3	527.0	523.8	520.4	516.0	511.2	506.4	503.5	501.6	499.3	
Miscellaneous manufacturing.....	643.7	641.0	639.5	638.8	637.6	638.2	638.8	639.9	636.4	633.3	632.0	630.2	629.1	627.0	624.9	
<b>Nondurable goods.....</b>	5,174	5,068	5,067	5,052	5,044	5,036	5,031	5,033	5,019	5,005	4,992	4,985	4,977	4,961	4,943	
Production workers.....	3,782	3,723	3,727	3,717	3,713	3,702	3,702	3,713	3,708	3,697	3,695	3,687	3,684	3,671	3,661	
Food manufacturing.....	1,479.4	1,481.3	1,488.8	1,480.6	1,476.0	1,478.6	1,477.9	1,486.3	1,483.2	1,482.7	1,477.0	1,473.8	1,473.5	1,471.8	1,467.6	
Beverages and tobacco products.....	194.2	195.7	197.0	196.1	195.7	195.2	194.3	192.0	191.1	189.3	190.8	193.3	193.7	193.0	193.0	
Textile mills.....	195.0	169.9	168.1	166.4	164.8	164.9	164.9	163.0	162.0	161.4	158.7	156.4	155.1	152.0	149.4	
Textile product mills.....	166.7	158.4	157.1	156.9	156.3	155.9	157.2	155.7	154.0	153.0	153.3	152.2	151.0	149.2	148.0	
Apparel.....	232.4	213.0	212.8	211.3	209.2	206.8	206.4	204.8	202.0	200.6	198.1	198.0	196.6	195.5	194.4	
Leather and allied products.....	36.8	33.9	33.1	33.3	34.0	33.7	34.1	33.7	34.5	33.5	33.5	33.9	33.7	34.3	33.4	
Paper and paper products.....	470.5	460.6	459.8	459.1	459.0	459.2	458.6	460.3	459.0	457.8	457.9	458.4	458.1	456.8	456.6	
Printing and related support activities.....	634.4	624.2	623.3	621.0	623.0	622.2	622.0	619.5	620.1	614.6	614.2	611.7	607.3	601.7	598.5	
Petroleum and coal products.....	113.2	113.4	112.5	112.5	112.9	112.6	112.1	111.7	112.2	112.5	112.2	112.2	113.4	114.0	114.6	
Chemicals.....	865.9	862.9	862.5	864.2	864.3	860.7	860.5	862.0	861.2	861.0	860.5	861.3	861.6	861.3	859.2	
Plastics and rubber products.....	785.5	754.0	752.4	750.2	748.4	745.9	743.0	744.2	739.7	738.7	735.6	734.1	732.8	731.1	728.2	
<b>SERVICE-PROVIDING.....</b>	113,556	115,402	115,440	115,580	115,699	115,876	115,988	116,102	116,095	116,103	116,094	116,136	116,140	116,166	116,161	
<b>PRIVATE SERVICE-PROVIDING.....</b>	91,582	93,199	93,270	93,368	93,472	93,614	93,710	93,769	93,759	93,741	93,717	93,735	93,687	93,670	93,640	
<b>Trade, transportation, and utilities.....</b>	26,276	26,608	26,617	26,640	26,649	26,644	26,693	26,658	26,631	26,579	26,552	26,496	26,451	26,436	26,397	
Wholesale trade.....	5,904.5	6,028.3	6,040.7	6,047.1	6,055.6	6,069.8	6,075.0	6,072.9	6,067.3	6,057.6	6,054.3	6,043.9	6,038.4	6,035.3	6,018.4	
Durable goods.....	3,074.8	3,130.7	3,140.2	3,141.9	3,143.4	3,147.4	3,152.4	3,145.0	3,138.0	3,127.3	3,127.8	3,118.1	3,109.8	3,105.4	3,097.3	
Nondurable goods.....	2,041.3	2,069.3	2,069.2	2,072.7	2,078.5	2,086.5	2,086.6	2,089.3	2,090.9	2,088.4	2,087.5	2,086.9	2,089.3	2,088.0	2,078.7	
Electronic markets and agents and brokers.....	788.5	828.4	831.3	832.5	833.7	835.9	836.0	838.6	838.4	841.9	839.0	838.9	839.3	841.9	842.4	
Retail trade.....	15,353.3	15,490.7	15,489.1	15,502.3	15,487.3	15,469.1	15,513.1	15,487.8	15,472.2	15,428.8	15,401.4	15,355.7	15,331.8	15,325.5	15,309.0	
Motor vehicles and parts dealers <sup>1</sup> .....	1,909.7	1,913.1	1,911.9	1,914.7	1,916.0	1,911.9	1,911.0	1,909.3	1,910.2	1,905.1	1,901.5	1,897.6	1,892.9	1,885.6	1,875.0	
Automobile dealers.....	1,246.7	1,245.3	1,244.7	1,245.6	1,246.6	1,247.4	1,244.9	1,244.6	1,244.0	1,236.2	1,233.7	1,228.8	1,224.2	1,217.4	1,209.0	
Furniture and home furnishings stores.....	586.9	581.0	577.7	579.2	576.2	577.3	584.9	584.5	579.9	575.9	570.6	569.0	568.5	568.2	567.9	
Electronics and appliance stores.....	541.1	543.7	545.0	542.7	540.1	537.1	542.6	540.4	534.3	533.6	535.0	534.7	539.3	535.8	536.9	

See notes at end of table.

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

[In thousands]

Industry	Annual average		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>p</sup>	July <sup>p</sup>
Building material and garden supply stores.....	1,324.1	1,305.3	1,307.3	1,315.6	1,291.9	1,285.4	1,279.9	1,271.6	1,266.0	1,258.5	1,250.8	1,240.5	1,240.3	1,236.1	1,230.6
Food and beverage stores.....	2,821.1	2,848.5	2,847.1	2,852.2	2,856.0	2,859.6	2,871.9	2,871.9	2,880.1	2,885.7	2,890.1	2,882.4	2,880.7	2,881.6	2,882.3
Health and personal care stores.....	961.1	988.6	985.6	989.4	990.1	991.0	998.6	999.9	1,000.6	993.5	993.9	993.4	990.9	990.7	988.6
Gasoline stations.....	864.1	861.2	861.5	860.8	864.2	862.0	859.1	850.5	853.8	854.2	852.6	847.4	841.2	844.9	844.2
Clothing and clothing accessories stores.....	1,450.9	1,500.4	1,496.7	1,501.5	1,502.4	1,500.9	1,524.5	1,508.6	1,498.2	1,496.3	1,498.9	1,495.4	1,494.5	1,496.2	1,496.9
Sporting goods, hobby, book, and music stores.....	645.5	658.2	660.5	661.8	665.1	664.0	664.0	661.6	667.2	661.9	658.6	651.5	653.2	651.1	648.2
General merchandise stores <sup>1</sup> .....	2,935.0	2,984.6	2,987.0	2,978.9	2,976.5	2,975.8	2,968.2	2,976.7	2,971.1	2,955.7	2,943.9	2,939.0	2,928.5	2,939.3	2,943.2
Department stores.....	1,557.2	1,576.7	1,580.1	1,573.0	1,570.5	1,568.5	1,560.6	1,568.4	1,564.3	1,543.3	1,534.3	1,528.1	1,514.7	1,514.2	1,512.0
Miscellaneous store retailers.....	881.0	868.7	871.3	869.7	873.3	869.0	868.3	866.3	869.4	865.3	862.8	863.3	860.8	858.6	859.2
Nonstore retailers.....	432.8	437.6	437.5	435.8	435.5	435.1	440.1	446.5	441.4	443.1	442.7	441.5	441.0	437.4	436.0
<b>Transportation and warehousing.....</b>	<b>4,469.6</b>	<b>4,536.0</b>	<b>4,533.0</b>	<b>4,535.4</b>	<b>4,551.2</b>	<b>4,548.7</b>	<b>4,549.0</b>	<b>4,539.9</b>	<b>4,534.5</b>	<b>4,535.5</b>	<b>4,537.7</b>	<b>4,538.3</b>	<b>4,524.1</b>	<b>4,517.7</b>	<b>4,511.9</b>
Air transportation.....	487.0	492.6	493.4	494.6	494.5	495.2	503.0	502.1	504.7	508.2	507.5	504.5	501.3	499.4	498.5
Rail transportation.....	227.5	234.4	234.4	234.4	234.6	234.0	233.8	232.5	233.8	233.7	233.7	233.5	233.0	233.0	234.4
Water transportation.....	62.7	64.3	65.0	65.1	65.0	64.9	65.0	64.4	63.8	62.5	61.6	62.3	61.3	61.8	61.1
Truck transportation.....	1,435.8	1,441.2	1,437.4	1,438.2	1,440.6	1,433.6	1,428.7	1,423.1	1,422.5	1,417.4	1,420.4	1,415.2	1,409.8	1,399.2	1,394.1
Transit and ground passenger transportation.....	399.3	410.0	411.0	413.3	417.8	417.4	411.5	411.8	411.9	413.5	412.9	418.3	412.9	416.8	415.6
Pipeline transportation.....	38.7	40.1	40.0	40.1	40.1	40.3	40.6	40.8	40.6	40.9	41.2	41.3	42.2	42.7	43.2
Scenic and sightseeing transportation.....	27.5	29.4	28.9	29.3	29.8	30.3	30.9	31.3	31.0	31.5	31.7	31.3	31.1	31.0	30.6
Support activities for transportation.....	570.6	582.9	583.7	583.7	586.5	589.9	589.2	587.1	584.9	585.9	586.3	588.2	587.1	586.6	586.9
Couriers and messengers.....	582.4	582.5	580.1	579.2	580.3	577.9	584.4	588.1	585.5	586.0	585.3	585.0	587.2	588.1	588.8
Warehousing and storage.....	638.1	658.7	659.1	657.5	662.0	665.2	661.9	658.7	655.8	655.9	657.1	658.7	658.2	659.1	658.7
Utilities.....	548.5	553.4	554.3	555.1	554.8	556.1	555.5	557.1	557.1	557.0	558.2	557.7	557.1	557.6	557.8
<b>Information.....</b>	<b>3,038</b>	<b>3,029</b>	<b>3,027</b>	<b>3,024</b>	<b>3,031</b>	<b>3,027</b>	<b>3,022</b>	<b>3,018</b>	<b>3,014</b>	<b>3,016</b>	<b>3,013</b>	<b>3,007</b>	<b>3,002</b>	<b>2,996</b>	<b>2,983</b>
Publishing industries, except Internet.....	902.4	898.2	898.7	897.0	893.7	894.6	892.2	889.7	889.2	886.8	882.9	882.8	879.7	877.0	873.6
Motion picture and sound recording industries.....	375.7	380.0	377.9	376.3	384.3	380.5	376.3	376.3	372.9	380.1	383.0	382.5	380.9	380.2	375.5
Broadcasting, except Internet.....	328.3	326.4	325.1	325.2	327.0	324.8	325.0	321.9	323.0	322.1	322.5	320.8	321.2	319.8	320.2
Internet publishing and broadcasting.....	1,047.6	1,028.3	1,026.6	1,025.1	1,024.4	1,023.6	1,026.4	1,026.8	1,025.3	1,022.0	1,020.1	1,018.0	1,017.7	1,018.1	1,012.9
ISPs, search portals, and data processing.....	263.2	270.5	272.8	272.3	273.1	273.2	272.6	273.5	273.0	274.2	272.3	272.2	272.1	271.3	270.5
Other information services.....	120.8	125.7	126.3	127.6	128.8	130.0	129.5	129.3	130.5	131.2	131.9	130.7	130.1	130.0	130.2
<b>Financial activities.....</b>	<b>8,328</b>	<b>8,308</b>	<b>8,331</b>	<b>8,312</b>	<b>8,294</b>	<b>8,283</b>	<b>8,260</b>	<b>8,252</b>	<b>8,244</b>	<b>8,231</b>	<b>8,231</b>	<b>8,229</b>	<b>8,226</b>	<b>8,213</b>	<b>8,213</b>
Finance and insurance.....	6,156.0	6,146.6	6,165.8	6,148.4	6,136.0	6,124.5	6,115.5	6,111.2	6,106.2	6,102.2	6,103.4	6,103.8	6,098.8	6,086.7	6,084.6
Monetary authorities—central bank.....	21.2	21.1	20.8	21.1	20.9	20.8	20.7	20.7	20.7	20.9	20.9	21.1	21.0	20.9	20.9
Credit intermediation and related activities <sup>1</sup> .....	2,924.9	2,881.6	2,892.3	2,870.4	2,856.7	2,844.8	2,834.3	2,829.2	2,825.0	2,820.4	2,811.8	2,807.9	2,800.5	2,792.3	2,788.5
Depository credit intermediation <sup>1</sup> .....	1,802.0	1,822.5	1,823.8	1,825.8	1,831.0	1,829.3	1,823.4	1,824.6	1,821.5	1,823.3	1,821.6	1,822.9	1,820.6	1,818.4	1,817.3
Commercial banking.....	1,322.9	1,345.8	1,346.7	1,347.3	1,350.1	1,350.1	1,344.7	1,345.9	1,342.2	1,344.9	1,343.4	1,344.2	1,343.4	1,343.2	1,342.5
Securities, commodity contracts, investments.....	818.3	847.9	851.2	852.6	853.2	855.0	856.9	856.7	859.2	862.5	865.8	867.2	866.6	866.2	865.2
Insurance carriers and related activities.....	2,303.7	2,308.1	2,314.2	2,315.4	2,317.0	2,315.3	2,315.6	2,316.8	2,313.9	2,311.1	2,318.4	2,319.7	2,323.2	2,319.5	2,322.3
Funds, trusts, and other financial vehicles.....	87.9	87.8	87.3	88.9	88.2	88.6	88.0	87.8	87.4	87.3	86.5	87.9	87.5	87.8	87.7
Real estate and rental and leasing.....	2,172.5	2,161.7	2,165.4	2,163.3	2,157.7	2,158.6	2,144.7	2,140.6	2,138.0	2,128.6	2,127.8	2,124.9	2,127.3	2,126.2	2,128.5
Real estate.....	1,499.0	1,491.9	1,493.8	1,493.9	1,489.8	1,489.1	1,477.1	1,476.4	1,471.4	1,466.0	1,465.0	1,465.7	1,466.4	1,465.7	1,463.3
Rental and leasing services.....	645.5	640.3	641.4	638.9	637.8	639.7	637.4	633.6	635.2	631.0	631.1	627.4	629.5	628.6	632.8
Lessors of nonfinancial intangible assets.....	28.1	29.5	30.2	30.5	30.1	29.8	30.2	30.6	31.4	31.6	31.7	31.8	31.4	31.9	32.4
<b>Professional and business services.....</b>	<b>17,566</b>	<b>17,962</b>	<b>17,958</b>	<b>17,979</b>	<b>18,000</b>	<b>18,070</b>	<b>18,079</b>	<b>18,131</b>	<b>18,101</b>	<b>18,073</b>	<b>18,014</b>	<b>18,031</b>	<b>17,982</b>	<b>17,943</b>	<b>17,919</b>
Professional and technical services <sup>1</sup> .....	7,356.7	7,662.0	7,664.2	7,688.0	7,729.7	7,759.3	7,784.8	7,820.5	7,819.2	7,829.2	7,823.5	7,845.6	7,839.1	7,856.3	7,866.8
Legal services.....	1,173.2	1,176.4	1,173.7	1,174.2	1,178.6	1,179.7	1,175.2	1,173.9	1,173.0	1,174.9	1,172.6	1,172.5	1,172.2	1,172.7	1,173.3
Accounting and bookkeeping services.....	889.0	947.2	947.8	954.0	964.5	971.3	979.4	993.3	992.3	991.9	983.3	986.1	973.8	977.5	977.8
Architectural and engineering services.....	1,385.7	1,436.0	1,436.5	1,439.0	1,443.2	1,451.1	1,453.9	1,460.4	1,460.5	1,463.0	1,461.8	1,464.9	1,464.9	1,469.3	1,471.4

See notes at end of table.

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

[In thousands]

Industry	Annual average		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>p</sup>	July <sup>p</sup>
Computer systems design and related services.....	1,284.6	1,359.8	1,366.8	1,371.2	1,375.5	1,380.0	1,387.5	1,391.4	1,391.6	1,393.5	1,391.3	1,403.9	1,408.9	1,412.2	1,419.3
Management and technical consulting services.....	886.4	952.8	946.6	956.3	967.2	974.8	985.1	994.3	989.2	992.7	997.0	1,001.3	1,006.9	1,015.2	1,019.3
Management of companies and enterprises.....	1,810.9	1,846.0	1,845.0	1,849.2	1,854.7	1,860.9	1,850.0	1,847.8	1,845.5	1,844.7	1,839.7	1,841.0	1,836.4	1,836.8	1,832.8
Administrative and waste services.....	8,398.3	8,453.6	8,448.6	8,441.3	8,415.3	8,449.6	8,444.1	8,462.8	8,436.2	8,398.6	8,351.2	8,344.4	8,306.0	8,250.0	8,219.6
Administrative and support services <sup>1</sup> .....	8,050.2	8,096.7	8,092.2	8,083.4	8,057.4	8,092.2	8,081.4	8,099.3	8,070.8	8,036.1	7,987.3	7,978.9	7,939.8	7,883.9	7,853.4
Employment services <sup>1</sup> .....	3,680.9	3,600.9	3,584.6	3,570.2	3,533.0	3,567.7	3,563.9	3,566.9	3,562.1	3,531.6	3,483.7	3,462.2	3,421.8	3,366.2	3,332.0
Temporary help services.....	2,637.4	2,605.1	2,596.5	2,589.4	2,565.1	2,592.0	2,583.7	2,578.5	2,574.6	2,536.8	2,506.0	2,487.1	2,451.6	2,418.6	2,389.6
Business support services.....	792.9	805.5	805.5	803.8	802.7	798.5	798.9	803.7	797.4	796.6	794.1	792.8	789.2	786.9	786.3
Services to buildings and dwellings.....	1,801.4	1,851.2	1,854.9	1,858.0	1,863.2	1,866.3	1,861.1	1,872.0	1,861.3	1,859.7	1,857.3	1,864.6	1,865.9	1,869.3	1,867.9
Waste management and remediation services.....	348.1	356.9	356.4	357.9	357.9	357.4	362.7	363.5	365.4	362.5	363.9	365.5	366.2	366.1	366.2
<b>Educational and health services</b> .....	17,826	18,327	18,360	18,422	18,451	18,490	18,522	18,568	18,617	18,665	18,709	18,757	18,820	18,875	18,914
Educational services.....	2,900.9	2,949.1	2,962.7	2,981.3	2,967.7	2,974.9	2,975.5	2,984.5	3,003.4	3,009.6	3,018.6	3,030.5	3,047.3	3,080.8	3,086.1
Health care and social assistance.....	14,925.3	15,377.6	15,396.8	15,440.8	15,483.0	15,515.1	15,546.7	15,583.2	15,613.6	15,655.0	15,690.5	15,726.1	15,772.4	15,794.0	15,828.3
Ambulatory health care services <sup>1</sup> .....	5,285.8	5,477.1	5,484.7	5,504.4	5,523.1	5,547.3	5,554.8	5,566.0	5,581.7	5,600.0	5,612.5	5,632.8	5,649.9	5,667.3	5,688.5
Offices of physicians.....	2,147.8	2,204.0	2,204.7	2,211.7	2,219.1	2,226.1	2,232.2	2,235.6	2,240.8	2,248.2	2,251.7	2,259.6	2,265.2	2,272.8	2,279.3
Outpatient care centers.....	492.6	507.1	505.0	507.2	509.3	511.4	511.0	513.0	511.5	512.0	511.9	514.9	516.6	516.8	520.6
Home health care services.....	865.6	913.3	917.7	923.0	925.2	930.3	929.1	930.9	934.7	939.5	943.3	946.1	951.0	954.6	959.6
Hospitals.....	4,423.4	4,517.3	4,524.2	4,533.4	4,541.6	4,549.7	4,558.8	4,572.4	4,579.3	4,592.8	4,606.4	4,616.2	4,635.0	4,640.2	4,650.6
Nursing and residential care facilities <sup>1</sup> .....	2,892.5	2,952.0	2,954.9	2,960.0	2,962.8	2,963.1	2,967.5	2,971.2	2,974.6	2,979.9	2,983.4	2,987.3	2,989.8	2,991.5	2,992.8
Nursing care facilities.....	1,581.4	1,600.8	1,602.2	1,604.8	1,604.3	1,603.1	1,605.9	1,608.2	1,608.8	1,613.3	1,609.6	1,610.7	1,612.1	1,611.7	1,611.8
Social assistance <sup>1</sup> .....	2,323.5	2,431.2	2,433.0	2,443.0	2,455.5	2,455.0	2,465.6	2,473.6	2,478.0	2,482.3	2,488.2	2,489.8	2,497.7	2,495.0	2,496.4
Child day care services.....	818.3	849.2	847.7	850.7	857.4	853.3	856.7	857.1	859.2	858.6	861.8	858.1	860.2	850.5	845.5
<b>Leisure and hospitality</b> .....	13,110	13,474	13,476	13,494	13,552	13,604	13,628	13,635	13,644	13,660	13,676	13,690	13,679	13,686	13,687
Arts, entertainment, and recreation.....	1,928.5	1,977.5	1,968.8	1,970.5	1,985.3	1,996.4	2,001.4	2,010.3	2,016.1	2,019.1	2,025.7	2,021.1	2,013.1	2,008.2	2,005.5
Performing arts and spectator sports.....	398.5	412.4	405.8	409.2	414.3	419.0	426.4	429.9	429.5	431.0	433.9	436.4	434.7	436.8	434.9
Museums, historical sites, zoos, and parks.....	123.8	130.2	131.9	131.1	131.6	131.9	131.6	131.5	132.6	131.7	133.4	132.6	133.9	132.1	131.5
Amusements, gambling, and recreation.....	1,406.3	1,434.9	1,431.1	1,430.2	1,439.4	1,445.5	1,443.4	1,448.9	1,454.0	1,456.4	1,458.4	1,452.1	1,444.5	1,439.3	1,439.1
Accommodations and food services.....	11,181.1	11,496.3	11,507.0	11,523.6	11,567.0	11,607.5	11,626.8	11,624.7	11,628.0	11,640.7	11,650.7	11,668.7	11,665.8	11,677.4	11,681.1
Accommodations.....	1,832.1	1,856.4	1,853.6	1,844.1	1,856.4	1,863.6	1,870.3	1,858.1	1,854.9	1,854.4	1,849.4	1,853.0	1,849.0	1,849.2	1,849.7
Food services and drinking places.....	9,349.0	9,639.9	9,653.4	9,679.5	9,710.6	9,743.9	9,756.5	9,766.6	9,773.1	9,786.3	9,801.3	9,815.7	9,816.8	9,828.2	9,831.4
<b>Other services</b> .....	5,438	5,491	5,501	5,497	5,495	5,496	5,506	5,507	5,508	5,517	5,522	5,525	5,527	5,521	5,527
Repair and maintenance.....	1,248.5	1,257.0	1,257.8	1,259.6	1,262.5	1,260.1	1,258.0	1,255.5	1,252.9	1,255.2	1,254.8	1,254.0	1,251.7	1,246.1	1,245.2
Personal and laundry services.....	1,288.4	1,305.2	1,307.9	1,305.7	1,304.4	1,303.4	1,309.7	1,306.9	1,306.6	1,306.4	1,308.5	1,309.9	1,310.6	1,312.2	1,313.3
Membership associations and organizations.....	2,901.2	2,928.8	2,935.4	2,931.2	2,927.6	2,932.8	2,938.0	2,944.4	2,948.9	2,955.6	2,959.0	2,961.4	2,964.3	2,963.1	2,968.1
<b>Government</b> .....	21,974	22,203	22,170	22,212	22,227	22,262	22,278	22,333	22,336	22,362	22,377	22,401	22,453	22,496	22,521
Federal.....	2,732	2,727	2,726	2,724	2,721	2,722	2,728	2,735	2,717	2,725	2,726	2,734	2,740	2,742	2,739
Federal, except U.S. Postal Service.....	1,962.6	1,964.6	1,964.3	1,963.4	1,961.4	1,963.5	1,966.7	1,972.3	1,977.3	1,982.9	1,986.6	1,996.0	2,006.5	2,011.2	2,010.5
U.S. Postal Service.....	769.7	762.3	761.6	760.6	759.3	758.3	761.7	763.1	739.7	741.6	739.1	737.9	733.3	730.8	728.6
State.....	5,075	5,125	5,123	5,123	5,138	5,138	5,131	5,153	5,159	5,158	5,157	5,170	5,174	5,186	5,198
Education.....	2,292.5	2,318.4	2,313.8	2,313.6	2,327.7	2,325.9	2,314.3	2,332.5	2,335.1	2,332.9	2,332.9	2,340.8	2,344.4	2,352.3	2,359.0
Other State government.....	2,782.0	2,806.6	2,808.8	2,809.5	2,810.3	2,812.4	2,816.5	2,820.9	2,824.0	2,824.9	2,823.8	2,829.1	2,829.7	2,833.8	2,838.9
Local.....	14,167	14,351	14,321	14,365	14,368	14,402	14,419	14,445	14,460	14,479	14,494	14,497	14,539	14,568	14,584
Education.....	7,913.0	7,976.6	7,938.2	7,972.0	7,970.6	7,994.6	7,999.6	8,016.5	8,018.0	8,031.9	8,035.7	8,032.1	8,060.0	8,075.0	8,077.2
Other local government.....	6,253.8	6,374.5	6,382.5	6,393.4	6,397.5	6,406.9	6,419.2	6,428.2	6,441.5	6,447.5	6,457.8	6,465.0	6,479.2	6,493.0	6,506.5

<sup>1</sup> Includes other industries not shown separately.

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

p = preliminary.

**13. Average weekly hours of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls, by industry, monthly data seasonally adjusted**

Industry	Annual average		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>P</sup>	July <sup>P</sup>
<b>TOTAL PRIVATE</b> .....	33.9	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.7	33.7	33.8	33.8	33.7	33.7	33.7
<b>GOODS-PRODUCING</b> .....	40.5	40.6	40.6	40.6	40.6	40.6	40.7	40.5	40.4	40.4	40.5	40.4	40.2	40.3	40.3
<b>Natural resources and mining</b> .....	45.6	45.9	45.9	45.7	46.2	46.0	46.2	45.8	45.7	45.7	46.2	44.9	44.6	45.0	44.9
<b>Construction</b> .....	39.0	39.0	38.9	38.8	38.9	39.0	39.1	39.0	38.8	38.7	38.9	38.9	38.5	38.7	38.7
<b>Manufacturing</b> .....	41.1	41.2	41.4	41.3	41.4	41.2	41.3	41.1	41.1	41.1	41.2	41.0	41.0	41.0	41.0
Overtime hours.....	4.4	4.2	4.2	4.2	4.2	4.1	4.1	4.0	4.0	4.0	4.0	4.0	3.9	3.8	3.8
Durable goods.....	41.4	41.5	41.6	41.7	41.6	41.5	41.5	41.3	41.4	41.4	41.5	41.3	41.2	41.2	41.3
Overtime hours.....	4.4	4.2	4.2	4.2	4.2	4.1	4.1	4.0	4.1	4.1	4.0	4.0	3.9	3.8	3.8
Wood products.....	39.8	39.4	39.9	39.6	39.7	39.5	39.0	39.2	39.0	39.0	38.7	38.8	39.1	39.3	39.0
Nonmetallic mineral products.....	43.0	42.3	42.6	42.8	42.7	42.6	42.9	41.5	42.2	42.1	43.1	42.2	42.3	42.1	42.6
Primary metals.....	43.6	42.9	43.2	43.0	42.6	42.6	42.7	42.2	42.5	42.4	42.9	42.4	42.2	42.5	42.2
Fabricated metal products.....	41.4	41.6	41.7	41.7	41.9	41.7	41.7	41.6	41.6	41.7	41.7	41.6	41.4	41.2	41.2
Machinery.....	42.4	42.6	42.5	42.6	42.7	42.9	42.9	42.9	43.1	43.0	42.7	42.5	42.1	42.1	42.2
Computer and electronic products.....	40.5	40.6	40.3	40.6	40.6	40.6	40.9	40.5	40.4	40.5	41.0	41.1	41.2	41.2	41.2
Electrical equipment and appliances.....	41.0	41.2	41.4	41.2	41.2	40.7	41.2	41.6	41.4	41.1	41.3	41.1	41.1	41.0	40.8
Transportation equipment.....	42.7	42.8	43.3	43.1	42.8	42.7	42.6	42.1	42.6	42.9	42.3	42.3	42.1	42.2	42.6
Furniture and related products.....	38.8	39.2	39.2	39.7	39.4	39.1	38.9	39.1	38.3	38.2	38.7	38.7	38.8	39.0	38.4
Miscellaneous manufacturing.....	38.7	38.9	39.2	39.4	39.7	39.0	38.8	38.8	39.0	38.8	39.3	39.3	39.2	39.2	39.3
Non-durable goods.....	40.6	40.8	40.9	40.8	40.9	40.8	40.9	40.8	40.6	40.6	40.7	40.5	40.5	40.5	40.5
Overtime hours.....	4.4	4.1	4.1	4.1	4.1	4.1	4.1	4.0	3.9	3.9	3.9	3.9	3.8	3.8	3.7
Food manufacturing.....	40.1	40.7	40.8	40.6	40.7	40.8	40.6	40.4	40.5	40.6	40.7	40.8	40.8	40.6	40.6
Beverage and tobacco products.....	40.8	40.8	40.7	41.0	40.8	40.6	40.5	40.8	40.5	40.1	40.4	39.6	39.7	39.0	39.1
Textile mills.....	40.6	40.3	40.2	39.9	40.4	40.2	39.9	40.2	38.7	38.8	38.8	38.4	39.0	38.9	39.3
Textile product mills.....	39.8	39.7	40.8	39.9	39.9	39.2	39.1	39.9	38.6	39.3	39.3	38.3	38.7	39.1	39.1
Apparel.....	36.5	37.2	37.5	37.2	37.2	36.6	36.9	37.5	36.7	36.8	36.7	36.6	36.0	36.4	36.8
Leather and allied products.....	38.9	38.1	37.5	37.7	37.9	37.7	38.1	39.1	38.2	38.2	38.7	38.6	38.7	38.5	38.3
Paper and paper products.....	42.9	43.2	43.0	43.1	43.2	43.3	43.7	44.0	44.0	43.9	43.6	43.3	42.5	42.7	42.4
Printing and related support activities.....	39.2	39.1	38.8	39.1	38.9	38.8	39.0	38.8	38.4	38.2	38.6	38.5	38.5	38.1	38.0
Petroleum and coal products.....	45.0	44.2	44.0	43.7	43.4	42.9	43.8	44.0	43.8	43.6	43.5	43.2	44.2	44.4	45.2
Chemicals.....	42.5	41.9	42.2	42.1	42.0	41.7	42.1	41.5	41.6	41.4	41.9	41.3	41.3	41.8	41.8
Plastics and rubber products.....	40.6	41.3	41.5	41.3	41.6	41.7	42.1	41.4	41.1	41.2	41.1	41.0	41.0	41.1	41.3
<b>PRIVATE SERVICE-PROVIDING</b> .....	32.5	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.3	32.4	32.4	32.4	32.4	32.3
<b>Trade, transportation, and utilities</b> .....	33.4	33.3	33.2	33.3	33.3	33.2	33.3	33.3	33.4	33.3	33.4	33.4	33.3	33.3	33.2
Wholesale trade.....	38.0	38.2	38.1	38.2	38.2	38.1	38.1	38.3	38.4	38.2	38.4	38.3	38.3	38.3	38.4
Retail trade.....	30.5	30.2	30.1	30.1	30.2	30.1	30.2	30.1	30.2	30.1	30.2	30.2	30.1	30.1	30.0
Transportation and warehousing.....	36.9	36.9	36.8	36.9	36.9	36.7	36.8	36.8	36.6	36.7	36.7	36.7	36.5	36.5	36.4
Utilities.....	41.4	42.4	42.6	42.4	42.5	42.2	42.5	42.8	43.1	42.8	43.3	42.6	42.4	42.8	42.3
<b>Information</b> .....	36.6	36.5	36.6	36.4	36.5	36.2	36.2	36.3	36.3	36.2	36.6	36.5	36.6	36.6	36.7
<b>Financial activities</b> .....	35.7	35.9	35.9	35.8	35.7	35.7	35.8	35.8	35.8	35.8	35.8	35.9	36.0	35.9	35.7
<b>Professional and business services</b> .....	34.6	34.8	34.8	34.7	34.8	34.8	34.7	34.8	34.7	34.6	34.8	34.8	34.8	34.8	34.8
<b>Education and health services</b> .....	32.5	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.7	32.6	32.7	32.6	32.6
<b>Leisure and hospitality</b> .....	25.7	25.5	25.3	25.4	25.4	25.4	25.3	25.3	25.3	25.3	25.3	25.4	25.3	25.3	25.2
<b>Other services</b> .....	30.9	30.9	30.9	30.8	30.9	30.8	30.9	30.8	30.8	30.8	30.9	30.8	30.8	30.8	30.8

<sup>1</sup> Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries.

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

**14. Average hourly earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls, by industry, monthly data seasonally adjusted**

Industry	Annual average		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>P</sup>	July <sup>P</sup>
<b>TOTAL PRIVATE</b>															
Current dollars.....	\$16.76	\$17.42	\$17.47	\$17.51	\$17.57	\$17.59	\$17.64	\$17.70	\$17.75	\$17.81	\$17.87	\$17.89	\$17.95	\$18.00	\$18.07
Constant (1982) dollars.....	8.24	8.32	8.33	8.35	8.35	8.34	8.27	8.27	8.26	8.29	8.28	8.27	8.24	8.17	8.12
<b>GOODS-PRODUCING.....</b>	18.02	18.67	18.69	18.73	18.78	18.77	18.84	18.90	18.98	19.04	19.12	19.12	19.17	19.25	19.35
<b>Natural resources and mining.....</b>	19.90	20.96	20.95	21.09	20.99	21.05	21.02	21.54	21.75	21.69	22.01	21.61	21.71	22.01	22.54
<b>Construction.....</b>	20.02	20.95	20.94	21.01	21.12	21.07	21.20	21.30	21.38	21.47	21.56	21.60	21.70	21.77	21.86
<b>Manufacturing.....</b>	16.81	17.26	17.30	17.33	17.34	17.34	17.40	17.41	17.49	17.55	17.61	17.62	17.65	17.71	17.79
Excluding overtime.....	15.96	16.43	16.46	16.49	16.50	16.52	16.58	16.60	16.68	16.74	16.79	16.80	16.85	16.93	17.00
Durable goods.....	17.68	18.19	18.23	18.27	18.28	18.28	18.31	18.33	18.41	18.49	18.54	18.58	18.61	18.67	18.76
Nondurable goods.....	15.33	15.67	15.70	15.71	15.74	15.73	15.85	15.86	15.92	15.94	16.03	15.99	16.04	16.11	16.15
<b>PRIVATE SERVICE-PROVIDING.....</b>	16.42	17.10	17.15	17.19	17.26	17.28	17.33	17.39	17.44	17.50	17.55	17.58	17.64	17.69	17.75
<b>Trade, transportation, and utilities.....</b>	15.39	15.79	15.82	15.85	15.90	15.94	15.93	16.00	16.02	16.07	16.11	16.11	16.16	16.19	16.19
Wholesale trade.....	18.91	19.59	19.58	19.66	19.72	19.77	19.86	19.93	19.97	20.00	20.03	20.05	20.06	20.12	20.16
Retail trade.....	12.57	12.76	12.79	12.80	12.83	12.86	12.81	12.81	12.80	12.84	12.86	12.85	12.90	12.90	12.90
Transportation and warehousing.....	17.28	17.73	17.78	17.79	17.86	17.86	17.93	18.07	18.10	18.21	18.25	18.33	18.38	18.39	18.38
Utilities.....	27.40	27.87	27.82	27.99	28.14	28.32	28.18	28.52	28.61	28.58	28.77	28.56	28.81	29.14	28.61
<b>Information.....</b>	23.23	23.94	23.92	23.97	24.01	24.10	24.11	24.18	24.33	24.41	24.53	24.50	24.67	24.74	24.87
<b>Financial activities.....</b>	18.80	19.64	19.67	19.75	19.76	19.78	19.87	19.91	20.00	20.05	20.11	20.16	20.23	20.26	20.31
<b>Professional and business services.....</b>	19.13	20.13	20.19	20.25	20.36	20.31	20.42	20.46	20.53	20.63	20.74	20.84	20.90	21.01	21.12
<b>Education and health services.....</b>	17.38	18.11	18.14	18.20	18.29	18.34	18.43	18.48	18.54	18.59	18.61	18.64	18.71	18.75	18.83
<b>Leisure and hospitality.....</b>	9.75	10.41	10.46	10.50	10.55	10.60	10.61	10.65	10.67	10.73	10.74	10.79	10.81	10.85	10.87
<b>Other services.....</b>	14.77	15.42	15.46	15.51	15.55	15.59	15.66	15.71	15.74	15.76	15.77	15.79	15.81	15.85	15.89

<sup>1</sup> Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries.

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

**15. Average hourly earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls, by industry**

Industry	Annual average		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>P</sup>	July <sup>P</sup>
<b>TOTAL PRIVATE</b> .....	\$16.76	\$17.42	\$17.44	\$17.42	\$17.64	\$17.60	\$17.63	\$17.75	\$17.80	\$17.85	\$17.92	\$17.91	\$17.90	\$17.96	\$17.99
Seasonally adjusted.....	-	-	17.47	17.51	17.57	17.59	17.64	17.70	17.75	17.81	17.87	17.89	17.95	18.00	18.07
<b>GOODS-PRODUCING</b> .....	18.02	18.67	18.72	18.81	18.91	18.86	18.88	18.96	18.90	18.94	19.03	19.06	19.13	19.24	19.38
<b>Natural resources and mining</b> .....	19.90	20.96	20.87	20.97	20.93	21.02	20.99	21.68	21.96	21.87	22.26	21.77	21.51	21.74	22.44
<b>Construction</b> .....	20.02	20.95	21.02	21.13	21.32	21.25	21.26	21.38	21.24	21.35	21.43	21.48	21.60	21.69	21.92
<b>Manufacturing</b> .....	16.81	17.26	17.22	17.31	17.39	17.34	17.42	17.51	17.53	17.55	17.60	17.63	17.63	17.71	17.72
Durable goods.....	17.68	18.19	18.10	18.27	18.35	18.30	18.36	18.46	18.43	18.50	18.53	18.56	18.57	18.67	18.64
Wood products.....	13.39	13.67	13.62	13.61	13.65	13.81	13.82	13.88	13.90	13.82	13.89	13.96	14.08	14.12	14.23
Nonmetallic mineral products.....	16.59	16.93	17.04	16.88	16.94	16.94	17.05	16.94	16.99	16.86	16.80	17.12	16.90	16.98	16.94
Primary metals.....	19.36	19.66	19.85	19.72	19.83	19.81	19.69	19.73	20.04	19.99	20.21	20.20	20.23	20.25	20.47
Fabricated metal products.....	16.17	16.53	16.52	16.58	16.61	16.69	16.70	16.82	16.77	16.78	16.85	16.81	16.84	16.92	16.93
Machinery.....	17.20	17.72	17.82	17.69	17.79	17.68	17.74	17.95	17.72	17.81	17.85	17.88	17.98	17.87	17.94
Computer and electronic products.....	18.94	19.95	20.08	20.06	20.20	20.28	20.22	20.33	20.51	20.60	20.80	20.90	20.99	21.06	21.16
Electrical equipment and appliances.....	15.54	15.94	16.09	16.03	16.10	15.80	15.68	15.73	15.70	15.73	15.66	15.76	15.69	15.75	15.86
Transportation equipment.....	22.41	23.02	22.67	23.33	23.42	23.20	23.41	23.46	23.34	23.48	23.46	23.52	23.53	23.79	23.72
Furniture and related products.....	13.80	14.32	14.36	14.31	14.36	14.36	14.35	14.50	14.38	14.37	14.42	14.45	14.48	14.58	14.49
Miscellaneous manufacturing.....	14.36	14.66	14.82	14.77	14.78	14.70	14.72	15.00	14.91	14.95	15.08	14.97	14.97	15.15	15.35
Nondurable goods.....	15.33	15.67	15.74	15.69	15.77	15.71	15.83	15.90	15.99	15.93	16.01	16.03	16.04	16.08	16.20
Food manufacturing.....	13.13	13.54	13.57	13.61	13.65	13.61	13.63	13.70	13.87	13.74	13.83	13.86	13.89	13.95	14.01
Beverages and tobacco products.....	18.18	18.49	18.61	17.78	18.40	18.69	19.54	19.69	19.55	19.64	19.59	19.26	19.05	18.57	18.80
Textile mills.....	12.55	13.00	13.13	13.21	13.16	12.93	13.06	13.13	13.29	13.35	13.45	13.45	13.50	13.58	13.76
Textile product mills.....	11.86	11.78	11.89	11.74	11.73	11.75	11.67	11.75	11.68	11.62	11.78	11.78	11.86	11.80	11.80
Apparel.....	10.65	11.05	11.15	11.12	11.17	11.16	11.20	11.28	11.43	11.46	11.35	11.51	11.43	11.36	11.35
Leather and allied products.....	11.44	12.04	12.18	12.10	12.24	12.10	12.50	12.12	12.78	12.68	12.81	12.63	12.88	12.88	12.85
Paper and paper products.....	18.01	18.43	18.68	18.30	18.54	18.50	18.47	18.71	18.78	18.61	18.66	18.58	18.74	18.89	19.18
Printing and related support activities.....	15.80	16.15	16.19	16.28	16.37	16.48	16.33	16.65	16.51	16.49	16.65	16.64	16.66	16.78	16.79
Petroleum and coal products.....	24.11	25.26	25.12	25.43	25.95	24.92	26.95	25.52	26.55	26.51	27.22	27.12	27.01	27.17	27.69
Chemicals.....	19.60	19.56	19.70	19.47	19.52	19.35	19.52	19.57	19.46	19.40	19.35	19.39	19.37	19.33	19.43
Plastics and rubber products.....	14.97	15.38	15.31	15.45	15.45	15.41	15.49	15.65	15.56	15.58	15.69	15.77	15.71	15.69	15.86
<b>PRIVATE SERVICE-PROVIDING</b> .....	16.42	17.10	17.10	17.05	17.31	17.27	17.31	17.45	17.52	17.58	17.65	17.62	17.59	17.64	17.64
<b>Trade, transportation, and utilities</b> .....	15.39	15.79	15.89	15.81	16.00	15.94	15.84	15.89	16.02	16.08	16.16	16.16	16.14	16.20	16.20
Wholesale trade.....	18.91	19.59	19.70	19.58	19.85	19.75	19.89	20.10	20.01	20.03	20.08	20.01	19.93	20.05	20.11
Retail trade.....	12.57	12.76	12.84	12.78	12.91	12.85	12.70	12.64	12.78	12.82	12.90	12.90	12.91	12.92	12.93
Transportation and warehousing.....	17.28	17.73	17.90	17.84	17.96	17.89	17.94	18.04	18.08	18.14	18.19	18.28	18.33	18.44	18.49
Utilities.....	27.40	27.87	27.70	27.73	28.27	28.44	28.17	28.61	28.62	28.61	28.88	28.69	28.83	29.01	28.41
<b>Information</b> .....	23.23	23.94	23.77	23.85	24.22	24.15	24.11	24.34	24.44	24.44	24.58	24.52	24.60	24.73	24.74
<b>Financial activities</b> .....	18.80	19.64	19.66	19.65	19.88	19.79	19.83	19.97	19.96	20.07	20.18	20.22	20.20	20.27	20.22
<b>Professional and business services</b> .....	19.13	20.13	20.26	20.01	20.34	20.19	20.33	20.67	20.65	20.77	20.93	20.84	20.81	21.03	21.01
<b>Education and health services</b> .....	17.38	18.11	18.18	18.20	18.33	18.33	18.42	18.51	18.61	18.58	18.62	18.63	18.64	18.68	18.87
<b>Leisure and hospitality</b> .....	9.75	10.41	10.33	10.39	10.53	10.61	10.67	10.77	10.73	10.82	10.76	10.80	10.82	10.77	10.72
<b>Other services</b> .....	14.77	15.42	15.39	15.43	15.58	15.55	15.61	15.75	15.74	15.78	15.84	15.82	15.84	15.85	15.80

<sup>1</sup> Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries.

16. Average weekly earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls, by industry

Industry	Annual average		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec	Jan.	Feb.	Mar.	Apr.	May.	June <sup>p</sup>	July <sup>p</sup>
<b>TOTAL PRIVATE</b> .....	\$567.87	\$589.72	\$596.45	\$592.28	\$603.29	\$594.88	\$594.13	\$605.28	\$592.74	\$596.19	\$605.70	\$599.99	\$601.44	\$612.44	\$606.26
Seasonally adjusted.....	-	-	590.49	591.84	593.87	594.54	596.23	598.26	598.18	600.20	604.01	604.68	604.92	606.60	608.96
<b>GOODS-PRODUCING</b> .....	730.16	757.06	758.16	769.33	777.20	771.37	770.30	771.67	756.00	751.92	766.91	766.21	769.03	783.07	779.08
<b>Natural resources and mining</b> .....	907.95	961.78	957.93	962.52	979.52	981.63	969.74	992.94	988.20	986.34	1,017.28	970.94	950.74	987.00	1,007.56
<b>CONSTRUCTION</b> .....	781.21	816.06	828.19	836.75	842.14	841.50	829.14	825.27	805.00	800.63	825.06	824.83	833.76	852.42	859.26
<b>Manufacturing</b> .....	691.02	711.36	704.30	718.37	725.16	717.88	722.93	728.42	716.98	714.29	723.36	722.83	721.07	729.65	719.43
Durable goods.....	732.00	754.12	743.91	763.69	770.70	763.11	763.78	771.63	759.32	758.50	767.14	766.53	765.08	774.81	760.51
Wood products.....	532.99	539.10	546.16	543.04	548.73	548.26	534.83	546.87	530.98	523.78	531.99	538.86	553.34	564.80	559.24
Nonmetallic mineral products.....	712.71	716.79	729.31	732.59	735.20	730.11	731.45	696.23	696.59	686.20	715.68	722.46	718.25	726.74	726.73
Primary metals.....	843.59	843.28	849.58	844.02	848.72	841.93	842.73	844.44	851.70	847.58	869.03	852.44	853.71	868.73	853.60
Fabricated metal products.....	668.98	687.13	682.28	693.04	699.28	700.98	701.40	708.12	695.96	693.01	702.65	699.30	697.18	698.80	690.74
Machinery.....	728.84	753.99	753.79	750.06	761.41	762.01	762.82	780.83	763.73	762.27	763.98	761.69	756.96	754.11	749.89
Computer and electronic products.....	766.96	809.19	801.19	812.43	828.20	827.42	833.06	841.66	822.45	826.06	852.80	854.81	862.69	873.99	865.44
Electrical equipment and appliances.....	636.95	656.58	659.69	658.83	666.54	649.38	652.29	671.67	649.98	638.64	645.19	646.16	640.15	648.90	640.74
Transportation equipment.....	957.65	985.57	943.07	1,012.52	1,011.74	992.96	999.61	1,006.43	994.28	1,002.60	994.70	999.60	985.91	1,013.45	977.26
Furniture and related products.....	535.90	561.03	562.91	576.69	572.96	561.48	559.65	578.55	545.00	541.75	555.17	553.44	557.48	571.54	556.42
Miscellaneous manufacturing.....	555.90	569.98	573.53	581.94	588.24	574.77	571.14	589.50	580.00	575.58	594.15	586.82	583.83	595.40	597.12
Nondurable goods.....	621.97	639.99	639.04	641.72	651.30	644.11	653.78	656.67	646.00	638.79	648.41	647.61	646.41	652.85	652.86
Food manufacturing.....	525.99	550.65	552.30	556.65	566.48	560.73	562.92	561.70	556.19	546.85	555.97	559.94	565.32	566.37	567.41
Beverages and tobacco products.....	741.34	753.80	761.15	739.65	747.04	751.34	787.46	793.51	778.09	769.89	785.56	768.47	763.91	733.52	736.96
Textile mills.....	509.39	524.47	519.95	524.44	536.93	515.91	521.09	539.64	514.32	512.64	521.86	515.14	523.80	529.62	533.89
Textile product mills.....	472.24	467.96	477.98	468.43	468.03	457.08	457.46	478.23	449.68	454.34	464.13	450.00	454.24	468.46	459.02
Apparel.....	389.20	411.52	413.67	412.55	414.41	410.69	415.52	423.00	416.05	420.58	418.82	423.57	412.62	415.78	414.28
Leather and allied products.....	445.47	459.43	450.66	453.75	462.67	458.59	478.75	484.80	484.36	480.57	499.59	491.31	502.32	501.03	485.73
Paper and paper products.....	772.39	795.20	799.50	788.73	813.91	806.60	816.37	834.47	826.32	805.81	807.98	802.66	788.95	804.71	807.48
Printing and related support activities.....	618.92	632.08	621.70	638.18	644.98	644.37	640.14	654.35	630.68	629.92	644.36	640.64	638.08	634.28	629.63
Petroleum and coal products.....	1,085.50	1,115.24	1,117.84	1,106.21	1,144.40	1,074.05	1,204.67	1,099.91	1,157.58	1,134.63	1,165.02	1,163.45	1,188.44	1,228.08	1,270.97
Chemicals.....	833.67	819.99	823.46	819.69	821.79	801.09	823.74	818.03	809.54	801.22	810.77	800.81	794.17	811.86	810.23
Plastics and rubber products.....	608.41	635.15	624.65	635.00	647.36	642.60	652.13	657.30	639.52	637.22	644.86	646.57	644.11	649.57	645.50
<b>PRIVATE SERVICE-PROVIDING</b> .....	532.78	554.78	560.88	554.13	567.77	557.82	559.11	570.62	558.89	564.32	573.63	567.36	566.40	578.59	571.54
<b>Trade, transportation, and utilities</b> .....	514.34	526.38	535.49	529.64	542.40	529.21	525.89	535.49	525.46	529.03	538.13	534.90	534.23	545.94	541.08
Wholesale trade.....	718.63	748.90	758.45	747.96	768.20	752.48	757.81	779.88	758.38	759.14	775.09	764.38	761.33	779.95	770.21
Retail trade.....	383.02	385.20	392.90	388.51	396.34	386.79	382.27	385.52	379.57	380.75	387.00	385.71	387.30	394.06	391.78
Transportation and warehousing.....	636.97	654.83	664.09	663.65	668.11	656.56	661.99	678.30	650.88	654.85	667.57	663.56	665.38	680.44	673.04
Utilities.....	1,135.34	1,182.17	1,180.02	1,175.75	1,215.61	1,208.70	1,194.41	1,221.65	1,222.07	1,218.79	1,241.84	1,225.06	1,219.51	1,247.43	1,201.74
<b>Information</b> .....	850.42	873.63	884.24	870.53	896.14	874.23	872.78	893.28	877.40	879.84	902.09	887.62	890.52	917.48	910.43
<b>Financial activities</b> .....	672.21	705.29	717.59	699.54	721.64	702.55	705.95	726.91	708.58	716.50	730.52	721.85	721.14	739.86	719.83
<b>Professional and business services</b> .....	662.27	700.15	709.10	696.35	715.97	702.61	705.45	727.58	704.17	714.49	734.64	725.23	724.19	744.46	729.05
<b>Education and health services</b> .....	564.94	590.18	598.12	593.32	603.06	595.73	600.49	607.13	604.83	603.85	608.87	603.61	605.80	610.84	615.16
<b>Leisure and hospitality</b> .....	250.34	265.45	271.68	270.14	269.57	268.43	266.75	272.48	262.89	269.42	272.23	272.16	273.75	278.94	276.58
<b>Other services</b> .....	456.50	476.80	480.17	478.33	484.54	478.94	480.79	488.25	480.07	482.87	489.46	485.67	486.29	492.94	488.22

<sup>1</sup> Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries. NOTE: See "Notes on the data" for a description of the most recent benchmark revision. Dash indicates data not available. p = preliminary.

**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, 278 industries												
Over 1-month span:												
2004.....	50.5	50.5	64.1	62.6	61.7	58.9	56.0	50.0	56.9	56.9	51.3	51.8
2005.....	52.2	60.6	54.2	58.2	55.8	58.2	58.0	61.3	54.7	53.6	62.4	54.7
2006.....	65.1	60.9	64.4	59.3	53.3	52.7	60.4	58.9	53.5	55.8	57.1	56.0
2007.....	51.6	51.8	52.7	51.1	56.6	50.4	52.2	51.6	56.4	54.6	48.2	48.5
2008.....	45.4	41.4	47.4	45.6	46.4	42.3	41.4					
Over 3-month span:												
2004.....	54.4	52.9	57.3	63.5	68.8	66.6	61.3	56.4	57.7	59.5	61.9	54.6
2005.....	52.2	55.5	57.5	60.8	58.9	61.9	60.4	63.9	61.1	54.4	54.9	61.3
2006.....	67.2	66.2	66.6	65.5	60.6	58.2	56.0	58.9	55.7	56.4	57.1	58.4
2007.....	58.4	54.7	55.3	54.7	56.2	53.3	53.1	54.7	58.4	56.8	54.7	52.4
2008.....	46.7	42.7	42.3	44.0	43.1	44.0	38.3					
Over 6-month span:												
2004.....	50.0	51.6	55.3	60.9	63.7	65.1	65.1	63.9	60.4	61.7	58.2	56.0
2005.....	54.6	57.3	56.8	57.5	57.5	58.2	64.4	62.8	62.0	59.3	61.5	62.0
2006.....	63.1	64.4	67.2	67.0	64.4	66.4	61.5	61.7	60.4	59.7	60.8	56.0
2007.....	59.1	56.4	57.5	56.8	58.8	58.2	56.2	58.0	58.2	57.1	54.6	53.8
2008.....	51.5	49.8	44.7	46.5	43.6	39.1	38.9					
Over 12-month span:												
2004.....	40.5	42.3	45.1	48.9	51.3	58.2	57.5	55.7	57.3	58.8	60.6	60.8
2005.....	60.6	60.8	59.7	58.9	58.0	60.0	60.9	63.3	60.4	58.9	59.5	61.7
2006.....	67.2	65.1	65.5	62.6	64.8	66.4	64.4	64.4	66.2	65.1	64.4	65.5
2007.....	62.6	59.1	60.4	58.9	59.5	58.4	57.5	58.8	61.7	60.4	59.9	57.7
2008.....	53.8	54.6	52.6	50.4	49.3	45.8	45.8					
Manufacturing payrolls, 84 industries												
Over 1-month span:												
2004.....	43.5	47.6	47.0	63.7	50.6	51.2	58.3	42.9	42.9	48.2	42.3	39.9
2005.....	36.3	48.8	42.9	44.6	42.3	35.1	38.1	47.0	45.8	46.4	47.0	47.0
2006.....	57.7	45.8	54.8	48.8	38.1	53.0	50.6	44.0	36.3	40.5	38.1	39.3
2007.....	47.6	35.7	30.4	29.8	37.5	39.3	41.7	33.3	40.5	45.2	44.6	36.3
2008.....	40.5	28.6	38.1	35.1	44.6	30.4	28.6					
Over 3-month span:												
2004.....	41.1	40.5	43.5	56.5	58.9	61.3	57.7	47.0	46.4	41.7	44.6	38.7
2005.....	38.1	39.3	42.3	44.6	36.3	37.5	33.3	39.9	45.8	41.7	38.7	49.4
2006.....	54.8	52.4	47.6	48.8	44.6	50.6	42.9	47.6	36.3	37.5	32.1	34.5
2007.....	33.9	28.6	32.1	27.4	29.8	32.7	31.0	34.5	32.1	39.3	44.0	41.7
2008.....	35.7	27.4	26.8	29.2	29.8	35.7	23.8					
Over 6-month span:												
2004.....	29.2	31.5	32.7	44.6	49.4	54.8	59.5	56.0	51.2	51.8	44.0	38.7
2005.....	33.9	38.1	35.1	36.9	32.1	32.1	41.7	35.7	36.3	36.9	37.5	42.3
2006.....	42.9	45.2	50.6	47.6	48.2	47.6	46.4	48.8	43.5	41.7	38.7	29.8
2007.....	34.5	27.4	23.8	27.4	31.5	34.5	33.3	31.0	29.2	35.1	34.5	32.7
2008.....	34.5	33.9	32.1	28.0	26.8	20.8	21.4					
Over 12-month span:												
2004.....	13.1	14.3	13.1	20.2	23.2	35.7	36.9	38.1	36.9	44.0	44.6	44.6
2005.....	44.6	43.5	41.7	40.5	36.3	35.1	32.1	33.9	32.7	33.3	33.3	38.1
2006.....	44.6	40.5	40.5	39.3	39.3	44.6	41.7	42.3	46.4	48.2	45.2	44.0
2007.....	39.3	36.3	36.9	28.6	29.8	26.2	26.8	29.2	30.4	29.8	33.3	33.9
2008.....	29.8	29.8	29.8	24.4	27.4	24.4	25.0					

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.

See the "Definitions" in this section. See "Notes on the data" for a description of the most recent benchmark revision.

Data for the two most recent months are preliminary.

### 18. Job openings levels and rates by industry and region, seasonally adjusted

Industry and region	Levels <sup>1</sup> (in thousands)							Percent							
	2008							2008							
	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	
Total <sup>2</sup> .....	3,889	3,799	3,672	3,612	3,631	3,497	3,416	2.7	2.7	2.6	2.6	2.6	2.5	2.4	
<b>Industry</b>															
Total private <sup>2</sup> .....	3,449	3,350	3,225	3,192	3,185	3,073	2,983	2.9	2.8	2.7	2.7	2.7	2.6	2.5	
Construction.....	133	123	102	99	130	100	84	1.8	1.6	1.4	1.3	1.8	1.4	1.2	
Manufacturing.....	286	239	251	244	249	241	233	2.0	1.7	1.8	1.8	1.8	1.7	1.7	
Trade, transportation, and utilities.....	643	598	562	550	572	539	591	2.4	2.2	2.1	2.0	2.1	2.0	2.2	
Professional and business services.....	752	699	714	676	649	670	600	4.0	3.7	3.8	3.6	3.5	3.6	3.2	
Education and health services.....	680	737	696	684	648	682	674	3.5	3.8	3.6	3.5	3.3	3.5	3.4	
Leisure and hospitality.....	515	530	501	491	503	452	436	3.6	3.7	3.5	3.5	3.5	3.2	3.1	
Government.....	439	450	441	422	451	417	432	1.9	2.0	1.9	1.8	2.0	1.8	1.9	
<b>Region<sup>3</sup></b>															
Northeast.....	662	576	602	618	600	608	588	2.5	2.2	2.3	2.3	2.3	2.3	2.2	
South.....	1,536	1,485	1,386	1,364	1,386	1,440	1,360	3.0	2.9	2.7	2.7	2.7	2.8	2.7	
Midwest.....	749	766	781	752	721	676	647	2.3	2.4	2.4	2.3	2.2	2.1	2.0	
West.....	966	954	918	883	937	789	831	3.0	3.0	2.9	2.8	2.9	2.5	2.6	

<sup>1</sup> Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

<sup>2</sup> Includes natural resources and mining, information, financial activities, and other services, not shown separately.

<sup>3</sup> **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia,

West Virginia; **Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

NOTE: The job openings level is the number of job openings on the last business day of the month; the job openings rate is the number of job openings on the last business day of the month as a percent of total employment plus job openings.

<sup>P</sup> = preliminary.

### 19. Hires levels and rates by industry and region, seasonally adjusted

Industry and region	Levels <sup>1</sup> (in thousands)							Percent							
	2008							2008							
	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	
Total <sup>2</sup> .....	4,639	4,586	4,569	4,715	4,123	4,438	4,062	3.4	3.3	3.3	3.4	3.0	3.2	3.0	
<b>Industry</b>															
Total private <sup>2</sup> .....	4,227	4,203	4,147	4,311	3,871	4,136	3,792	3.7	3.6	3.6	3.7	3.4	3.6	3.3	
Construction.....	319	349	350	385	286	354	267	4.3	4.7	4.8	5.3	3.9	4.9	3.7	
Manufacturing.....	326	285	309	300	274	285	253	2.4	2.1	2.3	2.2	2.0	2.1	1.9	
Trade, transportation, and utilities.....	916	882	884	943	828	906	893	3.4	3.3	3.3	3.6	3.1	3.4	3.4	
Professional and business services.....	897	780	893	858	770	889	788	5.0	4.3	5.0	4.8	4.3	5.0	4.4	
Education and health services.....	516	522	501	510	479	485	473	2.8	2.8	2.7	2.7	2.5	2.6	2.5	
Leisure and hospitality.....	824	868	801	841	847	741	775	6.0	6.4	5.9	6.1	6.2	5.4	5.7	
Government.....	394	387	429	407	329	340	325	1.8	1.7	1.9	1.8	1.5	1.5	1.4	
<b>Region<sup>3</sup></b>															
Northeast.....	767	713	715	743	646	761	658	3.0	2.8	2.8	2.9	2.5	3.0	2.6	
South.....	1,814	1,769	1,703	1,725	1,538	1,666	1,507	3.6	3.6	3.4	3.5	3.1	3.4	3.0	
Midwest.....	998	944	986	986	914	966	947	3.2	3.0	3.1	3.1	2.9	3.1	3.0	
West.....	1,058	1,186	1,170	1,246	1,111	1,084	1,017	3.4	3.8	3.8	4.0	3.6	3.5	3.3	

<sup>1</sup> Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

<sup>2</sup> Includes natural resources and mining, information, financial activities, and other services, not shown separately.

<sup>3</sup> **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia;

**Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

NOTE: The hires level is the number of hires during the entire month; the hires rate is the number of hires during the entire month as a percent of total employment.

<sup>P</sup> = preliminary.

**20. Total separations levels and rates by industry and region, seasonally adjusted**

Industry and region	Levels <sup>1</sup> (in thousands)							Percent							
	2008							2008							
	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	
Total <sup>2</sup> .....	4,477	4,503	4,390	4,404	4,313	4,368	4,308	3.2	3.3	3.2	3.2	3.1	3.2	3.1	
<b>Industry</b>															
Total private <sup>2</sup> .....	4,188	4,224	4,100	4,112	4,046	4,115	4,085	3.6	3.7	3.6	3.6	3.5	3.6	3.5	
Construction.....	311	329	367	378	393	409	436	4.2	4.5	5.0	5.2	5.4	5.7	6.1	
Manufacturing.....	348	350	304	390	359	353	304	2.5	2.6	2.2	2.9	2.6	2.6	2.3	
Trade, transportation, and utilities.....	1,005	957	941	1,003	868	1,003	1,025	3.8	3.6	3.5	3.8	3.3	3.8	3.9	
Professional and business services.....	790	861	806	739	741	799	756	4.4	4.8	4.5	4.1	4.1	4.5	4.2	
Education and health services.....	447	459	449	429	434	417	465	2.4	2.5	2.4	2.3	2.3	2.2	2.5	
Leisure and hospitality.....	800	854	776	722	801	749	674	5.9	6.2	5.7	5.3	5.8	5.5	4.9	
Government.....	290	278	291	295	269	259	237	1.3	1.2	1.3	1.3	1.2	1.1	1.1	
<b>Region<sup>3</sup></b>															
Northeast.....	697	770	737	709	685	658	750	2.7	3.0	2.9	2.8	2.7	2.6	2.9	
South.....	1,699	1,673	1,617	1,666	1,614	1,681	1,602	3.4	3.4	3.3	3.4	3.3	3.4	3.2	
Midwest.....	975	902	918	949	915	954	911	3.1	2.9	2.9	3.0	2.9	3.0	2.9	
West.....	1,107	1,167	1,101	1,094	1,096	1,089	1,069	3.6	3.8	3.6	3.5	3.5	3.5	3.5	

<sup>1</sup> Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

<sup>2</sup> Includes natural resources and mining, information, financial activities, and other services, not shown separately.

<sup>3</sup> **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia;

**Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

NOTE: The total separations level is the number of total separations during the entire month; the total separations rate is the number of total separations during the entire month as a percent of total employment.

<sup>P</sup>= preliminary

**21. Quits levels and rates by industry and region, seasonally adjusted**

Industry and region	Levels <sup>1</sup> (in thousands)							Percent							
	2008							2008							
	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	
Total <sup>2</sup> .....	2,493	2,522	2,375	2,444	2,336	2,365	2,324	1.8	1.8	1.7	1.8	1.7	1.7	1.7	
<b>Industry</b>															
Total private <sup>2</sup> .....	2,355	2,384	2,258	2,301	2,210	2,242	2,212	2.0	2.1	2.0	2.0	1.9	1.9	1.9	
Construction.....	113	133	111	127	124	139	144	1.5	1.8	1.5	1.7	1.7	1.9	2.0	
Manufacturing.....	183	187	157	182	163	154	134	1.3	1.4	1.2	1.3	1.2	1.1	1.0	
Trade, transportation, and utilities.....	598	532	535	550	495	545	561	2.2	2.0	2.0	2.1	1.9	2.1	2.1	
Professional and business services.....	351	492	386	385	391	413	403	1.9	2.7	2.1	2.1	2.2	2.3	2.3	
Education and health services.....	276	271	279	270	229	246	270	1.5	1.5	1.5	1.4	1.2	1.3	1.4	
Leisure and hospitality.....	525	539	529	516	547	525	482	3.8	3.9	3.9	3.8	4.0	3.8	3.5	
Government.....	138	135	126	144	126	123	115	.6	.6	.6	.6	.6	.5	.5	
<b>Region<sup>3</sup></b>															
Northeast.....	358	410	334	368	327	344	357	1.4	1.6	1.3	1.4	1.3	1.3	1.4	
South.....	1,045	1,021	996	1,001	937	969	916	2.1	2.1	2.0	2.0	1.9	2.0	1.8	
Midwest.....	502	475	491	500	485	515	536	1.6	1.5	1.6	1.6	1.5	1.6	1.7	
West.....	583	632	568	575	584	539	519	1.9	2.0	1.8	1.9	1.9	1.7	1.7	

<sup>1</sup> Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

<sup>2</sup> Includes natural resources and mining, information, financial activities, and other services, not shown separately.

<sup>3</sup> **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia;

**Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

NOTE: The quits level is the number of quits during the entire month; the quits rate is the number of quits during the entire month as a percent of total employment.

<sup>P</sup> = preliminary.

22. Quarterly Census of Employment and Wages: 10 largest counties, third quarter 2007.

County by NAICS supersector	Establishments, third quarter 2007 (thousands)	Employment		Average weekly wage <sup>1</sup>	
		September 2007 (thousands)	Percent change, September 2006-07 <sup>2</sup>	Third quarter 2007	Percent change, third quarter 2006-07 <sup>2</sup>
United States <sup>3</sup>	9,012.8	136,246.9	0.9	\$818	4.3
Private industry	8,721.6	114,790.8	.9	810	4.5
Natural resources and mining	124.7	1,931.5	1.7	820	7.8
Construction	895.5	7,774.4	-1.0	876	5.7
Manufacturing	361.4	13,845.4	-2.2	987	4.3
Trade, transportation, and utilities	1,916.9	26,299.2	1.2	707	3.2
Information	144.3	3,033.1	.0	1,274	4.6
Financial activities	871.8	8,123.2	-7	1,200	5.9
Professional and business services	1,484.6	18,017.6	1.7	998	6.4
Education and health services	825.8	17,506.6	2.9	775	3.6
Leisure and hospitality	726.7	13,562.6	1.9	348	4.2
Other services	1,162.9	4,433.8	1.2	531	4.1
Government	291.2	21,456.1	1.0	859	3.2
Los Angeles, CA	401.9	4,191.6	.4	925	3.4
Private industry	397.9	3,626.2	.1	901	3.1
Natural resources and mining	.5	12.7	5.0	1,095	-8.3
Construction	14.3	160.4	-.9	945	5.4
Manufacturing	15.2	444.7	( <sup>4</sup> )	961	( <sup>4</sup> )
Trade, transportation, and utilities	55.3	811.9	-1	765	2.0
Information	8.8	216.3	8.5	1,520	-.3
Financial activities	25.2	243.7	-2.6	1,483	( <sup>4</sup> )
Professional and business services	43.4	608.9	-.3	1,051	6.3
Education and health services	28.2	480.4	1.8	851	( <sup>4</sup> )
Leisure and hospitality	27.1	401.1	1.8	518	2.8
Other services	179.8	246.0	.0	439	5.8
Government	4.0	565.4	2.3	1,080	( <sup>4</sup> )
Cook, IL	138.0	2,541.5	.0	961	3.3
Private industry	136.6	2,232.8	.2	958	3.6
Natural resources and mining	.1	1.3	-7.7	1,063	3.5
Construction	12.1	98.2	-1.6	1,207	5.5
Manufacturing	7.1	237.2	-1.9	981	3.0
Trade, transportation, and utilities	27.6	472.2	-.9	776	-.5
Information	2.5	58.4	.6	1,402	9.1
Financial activities	15.8	215.4	-1.5	1,547	7.8
Professional and business services	28.2	441.6	.9	1,179	3.1
Education and health services	13.6	369.2	1.6	843	3.7
Leisure and hospitality	11.6	240.0	2.2	430	4.6
Other services	13.8	95.0	.7	691	3.0
Government	1.4	308.7	-.9	985	2.3
New York, NY	118.0	2,350.3	2.0	1,544	8.7
Private industry	117.7	1,906.7	2.3	1,667	9.6
Natural resources and mining	.0	.1	-1.9	1,749	11.8
Construction	2.3	35.8	6.9	1,461	5.3
Manufacturing	3.1	37.5	-4.7	1,158	3.0
Trade, transportation, and utilities	22.1	248.2	1.7	1,124	4.3
Information	4.4	135.6	1.0	1,916	4.5
Financial activities	18.7	380.0	2.0	3,047	16.3
Professional and business services	24.6	482.2	2.3	1,769	8.6
Education and health services	8.6	283.3	2.0	1,011	4.8
Leisure and hospitality	11.2	208.5	3.3	728	6.1
Other services	17.4	87.2	1.5	889	3.7
Government	.3	443.5	.7	1,014	1.5
Harris, TX	95.1	2,028.0	3.8	1,015	6.7
Private industry	94.5	1,783.4	4.3	1,027	7.1
Natural resources and mining	1.5	78.4	( <sup>4</sup> )	2,580	( <sup>4</sup> )
Construction	6.6	151.5	5.5	968	6.1
Manufacturing	4.6	182.2	3.5	1,290	7.7
Trade, transportation, and utilities	21.7	424.7	3.9	901	6.0
Information	1.3	32.8	2.6	1,258	9.1
Financial activities	10.5	120.7	2.0	1,256	7.3
Professional and business services	18.9	341.2	4.9	1,156	7.5
Education and health services	10.0	214.7	5.4	824	1.7
Leisure and hospitality	7.3	176.2	3.2	366	2.2
Other services	11.0	58.4	3.9	595	7.6
Government	.5	244.6	.6	922	3.1
Maricopa, AZ	99.3	1,825.1	.2	822	3.8
Private industry	98.6	1,605.3	-.1	811	4.1
Natural resources and mining	.5	8.5	2.9	723	6.0
Construction	10.6	165.8	-7.6	834	3.9
Manufacturing	3.6	132.2	-3.7	1,116	3.2
Trade, transportation, and utilities	21.6	374.9	2.0	777	3.5
Information	1.6	30.4	-.7	1,030	.4
Financial activities	12.7	148.6	-2.4	1,024	.0
Professional and business services	21.8	316.8	.3	825	9.1
Education and health services	9.7	198.9	4.4	879	5.5
Leisure and hospitality	7.2	177.6	1.4	387	5.7
Other services	7.2	50.1	2.2	570	5.2
Government	.7	219.9	2.8	908	1.2

See footnotes at end of table.

22. Continued—Quarterly Census of Employment and Wages: 10 largest counties, second quarter 2007.

County by NAICS supersector	Establishments, second quarter 2007 (thousands)	Employment		Average weekly wage <sup>1</sup>	
		June 2007 (thousands)	Percent change, June 2006-07 <sup>2</sup>	Second quarter 2007	Percent change, second quarter 2006-07 <sup>2</sup>
Orange, CA	94.7	1,519.5	-1.0	\$952	3.4
Private industry	93.3	1,363.2	-1.3	939	2.8
Natural resources and mining	.2	6.2	-6.8	588	10.7
Construction	7.1	105.6	-3.5	1,016	7.2
Manufacturing	5.4	177.1	( <sup>4</sup> )	1,150	( <sup>4</sup> )
Trade, transportation, and utilities	17.8	278.2	.4	892	( <sup>4</sup> )
Information	1.4	30.1	-2.2	1,340	7.5
Financial activities	11.4	128.1	-7.7	1,445	( <sup>4</sup> )
Professional and business services	19.2	274.6	( <sup>4</sup> )	1,000	( <sup>4</sup> )
Education and health services	9.8	139.6	2.9	833	3.3
Leisure and hospitality	7.0	175.1	1.7	410	5.1
Other services	14.0	48.4	-.4	561	4.1
Government	1.4	156.3	1.1	1,062	6.7
Dallas, TX	67.6	1,492.6	3.2	1,011	5.4
Private industry	67.1	1,330.0	3.2	1,022	5.4
Natural resources and mining	.6	7.1	-4.7	2,879	-1.1
Construction	4.4	84.1	4.4	935	1.4
Manufacturing	3.2	144.2	-.4	1,202	8.1
Trade, transportation, and utilities	15.0	307.2	2.3	974	6.1
Information	1.7	48.6	-4.6	1,371	7.3
Financial activities	8.7	145.7	2.8	1,331	5.2
Professional and business services	14.4	274.3	5.9	1,108	5.8
Education and health services	6.6	144.7	6.6	968	6.8
Leisure and hospitality	5.2	131.2	3.6	430	2.6
Other services	6.4	40.6	1.2	602	2.9
Government	.5	162.5	2.9	920	5.0
San Diego, CA	91.7	1,334.7	.2	890	4.8
Private industry	90.4	1,108.8	-.1	868	4.7
Natural resources and mining	.8	11.6	-4.1	540	4.0
Construction	7.2	90.9	-6.5	916	6.3
Manufacturing	3.2	102.4	( <sup>4</sup> )	1,190	6.6
Trade, transportation, and utilities	14.6	219.8	.3	730	5.8
Information	1.3	37.5	.5	1,873	1.7
Financial activities	9.9	81.5	-3.3	1,108	3.5
Professional and business services	16.4	217.9	.6	1,076	6.0
Education and health services	8.0	127.1	( <sup>4</sup> )	812	4.1
Leisure and hospitality	6.9	163.6	2.8	389	3.5
Other services	22.1	56.6	1.1	482	2.8
Government	1.3	225.9	1.7	996	4.8
King, WA	75.9	1,182.2	2.9	1,028	3.8
Private industry	75.4	1,027.6	3.3	1,033	3.5
Natural resources and mining	.4	3.3	3.4	1,224	1.4
Construction	6.8	72.9	11.0	1,002	6.5
Manufacturing	2.5	112.0	1.9	1,386	.8
Trade, transportation, and utilities	14.8	219.5	2.0	903	6.1
Information	1.8	75.8	5.0	1,829	4.1
Financial activities	7.0	76.4	-1.0	1,272	3.3
Professional and business services	12.9	188.1	4.4	1,180	1.1
Education and health services	6.3	120.6	2.7	812	4.5
Leisure and hospitality	6.0	113.7	3.9	427	2.4
Other services	16.7	45.4	.9	571	7.9
Government	.5	154.6	.6	995	6.0
Miami-Dade, FL	85.9	1,002.1	1.0	814	3.8
Private industry	85.6	868.2	.8	788	3.7
Natural resources and mining	.5	9.2	.3	496	6.0
Construction	6.2	53.5	1.5	841	-1.1
Manufacturing	2.6	48.0	-1.7	735	1.9
Trade, transportation, and utilities	23.1	252.6	.9	747	2.3
Information	1.5	20.7	-.7	1,163	4.6
Financial activities	10.4	71.6	-.9	1,161	5.6
Professional and business services	17.3	136.4	-1.5	949	7.5
Education and health services	8.9	135.4	3.1	796	4.6
Leisure and hospitality	5.7	101.8	1.3	458	2.5
Other services	7.6	35.7	1.9	525	5.8
Government	.3	133.9	2.4	969	4.8

<sup>1</sup> Average weekly wages were calculated using unrounded data.

Virgin Islands.

<sup>2</sup> Percent changes were computed from quarterly employment and pay data adjusted for noneconomic county reclassifications. See Notes on Current Labor Statistics.

<sup>4</sup> Data do not meet BLS or State agency disclosure standards.

<sup>3</sup> Totals for the United States do not include data for Puerto Rico or the

NOTE: Includes workers covered by Unemployment Insurance (UI) and Unemployment Compensation for Federal Employees (UCFE) programs. Data are preliminary.

**23. Quarterly Census of Employment and Wages: by State, second quarter 2007.**

State	Establishments, second quarter 2007 (thousands)	Employment		Average weekly wage <sup>1</sup>	
		June 2007 (thousands)	Percent change, June 2006-07	Second quarter 2007	Percent change, second quarter 2006-07
United States <sup>2</sup> .....	8,945.9	137,018.2	1.2	\$820	4.6
Alabama .....	120.1	1,965.4	1.1	697	3.6
Alaska .....	21.1	325.8	-.5	832	5.6
Arizona .....	158.9	2,612.4	1.2	786	4.4
Arkansas .....	82.7	1,186.5	.3	639	4.2
California .....	1,291.3	15,832.5	.8	935	5.4
Colorado .....	179.4	2,326.9	2.2	832	4.8
Connecticut .....	112.5	1,714.2	.9	1,033	6.4
Delaware .....	29.1	430.2	.0	870	2.2
District of Columbia .....	31.9	683.2	.8	1,357	4.3
Florida .....	604.8	7,894.2	.2	743	3.2
Georgia .....	270.4	4,091.5	1.4	792	6.5
Hawaii .....	38.6	631.2	1.4	736	4.2
Idaho .....	57.1	679.1	3.0	626	2.3
Illinois .....	358.6	5,956.3	.8	874	4.4
Indiana .....	158.2	2,933.4	.5	702	2.6
Iowa .....	93.4	1,518.6	.9	664	3.9
Kansas .....	85.7	1,370.7	2.0	702	4.8
Kentucky .....	109.8	1,828.2	1.7	700	4.2
Louisiana .....	119.9	1,880.2	3.2	711	4.1
Maine .....	50.0	619.6	.6	658	4.1
Maryland .....	164.0	2,584.9	.7	899	5.3
Massachusetts .....	210.1	3,300.7	1.2	1,008	4.8
Michigan .....	257.1	4,252.9	-1.4	807	2.9
Minnesota .....	170.7	2,730.9	.0	834	5.6
Mississippi .....	69.7	1,137.4	.9	609	3.6
Missouri .....	174.7	2,764.6	.8	727	3.4
Montana .....	42.3	449.8	1.7	611	6.3
Nebraska .....	58.7	930.9	1.6	654	3.5
Nevada .....	74.7	1,297.9	1.0	776	3.7
New Hampshire .....	49.0	643.7	.7	823	6.3
New Jersey .....	278.1	4,066.7	.4	989	4.3
New Mexico .....	53.7	833.3	1.1	686	5.2
New York .....	576.8	8,688.8	1.3	1,020	5.9
North Carolina .....	251.0	4,090.5	3.0	718	4.1
North Dakota .....	25.1	347.7	1.5	619	4.7
Ohio .....	290.5	5,384.6	-.1	740	3.4
Oklahoma .....	99.1	1,538.5	1.6	665	4.1
Oregon .....	130.8	1,761.6	1.7	742	4.5
Pennsylvania .....	338.7	5,740.3	1.1	802	4.6
Rhode Island .....	36.1	492.9	.3	774	2.5
South Carolina .....	115.8	1,917.4	3.0	665	2.9
South Dakota .....	30.1	404.3	2.1	590	4.8
Tennessee .....	140.7	2,768.7	.7	729	3.6
Texas .....	548.7	10,296.1	3.4	827	5.9
Utah .....	86.3	1,233.7	4.4	698	6.6
Vermont .....	24.7	306.6	-.5	698	5.0
Virginia .....	227.4	3,731.5	1.0	859	4.4
Washington .....	216.7	2,989.8	2.7	835	4.6
West Virginia .....	48.7	717.1	.3	659	3.6
Wisconsin .....	158.2	2,845.8	.4	709	3.7
Wyoming .....	24.4	288.3	3.3	739	8.0
Puerto Rico .....	56.9	1,020.7	-1.6	460	6.0
Virgin Islands .....	3.4	46.9	3.4	707	4.1

<sup>1</sup> Average weekly wages were calculated using unrounded data.

NOTE: Includes workers covered by Unemployment Insurance (UI) and Unemployment Compensation for Federal Employees (UCFE) programs. Data are preliminary.

<sup>2</sup> Totals for the United States do not include data for Puerto Rico or the Virgin Islands.

**24. Annual data: Quarterly Census of Employment and Wages, by ownership**

Year	Average establishments	Average annual employment	Total annual wages (in thousands)	Average annual wage per employee	Average weekly wage
<b>Total covered (UI and UCFE)</b>					
1997	7,369,473	121,044,432	\$3,674,031,718	\$30,353	\$584
1998	7,634,018	124,183,549	3,967,072,423	31,945	614
1999	7,820,860	127,042,282	4,235,579,204	33,340	641
2000	7,879,116	129,877,063	4,587,708,584	35,323	679
2001	7,984,529	129,635,800	4,695,225,123	36,219	697
2002	8,101,872	128,233,919	4,714,374,741	36,764	707
2003	8,228,840	127,795,827	4,826,251,547	37,765	726
2004	8,364,795	129,278,176	5,087,561,796	39,354	757
2005	8,571,144	131,571,623	5,351,949,496	40,677	782
2006	8,784,027	133,833,834	5,692,569,465	42,535	818
<b>UI covered</b>					
1997	7,317,363	118,233,942	\$3,553,933,885	\$30,058	\$578
1998	7,586,767	121,400,660	3,845,494,089	31,676	609
1999	7,771,198	124,255,714	4,112,169,533	33,094	636
2000	7,828,861	127,005,574	4,454,966,824	35,077	675
2001	7,933,536	126,883,182	4,560,511,280	35,943	691
2002	8,051,117	125,475,293	4,570,787,218	36,428	701
2003	8,177,087	125,031,551	4,676,319,378	37,401	719
2004	8,312,729	126,538,579	4,929,262,369	38,955	749
2005	8,518,249	128,837,948	5,188,301,929	40,270	774
2006	8,731,111	131,104,860	5,522,624,197	42,124	810
<b>Private industry covered</b>					
1997	7,121,182	102,175,161	\$3,071,807,287	\$30,064	\$578
1998	7,381,518	105,082,368	3,337,621,699	31,762	611
1999	7,560,567	107,619,457	3,577,738,557	33,244	639
2000	7,622,274	110,015,333	3,887,626,769	35,337	680
2001	7,724,965	109,304,802	3,952,152,155	36,157	695
2002	7,839,903	107,577,281	3,930,767,025	36,539	703
2003	7,963,340	107,065,553	4,015,823,311	37,508	721
2004	8,093,142	108,490,066	4,245,640,890	39,134	753
2005	8,294,662	110,611,016	4,480,311,193	40,505	779
2006	8,505,496	112,718,858	4,780,833,389	42,414	816
<b>State government covered</b>					
1997	65,352	4,214,451	\$137,057,432	\$32,521	\$625
1998	67,347	4,240,779	142,512,445	33,605	646
1999	70,638	4,296,673	149,011,194	34,681	667
2000	65,096	4,370,160	158,618,365	36,296	698
2001	64,583	4,452,237	168,358,331	37,814	727
2002	64,447	4,485,071	175,866,492	39,212	754
2003	64,467	4,481,845	179,528,728	40,057	770
2004	64,544	4,484,997	184,414,992	41,118	791
2005	66,278	4,527,514	191,281,126	42,249	812
2006	66,921	4,565,908	200,329,294	43,875	844
<b>Local government covered</b>					
1997	130,829	11,844,330	\$345,069,166	\$29,134	\$560
1998	137,902	12,077,513	365,359,945	30,251	582
1999	140,093	12,339,584	385,419,781	31,234	601
2000	141,491	12,620,081	408,721,690	32,387	623
2001	143,989	13,126,143	440,000,795	33,521	645
2002	146,767	13,412,941	464,153,701	34,605	665
2003	149,281	13,484,153	480,967,339	35,669	686
2004	155,043	13,563,517	499,206,488	36,805	708
2005	157,309	13,699,418	516,709,610	37,718	725
2006	158,695	13,820,093	541,461,514	39,179	753
<b>Federal government covered (UCFE)</b>					
1997	52,110	2,810,489	\$120,097,833	\$42,732	\$822
1998	47,252	2,782,888	121,578,334	43,688	840
1999	49,661	2,786,567	123,409,672	44,287	852
2000	50,256	2,871,489	132,741,760	46,228	889
2001	50,993	2,752,619	134,713,843	48,940	941
2002	50,755	2,758,627	143,587,523	52,050	1,001
2003	51,753	2,764,275	149,932,170	54,239	1,043
2004	52,066	2,739,596	158,299,427	57,782	1,111
2005	52,895	2,733,675	163,647,568	59,864	1,151
2006	52,916	2,728,974	169,945,269	62,274	1,198

NOTE: Data are final. Detail may not add to total due to rounding.

**25. Annual data: Quarterly Census of Employment and Wages, establishment size and employment, private ownership, by supersector, first quarter 2006**

Industry, establishments, and employment	Total	Size of establishments								
		Fewer than 5 workers <sup>1</sup>	5 to 9 workers	10 to 19 workers	20 to 49 workers	50 to 99 workers	100 to 249 workers	250 to 499 workers	500 to 999 workers	1,000 or more workers
<b>Total all industries<sup>2</sup></b>										
Establishments, first quarter .....	8,413,125	5,078,506	1,392,481	919,182	636,264	216,815	123,061	30,375	10,965	5,476
Employment, March .....	111,001,540	7,540,432	9,219,319	12,406,793	19,195,647	14,903,811	18,408,166	10,383,792	7,421,575	11,522,005
<b>Natural resources and mining</b>										
Establishments, first quarter .....	123,076	69,188	23,230	15,106	9,842	3,177	1,783	516	175	59
Employment, March .....	1,631,257	111,354	153,676	203,446	296,339	216,952	267,612	177,858	115,367	88,653
<b>Construction</b>										
Establishments, first quarter .....	861,030	558,318	141,743	84,922	52,373	15,118	6,762	1,358	337	99
Employment, March .....	7,299,087	823,891	929,155	1,140,245	1,565,409	1,027,718	994,696	454,918	220,788	142,267
<b>Manufacturing</b>										
Establishments, first quarter .....	362,959	137,311	61,852	55,135	53,364	25,712	19,573	6,423	2,469	1,120
Employment, March .....	14,098,486	240,304	415,575	757,991	1,662,309	1,798,423	3,006,794	2,207,979	1,668,696	2,340,415
<b>Trade, transportation, and utilities</b>										
Establishments, first quarter .....	1,880,255	999,688	380,100	245,926	158,053	53,502	33,590	7,071	1,796	529
Employment, March .....	25,612,515	1,663,203	2,529,630	3,293,292	4,772,401	3,695,250	5,001,143	2,419,416	1,166,322	1,071,858
<b>Information</b>										
Establishments, first quarter .....	142,974	81,209	21,094	16,356	13,313	5,553	3,568	1,141	512	228
Employment, March .....	3,037,124	113,399	140,632	223,171	411,358	384,148	544,418	392,681	355,421	471,896
<b>Financial activities</b>										
Establishments, first quarter .....	836,365	541,333	151,952	80,853	40,558	12,146	6,245	1,890	928	460
Employment, March .....	8,102,371	874,114	1,002,449	1,068,474	1,206,411	832,505	936,343	655,392	641,926	884,757
<b>Professional and business services</b>										
Establishments, first quarter .....	1,403,142	948,773	192,581	121,585	80,222	30,997	20,046	5,849	2,169	920
Employment, March .....	17,162,560	1,333,479	1,265,155	1,639,285	2,431,806	2,148,736	3,038,221	1,995,309	1,469,170	1,841,399
<b>Education and health services</b>										
Establishments, first quarter .....	787,747	375,326	175,191	112,455	72,335	26,364	18,400	4,106	1,832	1,738
Employment, March .....	16,838,748	684,886	1,163,519	1,512,272	2,177,055	1,835,664	2,754,731	1,400,469	1,282,903	4,027,249
<b>Leisure and hospitality</b>										
Establishments, first quarter .....	699,767	270,143	118,147	128,663	131,168	38,635	10,459	1,602	648	302
Employment, March .....	12,633,387	430,588	796,935	1,802,270	3,945,588	2,583,745	1,475,115	540,014	437,645	621,487
<b>Other services</b>										
Establishments, first quarter .....	1,121,269	912,768	118,306	56,724	24,734	5,570	2,629	418	99	21
Employment, March .....	4,326,368	1,087,667	771,276	747,842	718,557	377,961	388,231	139,473	63,337	32,024

<sup>1</sup> Includes establishments that reported no workers in March 2006.

NOTE: Data are final. Detail may not add to total due to rounding.

<sup>2</sup> Includes data for unclassified establishments, not shown separately.

**26. Average annual wages for 2005 and 2006 for all covered workers<sup>1</sup> by metropolitan area**

Metropolitan area <sup>2</sup>	Average annual wages <sup>3</sup>		
	2005	2006	Percent change, 2005-06
Metropolitan areas <sup>4</sup> .....	\$42,253	\$44,165	4.5
Abilene, TX .....	27,876	29,842	7.1
Aguadilla-Isabela-San Sebastian, PR .....	18,717	19,277	3.0
Akron, OH .....	37,471	38,088	1.6
Albany, GA .....	31,741	32,335	1.9
Albany-Schenectady-Troy, NY .....	39,201	41,027	4.7
Albuquerque, NM .....	35,665	36,934	3.6
Alexandria, LA .....	30,114	31,329	4.0
Allentown-Bethlehem-Easton, PA-NJ .....	38,506	39,787	3.3
Altoona, PA .....	29,642	30,394	2.5
Amarillo, TX .....	31,954	33,574	5.1
Ames, IA .....	33,889	35,331	4.3
Anchorage, AK .....	41,712	42,955	3.0
Anderson, IN .....	31,418	32,184	2.4
Anderson, SC .....	29,463	30,373	3.1
Ann Arbor, MI .....	45,820	47,186	3.0
Anniston-Oxford, AL .....	31,231	32,724	4.8
Appleton, WI .....	34,431	35,308	2.5
Asheville, NC .....	30,926	32,268	4.3
Athens-Clarke County, GA .....	32,512	33,485	3.0
Atlanta-Sandy Springs-Marietta, GA .....	44,595	45,889	2.9
Atlantic City, NJ .....	36,735	38,018	3.5
Auburn-Opelika, AL .....	29,196	30,468	4.4
Augusta-Richmond County, GA-SC .....	34,588	35,638	3.0
Austin-Round Rock, TX .....	43,500	45,737	5.1
Bakersfield, CA .....	34,165	36,020	5.4
Baltimore-Towson, MD .....	43,486	45,177	3.9
Bangor, ME .....	30,707	31,746	3.4
Barnstable Town, MA .....	35,123	36,437	3.7
Baton Rouge, LA .....	34,523	37,245	7.9
Battle Creek, MI .....	37,994	39,362	3.6
Bay City, MI .....	33,572	35,094	4.5
Beaumont-Port Arthur, TX .....	36,530	39,026	6.8
Bellingham, WA .....	31,128	32,618	4.8
Bend, OR .....	31,492	33,319	5.8
Billings, MT .....	31,748	33,270	4.8
Binghamton, NY .....	33,290	35,048	5.3
Birmingham-Hoover, AL .....	39,353	40,798	3.7
Bismarck, ND .....	31,504	32,550	3.3
Blacksburg-Christiansburg-Radford, VA .....	32,196	34,024	5.7
Bloomington, IN .....	30,080	30,913	2.8
Bloomington-Normal, IL .....	39,404	41,359	5.0
Boise City-Nampa, ID .....	34,623	36,734	6.1
Boston-Cambridge-Quincy, MA-NH .....	54,199	56,809	4.8
Boulder, CO .....	49,115	50,944	3.7
Bowling Green, KY .....	31,306	32,529	3.9
Bremerton-Silverdale, WA .....	36,467	37,694	3.4
Bridgeport-Stamford-Norwalk, CT .....	71,095	74,890	5.3
Brownsville-Harlingen, TX .....	24,893	25,795	3.6
Brunswick, GA .....	30,902	32,717	5.9
Buffalo-Niagara Falls, NY .....	35,302	36,950	4.7
Burlington, NC .....	31,084	32,835	5.6
Burlington-South Burlington, VT .....	38,582	40,548	5.1
Canton-Massillon, OH .....	32,080	33,132	3.3
Cape Coral-Fort Myers, FL .....	35,649	37,065	4.0
Carson City, NV .....	38,428	40,115	4.4
Casper, WY .....	34,810	38,307	10.0
Cedar Rapids, IA .....	37,902	38,976	2.8
Champaign-Urbana, IL .....	33,278	34,422	3.4
Charleston, WV .....	35,363	36,887	4.3
Charleston-North Charleston, SC .....	33,896	35,267	4.0
Charlotte-Gastonia-Concord, NC-SC .....	43,728	45,732	4.6
Charlottesville, VA .....	37,392	39,051	4.4
Chattanooga, TN-GA .....	33,743	35,358	4.8
Cheyenne, WY .....	32,208	35,306	9.6
Chicago-Naperville-Joliet, IL-IN-WI .....	46,609	48,631	4.3
Chico, CA .....	30,007	31,557	5.2
Cincinnati-Middletown, OH-KY-IN .....	40,343	41,447	2.7
Clarksville, TN-KY .....	29,870	30,949	3.6
Cleveland, TN .....	32,030	33,075	3.3
Cleveland-Elyria-Mentor, OH .....	39,973	41,325	3.4
Coeur d'Alene, ID .....	28,208	29,797	5.6
College Station-Bryan, TX .....	29,032	30,239	4.2
Colorado Springs, CO .....	37,268	38,325	2.8
Columbia, MO .....	31,263	32,207	3.0
Columbia, SC .....	33,386	35,209	5.5
Columbus, GA-AL .....	31,370	32,334	3.1
Columbus, IN .....	38,446	40,107	4.3
Columbus, OH .....	39,806	41,168	3.4
Corpus Christi, TX .....	32,975	35,399	7.4
Corvallis, OR .....	39,357	40,586	3.1

See footnotes at end of table.

**26. Average annual wages for 2005 and 2006 for all covered workers<sup>1</sup> by metropolitan area — Continued**

Metropolitan area <sup>2</sup>	Average annual wages <sup>3</sup>		
	2005	2006	Percent change, 2005-06
Cumberland, MD-WV .....	\$28,645	\$29,859	4.2
Dallas-Fort Worth-Arlington, TX .....	45,337	47,525	4.8
Dalton, GA .....	32,848	33,266	1.3
Danville, IL .....	31,861	33,141	4.0
Danville, VA .....	28,449	28,870	1.5
Davenport-Moline-Rock Island, IA-IL .....	35,546	37,559	5.7
Dayton, OH .....	37,922	39,387	3.9
Decatur, AL .....	33,513	34,883	4.1
Decatur, IL .....	38,444	39,375	2.4
Deltona-Daytona Beach-Ormond Beach, FL .....	29,927	31,197	4.2
Denver-Aurora, CO .....	45,940	48,232	5.0
Des Moines, IA .....	39,760	41,358	4.0
Detroit-Warren-Livonia, MI .....	46,790	47,455	1.4
Dothan, AL .....	30,253	31,473	4.0
Dover, DE .....	33,132	34,571	4.3
Dubuque, IA .....	32,414	33,044	1.9
Duluth, MN-WI .....	32,638	33,677	3.2
Durham, NC .....	46,743	49,314	5.5
Eau Claire, WI .....	30,763	31,718	3.1
El Centro, CA .....	29,879	30,035	0.5
Elizabethtown, KY .....	30,912	32,072	3.8
Elkhart-Goshen, IN .....	35,573	35,878	0.9
Elmira, NY .....	32,989	33,968	3.0
El Paso, TX .....	28,666	29,903	4.3
Erie, PA .....	32,010	33,213	3.8
Eugene-Springfield, OR .....	32,295	33,257	3.0
Evansville, IN-KY .....	35,302	36,858	4.4
Fairbanks, AK .....	39,399	41,296	4.8
Fajardo, PR .....	20,011	21,002	5.0
Fargo, ND-MN .....	32,291	33,542	3.9
Farmington, NM .....	33,695	36,220	7.5
Fayetteville, NC .....	30,325	31,281	3.2
Fayetteville-Springdale-Rogers, AR-MO .....	34,598	35,734	3.3
Flagstaff, AZ .....	30,733	32,231	4.9
Flint, MI .....	37,982	39,409	3.8
Florence, SC .....	32,326	33,610	4.0
Florence-Muscle Shoals, AL .....	28,885	29,518	2.2
Fond du Lac, WI .....	32,634	33,376	2.3
Fort Collins-Loveland, CO .....	36,612	37,940	3.6
Fort Smith, AR-OK .....	29,599	30,932	4.5
Fort Walton Beach-Crestview-Destin, FL .....	32,976	34,409	4.3
Fort Wayne, IN .....	34,717	35,641	2.7
Fresno, CA .....	32,266	33,504	3.8
Gadsden, AL .....	28,438	29,499	3.7
Gainesville, FL .....	32,992	34,573	4.8
Gainesville, GA .....	33,828	34,765	2.8
Glens Falls, NY .....	31,710	32,780	3.4
Goldsboro, NC .....	28,316	29,331	3.6
Grand Forks, ND-MN .....	28,138	29,234	3.9
Grand Junction, CO .....	31,611	33,729	6.7
Grand Rapids-Wyoming, MI .....	36,941	38,056	3.0
Great Falls, MT .....	28,021	29,542	5.4
Greeley, CO .....	33,636	35,144	4.5
Green Bay, WI .....	35,467	36,677	3.4
Greensboro-High Point, NC .....	34,876	35,898	2.9
Greenville, NC .....	31,433	32,432	3.2
Greenville, SC .....	34,469	35,471	2.9
Guayama, PR .....	23,263	24,551	5.5
Gulfport-Biloxi, MS .....	31,688	34,688	9.5
Hagerstown-Martinsburg, MD-WV .....	33,202	34,621	4.3
Hanford-Corcoran, CA .....	29,989	31,148	3.9
Harrisburg-Carlisle, PA .....	39,144	39,807	1.7
Harrisonburg, VA .....	30,366	31,522	3.8
Hartford-West Hartford-East Hartford, CT .....	50,154	51,282	2.2
Hattiesburg, MS .....	28,568	30,059	5.2
Hickory-Lenoir-Morganton, NC .....	30,090	31,323	4.1
Hinesville-Fort Stewart, GA .....	30,062	31,416	4.5
Holland-Grand Haven, MI .....	36,362	36,895	1.5
Honolulu, HI .....	37,654	39,009	3.6
Hot Springs, AR .....	27,024	27,684	2.4
Houma-Bayou Cane-Thibodaux, LA .....	33,696	38,417	14.0
Houston-Baytown-Sugar Land, TX .....	47,157	50,177	6.4
Huntington-Ashland, WV-KY-OH .....	31,415	32,648	3.9
Huntsville, AL .....	42,401	44,659	5.3
Idaho Falls, ID .....	29,795	31,632	6.2
Indianapolis, IN .....	39,830	41,307	3.7
Iowa City, IA .....	34,785	35,913	3.2
Ithaca, NY .....	36,457	38,337	5.2
Jackson, MI .....	35,879	36,836	2.7
Jackson, MS .....	33,099	34,605	4.5

See footnotes at end of table.

**26. Average annual wages for 2005 and 2006 for all covered workers<sup>1</sup> by metropolitan area — Continued**

Metropolitan area <sup>2</sup>	Average annual wages <sup>3</sup>		
	2005	2006	Percent change, 2005-06
Jackson, TN .....	\$33,286	\$34,477	3.6
Jacksonville, FL .....	38,224	40,192	5.1
Jacksonville, NC .....	24,803	25,854	4.2
Janesville, WI .....	34,107	36,732	7.7
Jefferson City, MO .....	30,991	31,771	2.5
Johnson City, TN .....	29,840	31,058	4.1
Johnstown, PA .....	29,335	29,972	2.2
Jonesboro, AR .....	28,550	28,972	1.5
Joplin, MO .....	29,152	30,111	3.3
Kalamazoo-Portage, MI .....	36,042	37,099	2.9
Kankakee-Bradley, IL .....	31,802	32,389	1.8
Kansas City, MO-KS .....	39,749	41,320	4.0
Kennewick-Richland-Pasco, WA .....	38,453	38,750	0.8
Killeen-Temple-Fort Hood, TX .....	30,028	31,511	4.9
Kingsport-Bristol-Bristol, TN-VA .....	33,568	35,100	4.6
Kingston, NY .....	30,752	33,697	9.6
Knoxville, TN .....	35,724	37,216	4.2
Kokomo, IN .....	44,462	45,808	3.0
La Crosse, WI-MN .....	31,029	31,819	2.5
Lafayette, IN .....	35,176	35,380	0.6
Lafayette, LA .....	34,729	38,170	9.9
Lake Charles, LA .....	33,728	35,883	6.4
Lakeland, FL .....	32,235	33,530	4.0
Lancaster, PA .....	35,264	36,171	2.6
Lansing-East Lansing, MI .....	38,135	39,890	4.6
Laredo, TX .....	27,401	28,051	2.4
Las Cruces, NM .....	28,569	29,969	4.9
Las Vegas-Paradise, NV .....	38,940	40,139	3.1
Lawrence, KS .....	28,492	29,896	4.9
Lawton, OK .....	28,459	29,830	4.8
Lebanon, PA .....	30,704	31,790	3.5
Lewiston, ID-WA .....	29,414	30,776	4.6
Lewiston-Auburn, ME .....	31,008	32,231	3.9
Lexington-Fayette, KY .....	36,683	37,926	3.4
Lima, OH .....	32,630	33,790	3.6
Lincoln, NE .....	32,711	33,703	3.0
Little Rock-North Little Rock, AR .....	34,920	36,169	3.6
Logan, UT-ID .....	25,869	26,766	3.5
Longview, TX .....	32,603	35,055	7.5
Longview, WA .....	33,993	35,140	3.4
Los Angeles-Long Beach-Santa Ana, CA .....	46,592	48,680	4.5
Louisville, KY-IN .....	37,144	38,673	4.1
Lubbock, TX .....	30,174	31,977	6.0
Lynchburg, VA .....	32,025	33,242	3.8
Macon, GA .....	33,110	34,126	3.1
Madera, CA .....	29,356	31,213	6.3
Madison, WI .....	38,210	40,007	4.7
Manchester-Nashua, NH .....	45,066	46,659	3.5
Mansfield, OH .....	32,688	33,171	1.5
Mayaguez, PR .....	19,597	20,619	5.2
McAllen-Edinburg-Pharr, TX .....	25,315	26,712	5.5
Medford, OR .....	30,502	31,697	3.9
Memphis, TN-MS-AR .....	39,094	40,580	3.8
Merced, CA .....	30,209	31,147	3.1
Miami-Fort Lauderdale-Miami Beach, FL .....	40,174	42,175	5.0
Michigan City-La Porte, IN .....	30,724	31,383	2.1
Midland, TX .....	38,267	42,625	11.4
Milwaukee-Waukesha-West Allis, WI .....	40,181	42,049	4.6
Minneapolis-St. Paul-Bloomington, MN-WI .....	45,507	46,931	3.1
Missoula, MT .....	29,627	30,652	3.5
Mobile, AL .....	33,496	36,126	7.9
Modesto, CA .....	34,325	35,468	3.3
Monroe, LA .....	29,264	30,618	4.6
Monroe, MI .....	39,449	40,938	3.8
Montgomery, AL .....	33,441	35,383	5.8
Morgantown, WV .....	31,529	32,608	3.4
Morristown, TN .....	31,215	31,914	2.2
Mount Vernon-Anacortes, WA .....	31,387	32,851	4.7
Muncie, IN .....	32,172	30,691	-4.6
Muskegon-Norton Shores, MI .....	33,035	33,949	2.8
Myrtle Beach-Conway-North Myrtle Beach, SC .....	26,642	27,905	4.7
Napa, CA .....	40,180	41,788	4.0
Naples-Marco Island, FL .....	38,211	39,320	2.9
Nashville-Davidson-Murfreesboro, TN .....	38,753	41,003	5.8
New Haven-Milford, CT .....	43,931	44,892	2.2
New Orleans-Metairie-Kenner, LA .....	37,239	42,434	14.0
New York-Northern New Jersey-Long Island, NY-NJ-PA .....	57,660	61,388	6.5
Niles-Benton Harbor, MI .....	35,029	36,967	5.5
Norwich-New London, CT .....	42,151	43,184	2.5
Ocala, FL .....	30,008	31,330	4.4

See footnotes at end of table.

**26. Average annual wages for 2005 and 2006 for all covered workers<sup>1</sup> by metropolitan area — Continued**

Metropolitan area <sup>2</sup>	Average annual wages <sup>3</sup>		
	2005	2006	Percent change, 2005-06
Ocean City, NJ .....	\$31,033	\$31,801	2.5
Odessa, TX .....	33,475	37,144	11.0
Ogden-Clearfield, UT .....	31,195	32,890	5.4
Oklahoma City, OK .....	33,142	35,846	8.2
Olympia, WA .....	36,230	37,787	4.3
Omaha-Council Bluffs, NE-IA .....	36,329	38,139	5.0
Orlando, FL .....	36,466	37,776	3.6
Oshkosh-Neenah, WI .....	38,820	39,538	1.8
Owensboro, KY .....	31,379	32,491	3.5
Oxnard-Thousand Oaks-Ventura, CA .....	44,597	45,467	2.0
Palm Bay-Melbourne-Titusville, FL .....	38,287	39,778	3.9
Panama City-Lynn Haven, FL .....	31,894	33,341	4.5
Parkersburg-Marietta, WV-OH .....	30,747	32,213	4.8
Pascagoula, MS .....	34,735	36,287	4.5
Pensacola-Ferry Pass-Brent, FL .....	32,064	33,530	4.6
Peoria, IL .....	39,871	42,283	6.0
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD .....	46,454	48,647	4.7
Phoenix-Mesa-Scottsdale, AZ .....	40,245	42,220	4.9
Pine Bluff, AR .....	30,794	32,115	4.3
Pittsburgh, PA .....	38,809	40,759	5.0
Pittsfield, MA .....	35,807	36,707	2.5
Pocatello, ID .....	27,686	28,418	2.6
Ponce, PR .....	19,660	20,266	3.1
Portland-South Portland-Biddeford, ME .....	35,857	36,979	3.1
Portland-Vancouver-Beaverton, OR-WA .....	41,048	42,607	3.8
Port St. Lucie-Fort Pierce, FL .....	33,235	34,408	3.5
Poughkeepsie-Newburgh-Middletown, NY .....	38,187	39,528	3.5
Prescott, AZ .....	29,295	30,625	4.5
Providence-New Bedford-Fall River, RI-MA .....	37,796	39,428	4.3
Provo-Orem, UT .....	30,395	32,308	6.3
Pueblo, CO .....	30,165	30,941	2.6
Punta Gorda, FL .....	31,937	32,370	1.4
Racine, WI .....	37,659	39,002	3.6
Raleigh-Cary, NC .....	39,465	41,205	4.4
Rapid City, SD .....	28,758	29,920	4.0
Reading, PA .....	36,210	38,048	5.1
Redding, CA .....	32,139	33,307	3.6
Reno-Sparks, NV .....	38,453	39,537	2.8
Richmond, VA .....	41,274	42,495	3.0
Riverside-San Bernardino-Ontario, CA .....	35,201	36,668	4.2
Roanoke, VA .....	32,987	33,912	2.8
Rochester, MN .....	41,296	42,941	4.0
Rochester, NY .....	37,991	39,481	3.9
Rockford, IL .....	35,652	37,424	5.0
Rocky Mount, NC .....	30,983	31,556	1.8
Rome, GA .....	33,896	34,850	2.8
Sacramento-Arden-Arcade-Roseville, CA .....	42,800	44,552	4.1
Saginaw-Saginaw Township North, MI .....	36,325	37,747	3.9
St. Cloud, MN .....	31,705	33,018	4.1
St. George, UT .....	26,046	28,034	7.6
St. Joseph, MO-KS .....	30,009	31,253	4.1
St. Louis, MO-IL .....	39,985	41,354	3.4
Salem, OR .....	31,289	32,764	4.7
Salinas, CA .....	36,067	37,974	5.3
Salisbury, MD .....	32,240	33,223	3.0
Salt Lake City, UT .....	36,857	38,630	4.8
San Angelo, TX .....	29,530	30,168	2.2
San Antonio, TX .....	35,097	36,763	4.7
San Diego-Carlsbad-San Marcos, CA .....	43,824	45,784	4.5
Sandusky, OH .....	32,631	33,526	2.7
San Francisco-Oakland-Fremont, CA .....	58,634	61,343	4.6
San German-Cabo Rojo, PR .....	18,745	19,498	4.0
San Jose-Sunnyvale-Santa Clara, CA .....	71,970	76,608	6.4
San Juan-Caguas-Guaynabo, PR .....	23,952	24,812	3.6
San Luis Obispo-Paso Robles, CA .....	33,759	35,146	4.1
Santa Barbara-Santa Maria-Goleta, CA .....	39,080	40,326	3.2
Santa Cruz-Watsonville, CA .....	38,016	40,776	7.3
Santa Fe, NM .....	33,253	35,320	6.2
Santa Rosa-Petaluma, CA .....	40,017	41,533	3.8
Sarasota-Bradenton-Venice, FL .....	33,905	35,751	5.4
Savannah, GA .....	34,104	35,684	4.6
Scranton-Wilkes-Barre, PA .....	32,057	32,813	2.4
Seattle-Tacoma-Bellevue, WA .....	46,644	49,455	6.0
Sheboygan, WI .....	35,067	35,908	2.4
Sherman-Denison, TX .....	32,800	34,166	4.2
Shreveport-Bossier City, LA .....	31,962	33,678	5.4
Sioux City, IA-NE-SD .....	31,122	31,826	2.3
Sioux Falls, SD .....	33,257	34,542	3.9
South Bend-Mishawaka, IN-MI .....	34,086	35,089	2.9
Spartanburg, SC .....	35,526	37,077	4.4

See footnotes at end of table.

**26. Average annual wages for 2005 and 2006 for all covered workers<sup>1</sup> by metropolitan area — Continued**

Metropolitan area <sup>2</sup>	Average annual wages <sup>3</sup>		
	2005	2006	Percent change, 2005-06
Spokane, WA .....	\$32,621	\$34,016	4.3
Springfield, IL .....	39,299	40,679	3.5
Springfield, MA .....	36,791	37,962	3.2
Springfield, MO .....	30,124	30,786	2.2
Springfield, OH .....	30,814	31,844	3.3
State College, PA .....	34,109	35,392	3.8
Stockton, CA .....	35,030	36,426	4.0
Sumter, SC .....	27,469	29,294	6.6
Syracuse, NY .....	36,494	38,081	4.3
Tallahassee, FL .....	33,548	35,018	4.4
Tampa-St. Petersburg-Clearwater, FL .....	36,374	38,016	4.5
Terre Haute, IN .....	30,597	31,341	2.4
Texarkana, TX-Texarkana, AR .....	31,302	32,545	4.0
Toledo, OH .....	35,848	37,039	3.3
Topeka, KS .....	33,303	34,806	4.5
Trenton-Ewing, NJ .....	52,034	54,274	4.3
Tucson, AZ .....	35,650	37,119	4.1
Tulsa, OK .....	35,211	37,637	6.9
Tuscaloosa, AL .....	34,124	35,613	4.4
Tyler, TX .....	34,731	36,173	4.2
Utica-Rome, NY .....	30,902	32,457	5.0
Valdosta, GA .....	25,712	26,794	4.2
Vallejo-Fairfield, CA .....	38,431	40,225	4.7
Vero Beach, FL .....	32,591	33,823	3.8
Victoria, TX .....	34,327	36,642	6.7
Vineland-Millville-Bridgeton, NJ .....	36,387	37,749	3.7
Virginia Beach-Norfolk-Newport News, VA-NC .....	34,580	36,071	4.3
Visalia-Porterville, CA .....	28,582	29,772	4.2
Waco, TX .....	32,325	33,450	3.5
Warner Robins, GA .....	36,762	38,087	3.6
Washington-Arlington-Alexandria, DC-VA-MD-WV .....	55,525	58,057	4.6
Waterloo-Cedar Falls, IA .....	33,123	34,329	3.6
Wausau, WI .....	33,259	34,438	3.5
Weirton-Stebenville, WV-OH .....	30,596	31,416	2.7
Wenatchee, WA .....	27,163	28,340	4.3
Wheeling, WV-OH .....	29,808	30,620	2.7
Wichita, KS .....	35,976	38,763	7.7
Wichita Falls, TX .....	29,343	30,785	4.9
Williamsport, PA .....	30,699	31,431	2.4
Wilmington, NC .....	31,792	32,948	3.6
Winchester, VA-WV .....	33,787	34,895	3.3
Winston-Salem, NC .....	36,654	37,712	2.9
Worcester, MA .....	41,094	42,726	4.0
Yakima, WA .....	27,334	28,401	3.9
Yauco, PR .....	17,818	19,001	6.6
York-Hanover, PA .....	36,834	37,226	1.1
Youngstown-Warren-Boardman, OH-PA .....	32,176	33,852	5.2
Yuba City, CA .....	32,133	33,642	4.7
Yuma, AZ .....	27,168	28,369	4.4

<sup>1</sup> Includes workers covered by Unemployment Insurance (UI) and Unemployment Compensation for Federal Employees (UCFE) programs.

<sup>2</sup> Includes data for Metropolitan Statistical Areas (MSA) as defined by OMB Bulletin No. 04-03 as of February 18, 2004.

<sup>3</sup> Each year's total is based on the MSA definition for the specific year. Annual changes include differences resulting from changes in MSA definitions.

<sup>4</sup> Totals do not include the six MSAs within Puerto Rico.

## 27. Annual data: Employment status of the population

[Numbers in thousands]

Employment status	1997	1998 <sup>1</sup>	1999 <sup>1</sup>	2000 <sup>1</sup>	2001 <sup>1</sup>	2002	2003	2004	2005	2006	2007
Civilian noninstitutional population.....	203,133	205,220	207,753	212,577	215,092	217,570	221,168	223,357	226,082	228,815	231,867
Civilian labor force.....	136,297	137,673	139,368	142,583	143,734	144,863	146,510	147,401	149,320	151,428	153,124
Labor force participation rate.....	67.1	67.1	67.1	67.1	66.8	66.6	66.2	66	66	66.2	66
Employed.....	129,558	131,463	133,488	136,891	136,933	136,485	137,736	139,252	141,730	144,427	146,047
Employment-population ratio.....	63.8	64.1	64.3	64.4	63.7	62.7	62.3	62.3	62.7	63.1	63
Unemployed.....	6,739	6,210	5,880	5,692	6,801	8,378	8,774	8,149	7,591	7,001	7,078
Unemployment rate.....	4.9	4.5	4.2	4	4.7	5.8	6	5.5	5.1	4.6	4.6
Not in the labor force.....	66,837	67,547	68,385	69,994	71,359	72,707	74,658	75,956	76,762	77,387	78,743

<sup>1</sup> Not strictly comparable with prior years.

## 28. Annual data: Employment levels by industry

[In thousands]

Industry	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total private employment.....	103,113	106,021	108,686	110,996	110,707	108,828	108,416	109,814	111,899	114,184	115,717
Total nonfarm employment.....	122,776	125,930	128,993	131,785	131,826	130,341	129,999	131,435	133,703	136,174	137,969
Goods-producing.....	23,886	24,354	24,465	24,649	23,873	22,557	21,816	21,882	22,190	22,570	22,378
Natural resources and mining.....	654	645	598	599	606	583	572	591	628	684	722
Construction.....	5,813	6,149	6,545	6,787	6,826	6,716	6,735	6,976	7,336	7,689	7,624
Manufacturing.....	17,419	17,560	17,322	17,263	16,441	15,259	14,510	14,315	14,226	14,197	14,032
Private service-providing.....	79,227	81,667	84,221	86,346	86,834	86,271	86,599	87,932	89,709	91,615	93,339
Trade, transportation, and utilities.....	24,700	25,186	25,771	26,225	25,983	25,497	25,287	25,533	25,959	26,231	26,472
Wholesale trade.....	5,663.90	5,795.20	5,892.50	5,933.20	5,772.70	5,652.30	5,607.50	5,662.90	5,764.40	5,897.60	6,005.30
Retail trade.....	14,388.90	14,609.30	14,970.10	15,279.80	15,238.60	15,025.10	14,917.30	15,058.20	15,279.60	15,319.30	15,382.00
Transportation and warehousing.....	4,026.50	4,168.00	4,300.30	4,410.30	4,372.00	4,223.60	4,185.40	4,248.60	4,360.90	4,465.80	4,531.20
Utilities.....	620.9	613.4	608.5	601.3	599.4	596.2	577	563.8	554	548.5	553.5
Information.....	3,084	3,218	3,419	3,631	3,629	3,395	3,188	3,118	3,061	3,055	3,087
Financial activities.....	7,178	7,462	7,648	7,687	7,807	7,847	7,977	8,031	8,153	8,363	8,446
Professional and business services.....	14,335	15,147	15,957	16,666	16,476	15,976	15,987	16,395	16,954	17,552	17,920
Education and health services.....	14,087	14,446	14,798	15,109	15,645	16,199	16,588	16,953	17,372	17,838	18,377
Leisure and hospitality.....	11,018	11,232	11,543	11,862	12,036	11,986	12,173	12,493	12,816	13,143	13,565
Other services.....	4,825	4,976	5,087	5,168	5,258	5,372	5,401	5,409	5,395	5,432	5,472
Government.....	19,664	19,909	20,307	20,790	21,118	21,513	21,583	21,621	21,804	21,990	22,252

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

Industry	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Private sector:</b>											
Average weekly hours.....	34.5	34.5	34.3	34.3	34	33.9	33.7	33.7	33.8	33.9	33.8
Average hourly earnings (in dollars).....	12.51	13.01	13.49	14.02	14.54	14.97	15.37	15.69	16.13	16.76	17.41
Average weekly earnings (in dollars).....	431.86	448.56	463.15	481.01	493.79	506.72	518.06	529.09	544.33	567.87	589.36
<b>Goods-producing:</b>											
Average weekly hours.....	41.1	40.8	40.8	40.7	39.9	39.9	39.8	40	40.1	40.5	40.5
Average hourly earnings (in dollars).....	13.82	14.23	14.71	15.27	15.78	16.33	16.8	17.19	17.6	18.02	18.64
Average weekly earnings (in dollars).....	568.43	580.99	599.99	621.86	630.04	651.61	669.13	688.17	705.31	729.87	755.73
<b>Natural resources and mining</b>											
Average weekly hours.....	46.2	44.9	44.2	44.4	44.6	43.2	43.6	44.5	45.6	45.6	45.9
Average hourly earnings (in dollars).....	15.57	16.2	16.33	16.55	17	17.19	17.56	18.07	18.72	19.9	20.99
Average weekly earnings (in dollars).....	720.11	727.28	721.74	734.92	757.92	741.97	765.94	803.82	853.71	908.01	962.54
<b>Construction:</b>											
Average weekly hours.....	38.9	38.8	39	39.2	38.7	38.4	38.4	38.3	38.6	39	38.9
Average hourly earnings (in dollars).....	15.67	16.23	16.8	17.48	18	18.52	18.95	19.23	19.46	20.02	20.94
Average weekly earnings (in dollars).....	609.48	629.75	655.11	685.78	695.89	711.82	726.83	735.55	750.22	781.04	814.83
<b>Manufacturing:</b>											
Average weekly hours.....	41.7	41.4	41.4	41.3	40.3	40.5	40.4	40.8	40.7	41.1	41.2
Average hourly earnings (in dollars).....	13.14	13.45	13.85	14.32	14.76	15.29	15.74	16.15	16.56	16.8	17.23
Average weekly earnings (in dollars).....	548.22	557.12	573.17	590.65	595.19	618.75	635.99	658.59	673.37	690.83	710.51
<b>Private service-providing:</b>											
Average weekly hours.....	32.8	32.8	32.7	32.7	32.5	32.5	32.4	32.3	32.4	32.5	32.4
Average hourly earnings (in dollars).....	12.07	12.61	13.09	13.62	14.18	14.59	14.99	15.29	15.74	16.42	17.09
Average weekly earnings (in dollars).....	395.51	413.5	427.98	445.74	461.08	473.8	484.81	494.22	509.58	532.84	554.47
<b>Trade, transportation, and utilities:</b>											
Average weekly hours.....	34.3	34.2	33.9	33.8	33.5	33.6	33.6	33.5	33.4	33.4	33.4
Average hourly earnings (in dollars).....	11.9	12.39	12.82	13.31	13.7	14.02	14.34	14.58	14.92	15.4	15.82
Average weekly earnings (in dollars).....	407.57	423.3	434.31	449.88	459.53	471.27	481.14	488.42	498.43	514.61	528.22
<b>Wholesale trade:</b>											
Average weekly hours.....	38.8	38.6	38.6	38.8	38.4	38	37.9	37.8	37.7	38	38.2
Average hourly earnings (in dollars).....	14.41	15.07	15.62	16.28	16.77	16.98	17.36	17.65	18.16	18.91	19.56
Average weekly earnings (in dollars).....	559.39	582.21	602.77	631.4	643.45	644.38	657.29	667.09	685	718.3	747.7
<b>Retail trade:</b>											
Average weekly hours.....	38.8	38.6	38.6	38.8	38.4	38	37.9	37.8	37.7	38	30.2
Average hourly earnings (in dollars).....	14.41	15.07	15.62	16.28	16.77	16.98	17.36	17.65	18.16	18.91	12.8
Average weekly earnings (in dollars).....	559.39	582.21	602.77	631.4	643.45	644.38	657.29	667.09	685	718.3	747.7
<b>Transportation and warehousing:</b>											
Average weekly hours.....	39.4	38.7	37.6	37.4	36.7	36.8	36.8	37.2	37	36.9	37
Average hourly earnings (in dollars).....	13.78	14.12	14.55	15.05	15.33	15.76	16.25	16.52	16.7	17.28	17.76
Average weekly earnings (in dollars).....	542.55	546.86	547.97	562.31	562.7	579.75	598.41	614.82	618.58	637.14	656.95
<b>Utilities:</b>											
Average weekly hours.....	42	42	42	42	41.4	40.9	41.1	40.9	41.1	41.4	42.4
Average hourly earnings (in dollars).....	20.59	21.48	22.03	22.75	23.58	23.96	24.77	25.61	26.68	27.42	27.93
Average weekly earnings (in dollars).....	865.26	902.94	924.59	955.66	977.18	979.09	1,017.27	1,048.44	1,095.90	1,136.08	1,185.08
<b>Information:</b>											
Average weekly hours.....	36.3	36.6	36.7	36.8	36.9	36.5	36.2	36.3	36.5	36.6	36.4
Average hourly earnings (in dollars).....	17.14	17.67	18.4	19.07	19.8	20.2	21.01	21.4	22.06	23.23	23.92
Average weekly earnings (in dollars).....	622.4	646.52	675.32	700.89	731.11	738.17	760.81	777.05	805	850.81	871.03
<b>Financial activities:</b>											
Average weekly hours.....	35.7	36	35.8	35.9	35.8	35.6	35.5	35.5	35.9	35.8	35.9
Average hourly earnings (in dollars).....	13.22	13.93	14.47	14.98	15.59	16.17	17.14	17.52	17.94	18.8	19.66
Average weekly earnings (in dollars).....	472.37	500.95	517.57	537.37	558.02	575.51	609.08	622.87	645.1	672.4	706.01
<b>Professional and business services:</b>											
Average weekly hours.....	34.3	34.3	34.4	34.5	34.2	34.2	34.1	34.2	34.2	34.6	34.8
Average hourly earnings (in dollars).....	13.57	14.27	14.85	15.52	16.33	16.81	17.21	17.48	18.08	19.12	20.15
Average weekly earnings (in dollars).....	465.51	490	510.99	535.07	557.84	574.66	587.02	597.56	618.87	662.23	700.96
<b>Education and health services:</b>											
Average weekly hours.....	32.2	32.2	32.1	32.2	32.3	32.4	32.3	32.4	32.6	32.5	32.6
Average hourly earnings (in dollars).....	12.56	13	13.44	13.95	14.64	15.21	15.64	16.15	16.71	17.38	18.03
Average weekly earnings (in dollars).....	404.65	418.82	431.35	449.29	473.39	492.74	505.69	523.78	544.59	564.95	587.2
<b>Leisure and hospitality:</b>											
Average weekly hours.....	26	26.2	26.1	26.1	25.8	25.8	25.6	25.7	25.7	25.7	25.5
Average hourly earnings (in dollars).....	7.32	7.67	7.96	8.32	8.57	8.81	9	9.15	9.38	9.75	10.41
Average weekly earnings (in dollars).....	190.52	200.82	208.05	217.2	220.73	227.17	230.42	234.86	241.36	250.11	265.03
<b>Other services:</b>											
Average weekly hours.....	32.7	32.6	32.5	32.5	32.3	32	31.4	31	30.9	30.9	30.9
Average hourly earnings (in dollars).....	11.29	11.79	12.26	12.73	13.27	13.72	13.84	13.98	14.34	14.77	15.22
Average weekly earnings (in dollars).....	368.63	384.25	398.77	413.41	428.64	439.76	434.41	433.04	443.37	456.6	470.05

NOTE: Data reflect the conversion to the 2002 version of the North American Industry Classification System (NAICS), replacing the Standard Industrial Classification (SIC) system. NAICS-based data by industry are not comparable with SIC-based data.

### 30. Employment Cost Index, compensation,<sup>1</sup> by occupation and industry group

[December 2005 = 100]

Series	2006			2007				2008		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
	June 2008										
<b>Civilian workers<sup>2</sup></b> .....	101.6	102.7	103.3	104.2	105.0	106.1	106.7	107.6	108.3	0.7	3.1
Workers by occupational group											
Management, professional, and related.....	101.6	103.0	103.7	104.7	105.5	106.7	107.2	108.3	109.0	.6	3.3
Management, business, and financial.....	101.9	102.7	103.2	104.4	105.2	106.2	106.6	108.2	108.9	.6	3.5
Professional and related.....	101.4	103.2	104.0	104.9	105.7	107.0	107.6	108.4	109.0	.6	3.1
Sales and office.....	101.6	102.4	103.0	103.8	104.8	105.5	106.4	106.8	107.7	.8	2.8
Sales and related.....	101.1	101.7	102.3	102.4	103.6	104.1	105.2	105.0	106.1	1.0	2.4
Office and administrative support.....	101.9	102.8	103.5	104.7	105.5	106.4	107.1	108.0	108.6	.6	2.9
Natural resources, construction, and maintenance.....	102.0	103.0	103.6	104.1	105.1	106.1	106.8	107.7	108.4	.6	3.1
Construction and extraction.....	102.0	103.0	103.7	104.3	105.7	106.5	107.4	108.5	109.6	1.0	3.7
Installation, maintenance, and repair.....	102.0	103.0	103.6	103.7	104.4	105.6	106.2	106.7	107.0	.3	2.5
Production, transportation, and material moving.....	101.1	101.8	102.4	102.7	103.5	104.2	104.7	105.6	106.2	.6	2.6
Production.....	101.0	101.6	102.0	102.1	102.8	103.3	104.1	104.8	105.3	.5	2.4
Transportation and material moving.....	101.3	102.2	102.8	103.4	104.4	105.3	105.6	106.6	107.3	.7	2.8
Service occupations.....	101.4	102.5	103.5	104.8	105.5	106.9	107.7	108.4	109.1	.6	3.4
Workers by industry											
Goods-producing.....	101.3	102.0	102.5	102.9	103.9	104.4	105.0	106.1	106.8	.7	2.8
Manufacturing.....	101.0	101.4	101.8	102.0	102.9	103.2	103.8	104.7	105.1	.4	2.1
Service-providing.....	101.6	102.9	103.5	104.4	105.2	106.4	107.0	107.8	108.5	.6	3.1
Education and health services.....	101.3	103.5	104.2	104.9	105.5	107.2	107.9	108.6	109.2	.6	3.5
Health care and social assistance.....	102.0	103.5	104.3	105.4	106.1	107.1	107.9	108.9	109.6	.6	3.3
Hospitals.....	101.9	103.2	104.0	105.1	105.7	106.7	107.5	108.4	109.2	.7	3.3
Nursing and residential care facilities.....	101.4	102.6	103.7	104.5	105.0	105.6	106.3	107.3	108.2	.8	3.0
Education services.....	100.7	103.4	104.1	104.5	104.9	107.3	107.9	108.3	108.9	.6	3.8
Elementary and secondary schools.....	100.5	103.5	104.2	104.6	105.0	107.4	107.9	108.2	108.8	.6	3.6
Public administration <sup>3</sup> .....	101.2	102.4	103.8	105.6	106.6	108.0	109.1	109.7	110.1	.4	3.3
<b>Private industry workers</b> .....	101.7	102.5	103.2	104.0	104.9	105.7	106.3	107.3	108.0	.7	3.0
Workers by occupational group											
Management, professional, and related.....	101.9	102.9	103.5	104.6	105.5	106.4	106.8	108.1	108.9	.7	3.2
Management, business, and financial.....	102.0	102.7	103.1	104.3	105.1	106.0	106.3	108.0	108.7	.6	3.4
Professional and related.....	101.8	103.1	103.9	104.9	105.9	106.7	107.3	108.3	109.0	.6	2.9
Sales and office.....	101.6	102.3	102.9	103.7	104.7	105.3	106.1	106.6	107.5	.8	2.7
Sales and related.....	101.1	101.7	102.3	102.4	103.6	104.2	105.2	105.0	106.2	1.1	2.5
Office and administrative support.....	101.9	102.7	103.4	104.5	105.4	106.0	106.7	107.8	108.5	.6	2.9
Natural resources, construction, and maintenance.....	102.1	103.0	103.6	104.0	105.0	105.9	106.7	107.6	108.3	.7	3.1
Construction and extraction.....	102.2	103.1	103.7	104.4	105.7	106.5	107.4	108.6	109.7	1.0	3.8
Installation, maintenance, and repair.....	102.1	103.0	103.4	103.5	104.1	105.2	105.8	106.3	106.6	.3	2.4
Production, transportation, and material moving.....	101.1	101.7	102.3	102.5	103.3	103.9	104.5	105.5	106.0	.5	2.6
Production.....	101.0	101.6	102.0	102.1	102.8	103.2	104.0	104.8	105.2	.4	2.3
Transportation and material moving.....	101.2	102.0	102.6	103.1	104.1	104.9	105.3	106.4	107.2	.8	3.0
Service occupations.....	101.5	102.3	103.1	104.5	105.2	106.4	107.0	107.8	108.7	.8	3.3
Workers by industry and occupational group											
Goods-producing industries.....	101.3	102.0	102.5	102.9	103.9	104.4	105.0	106.1	106.8	.7	2.8
Management, professional, and related.....	100.7	101.6	102.0	102.7	103.8	104.3	104.4	106.1	106.6	.5	2.7
Sales and office.....	102.7	102.1	102.8	103.0	103.7	104.1	104.8	105.1	106.3	1.1	2.5
Natural resources, construction, and maintenance.....	101.9	102.7	103.3	104.0	105.3	106.1	107.0	108.1	109.0	.8	3.5
Production, transportation, and material moving.....	101.0	101.6	102.0	102.1	102.9	103.3	104.0	104.8	105.3	.5	2.3
Construction.....	101.9	103.0	103.6	104.7	105.9	106.9	107.6	108.9	110.1	1.1	4.0
Manufacturing.....	101.0	101.4	101.8	102.0	102.9	103.2	103.8	104.7	105.1	.4	2.1
Management, professional, and related.....	100.5	101.3	101.4	102.0	103.3	103.3	103.5	104.9	105.2	.3	1.8
Sales and office.....	102.8	101.3	102.1	102.4	103.2	103.5	104.3	105.0	106.1	1.0	2.8
Natural resources, construction, and maintenance.....	100.8	101.5	102.1	101.7	102.4	102.8	103.9	104.6	104.5	-.1	2.1
Production, transportation, and material moving.....	100.9	101.5	101.9	101.9	102.6	103.1	103.8	104.5	105.0	.5	2.3
Service-providing industries.....	101.8	102.7	103.4	104.3	105.2	106.1	106.7	107.7	108.5	.7	3.1
Management, professional, and related.....	102.2	103.2	103.8	105.0	105.9	106.8	107.3	108.5	109.3	.7	3.2
Sales and office.....	101.5	102.3	102.9	103.7	104.8	105.4	106.3	106.8	107.7	.8	2.8
Natural resources, construction, and maintenance.....	102.5	103.6	104.0	104.0	104.5	105.7	106.2	106.7	107.3	.6	2.7
Production, transportation, and material moving.....	101.3	101.9	102.6	103.0	104.0	104.7	105.2	106.4	107.0	.6	2.9
Service occupations.....	101.5	102.3	103.1	104.5	105.3	106.4	107.1	107.9	108.7	.7	3.2
Trade, transportation, and utilities.....	101.4	102.4	103.0	103.1	104.2	104.7	105.5	106.1	107.3	1.1	3.0

See footnotes at end of table.

**30. Continued—Employment Cost Index, compensation<sup>1</sup> by occupation and industry group**

[December 2005 = 100]

Series	2006			2007				2008		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
	June 2008										
Wholesale trade.....	100.8	102.4	102.9	103.7	104.6	104.2	105.3	105.7	107.2	1.4	2.5
Retail trade.....	101.2	101.9	102.7	102.9	103.9	105.1	106.1	106.6	107.6	.9	3.6
Transportation and warehousing.....	101.0	101.6	102.2	102.8	104.0	104.5	104.5	105.6	106.4	.8	2.3
Utilities.....	109.3	110.1	110.4	102.8	104.7	105.0	105.6	106.5	108.1	1.5	3.2
Information.....	102.1	103.0	103.2	104.3	105.6	105.8	106.1	106.1	106.2	.1	.6
Financial activities.....	101.8	102.1	102.5	104.2	104.6	105.4	105.6	106.8	107.3	.5	2.6
Finance and insurance.....	102.4	102.6	102.9	104.6	104.9	105.7	106.1	107.0	107.7	.7	2.7
Real estate and rental and leasing.....	99.3	100.2	100.8	102.2	103.0	104.1	103.7	105.5	105.7	.2	2.6
Professional and business services.....	102.2	102.9	103.5	104.7	105.9	106.9	107.5	109.0	109.9	.8	3.8
Education and health services.....	101.8	103.2	104.1	105.1	105.7	106.9	107.7	108.6	109.4	.7	3.5
Education services.....	101.5	103.2	104.2	104.5	104.9	106.7	107.5	108.1	109.1	.9	4.0
Health care and social assistance.....	101.9	103.2	104.1	105.2	105.9	106.9	107.8	108.8	109.4	.6	3.3
Hospitals.....	102.0	103.2	103.9	105.0	105.6	106.5	107.3	108.2	109.1	.8	3.3
Leisure and hospitality.....	101.3	102.4	103.7	105.3	106.0	107.5	108.1	109.0	109.3	.3	3.1
Accommodation and food services.....	101.4	102.5	104.0	105.8	106.4	108.1	108.6	109.5	110.0	.5	3.4
Other services, except public administration.....	102.7	103.6	104.0	105.7	106.1	107.1	107.6	108.7	109.4	.6	3.1
<b>State and local government workers.....</b>	<b>100.9</b>	<b>103.2</b>	<b>104.1</b>	<b>105.1</b>	<b>105.7</b>	<b>107.6</b>	<b>108.4</b>	<b>108.9</b>	<b>109.4</b>	<b>.5</b>	<b>3.5</b>
Workers by occupational group											
Management, professional, and related.....	100.8	103.3	104.0	104.9	105.4	107.5	108.3	108.8	109.3	.5	3.7
Professional and related.....	100.8	103.4	104.0	104.8	105.3	107.5	108.2	108.6	109.1	.5	3.6
Sales and office.....	101.5	103.3	104.1	105.6	106.2	107.9	108.6	108.8	109.3	.5	2.9
Office and administrative support.....	101.6	103.5	104.2	105.7	106.4	108.2	108.9	109.3	109.8	.5	3.2
Service occupations.....	101.2	103.1	104.5	105.4	106.3	108.0	109.1	109.7	110.0	.3	3.5
Workers by industry											
Education and health services.....	100.8	103.7	104.3	104.8	105.3	107.5	108.2	108.6	109.1	.5	3.6
Education services.....	100.5	103.5	104.1	104.6	105.0	107.4	108.0	108.4	108.8	.4	3.6
Schools.....	100.5	103.5	104.1	104.6	104.9	107.4	108.0	108.4	108.8	.4	3.7
Elementary and secondary schools.....	100.5	103.6	104.2	104.7	105.0	107.4	108.0	108.3	108.8	.5	3.6
Health care and social assistance.....	102.9	105.1	105.7	107.1	107.6	108.6	109.3	110.1	111.1	.9	3.3
Hospitals.....	101.3	103.3	104.3	105.6	106.3	107.5	108.2	109.2	109.7	.5	3.2
Public administration <sup>3</sup> .....	101.2	102.4	103.8	105.6	106.6	108.0	109.1	109.7	110.1	.4	3.3

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

<sup>2</sup> Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

<sup>3</sup> Consists of legislative, judicial, administrative, and regulatory activities.

NOTE: The Employment Cost Index data reflect the conversion to the 2002 North American Classification System (NAICS) and the 2000 Standard Occupational Classification (SOC) system. The NAICS and SOC data shown prior to 2006 are for informational purposes only. Series based on NAICS and SOC became the official BLS estimates starting in March 2006.

**31. Employment Cost Index, wages and salaries, by occupation and industry group**  
 [December 2005 = 100]

Series	2006			2007			2008			Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
	June 2008										
<b>Civilian workers<sup>1</sup></b> .....	101.5	102.6	103.2	104.3	105.0	106.0	106.7	107.6	108.4	0.7	3.2
Workers by occupational group											
Management, professional, and related.....	101.6	102.9	103.6	104.7	105.4	106.6	107.1	108.2	109.0	.7	3.4
Management, business, and financial.....	102.0	102.7	103.1	104.7	105.4	106.4	106.7	108.2	109.0	.7	3.4
Professional and related.....	101.4	103.1	103.8	104.7	105.3	106.7	107.4	108.3	109.0	.6	3.5
Sales and office.....	101.6	102.4	103.0	103.8	104.8	105.4	106.2	106.7	107.7	.9	2.8
Sales and related.....	101.3	102.0	102.5	102.7	103.9	104.3	105.5	105.2	106.6	1.3	2.6
Office and administrative support.....	101.8	102.6	103.3	104.5	105.3	106.1	106.8	107.8	108.5	.6	3.0
Natural resources, construction, and maintenance.....	101.8	102.7	103.4	104.3	105.1	106.3	107.1	108.1	109.0	.8	3.7
Construction and extraction.....	101.9	102.9	103.7	104.6	105.7	106.6	107.7	109.0	109.9	.8	4.0
Installation, maintenance, and repair.....	101.6	102.6	103.1	103.8	104.4	105.8	106.4	107.0	107.8	.7	3.3
Production, transportation, and material moving.....	101.2	101.9	102.5	103.2	103.9	104.7	105.1	106.1	106.9	.8	2.9
Production.....	101.2	101.8	102.3	103.2	103.6	104.3	104.7	105.7	106.5	.8	2.8
Transportation and material moving.....	101.2	102.1	102.7	103.3	104.2	105.1	105.5	106.6	107.3	.7	3.0
Service occupations.....	101.2	102.2	103.2	104.6	105.3	106.5	107.3	108.0	108.7	.6	3.2
Workers by industry											
Goods-producing.....	101.8	102.3	102.9	103.9	104.7	105.4	106.0	107.1	108.0	.8	3.2
Manufacturing.....	101.7	101.9	102.3	103.3	103.9	104.5	104.9	105.9	106.7	.8	2.7
Service-providing.....	101.5	102.7	103.3	104.3	105.1	106.2	106.8	107.7	108.5	.7	3.2
Education and health services.....	101.1	103.1	103.8	104.4	104.9	106.6	107.4	108.0	108.7	.6	3.6
Health care and social assistance.....	101.8	103.2	104.1	105.1	105.9	107.1	107.9	108.9	109.6	.6	3.5
Hospitals.....	101.7	102.9	103.8	104.8	105.6	106.7	107.4	108.4	109.4	.9	3.6
Nursing and residential care facilities.....	101.2	102.2	103.3	104.1	104.7	105.8	106.4	107.4	108.1	.7	3.2
Education services.....	100.5	103.0	103.5	103.7	104.0	106.2	106.9	107.3	107.9	.6	3.8
Elementary and secondary schools.....	100.3	102.9	103.4	103.6	103.8	106.0	106.6	107.0	107.5	.5	3.6
Public administration <sup>2</sup> .....	101.1	102.0	103.5	104.5	105.2	106.4	107.4	108.2	108.6	.4	3.2
<b>Private industry workers</b> .....	101.7	102.5	103.2	104.3	105.1	106.0	106.6	107.6	108.4	.7	3.1
Workers by occupational group											
Management, professional, and related.....	102.0	103.0	103.6	104.9	105.8	106.7	107.2	108.5	109.3	.7	3.3
Management, business, and financial.....	102.2	102.8	103.1	104.7	105.5	106.3	106.6	108.2	109.0	.7	3.3
Professional and related.....	101.8	103.1	104.0	105.1	106.0	107.0	107.6	108.7	109.5	.7	3.3
Sales and office.....	101.6	102.4	103.0	103.8	104.8	105.3	106.2	106.7	107.7	.9	2.8
Sales and related.....	101.3	102.0	102.6	102.8	104.0	104.4	105.5	105.3	106.6	1.2	2.5
Office and administrative support.....	101.9	102.6	103.3	104.5	105.4	106.0	106.7	107.7	108.5	.7	2.9
Natural resources, construction, and maintenance.....	101.8	102.8	103.4	104.2	105.1	106.2	107.1	108.1	109.0	.8	3.7
Construction and extraction.....	102.0	103.0	103.7	104.7	105.8	106.7	107.8	109.2	110.1	.8	4.1
Installation, maintenance, and repair.....	101.6	102.6	103.0	103.7	104.2	105.6	106.1	106.8	107.6	.7	3.3
Production, transportation, and material moving.....	101.2	101.8	102.4	103.1	103.8	104.5	105.0	106.0	106.8	.8	2.9
Production.....	101.2	101.7	102.2	103.1	103.6	104.2	104.6	105.6	106.4	.8	2.7
Transportation and material moving.....	101.2	102.0	102.6	103.2	104.1	105.0	105.4	106.5	107.4	.8	3.2
Service occupations.....	101.3	102.0	102.9	104.6	105.3	106.5	107.1	107.9	108.8	.8	3.3
Workers by industry and occupational group											
Goods-producing industries.....	101.8	102.3	102.9	103.9	104.7	105.4	106.0	107.1	108.0	.8	3.2
Management, professional, and related.....	101.7	102.4	102.8	104.4	105.3	105.9	106.0	107.7	108.4	.6	2.9
Sales and office.....	103.4	102.2	103.1	103.4	104.1	104.7	105.5	105.8	107.2	1.3	3.0
Natural resources, construction, and maintenance.....	101.9	102.7	103.4	104.4	105.6	106.5	107.6	108.8	109.6	.7	3.8
Production, transportation, and material moving.....	101.3	101.9	102.4	103.2	103.7	104.4	104.8	105.7	106.6	.9	2.8
Construction.....	102.0	102.9	103.7	104.9	106.0	107.0	107.8	109.0	110.0	.9	3.8
Manufacturing.....	101.7	101.9	102.3	103.3	103.9	104.5	104.9	105.9	106.7	.8	2.7
Management, professional, and related.....	101.5	102.2	102.3	103.8	104.6	105.0	105.3	106.7	107.2	.5	2.5
Sales and office.....	103.8	101.1	102.0	102.4	103.2	103.9	104.7	105.5	106.9	1.3	3.6
Natural resources, construction, and maintenance.....	101.7	102.3	103.0	103.8	104.3	105.0	105.9	106.8	107.1	.3	2.7
Production, transportation, and material moving.....	101.3	101.8	102.3	103.1	103.6	104.2	104.5	105.4	106.3	.9	2.6
Service-providing industries.....	101.7	102.6	103.3	104.4	105.3	106.1	106.8	107.7	108.6	.8	3.1
Management, professional, and related.....	102.0	103.1	103.7	105.0	105.9	106.8	107.4	108.6	109.4	.7	3.3
Sales and office.....	101.4	102.4	102.9	103.8	104.9	105.4	106.3	106.8	107.7	.8	2.7
Natural resources, construction, and maintenance.....	101.8	103.0	103.4	103.9	104.3	105.7	106.3	106.9	108.0	1.0	3.5
Production, transportation, and material moving.....	101.0	101.7	102.4	103.0	104.0	104.6	105.2	106.3	107.1	.8	3.0
Service occupations.....	101.3	102.0	102.9	104.6	105.3	106.6	107.2	108.0	108.8	.7	3.3
Trade, transportation, and utilities.....	100.9	102.1	102.7	103.2	104.3	104.6	105.5	105.9	107.2	1.2	2.8

See footnotes at end of table.

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

[December 2005 = 100]

Series	2006			2007				2008		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
	June 2008										
Wholesale trade.....	100.7	102.7	103.0	103.8	104.8	104.0	105.2	105.2	107.2	1.9	2.3
Retail trade.....	100.9	101.9	102.8	103.1	104.2	105.1	106.1	106.4	107.6	1.1	3.3
Transportation and warehousing.....	100.7	101.4	101.9	102.5	103.7	104.1	104.2	105.0	106.0	1.0	2.2
Utilities.....	102.1	103.0	103.5	104.3	105.5	106.1	106.8	108.0	109.3	1.2	3.6
Information.....	101.7	102.6	102.4	103.8	104.9	105.2	105.3	105.3	106.3	.9	1.3
Financial activities.....	102.3	102.5	102.8	104.7	104.9	106.0	105.9	107.2	107.7	.5	2.7
Finance and insurance.....	102.8	102.9	103.2	105.4	105.5	106.5	106.6	107.9	108.4	.5	2.7
Real estate and rental and leasing.....	99.9	100.8	101.4	101.6	102.4	103.6	103.1	104.5	104.7	.2	2.2
Professional and business services.....	102.3	103.0	103.5	104.8	105.9	106.7	107.5	109.1	110.0	.8	3.9
Education and health services.....	101.6	103.0	104.0	104.8	105.6	106.9	107.7	108.6	109.2	.6	3.4
Education services.....	101.4	103.1	104.1	104.2	104.6	106.4	107.4	107.9	108.6	.6	3.8
Health care and social assistance.....	101.6	103.0	103.9	104.9	105.8	107.0	107.8	108.7	109.4	.6	3.4
Hospitals.....	101.8	102.9	103.7	104.6	105.4	106.5	107.2	108.2	109.2	.9	3.6
Leisure and hospitality.....	101.3	102.3	103.7	105.7	106.4	108.1	108.8	109.7	109.9	.2	3.3
Accommodation and food services.....	101.3	102.2	103.8	106.0	106.5	108.4	109.0	110.0	110.4	.4	3.7
Other services, except public administration.....	102.6	103.4	103.8	105.7	106.1	107.3	107.9	109.2	109.9	.6	3.6
<b>State and local government workers.....</b>	<b>100.8</b>	<b>102.8</b>	<b>103.5</b>	<b>104.1</b>	<b>104.6</b>	<b>106.4</b>	<b>107.1</b>	<b>107.7</b>	<b>108.2</b>	<b>.5</b>	<b>3.4</b>
Workers by occupational group											
Management, professional, and related.....	100.7	102.9	103.5	104.0	104.3	106.3	107.0	107.6	108.2	.6	3.7
Professional and related.....	100.7	103.0	103.6	103.9	104.2	106.3	107.0	107.5	108.1	.6	3.7
Sales and office.....	101.2	102.6	103.2	104.5	104.8	106.3	107.0	107.4	107.9	.5	3.0
Office and administrative support.....	101.4	102.7	103.4	104.7	105.0	106.5	107.3	107.8	108.3	.5	3.1
Service occupations.....	100.8	102.4	103.9	104.5	105.2	106.5	107.7	108.3	108.6	.3	3.2
Workers by industry											
Education and health services.....	100.7	103.1	103.6	104.0	104.2	106.3	107.1	107.5	108.1	.6	3.7
Education services.....	100.4	103.0	103.4	103.7	103.9	106.1	106.8	107.2	107.7	.5	3.7
Schools.....	100.4	103.0	103.4	103.6	103.9	106.1	106.8	107.2	107.7	.5	3.7
Elementary and secondary schools.....	100.3	103.0	103.4	103.6	103.8	106.0	106.6	106.9	107.5	.6	3.6
Health care and social assistance.....	103.0	104.8	105.5	106.6	107.2	108.2	109.2	110.1	111.0	.8	3.5
Hospitals.....	101.4	103.1	104.4	105.7	106.5	107.6	108.6	109.8	110.3	.5	3.6
Public administration <sup>2</sup> .....	101.1	102.0	103.5	104.5	105.2	106.4	107.4	108.2	108.6	.4	3.2

<sup>1</sup> Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

<sup>2</sup> Consists of legislative, judicial, administrative, and regulatory activities.

NOTE: The Employment Cost Index data reflect the conversion to the 2002 North

American Classification System (NAICS) and the 2000 Standard Occupational Classification (SOC) system. The NAICS and SOC data shown prior to 2006 are for informational purposes only. Series based on NAICS and SOC became the official BLS estimates starting in March 2006.

### 32. Employment Cost Index, benefits, by occupation and industry group

[December 2005 = 100]

Series	2006			2007				2008		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
	June 2008										
<b>Civilian workers</b> .....	101.6	102.8	103.6	104.0	105.1	106.1	106.8	107.6	108.1	0.5	2.9
<b>Private industry workers</b> .....	101.7	102.5	103.1	103.2	104.3	105.0	105.6	106.5	107.0	.5	2.6
Workers by occupational group											
Management, professional, and related.....	101.8	102.8	103.4	103.8	104.9	105.6	106.0	107.3	107.9	.6	2.9
Sales and office.....	101.6	102.0	102.9	103.4	104.3	105.2	106.0	106.5	107.0	.5	2.6
Natural resources, construction, and maintenance.....	102.7	103.5	104.0	103.4	104.8	105.3	105.9	106.5	107.0	.5	2.1
Production, transportation, and material moving.....	101.0	101.6	102.0	101.2	102.4	102.7	103.7	104.4	104.5	.1	2.1
Service occupations.....	102.2	103.0	103.6	104.2	105.1	106.0	106.7	107.6	108.5	.8	3.2
Workers by industry											
Goods-producing.....	100.4	101.3	101.7	100.9	102.2	102.4	103.2	104.0	104.4	.4	2.2
Manufacturing.....	99.7	100.5	100.8	99.6	101.0	100.7	101.7	102.3	102.2	-.1	1.2
Service-providing.....	102.3	103.0	103.7	104.1	105.2	106.0	106.6	107.6	108.1	.5	2.8
<b>State and local government workers</b> .....	101.3	104.1	105.2	107.0	108.0	110.3	111.0	111.4	111.8	.4	3.5

NOTE: The Employment Cost Index data reflect the conversion to the 2002 North American Classification System (NAICS) and the 2000 Standard Occupational Classification (SOC) system. The NAICS and SOC data shown prior

to 2006 are for informational purposes only. Series based on NAICS and SOC became the official BLS estimates starting in March 2006.

**33. Employment Cost Index, private industry workers by bargaining status and region**

[December 2005 = 100]

Series	2006			2007				2008		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
	June 2008										
<b>COMPENSATION</b>											
<b>Workers by bargaining status<sup>1</sup></b>											
Union.....	101.8	102.4	103.0	102.7	103.9	104.4	105.1	105.9	106.7	0.8	2.7
Goods-producing.....	101.2	101.8	102.2	101.5	102.8	103.1	104.0	104.6	105.6	1.0	2.7
Manufacturing.....	100.1	100.5	100.8	99.2	100.0	100.0	101.0	101.4	101.7	.3	1.7
Service-providing.....	102.2	102.9	103.6	103.7	104.7	105.4	106.0	107.0	107.5	.5	2.7
Nonunion.....	101.7	102.6	103.2	104.2	105.1	105.9	106.5	107.5	108.3	.7	3.0
Goods-producing.....	101.4	102.0	102.5	103.3	104.2	104.8	105.4	106.5	107.1	.6	2.8
Manufacturing.....	101.3	101.7	102.1	102.8	103.7	104.1	104.6	105.6	106.2	.6	2.4
Service-providing.....	101.8	102.7	103.4	104.4	105.3	106.2	106.8	107.7	108.6	.8	3.1
<b>Workers by region<sup>1</sup></b>											
Northeast.....	101.8	102.5	103.3	104.0	105.1	106.2	106.8	107.4	108.1	.7	2.9
South.....	101.6	102.8	103.5	104.3	105.3	106.1	106.7	107.8	108.5	.6	3.0
Midwest.....	101.7	102.3	102.8	103.3	104.2	104.6	105.3	106.0	107.0	.9	2.7
West.....	101.8	102.5	103.0	104.2	104.9	105.7	106.5	107.8	108.4	.6	3.3
<b>WAGES AND SALARIES</b>											
<b>Workers by bargaining status<sup>1</sup></b>											
Union.....	101.2	101.7	102.3	102.8	103.7	104.4	104.7	105.5	106.7	1.1	2.9
Goods-producing.....	101.6	101.9	102.3	102.7	103.6	104.3	104.3	105.2	106.4	1.1	2.7
Manufacturing.....	101.2	101.4	101.7	102.0	102.5	102.9	102.6	103.4	104.4	1.0	1.9
Service-providing.....	100.9	101.6	102.2	102.9	103.8	104.6	104.9	105.8	106.9	1.0	3.0
Nonunion.....	101.8	102.7	103.3	104.5	105.3	106.2	106.9	107.9	108.7	.7	3.2
Goods-producing.....	101.9	102.4	103.0	104.2	105.0	105.8	106.4	107.7	108.4	.6	3.2
Manufacturing.....	101.8	102.0	102.5	103.6	104.2	104.9	105.5	106.6	107.3	.7	3.0
Service-providing.....	101.7	102.7	103.4	104.6	105.4	106.3	107.0	107.9	108.8	.8	3.2
<b>Workers by region<sup>1</sup></b>											
Northeast.....	101.7	102.5	103.1	104.0	105.0	106.1	106.6	107.5	108.2	.7	3.0
South.....	101.6	102.9	103.6	104.6	105.6	106.5	107.0	108.1	109.1	.9	3.3
Midwest.....	101.4	102.0	102.6	103.6	104.4	105.0	105.6	106.3	107.5	1.1	3.0
West.....	102.1	102.7	103.2	104.8	105.4	106.2	107.0	108.3	108.9	.6	3.3

<sup>1</sup> 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.

NOTE: The Employment Cost Index data reflect the conversion to the 2002 North American Classification System (NAICS) and the 2000 Standard Occupational Classification (SOC) system. The NAICS and SOC data shown prior to 2006 are for informational purposes only. Series based on NAICS and SOC became the official BLS estimates starting in March 2006.

**34. National Compensation Survey: Retirement benefits in private industry by access, participation, and selected series, 2003–2007**

Series	Year				
	2003	2004	2005	2006	2007 <sup>1</sup>
<b>All retirement</b>					
<b>Percentage of workers with access</b>					
All workers.....	57	59	60	60	61
White-collar occupations <sup>2</sup> .....	67	69	70	69	-
Management, professional, and related.....	-	-	-	-	76
Sales and office.....	-	-	-	-	64
Blue-collar occupations <sup>2</sup> .....	59	59	60	62	-
Natural resources, construction, and maintenance.....	-	-	-	-	61
Production, transportation, and material moving.....	-	-	-	-	65
Service occupations.....	28	31	32	34	36
Full-time.....	67	68	69	69	70
Part-time.....	24	27	27	29	31
Union.....	86	84	88	84	84
Non-union.....	54	56	56	57	58
Average wage less than \$15 per hour.....	45	46	46	47	47
Average wage \$15 per hour or higher.....	76	77	78	77	76
Goods-producing industries.....	70	70	71	73	70
Service-providing industries.....	53	55	56	56	58
Establishments with 1-99 workers.....	42	44	44	44	45
Establishments with 100 or more workers.....	75	77	78	78	78
<b>Percentage of workers participating</b>					
All workers.....	49	50	50	51	51
White-collar occupations <sup>2</sup> .....	59	61	61	60	-
Management, professional, and related.....	-	-	-	-	69
Sales and office.....	-	-	-	-	54
Blue-collar occupations <sup>2</sup> .....	50	50	51	52	-
Natural resources, construction, and maintenance.....	-	-	-	-	51
Production, transportation, and material moving.....	-	-	-	-	54
Service occupations.....	21	22	22	24	25
Full-time.....	58	60	60	60	60
Part-time.....	18	20	19	21	23
Union.....	83	81	85	80	81
Non-union.....	45	47	46	47	47
Average wage less than \$15 per hour.....	35	36	35	36	36
Average wage \$15 per hour or higher.....	70	71	71	70	69
Goods-producing industries.....	63	63	64	64	61
Service-providing industries.....	45	47	47	47	48
Establishments with 1-99 workers.....	35	37	37	37	37
Establishments with 100 or more workers.....	65	67	67	67	66
<b>Take-up rate (all workers)<sup>3</sup>.....</b>	-	-	85	85	84
<b>Defined Benefit</b>					
<b>Percentage of workers with access</b>					
All workers.....	20	21	22	21	21
White-collar occupations <sup>2</sup> .....	23	24	25	23	-
Management, professional, and related.....	-	-	-	-	29
Sales and office.....	-	-	-	-	19
Blue-collar occupations <sup>2</sup> .....	24	26	26	25	-
Natural resources, construction, and maintenance.....	-	-	-	-	26
Production, transportation, and material moving.....	-	-	-	-	26
Service occupations.....	8	6	7	8	8
Full-time.....	24	25	25	24	24
Part-time.....	8	9	10	9	10
Union.....	74	70	73	70	69
Non-union.....	15	16	16	15	15
Average wage less than \$15 per hour.....	12	11	12	11	11
Average wage \$15 per hour or higher.....	34	35	35	34	33
Goods-producing industries.....	31	32	33	32	29
Service-providing industries.....	17	18	19	18	19
Establishments with 1-99 workers.....	9	9	10	9	9
Establishments with 100 or more workers.....	34	35	37	35	34

See footnotes at end of table.

**34. Continued—National Compensation Survey: Retirement benefits in private industry  
by access, participation, and selected series, 2003–2007**

Series	Year				
	2003	2004	2005	2006	2007 <sup>1</sup>
<b>Percentage of workers participating</b>					
All workers.....	20	21	21	20	20
White-collar occupations <sup>2</sup> .....	22	24	24	22	-
Management, professional, and related.....	-	-	-	-	28
Sales and office.....	-	-	-	-	17
Blue-collar occupations <sup>2</sup> .....	24	25	26	25	-
Natural resources, construction, and maintenance.....	-	-	-	-	25
Production, transportation, and material moving.....	-	-	-	-	25
Service occupations.....	7	6	7	7	7
Full-time.....	24	24	25	23	23
Part-time.....	8	9	9	8	9
Union.....	72	69	72	68	67
Non-union.....	15	15	15	14	15
Average wage less than \$15 per hour.....	11	11	11	10	10
Average wage \$15 per hour or higher.....	33	35	34	33	32
Goods-producing industries.....	31	31	32	31	28
Service-providing industries.....	16	18	18	17	18
Establishments with 1-99 workers.....	8	9	9	9	9
Establishments with 100 or more workers.....	33	34	36	33	32
<b>Take-up rate (all workers)<sup>3</sup>.....</b>	-	-	97	96	95
<b>Defined Contribution</b>					
<b>Percentage of workers with access</b>					
All workers.....	51	53	53	54	55
White-collar occupations <sup>2</sup> .....	62	64	64	65	-
Management, professional, and related.....	-	-	-	-	71
Sales and office.....	-	-	-	-	60
Blue-collar occupations <sup>2</sup> .....	49	49	50	53	-
Natural resources, construction, and maintenance.....	-	-	-	-	51
Production, transportation, and material moving.....	-	-	-	-	56
Service occupations.....	23	27	28	30	32
Full-time.....	60	62	62	63	64
Part-time.....	21	23	23	25	27
Union.....	45	48	49	50	49
Non-union.....	51	53	54	55	56
Average wage less than \$15 per hour.....	40	41	41	43	44
Average wage \$15 per hour or higher.....	67	68	69	69	69
Goods-producing industries.....	60	60	61	63	62
Service-providing industries.....	48	50	51	52	53
Establishments with 1-99 workers.....	38	40	40	41	42
Establishments with 100 or more workers.....	65	68	69	70	70
<b>Percentage of workers participating</b>					
All workers.....	40	42	42	43	43
White-collar occupations <sup>2</sup> .....	51	53	53	53	-
Management, professional, and related.....	-	-	-	-	60
Sales and office.....	-	-	-	-	47
Blue-collar occupations <sup>2</sup> .....	38	38	38	40	-
Natural resources, construction, and maintenance.....	-	-	-	-	40
Production, transportation, and material moving.....	-	-	-	-	41
Service occupations.....	16	18	18	20	20
Full-time.....	48	50	50	51	50
Part-time.....	14	14	14	16	18
Union.....	39	42	43	44	41
Non-union.....	40	42	41	43	43
Average wage less than \$15 per hour.....	29	30	29	31	30
Average wage \$15 per hour or higher.....	57	59	59	58	57
Goods-producing industries.....	49	49	50	51	49
Service-providing industries.....	37	40	39	40	41
Establishments with 1-99 workers.....	31	32	32	33	33
Establishments with 100 or more workers.....	51	53	53	54	53
<b>Take-up rate (all workers)<sup>3</sup>.....</b>	-	-	78	79	77

See footnotes at end of table.

**34. Continued—National Compensation Survey: Retirement benefits in private industry  
by access, participation, and selected series, 2003–2007**

Series	Year				
	2003	2004	2005	2006	2007 <sup>1</sup>
<b>Employee Contribution Requirement</b>					
Employee contribution required.....	-	-	61	61	65
Employee contribution not required.....	-	-	31	33	35
Not determinable.....	-	-	8	6	0
<b>Percent of establishments</b>					
Offering retirement plans.....	47	48	51	48	46
Offering defined benefit plans.....	10	10	11	10	10
Offering defined contribution plans.....	45	46	48	47	44

<sup>1</sup> The 2002 North American Industry Classification System (NAICS) replaced the 1987 Standard Industrial Classification (SIC) System. Estimates for goods-producing and service-providing (formerly service-producing) industries are considered comparable. Also introduced was the 2000 Standard Occupational Classification (SOC) to replace the 1990 Census of Population system. Only service occupations are considered comparable.

<sup>2</sup> The white-collar and blue-collar occupation series were discontinued effective 2007.

<sup>3</sup> The take-up rate is an estimate of the percentage of workers with access to a plan who participate in the plan.

Note: Where applicable, dashes indicate no employees in this category or data do not meet publication criteria.

**35. National Compensation Survey: Health insurance benefits in private industry by access, participation, and selected series, 2003-2007**

Series	Year				
	2003	2004	2005	2006	2007 <sup>1</sup>
<b>Medical insurance</b>					
<b>Percentage of workers with access</b>					
All workers.....	60	69	70	71	71
White-collar occupations <sup>2</sup> .....	65	76	77	77	-
Management, professional, and related .....	-	-	-	-	85
Sales and office.....	-	-	-	-	71
Blue-collar occupations <sup>2</sup> .....	64	76	77	77	-
Natural resources, construction, and maintenance.....	-	-	-	-	76
Production, transportation, and material moving.....	-	-	-	-	78
Service occupations.....	38	42	44	45	46
Full-time.....	73	84	85	85	85
Part-time.....	17	20	22	22	24
Union.....	67	89	92	89	88
Non-union.....	59	67	68	68	69
Average wage less than \$15 per hour.....	51	57	58	57	57
Average wage \$15 per hour or higher.....	74	86	87	88	87
Goods-producing industries.....	68	83	85	86	85
Service-providing industries.....	57	65	66	66	67
Establishments with 1-99 workers.....	49	58	59	59	59
Establishments with 100 or more workers.....	72	82	84	84	84
<b>Percentage of workers participating</b>					
All workers.....	45	53	53	52	52
White-collar occupations <sup>2</sup> .....	50	59	58	57	-
Management, professional, and related .....	-	-	-	-	67
Sales and office.....	-	-	-	-	48
Blue-collar occupations <sup>2</sup> .....	51	60	61	60	-
Natural resources, construction, and maintenance.....	-	-	-	-	61
Production, transportation, and material moving.....	-	-	-	-	60
Service occupations.....	22	24	27	27	28
Full-time.....	56	66	66	64	64
Part-time.....	9	11	12	13	12
Union.....	60	81	83	80	78
Non-union.....	44	50	49	49	49
Average wage less than \$15 per hour.....	35	40	39	38	37
Average wage \$15 per hour or higher.....	61	71	72	71	70
Goods-producing industries.....	57	69	70	70	68
Service-providing industries.....	42	48	48	47	47
Establishments with 1-99 workers.....	36	43	43	43	42
Establishments with 100 or more workers.....	55	64	65	63	62
<b>Take-up rate (all workers)<sup>3</sup>.....</b>	-	-	75	74	73
<b>Dental</b>					
<b>Percentage of workers with access</b>					
All workers.....	40	46	46	46	46
White-collar occupations <sup>2</sup> .....	47	53	54	53	-
Management, professional, and related .....	-	-	-	-	62
Sales and office.....	-	-	-	-	47
Blue-collar occupations <sup>2</sup> .....	40	47	47	46	-
Natural resources, construction, and maintenance.....	-	-	-	-	43
Production, transportation, and material moving.....	-	-	-	-	49
Service occupations.....	22	25	25	27	28
Full-time.....	49	56	56	55	56
Part-time.....	9	13	14	15	16
Union.....	57	73	73	69	68
Non-union.....	38	43	43	43	44
Average wage less than \$15 per hour.....	30	34	34	34	34
Average wage \$15 per hour or higher.....	55	63	62	62	61
Goods-producing industries.....	48	56	56	56	54
Service-providing industries.....	37	43	43	43	44
Establishments with 1-99 workers.....	27	31	31	31	30
Establishments with 100 or more workers.....	55	64	65	64	64

See footnotes at end of table.

**35. Continued—National Compensation Survey: Health insurance benefits in private industry by access, participation, and selected series, 2003-2007**

Series	Year				
	2003	2004	2005	2006	2007 <sup>1</sup>
<b>Percentage of workers participating</b>					
All workers.....	32	37	36	36	36
White-collar occupations <sup>2</sup> .....	37	43	42	41	-
Management, professional, and related .....	-	-	-	-	51
Sales and office.....	-	-	-	-	33
Blue-collar occupations <sup>2</sup> .....	33	40	39	38	-
Natural resources, construction, and maintenance.....	-	-	-	-	36
Production, transportation, and material moving.....	-	-	-	-	38
Service occupations.....	15	16	17	18	20
Full-time.....	40	46	45	44	44
Part-time.....	6	8	9	10	9
Union.....	51	68	67	63	62
Non-union.....	30	33	33	33	33
Average wage less than \$15 per hour.....	22	26	24	23	23
Average wage \$15 per hour or higher.....	47	53	52	52	51
Goods-producing industries.....	42	49	49	49	45
Service-providing industries.....	29	33	33	32	33
Establishments with 1-99 workers.....	21	24	24	24	24
Establishments with 100 or more workers.....	44	52	51	50	49
<b>Take-up rate (all workers)<sup>3</sup>.....</b>	-	-	78	78	77
<b>Vision care</b>					
Percentage of workers with access.....	25	29	29	29	29
Percentage of workers participating.....	19	22	22	22	22
<b>Outpatient Prescription drug coverage</b>					
Percentage of workers with access.....	-	-	64	67	68
Percentage of workers participating.....	-	-	48	49	49
<b>Percent of establishments offering healthcare benefits .....</b>	58	61	63	62	60
<b>Percentage of medical premium paid by Employer and Employee</b>					
<b>Single coverage</b>					
Employer share.....	82	82	82	82	81
Employee share.....	18	18	18	18	19
<b>Family coverage</b>					
Employer share.....	70	69	71	70	71
Employee share.....	30	31	29	30	29

<sup>1</sup> The 2002 North American Industry Classification System (NAICS) replaced the 1987 Standard Industrial Classification (SIC) System. Estimates for goods-producing and service-providing (formerly service-producing) industries are considered comparable. Also introduced was the 2000 Standard Occupational Classification (SOC) to replace the 1990 Census of Population system. Only service occupations are considered comparable.

<sup>2</sup> The white-collar and blue-collar occupation series were discontinued effective 2007.

<sup>3</sup> The take-up rate is an estimate of the percentage of workers with access to a plan who participate in the plan.

Note: Where applicable, dashes indicate no employees in this category or data do not meet publication criteria.

**36. National Compensation Survey: Percent of workers in private industry with access to selected benefits, 2003-2007**

Benefit	Year				
	2003	2004	2005	2006	2007
Life insurance.....	50	51	52	52	58
Short-term disability insurance.....	39	39	40	39	39
Long-term disability insurance.....	30	30	30	30	31
Long-term care insurance.....	11	11	11	12	12
Flexible work place.....	4	4	4	4	5
Section 125 cafeteria benefits					
Flexible benefits.....	-	-	17	17	17
Dependent care reimbursement account.....	-	-	29	30	31
Healthcare reimbursement account.....	-	-	31	32	33
Health Savings Account.....	-	-	5	6	8
Employee assistance program.....	-	-	40	40	42
Paid leave					
Holidays.....	79	77	77	76	77
Vacations.....	79	77	77	77	77
Sick leave.....	-	59	58	57	57
Personal leave.....	-	-	36	37	38
Family leave					
Paid family leave.....	-	-	7	8	8
Unpaid family leave.....	-	-	81	82	83
Employer assistance for child care.....	18	14	14	15	15
Nonproduction bonuses.....	49	47	47	46	47

Note: Where applicable, dashes indicate no employees in this category or data do not meet publication criteria.

**37. Work stoppages involving 1,000 workers or more**

Measure	Annual average		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>P</sup>	July <sup>P</sup>
Number of stoppages:															
Beginning in period.....	20	21	1	1	5	3	1	2	0	2	2	1	2	2	1
In effect during period.....	23	23	1	1	6	3	2	4	1	3	4	2	4	2	1
Workers involved:															
Beginning in period (in thousands).....	70.1	189.2	1.1	1.0	108.3	41.7	10.5	6.5	.0	6.2	5.7	2.3	3.4	4.2	8.5
In effect during period (in thousands).....	191.0	220.9	1.1	1.0	108.3	41.7	14.2	20.7	10.5	16.7	11.9	6.0	9.4	4.2	8.5
Days idle:															
Number (in thousands).....	2,687.5	1,264.8	6.6	9.0	261.5	73.9	284.0	254.8	220.5	148.8	140.9	104.4	125.0	12.3	42.5
Percent of estimated working time <sup>1</sup> .....	.01	.01	0	0	.01	0	.01	.01	.01	.01	0	0	0	0	0

<sup>1</sup> 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.

NOTE: p = preliminary.

**38. 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		2007							2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	
<b>CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS</b>																
All items.....	201.6	207.342	208.299	207.917	208.490	208.936	210.177	210.036	211.080	211.693	213.528	214.823	216.632	218.815	219.964	
All items (1967 = 100).....	603.9	621.106	623.970	622.827	624.543	625.879	629.598	629.174	632.301	634.139	639.636	643.515	648.933	655.474	658.915	
Food and beverages.....	195.7	203.300	203.533	204.289	205.279	206.124	206.563	206.936	208.837	209.462	209.692	211.365	212.251	213.383	215.326	
Food.....	195.2	202.916	203.121	203.885	204.941	205.796	206.277	206.704	208.618	209.166	209.385	211.102	212.054	213.243	215.299	
Food at home.....	193.1	201.245	201.401	202.126	203.193	204.333	204.745	205.208	207.983	208.329	208.203	210.851	211.863	213.171	215.785	
Cereals and bakery products.....	212.8	222.107	223.297	223.981	223.372	224.691	225.668	226.461	228.661	233.389	236.261	240.034	244.192	245.758	250.321	
Meats, poultry, fish, and eggs.....	186.6	195.616	196.690	197.204	198.323	198.474	198.616	198.755	200.035	199.688	199.775	200.770	200.960	202.914	205.075	
Dairy and related products <sup>1</sup> .....	181.4	194.770	197.899	201.739	203.541	205.319	205.959	205.299	206.905	208.166	206.171	207.680	207.778	209.117	213.981	
Fruits and vegetables.....	252.9	262.628	254.616	252.845	259.100	263.648	268.407	272.482	279.072	272.129	268.446	272.746	276.481	277.957	280.209	
Nonalcoholic beverages and beverage materials.....	147.4	153.432	153.384	154.791	155.007	155.545	154.299	153.648	157.863	157.805	158.089	159.730	158.336	158.320	159.346	
Other foods at home.....	169.6	173.275	174.440	174.686	174.201	174.695	173.963	174.057	176.085	177.863	178.238	181.806	182.680	183.804	185.725	
Sugar and sweets.....	171.5	176.772	178.235	178.256	178.172	177.236	178.600	178.631	180.193	180.588	182.214	184.878	185.097	185.558	187.067	
Fats and oils.....	168.0	172.921	173.691	174.251	174.105	176.500	175.327	176.068	181.813	184.878	182.808	190.640	193.364	196.150	201.205	
Other foods.....	185.0	188.244	189.518	189.781	189.076	189.695	188.340	188.325	190.037	192.064	192.597	195.993	196.787	197.888	199.566	
Other miscellaneous foods <sup>1,2</sup> .....	113.9	115.105	115.017	116.072	114.628	114.850	115.396	115.267	115.162	118.182	117.321	118.500	118.744	118.453	120.510	
Food away from home <sup>1</sup> .....	199.4	206.659	206.931	207.756	208.805	209.275	209.854	210.233	211.070	211.878	212.537	213.083	213.967	215.015	216.376	
Other food away from home <sup>1,2</sup> .....	136.6	144.068	144.785	145.376	146.752	146.074	146.628	145.814	146.649	148.385	148.564	148.667	149.666	149.873	151.120	
Alcoholic beverages.....	200.7	207.026	207.624	208.264	208.408	209.126	209.018	208.704	210.425	212.044	212.407	213.503	213.532	213.912	214.394	
Housing.....	203.2	209.586	211.286	211.098	210.865	210.701	210.745	210.933	212.244	213.026	214.389	214.890	215.809	217.941	219.610	
Shelter.....	232.1	240.611	242.067	242.238	241.990	242.405	242.207	242.372	243.871	244.786	245.995	246.004	246.069	247.083	248.075	
Rent of primary residence.....	225.1	234.679	234.732	235.311	236.058	237.135	238.169	239.102	239.850	240.325	240.874	241.474	241.803	242.640	243.367	
Lodging away from home.....	136.0	142.813	153.016	150.236	144.480	143.172	136.703	133.545	140.176	144.092	149.434	146.378	145.634	148.621	153.032	
Owners' equivalent rent of primary residence <sup>3</sup> .....	238.2	246.235	246.149	246.815	247.487	248.075	248.876	249.532	250.106	250.481	250.966	251.418	251.576	252.170	252.504	
Tenants' and household insurance <sup>1,2</sup> .....	116.5	117.004	116.577	116.926	116.783	116.640	116.997	117.003	117.435	117.622	117.701	118.422	118.411	119.092	118.764	
Fuels and utilities.....	194.7	200.632	206.140	204.334	204.264	200.836	202.161	203.006	204.796	205.795	209.221	213.002	219.881	231.412	239.039	
Fuels.....	177.1	181.744	187.624	185.453	185.306	181.509	182.725	183.516	185.107	185.994	189.693	194.121	201.212	213.762	221.742	
Fuel oil and other fuels.....	234.9	251.453	245.680	246.542	252.580	261.745	291.845	299.296	306.937	308.269	332.139	342.811	363.872	389.423	395.706	
Gas (piped) and electricity.....	182.1	186.262	193.184	190.710	190.158	185.337	184.753	185.155	186.475	187.376	190.105	194.379	200.999	213.375	221.805	
Household furnishings and operations.....	127.0	126.875	126.894	126.520	126.193	126.233	126.252	126.066	126.515	126.753	127.423	127.332	127.598	127.625	127.884	
Apparel.....	119.5	118.998	113.500	114.439	119.535	121.846	121.204	118.257	115.795	117.839	120.881	122.113	122.102	117.019	114.357	
Men's and boys' apparel.....	114.1	112.368	109.568	109.032	112.380	114.953	114.807	112.026	110.691	112.917	114.994	116.653	116.479	112.011	109.669	
Women's and girls' apparel.....	110.7	110.296	101.291	103.237	110.973	113.402	112.166	109.418	104.367	106.340	110.645	111.221	108.722	104.312	100.049	
Infants' and toddlers' apparel <sup>1</sup> .....	116.5	113.948	108.759	110.221	113.611	117.149	117.339	113.779	113.861	115.750	116.037	116.358	114.582	111.555	109.218	
Footwear.....	123.5	122.374	119.375	120.329	123.183	124.675	125.005	122.258	121.148	122.377	124.407	126.212	125.537	123.568	122.421	
Transportation.....	180.9	184.682	187.690	184.480	184.532	184.952	190.677	189.984	190.839	190.520	195.189	198.608	205.262	211.787	212.806	
Private transportation.....	177.0	180.778	183.619	180.408	180.586	180.919	186.839	186.134	186.978	186.571	191.067	194.574	201.133	207.257	208.038	
New and used motor vehicles <sup>2</sup> .....	95.6	94.303	93.961	94.121	93.985	94.201	94.562	94.754	94.834	94.581	94.318	93.973	93.705	93.598	93.650	
New vehicles.....	137.6	136.254	135.415	135.204	134.927	135.344	136.250	136.664	136.827	136.279	135.727	135.175	134.669	134.516	134.397	
Used cars and trucks <sup>1</sup> .....	140.0	135.747	136.024	137.138	137.142	136.950	136.616	136.943	137.203	137.248	137.225	136.175	135.325	135.980	135.840	
Motor fuel.....	221.0	239.070	252.909	238.194	239.104	239.048	262.282	258.132	260.523	259.242	278.739	294.291	322.124	347.418	349.731	
Gasoline (all types).....	219.9	237.959	251.883	237.108	237.993	237.819	260.943	256.790	259.338	257.845	276.497	291.910	319.787	344.981	347.357	
Motor vehicle parts and equipment.....	117.3	121.583	121.514	121.730	122.292	123.017	123.487	123.928	124.282	125.225	126.325	126.104	126.824	127.824	129.118	
Motor vehicle maintenance and repair.....	215.6	222.963	223.487	224.019	224.302	224.939	225.672	226.120	227.732	228.731	229.765	230.528	231.730	233.162	234.788	
Public transportation.....	226.6	230.002	235.767	233.112	230.694	232.725	233.758	233.408	234.334	235.724	242.929	244.164	251.600	264.681	270.002	
Medical care.....	336.2	351.054	351.643	352.961	353.723	355.653	357.041	357.661	360.459	362.155	363.000	363.184	363.396	363.616	363.963	
Medical care commodities.....	285.9	289.999	290.257	291.164	291.340	292.161	293.201	293.610	295.355	296.130	297.308	296.951	294.896	295.194	294.777	
Medical care services.....	350.6	369.302	370.008	371.461	372.432	374.750	376.250	376.940	380.135	382.196	382.872	383.292	384.505	384.685	385.361	
Professional services.....	289.3	300.792	301.131	302.259	302.410	303.532	303.780	304.784	306.529	307.928	308.726	309.227	310.917	311.317	311.926	
Hospital and related services.....	468.1	498.922	499.400	501.026	504.206	510.006	515.359	515.677	523.313	527.971	528.968	530.144	531.022	531.606	533.558	
Recreation <sup>2</sup> .....	110.9	111.443	111.347	111.139	111.400	111.753	111.842	111.705	112.083	112.365	112.731	112.874	112.987	112.991	113.277	
Video and audio <sup>1,2</sup> .....	104.6	102.949	102.779	102.311	102.759	103.157	102.719	102.691	102.986	103.171	103.548	103.477	102.988	102.306	102.203	
Education and communication <sup>2</sup> .....	116.8	119.577	119.025	120.311	121.273	121.557	121.409	121.506	121.762	121.766	121.832	122.073	122.348	122.828	123.445	
Education <sup>2</sup> .....	162.1	171.388	169.490	172.873	175.486	176.339	176.717	176.927	177.440	177.460	177.407	177.754	177.994	178.385	179.229	
Educational books and supplies.....	388.9	420.418	418.394	427.425	430.114	431.432	431.606	434.352	437.822	439.052	439.906	442.160	442.770	443.309	444.382	
Tuition, other school fees, and child care.....	468.1	494.079	488.382	498.071	505.924	508.449	509.605	510.016	511.301	511.253	511.013	511.887	512.579	513.743	516.264	
Communication <sup>1,2</sup> .....	84.1	83.367	83.553	83.655	83.690	83.659	83.250	83.282	83.396	83.391	83.502	83.670	83.929	84.394	84.840	
Information and information processing <sup>1,2</sup> .....	81.7	80.720	80.840	80.944	80.976	80.946	80.519	80.5								

**38. 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		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Miscellaneous personal services.....	313.6	324.984	324.579	325.566	327.783	328.056	328.610	329.908	332.183	333.826	335.427	337.685	339.824	340.547	340.077
Commodity and service group:															
Commodities.....	164.0	167.509	167.938	166.955	167.952	168.664	171.043	170.511	171.179	171.530	173.884	175.838	178.341	180.534	181.087
Food and beverages.....	195.7	203.300	203.533	204.289	205.279	206.124	206.563	206.936	208.837	209.462	209.692	211.365	212.251	213.383	215.326
Commodities less food and beverages.....	145.9	147.515	148.016	146.317	147.289	147.924	151.067	150.162	150.303	150.530	153.682	155.690	158.778	161.337	161.301
Nondurables less food and beverages.....	176.7	182.526	183.947	180.480	182.902	184.091	190.560	188.635	188.692	189.420	196.185	200.926	207.875	213.489	213.363
Apparel.....	119.5	118.998	113.500	114.439	119.535	121.846	121.204	118.257	115.795	117.839	120.881	122.113	120.752	117.019	114.357
and apparel.....	216.3	226.224	231.983	225.694	226.509	227.026	238.067	236.735	238.389	238.297	247.546	254.599	266.943	278.584	280.062
Durables.....	114.5	112.473	112.177	112.036	111.746	111.889	112.103	112.093	112.300	112.094	112.059	111.671	111.362	111.232	111.275
Services.....	238.9	246.848	248.331	248.555	248.700	248.878	248.974	249.225	250.648	251.527	252.817	253.426	254.509	256.668	258.422
Rent of shelter <sup>3</sup> .....	241.9	250.813	252.358	252.530	252.272	252.713	252.495	252.669	254.239	255.199	256.470	256.463	256.532	257.585	258.637
Transportation services.....	230.8	233.731	234.632	234.563	234.322	235.458	236.449	236.504	237.347	237.929	239.556	240.150	242.343	245.759	247.869
Other services.....	277.5	285.559	284.859	286.492	288.469	289.307	289.592	289.945	290.905	291.406	292.218	293.016	293.959	294.668	295.677
Special indexes:															
All items less food.....	202.7	208.098	209.179	208.607	209.100	209.478	210.846	210.610	211.512	212.136	214.236	215.462	217.411	219.757	220.758
All items less shelter.....	191.9	196.639	197.408	196.803	197.708	198.171	199.998	199.734	200.609	201.110	203.217	205.040	207.566	210.242	211.468
All items less medical care.....	194.7	200.080	201.042	200.598	201.159	201.544	202.770	202.600	203.569	204.136	205.992	207.317	209.170	211.408	212.576
Commodities less food.....	148.0	149.720	150.225	148.591	149.541	150.180	153.234	152.344	152.531	152.799	155.881	157.870	160.880	163.385	163.364
Nondurables less food.....	178.2	184.012	185.382	182.170	184.450	185.610	191.668	189.844	190.000	190.781	197.167	201.693	208.233	213.538	213.447
Nondurables less food and apparel.....	213.9	223.411	228.641	223.057	223.802	224.338	234.241	233.014	234.667	234.736	243.109	249.571	260.703	271.235	272.612
Nondurables.....	186.7	193.468	194.326	192.869	194.616	195.646	199.253	198.422	199.346	200.030	203.767	207.096	211.240	214.783	215.628
Services less rent of shelter <sup>3</sup> .....	253.3	260.764	262.284	262.588	263.243	263.109	263.599	263.966	265.311	266.154	267.567	269.007	271.467	275.200	277.982
Services less medical care services.....	229.6	236.847	238.357	238.507	238.604	238.657	238.671	238.894	240.201	241.004	242.310	242.921	243.982	246.219	248.007
Energy.....	196.9	207.723	217.274	209.294	209.637	207.588	219.009	217.506	219.465	219.311	230.505	240.194	257.106	275.621	280.833
All items less energy.....	203.7	208.925	208.980	209.399	210.000	210.714	210.888	210.890	211.846	212.545	213.420	213.851	214.101	214.600	215.335
All items less food and energy.....	205.9	210.729	210.756	211.111	211.628	212.318	212.435	212.356	213.138	213.866	214.866	215.059	215.180	215.553	216.045
Commodities less food and energy.....	140.6	140.053	138.757	138.895	139.828	140.501	140.547	140.014	139.845	140.324	141.056	141.156	140.677	139.925	139.535
Energy commodities.....	223.0	241.018	253.696	239.885	241.120	241.642	265.420	261.976	264.660	263.508	283.362	298.757	326.414	351.886	354.423
Services less energy.....	244.7	253.058	253.998	254.491	254.706	255.385	255.549	255.785	257.220	258.098	259.249	259.503	260.049	261.216	262.323
<b>CONSUMER PRICE INDEX FOR URBAN</b>															
<b>WAGE EARNERS AND CLERICAL WORKERS</b>															
All items.....	197.1	202.767	203.700	203.199	203.889	204.338	205.891	205.777	206.744	207.254	209.147	210.698	212.788	215.223	216.304
All items (1967 = 100).....	587.2	603.982	606.759	605.267	607.324	608.662	613.287	612.948	615.828	617.345	622.985	627.606	633.830	641.082	644.303
Food and beverages.....	194.9	202.531	202.823	203.610	204.584	205.428	205.763	206.141	208.055	208.674	208.927	210.559	211.438	212.700	214.662
Food.....	194.4	202.134	202.409	203.207	204.241	205.082	205.451	205.855	207.794	208.317	208.571	210.252	211.200	212.514	214.577
Food at home.....	192.2	200.273	200.569	201.321	202.351	203.442	203.741	204.141	206.870	207.242	207.196	209.657	210.624	212.079	214.679
Cereals and bakery products.....	213.1	222.409	223.663	224.220	223.895	224.897	225.941	226.696	229.105	233.915	236.764	240.663	244.648	246.493	250.972
Meats, poultry, fish, and eggs.....	186.1	195.193	196.323	196.844	197.980	198.146	198.325	198.489	199.686	199.141	199.484	200.285	200.501	202.424	204.557
Dairy and related products <sup>1</sup> .....	180.9	194.474	198.027	201.598	203.464	205.100	205.850	205.149	206.652	207.750	205.660	207.135	207.088	208.510	213.582
Fruits and vegetables.....	251.0	260.484	252.703	251.575	257.223	261.774	265.736	269.533	275.843	268.954	266.030	270.169	274.136	276.641	278.885
Nonalcoholic beverages and beverage materials.....	146.7	152.786	152.829	154.152	154.501	154.873	153.610	152.883	157.130	157.456	157.488	158.799	157.285	157.309	158.527
Other foods at home.....	169.1	172.630	173.727	173.997	173.463	174.215	173.393	173.511	175.572	177.442	177.713	181.215	182.241	183.342	185.174
Sugar and sweets.....	170.5	175.323	176.736	176.664	176.458	176.248	176.845	177.051	178.902	179.740	181.033	183.725	184.127	184.378	186.054
Fats and oils.....	168.7	173.640	174.109	174.872	175.039	176.683	176.101	176.736	182.307	185.292	183.706	191.560	194.228	197.155	201.821
Other foods.....	185.2	188.405	189.667	189.941	189.110	189.987	188.657	188.646	190.364	192.430	192.832	196.106	197.081	198.153	199.722
Other miscellaneous foods <sup>1,2</sup> .....	114.2	115.356	115.355	116.348	114.584	115.378	115.803	115.658	115.658	118.828	117.754	118.751	119.248	118.879	121.015
Food away from home <sup>1</sup> .....	199.1	206.412	206.657	207.533	208.578	209.037	209.518	209.931	210.776	211.517	212.193	212.794	213.723	214.851	216.177
Other food away from home <sup>1,2</sup> .....	136.2	143.462	144.439	144.938	145.783	144.764	145.233	144.454	145.625	146.924	147.188	147.335	148.517	149.306	150.232
Alcoholic beverages.....	200.6	207.097	207.647	208.253	208.286	209.176	208.958	208.934	210.473	212.507	212.748	213.633	213.486	213.976	214.440
Housing.....	198.5	204.795	206.183	206.054	206.050	205.916	206.288	206.638	207.692	208.268	209.388	210.161	211.191	213.441	215.026
Shelter.....	224.8	232.998	233.848	234.169	234.275	234.812	235.069	235.480	236.550	237.158	237.965	238.261	238.353	239.198	239.845
Rent of primary residence.....	224.2	233.806	233.855	234.457	235.175	236.259	237.288	238.216	238.955	239.419	239.932	240.507	240.818	241.623	242.276
Lodging away from home <sup>2</sup> .....	135.3	142.339	153.107	149.919	143.727	142.666	136.244	133.179	139.825	143.046	148.110	145.936	144.979	148.378	152.248
Owners' equivalent rent of primary residence <sup>3</sup> .....	216.0	223.175	223.093	223.693	224.321	224.811	225.548	226.151	226.703	227.057	227.488	227.893	228.007	228.536	228.824
Tenants' and household insurance <sup>1,2</sup> .....	116.8	117.366	116.912	117.287	117.142	116.982	117.370	117.396	117.740	117.921	117.999	118.683	118.615	119.293	119.006
Fuels and utilities.....	193.1	198.863	204.272	202.397	202.304	198.796	200.151	200.831	202.663	203.584	206.861	210.912	217.388	228.843	236.381
Fuels.....	174.4	179.031	184.725	182.518	182.357	178.539	179.777	180.379	182.025	182.823	186.315	190.657	197.554	209.843	217.640
Fuel oil and other fuels.....	234.0	251.121	245.633	246.382	252.684	261.972	292.098	298.656	306.087	307.599	329.271	339.009	358.947	381.903	388.208
Gas (piped) and electricity.....	180.2														

**38. 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		2007							2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	
New vehicles.....	138.6	137.415	136.663	136.414	136.129	136.509	137.372	137.736	137.931	137.445	136.910	136.456	135.933	135.728	135.556	
Used cars and trucks <sup>1</sup> .....	140.8	136.586	136.880	137.999	137.996	137.798	137.457	137.791	138.052	138.094	138.070	137.616	137.145	136.790	136.639	
Motor fuel.....	221.6	239.900	253.893	239.097	240.271	240.040	263.248	259.032	261.531	260.402	279.975	295.618	323.495	348.762	351.124	
Gasoline (all types).....	220.7	238.879	252.957	238.100	239.252	238.906	262.013	257.792	260.457	259.112	277.842	293.349	321.291	346.459	348.888	
Motor vehicle parts and equipment.....	116.9	121.356	121.350	121.584	122.144	122.830	123.302	123.786	124.416	125.238	126.330	126.032	126.742	127.750	128.997	
Motor vehicle maintenance and repair.....	218.1	225.535	226.090	226.636	226.881	227.472	228.267	228.692	230.255	231.349	232.344	232.983	234.221	235.550	237.324	
Public transportation.....	225.0	228.531	233.390	231.082	229.148	231.182	231.999	231.363	232.594	233.979	240.729	241.966	249.310	261.779	266.259	
Medical care.....	335.7	350.882	351.346	352.704	353.571	355.719	357.165	357.745	360.710	362.329	363.069	363.356	363.462	363.628	363.942	
Medical care commodities.....	279.0	282.558	282.662	283.379	283.712	284.517	285.475	285.913	287.703	288.335	289.254	288.796	286.825	287.033	286.562	
Medical care services.....	351.1	370.111	370.696	372.261	373.306	375.899	377.498	378.119	381.507	383.510	384.149	384.753	385.769	385.911	386.560	
Professional services.....	291.7	303.169	303.481	304.677	304.841	306.072	306.300	307.333	309.169	310.426	311.259	311.757	313.294	313.618	314.235	
Hospital and related services.....	463.6	493.740	493.563	495.191	498.533	505.077	510.836	510.961	518.853	523.654	524.534	526.495	527.230	527.948	529.798	
Recreation <sup>2</sup> .....	108.2	108.572	108.403	108.179	108.495	108.793	108.805	108.702	109.046	109.315	109.742	109.775	109.876	109.905	110.198	
Video and audio <sup>1,2</sup> .....	103.9	102.559	102.358	101.923	102.427	102.833	102.465	102.523	102.839	103.028	103.525	103.414	102.958	102.306	102.267	
Education and communication <sup>2</sup> .....	113.9	116.301	115.980	116.981	117.707	117.891	117.686	117.782	118.097	118.079	118.155	118.462	118.737	119.264	119.852	
Education <sup>2</sup> .....	160.3	169.280	167.527	170.635	173.060	173.700	174.016	174.276	175.134	175.118	175.101	175.546	175.791	176.148	176.879	
Educational books and supplies.....	390.7	423.730	421.529	431.089	433.670	434.800	434.979	437.391	441.207	441.927	442.639	444.594	445.394	445.740	446.741	
Tuition, other school fees, and child care.....	453.3	477.589	472.395	480.960	488.199	490.061	491.022	491.554	493.797	493.672	493.546	494.711	495.384	496.449	498.598	
Communication <sup>1,2</sup> .....	86.0	85.782	86.015	86.148	86.184	86.182	85.807	85.834	85.935	85.919	86.016	86.244	86.496	87.017	87.490	
Information and information processing <sup>1,2</sup> .....	84.3	83.928	84.111	84.248	84.283	84.282	83.894	83.917	84.008	83.992	84.091	84.320	84.511	85.007	85.484	
Telephone services <sup>1,2</sup> .....	95.9	98.373	98.721	98.964	99.024	99.149	98.874	98.887	98.988	98.931	99.090	99.566	99.939	100.723	101.375	
Information and information processing other than telephone services <sup>1,4</sup> .....	13.0	11.062	11.001	10.965	10.958	10.877	10.710	10.722	10.737	10.754	10.745	10.671	10.621	10.585	10.600	
Personal computers and peripheral equipment <sup>1,2</sup> .....	121.0	108.164	107.371	106.531	105.713	104.366	100.257	100.000	101.067	100.582	100.265	98.820	97.010	95.766	94.691	
Other goods and services.....	330.9	344.004	344.221	344.214	345.800	346.742	347.427	348.830	350.630	351.979	353.351	354.887	356.523	358.419	359.961	
Tobacco and smoking products.....	521.6	555.502	555.366	556.517	561.092	562.134	563.435	568.410	574.724	577.359	576.910	578.296	583.296	592.248	599.180	
Personal care <sup>1</sup> .....	188.3	193.590	193.792	193.598	194.160	194.769	195.122	195.467	195.885	196.564	197.803	198.859	199.367	199.404	199.495	
Personal care products <sup>1</sup> .....	155.7	158.268	158.445	157.813	157.654	158.408	158.579	158.407	158.167	157.877	158.730	159.585	158.993	159.052	159.237	
Personal care services <sup>1</sup> .....	209.8	216.823	217.040	217.354	217.822	218.149	218.897	219.945	220.324	221.338	223.043	223.088	223.922	223.838	223.994	
Miscellaneous personal services.....	314.1	326.100	326.135	327.235	329.329	329.706	330.258	330.850	333.154	334.868	336.476	338.851	341.212	341.921	341.763	
Commodity and service group:																
Commodities.....	165.7	169.554	170.252	169.122	170.141	170.865	173.489	172.952	173.711	174.083	176.727	178.900	181.837	184.495	185.105	
Food and beverages.....	194.9	202.531	202.823	203.610	204.584	205.428	205.763	206.141	208.055	208.674	208.927	210.559	211.438	212.700	214.662	
Commodities less food and beverages.....	148.7	150.865	151.724	149.781	150.795	151.448	155.011	154.086	154.345	154.603	158.156	160.488	164.188	167.344	167.376	
Nondurables less food and beverages.....	182.6	189.507	191.603	187.515	189.981	191.230	198.661	196.636	196.910	197.606	205.166	210.558	218.794	225.585	225.595	
Apparel.....	119.1	118.518	113.157	114.146	118.986	121.536	120.920	118.126	115.866	117.883	120.809	121.855	120.407	116.706	113.978	
Nondurables less food, beverages, and apparel.....	226.1	237.858	244.695	237.329	238.345	238.798	251.442	249.863	251.751	251.621	262.252	270.496	285.024	298.593	300.341	
Durables.....	114.6	112.640	112.425	112.362	112.114	112.241	112.413	112.450	112.688	112.560	112.549	112.171	111.845	111.769	111.820	
Services.....	234.1	241.696	242.901	243.118	243.436	243.572	243.906	244.275	245.484	246.154	247.197	248.045	249.175	251.365	252.991	
Rent of shelter <sup>3</sup> .....	216.6	224.617	225.455	225.760	225.867	226.393	226.636	227.035	228.071	228.660	229.443	229.719	229.810	230.620	231.255	
Transportation services.....	230.6	233.420	233.737	233.831	233.868	234.848	235.874	236.020	236.883	237.426	238.496	239.044	240.728	243.395	245.005	
Other services.....	268.2	275.218	274.766	276.015	277.702	278.404	278.513	278.783	279.780	280.199	281.017	281.829	282.720	283.449	284.449	
Special indexes:																
All items less food.....	197.5	202.698	203.750	203.011	203.638	204.015	205.783	205.575	206.371	206.877	209.055	210.583	212.870	215.498	216.407	
All items less shelter.....	189.2	193.940	194.913	194.109	195.018	195.440	197.479	197.174	198.113	198.592	200.904	202.931	205.774	208.817	210.069	
All items less medical care.....	191.3	196.564	197.504	196.949	197.629	198.022	199.565	199.431	200.329	200.800	202.713	204.290	206.423	208.906	210.002	
Commodities less food.....	150.6	152.875	153.730	151.846	152.837	153.499	156.977	156.073	156.365	156.670	160.152	162.455	166.070	169.169	169.213	
Nondurables less food.....	183.8	190.698	192.714	188.873	191.210	192.442	199.471	197.551	197.892	198.660	205.843	211.005	218.809	225.276	225.309	
Nondurables less food and apparel.....	223.0	234.201	240.471	233.817	234.745	235.233	246.726	245.286	247.136	247.188	256.899	264.488	277.717	290.127	291.760	
Nondurables.....	189.5	196.772	198.000	196.266	198.017	199.075	203.087	202.222	203.268	203.933	208.101	211.757	216.582	220.813	221.740	
Services less rent of shelter <sup>3</sup> .....	224.7	230.876	232.367	232.450	232.982	232.628	233.029	233.314	234.576	235.258	236.483	237.922	240.181	243.780	246.411	
Services less medical care services.....	225.3	232.195	233.415	233.562	233.839	233.850	234.115	234.468	235.557	236.154	237.201	238.048	239.167	241.422	243.071	
Energy.....	196.8	208.066	217.795	209.441	209.933	207.885	219.861	218.104	220.163	219.983	231.533	241.518	258.903	277.597	282.579	
All items less energy.....	198.0	203.002	202.849	203.319	204.037	204.797	205.066	205.155	205.991	206.588	207.296	207.812	208.021	208.458	209.062	
All items less food and energy.....	199.2	203.554	203.310	203.710	204.363	205.107	205.355	205.377	205.992	206.605	207.406	207.687	207.747	208.007	208.317	
Commodities less food and energy.....	141.1	140.612	139.352	139.557	140.491	141.236	141.254	140.815	140.696	141.238	141.973	142.040	141.558	140.878	140.492	
Energy commodities.....	223.0	241.257	254.282	240.247	241.692	241.955	265.598	261.928	264.633	263.601	283.359	298.852	326.565	351.873	354.402	
Services less energy.....	239.9	247.888	248.434	248.977	249.398	250.127	250.546	250.925	252.103	252.756	253.589	254.031	254.517	255.513	256.365	

<sup>1</sup> Not seasonally adjusted.

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

[1982-84 = 100, unless otherwise indicated]

	Pricing sched- ule <sup>1</sup>	All Urban Consumers						Urban Wage Earners					
		2008						2008					
		Feb.	Mar.	Apr.	May	June	July	Feb.	Mar.	Apr.	May	June	July
U.S. city average.....	M	211.693	213.528	214.823	216.632	218.815	219.964	207.254	209.147	210.698	212.788	215.223	216.304
<b>Region and area size<sup>2</sup></b>													
Northeast urban.....	M	225.213	226.926	228.133	230.089	232.649	234.545	221.702	223.209	224.794	227.114	229.829	231.488
Size A—More than 1,500,000.....	M	227.411	229.087	230.038	232.005	234.518	236.460	222.315	223.795	225.144	227.412	230.120	231.808
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	133.511	134.611	135.739	136.913	138.542	139.623	133.893	134.846	136.141	137.624	139.286	140.253
Midwest urban <sup>4</sup> .....	M	201.896	203.723	205.393	207.168	208.968	210.071	197.110	198.989	200.788	202.912	204.867	206.038
Size A—More than 1,500,000.....	M	203.347	205.141	206.590	208.291	209.813	211.003	197.549	199.378	200.989	202.969	204.509	205.761
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	128.922	130.121	131.484	132.682	134.018	134.595	128.695	129.922	131.354	132.867	134.409	135.037
Size D—Nonmetropolitan (less than 50,000).....	M	197.596	199.472	200.841	202.720	205.122	206.435	195.774	197.864	199.325	201.494	204.023	205.452
South urban.....	M	205.060	206.676	208.085	210.006	212.324	213.304	202.291	204.044	205.669	207.912	210.469	211.438
Size A—More than 1,500,000.....	M	207.605	209.065	209.987	211.846	214.359	215.373	205.588	207.336	208.511	210.748	213.549	214.379
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	130.351	131.442	132.516	133.714	134.980	135.643	129.144	130.243	131.428	132.808	134.222	134.952
Size D—Nonmetropolitan (less than 50,000).....	M	205.189	206.933	208.746	211.225	214.739	215.274	205.523	207.600	209.641	212.533	216.357	216.901
West urban.....	M	216.339	218.533	219.437	221.009	223.040	223.867	210.816	213.159	214.355	216.029	218.508	219.248
Size A—More than 1,500,000.....	M	219.799	221.997	222.689	224.704	226.767	227.562	212.614	214.954	216.055	218.141	220.603	221.232
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	131.538	132.896	133.694	134.023	135.283	136.021	131.148	132.640	133.570	134.133	135.738	136.478
Size classes:													
A <sup>5</sup> .....	M	193.685	195.314	196.191	197.898	199.840	200.941	191.982	193.702	194.886	196.844	199.028	200.009
B/C <sup>3</sup> .....	M	130.728	131.892	132.974	133.997	135.330	136.055	130.092	131.273	132.471	133.729	135.240	135.986
D.....	M	203.803	205.730	207.238	209.308	211.989	212.555	202.292	204.422	205.951	208.246	211.236	211.929
<b>Selected local areas<sup>6</sup></b>													
Chicago—Gary—Kenosha, IL—IN—WI.....	M	209.526	211.542	212.662	214.932	215.738	217.459	202.497	204.742	205.885	208.403	209.021	211.020
Los Angeles—Riverside—Orange County, CA.....	M	221.431	223.606	224.625	226.651	229.033	229.886	214.231	216.493	217.914	219.702	222.435	223.245
New York, NY—Northern NJ—Long Island, NY—NJ—CT—PA.....	M	231.020	233.122	233.822	236.151	238.580	240.273	225.281	226.951	228.215	230.923	233.776	235.446
Boston—Brockton—Nashua, MA—NH—ME—CT.....	1	—	233.084	—	235.344	—	241.258	—	232.656	—	235.419	—	240.511
Cleveland—Akron, OH.....	1	—	202.500	—	204.882	—	206.941	—	192.995	—	195.898	—	198.063
Dallas—Ft. Worth, TX.....	1	—	198.596	—	202.357	—	206.413	—	201.892	—	206.258	—	210.830
Washington—Baltimore, DC—MD—VA—WV <sup>7</sup> .....	1	—	138.090	—	139.649	—	142.065	—	137.544	—	139.332	—	141.622
Atlanta, GA.....	2	204.166	—	206.371	—	212.032	—	203.473	—	205.801	—	212.013	—
Detroit—Ann Arbor—Flint, MI.....	2	202.378	—	205.281	—	207.593	—	197.670	—	201.037	—	203.524	—
Houston—Galveston—Brazoria, TX.....	2	187.585	—	188.795	—	193.567	—	185.904	—	188.463	—	193.742	—
Miami—Ft. Lauderdale, FL.....	2	219.082	—	221.324	—	225.079	—	216.971	—	219.456	—	223.849	—
Philadelphia—Wilmington—Atlantic City, PA—NJ—DE—MD.....	2	220.935	—	223.622	—	228.408	—	220.718	—	223.295	—	228.429	—
San Francisco—Oakland—San Jose, CA.....	2	219.612	—	222.074	—	225.181	—	214.913	—	217.913	—	221.454	—
Seattle—Tacoma—Bremerton, WA.....	2	221.728	—	223.196	—	228.068	—	216.332	—	218.483	—	223.573	—

<sup>1</sup> 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.

<sup>2</sup> Regions defined as the four Census regions.

<sup>3</sup> Indexes on a December 1996 = 100 base.

<sup>4</sup> The "North Central" region has been renamed the "Midwest" region by the Census Bureau. It is composed of the same geographic entities.

<sup>5</sup> Indexes on a December 1986 = 100 base.

<sup>6</sup> 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, OH—KY—IN; 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.

<sup>7</sup> Indexes on a November 1996 = 100 base.

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. Dash indicates data not available.

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

[1982-84 = 100]

Series	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Consumer Price Index for All Urban Consumers:</b>											
All items:											
Index.....	160.5	163.0	166.6	172.2	177.1	179.9	184.0	188.9	195.3	201.6	207.342
Percent change.....	2.3	1.6	2.2	3.4	2.8	1.6	2.3	2.7	3.4	3.2	2.8
Food and beverages:											
Index.....	157.7	161.1	164.6	168.4	173.6	176.8	180.5	186.6	191.2	195.7	203.300
Percent change.....	2.6	2.2	2.2	2.3	3.1	1.8	2.1	3.3	2.5	2.4	3.9
Housing:											
Index.....	156.8	160.4	163.9	169.6	176.4	180.3	184.8	189.5	195.7	203.2	209.586
Percent change.....	2.6	2.3	2.2	3.5	4.0	2.2	2.5	2.5	3.3	3.8	3.1
Apparel:											
Index.....	132.9	133.0	131.3	129.6	127.3	124.0	120.9	120.4	119.5	119.5	118.998
Percent change.....	.9	.1	-1.3	-1.3	-1.8	-2.6	-2.5	-4	-7	.0	-0.4
Transportation:											
Index.....	144.3	141.6	144.4	153.3	154.3	152.9	157.6	163.1	173.9	180.9	184.682
Percent change.....	0.9	-1.9	2.0	6.2	0.7	-9	3.1	3.5	6.6	4.0	2.1
Medical care:											
Index.....	234.6	242.1	250.6	260.8	272.8	285.6	297.1	310.1	323.2	336.2	351.054
Percent change.....	2.8	3.2	3.5	4.1	4.6	4.7	4.0	4.4	4.2	4.0	4.4
Other goods and services:											
Index.....	224.8	237.7	258.3	271.1	282.6	293.2	298.7	304.7	313.4	321.7	333.328
Percent change.....	4.4	5.7	8.7	5.0	4.2	3.8	1.9	2.0	2.9	2.6	3.6
<b>Consumer Price Index for Urban Wage Earners and Clerical Workers:</b>											
All items:											
Index.....	157.6	159.7	163.2	168.9	173.5	175.9	179.8	184.5	191.0	197.1	202.767
Percent change.....	2.3	1.3	2.2	3.5	2.7	1.4	2.2	5.1	1.1	3.2	2.9

**41. Producer Price Indexes, by stage of processing**

[1982 = 100]

Grouping	Annual average		2007						2008						
	2006	2007	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. <sup>P</sup>	May <sup>P</sup>	June <sup>P</sup>	July <sup>P</sup>
<b>Finished goods.....</b>	160.4	166.6	168.5	166.1	167.4	168.6	171.4	170.4	172.0	172.3	175.1	176.7	179.6	182.5	185.0
Finished consumer goods.....	166.0	173.5	176.2	173.0	174.8	175.9	179.4	178.2	180.1	180.4	184.2	186.0	190.1	193.9	197.1
Finished consumer foods.....	156.7	167.0	166.4	166.3	168.4	169.7	169.5	172.2	174.5	173.6	176.0	175.4	177.7	180.1	180.9
Finished consumer goods excluding foods.....	169.2	175.6	179.7	175.3	177.0	177.9	182.9	180.1	181.9	182.7	187.1	189.8	194.7	199.1	203.2
Nondurable goods less food.....	182.6	191.7	198.1	191.8	194.6	194.5	201.5	197.9	200.3	201.4	208.2	211.4	219.6	226.5	232.5
Durable goods.....	136.9	138.3	137.6	137.2	136.7	139.8	140.2	139.5	140.1	140.2	139.9	140.7	140.1	139.8	140.3
Capital equipment.....	146.9	149.5	149.1	149.0	148.9	150.6	151.0	150.7	151.4	151.8	151.8	152.5	152.5	152.7	153.6
<b>Intermediate materials, supplies, and components.....</b>	164.0	170.7	173.6	171.5	172.2	172.2	176.2	175.7	177.8	179.1	184.5	186.9	192.6	196.9	202.5
Materials and components for manufacturing.....	155.9	162.4	164.5	163.4	163.3	164.4	166.1	166.3	168.4	170.1	173.1	174.5	178.8	181.6	186.6
Materials for food manufacturing.....	146.2	161.4	163.6	164.5	166.6	166.3	166.6	169.8	173.6	176.7	180.0	179.7	182.8	185.7	187.7
Materials for nondurable manufacturing...	175.0	184.0	187.1	185.0	186.0	189.4	195.1	195.1	199.3	201.5	206.0	207.7	214.4	220.1	231.9
Materials for durable manufacturing.....	180.5	189.8	195.1	191.8	189.1	189.0	188.6	188.1	189.5	193.1	200.3	203.5	212.8	216.3	219.4
Components for manufacturing.....	134.5	136.3	136.4	136.5	136.5	136.6	136.7	136.8	137.4	137.8	137.9	138.8	139.3	139.9	141.4
Materials and components for construction.....	188.4	192.5	193.5	193.5	193.2	193.2	193.2	193.4	194.4	195.7	197.3	199.3	203.4	206.3	209.9
Processed fuels and lubricants.....	162.8	173.9	183.0	175.3	178.4	175.5	189.7	186.3	188.6	189.0	206.1	212.3	227.2	238.6	249.6
Containers.....	175.0	180.3	180.2	180.5	181.0	182.3	183.2	183.4	185.1	185.7	185.9	187.0	188.0	188.5	191.6
Supplies.....	157.0	161.7	161.9	162.0	162.3	163.0	163.9	164.6	166.8	168.1	170.0	170.5	172.9	174.3	177.7
<b>Crude materials for further processing.....</b>	184.8	207.1	210.3	202.8	204.6	211.8	225.6	229.0	235.5	245.5	262.1	274.3	294.4	305.2	317.9
Foodstuffs and feedstuffs.....	119.3	146.7	150.0	147.8	151.9	150.0	152.9	158.5	162.6	165.4	169.2	166.5	172.7	178.9	179.3
Crude nonfood materials.....	230.6	246.3	249.2	237.6	237.4	252.0	274.1	275.4	283.8	299.9	327.7	349.9	385.4	399.6	423.3
<b>Special groupings:</b>															
Finished goods, excluding foods.....	161.0	166.2	168.8	165.8	166.9	168.1	171.6	169.6	171.0	171.7	174.6	176.7	179.8	182.8	185.9
Finished energy goods.....	145.9	156.3	166.4	155.6	159.7	159.1	170.4	163.8	166.6	167.2	177.5	182.6	193.8	204.3	213.0
Finished goods less energy.....	157.9	162.8	162.4	162.5	163.0	164.7	164.9	165.5	166.7	167.0	167.6	168.1	168.8	169.5	170.4
Finished consumer goods less energy.....	162.7	168.7	168.3	168.4	169.2	170.8	171.0	172.0	173.5	173.7	174.7	174.9	176.0	177.0	177.8
Finished goods less food and energy.....	158.7	161.7	161.4	161.5	161.5	163.2	163.6	163.5	164.4	165.0	165.1	165.9	166.1	166.2	167.1
Finished consumer goods less food and energy.....	166.7	170.0	169.7	170.0	170.0	171.8	172.2	172.2	173.2	174.0	174.1	175.0	175.3	175.4	176.2
Consumer nondurable goods less food and energy.....	191.5	197.0	197.1	197.9	198.3	199.0	199.3	200.0	201.4	203.0	203.6	204.2	205.9	206.4	207.6
Intermediate materials less foods and feeds.....	165.4	171.5	174.5	172.3	172.9	172.9	177.0	176.3	178.2	179.4	184.7	187.4	193.1	197.4	203.0
Intermediate foods and feeds.....	135.2	154.4	155.9	156.3	158.2	159.6	161.4	164.6	170.6	175.0	180.3	178.6	184.8	186.8	194.6
Intermediate energy goods.....	162.8	174.6	184.2	177.0	179.5	177.4	191.1	187.8	190.5	191.5	208.6	213.8	228.6	240.5	253.0
Intermediate goods less energy.....	162.1	167.6	168.8	168.1	168.2	168.9	170.2	170.4	172.3	173.7	176.0	177.4	181.1	183.4	187.3
Intermediate materials less foods and energy.....	163.8	168.4	169.6	168.8	168.9	169.5	170.8	170.9	172.5	173.7	175.8	177.5	181.0	183.2	186.9
Crude energy materials.....	226.9	232.8	236.8	221.7	219.9	237.7	267.1	268.3	273.6	291.7	325.4	344.1	389.0	409.7	437.9
Crude materials less energy.....	152.3	182.6	185.5	183.8	188.3	187.4	189.2	194.1	200.9	205.9	211.7	215.4	224.4	229.1	232.2
Crude nonfood materials less energy.....	244.5	282.6	284.0	284.7	289.9	292.8	289.9	291.7	307.3	319.7	332.1	359.4	376.2	374.5	387.2

p = preliminary.

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

[December 2003 = 100, unless otherwise indicated]

NAICS	Industry	2007						2008						
		July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. <sup>p</sup>	May <sup>p</sup>	June <sup>p</sup>	July <sup>p</sup>
	<b>Total mining industries (December 1984=100)</b> .....	222.3	212.5	214.3	228.3	249.3	249.5	254.2	263.8	287.2	299.0	328.9	345.9	368.9
211	Oil and gas extraction (December 1985=100) .....	269.6	254.1	256.2	279.6	314.8	315.9	321.9	335.0	371.6	390.3	440.5	463.5	499.4
212	Mining, except oil and gas.....	162.4	160.8	162.2	162.4	161.3	161.2	164.9	170.3	174.8	176.4	174.3	185.1	189.3
213	Mining support activities.....	168.9	168.6	169.7	168.5	168.7	164.9	167.2	168.8	169.8	170.0	171.3	174.6	176.5
	<b>Total manufacturing industries (December 1984=100)</b> .....	164.9	163.0	163.7	164.5	168.0	166.9	168.5	169.6	173.4	175.1	179.3	182.0	185.6
311	Food manufacturing (December 1984=100).....	160.4	160.3	160.8	160.7	161.4	162.8	165.8	167.5	169.8	170.9	174.2	176.3	180.1
312	Beverage and tobacco manufacturing.....	109.2	109.9	110.3	111.1	111.1	111.2	112.1	112.7	112.7	113.0	114.4	114.2	115.2
313	Textile mills.....	108.4	108.6	108.7	108.9	109.1	109.3	110.1	110.3	110.4	110.8	111.7	111.7	112.6
315	Apparel manufacturing.....	101.5	101.5	101.3	101.5	101.5	101.5	101.8	101.8	102.0	102.2	102.2	102.2	102.4
316	Leather and allied product manufacturing (December 1984=100).....	149.4	149.9	150.0	150.4	150.5	151.1	152.0	152.4	152.6	152.8	152.7	153.9	154.4
321	Wood products manufacturing.....	108.4	107.8	107.2	106.5	106.1	106.1	105.7	105.5	105.9	106.0	108.3	109.5	109.0
322	Paper manufacturing.....	115.4	115.6	116.1	117.1	117.8	118.0	118.5	119.2	119.6	120.2	120.4	120.8	121.6
323	Printing and related support activities.....	106.7	106.8	107.0	107.1	107.2	107.4	107.8	108.1	108.2	109.2	109.4	109.5	110.0
324	Petroleum and coal products manufacturing (December 1984=100).....	283.1	258.0	267.4	266.9	305.5	288.4	294.9	298.4	337.1	347.6	384.1	406.0	428.9
325	Chemical manufacturing (December 1984=100).....	203.6	204.9	205.0	206.4	209.2	210.4	213.6	215.8	218.4	220.4	224.1	227.8	233.7
326	Plastics and rubber products manufacturing (December 1984=100).....	150.4	151.3	151.2	151.6	152.2	153.2	154.8	155.6	156.4	156.3	158.5	159.5	162.7
331	Primary metal manufacturing (December 1984=100).....	196.4	192.1	188.8	188.6	188.9	188.6	190.4	194.2	202.4	210.5	221.6	228.5	233.2
332	Fabricated metal product manufacturing (December 1984=100).....	162.3	162.9	162.8	163.3	163.7	164.3	165.6	166.8	168.3	170.6	172.9	174.7	177.3
333	Machinery manufacturing.....	112.1	112.3	112.5	112.7	113.0	113.1	113.8	114.3	114.6	115.2	115.7	116.5	117.9
334	Computer and electronic products manufacturing.....	94.1	93.5	93.3	93.1	92.8	92.6	92.6	92.8	92.7	92.7	92.8	92.8	93.0
335	Electrical equipment, appliance, and components manufacturing.....	123.0	123.6	123.7	124.2	124.5	124.4	125.2	125.9	127.1	127.3	128.1	128.4	129.0
336	Transportation equipment manufacturing.....	104.4	104.2	103.8	106.3	106.6	106.0	106.6	106.6	106.1	106.5	106.3	105.9	106.5
337	Furniture and related product manufacturing (December 1984=100).....	165.6	165.7	165.9	166.1	166.6	166.4	167.1	167.8	168.3	169.7	170.6	171.7	172.1
339	Miscellaneous manufacturing.....	106.9	107.0	107.1	107.2	107.5	107.7	108.5	108.7	109.2	109.5	109.7	110.0	110.4
	<b>Retail trade</b>													
441	Motor vehicle and parts dealers.....	115.6	114.9	116.0	115.3	116.1	118.0	118.3	118.4	117.9	119.0	118.5	118.6	118.1
442	Furniture and home furnishings stores.....	116.5	119.6	119.0	120.1	121.1	119.0	119.6	118.8	120.1	119.2	118.6	119.8	120.3
443	Electronics and appliance stores.....	111.6	109.8	107.8	111.1	114.9	89.3	109.0	110.2	113.4	110.9	109.5	111.3	110.1
446	Health and personal care stores.....	123.6	124.3	123.9	123.5	123.8	123.8	124.8	124.5	125.5	128.0	127.9	128.0	135.4
447	Gasoline stations (June 2001=100).....	81.6	71.3	73.7	78.0	73.7	66.6	67.1	61.6	60.6	65.6	60.9	67.3	80.1
454	Nonstore retailers.....	123.1	128.3	126.0	130.2	125.7	134.7	136.0	133.8	133.1	136.2	136.9	138.0	140.9
	<b>Transportation and warehousing</b>													
481	Air transportation (December 1992=100).....	188.0	189.1	180.5	187.2	189.4	187.1	192.0	191.8	198.6	199.5	201.4	211.7	211.4
483	Water transportation.....	113.6	114.7	115.3	117.2	116.5	116.4	119.0	119.2	120.6	122.1	122.3	127.0	129.3
491	Postal service (June 1989=100).....	175.5	175.5	175.5	175.5	175.5	175.5	175.5	175.5	175.5	175.5	180.5	180.5	180.5
	<b>Utilities</b>													
221	Utilities.....	131.6	130.8	129.3	127.2	126.6	127.4	127.8	129.7	131.1	133.6	135.7	141.1	146.3
	<b>Health care and social assistance</b>													
6211	Office of physicians (December 1996=100).....	122.2	122.2	122.9	122.9	121.5	122.7	123.3	123.3	123.3	122.3	123.2	123.2	123.2
6215	Medical and diagnostic laboratories.....	107.0	107.7	107.6	107.7	106.7	106.7	107.3	107.3	107.3	107.4	107.4	106.6	106.9
6216	Home health care services (December 1996=100).....	123.8	123.9	124.1	125.1	125.3	125.3	125.4	125.5	125.5	125.5	125.5	125.4	125.4
622	Hospitals (December 1992=100).....	158.1	158.0	158.2	161.3	161.9	161.9	162.4	162.6	162.9	162.9	162.7	162.8	163.2
6231	Nursing care facilities.....	114.9	115.7	115.8	116.4	116.5	117.0	117.9	118.0	118.3	118.2	118.1	118.1	119.1
62321	Residential mental retardation facilities.....	112.9	113.2	113.5	113.9	114.3	114.6	115.4	117.2	117.7	118.0	117.6	117.6	117.8
	<b>Other services industries</b>													
511	Publishing industries, except Internet .....	108.2	108.4	108.4	108.5	108.5	108.5	109.7	109.8	110.4	110.7	110.4	110.2	110.8
515	Broadcasting, except Internet.....	98.7	98.7	99.6	101.0	102.3	103.6	104.4	104.6	105.2	102.4	103.4	102.7	103.3
517	Telecommunications.....	102.2	101.3	102.0	101.8	101.2	100.7	100.6	100.9	100.6	102.1	101.3	101.1	101.0
5182	Data processing and related services.....	100.4	100.4	100.4	100.3	100.5	100.4	100.4	100.5	100.5	100.5	100.9	100.9	101.0
523	Security, commodity contracts, and like activity.....	120.5	120.4	121.1	121.4	124.2	123.0	122.5	122.9	121.0	119.2	120.1	120.7	118.8
53112	Lessors or nonresidential buildings (except miniwarehouse).....	106.2	107.9	109.0	108.5	108.5	110.0	108.1	108.2	109.7	109.1	109.2	109.7	110.2
5312	Offices of real estate agents and brokers.....	111.1	111.1	110.7	110.5	110.5	109.9	110.3	109.8	110.0	110.0	106.1	105.4	107.0
5313	Real estate support activities.....	103.8	103.2	102.9	103.5	106.1	105.6	106.6	106.0	106.8	107.1	107.1	107.4	109.7
5321	Automotive equipment rental and leasing (June 2001=100).....	121.2	122.3	117.2	118.9	118.4	119.1	121.3	121.3	125.1	117.8	123.2	125.2	132.6
5411	Legal services (December 1996=100).....	153.7	153.8	154.3	154.8	155.1	155.1	159.9	160.3	160.7	160.8	160.9	160.9	161.5
541211	Offices of certified public accountants.....	112.2	112.6	112.4	113.1	112.9	113.0	115.6	114.1	113.8	111.9	114.2	112.4	115.8
5413	Architectural, engineering, and related services (December 1996=100).....	140.3	140.8	140.7	140.8	140.8	140.8	139.2	140.3	140.3	140.4	140.5	141.9	141.5
54181	Advertising agencies.....	105.1	105.1	105.1	105.1	105.1	105.1	105.2	105.3	105.3	106.0	105.8	105.7	105.7
5613	Employment services (December 1996=100).....	121.8	121.9	122.0	122.4	122.3	122.2	122.3	123.0	123.0	122.3	122.7	122.9	123.1
56151	Travel agencies.....	101.1	101.0	100.9	102.5	101.7	100.2	98.8	98.8	98.8	98.8	98.8	98.8	98.8
56172	Janitorial services.....	105.5	105.5	106.8	106.9	107.1	108.7	108.9	109.1	108.9	109.0	109.7	109.2	109.1
5621	Waste collection.....	107.3	107.9	108.9	108.9	109.5	108.4	110.7	112.1	112.0	112.3	112.0	112.8	112.1
721	Accommodation (December 1996=100).....	147.1	147.2	145.0	145.8	144.7	143.7	145.4	145.2	145.3	146.0	144.8	149.6	152.8

p = preliminary.

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

[1982 = 100]

Index	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Finished goods</b>											
Total.....	131.8	130.7	133.0	138.0	140.7	138.9	143.3	148.5	155.7	160.4	166.6
Foods.....	134.5	134.3	135.1	137.2	141.3	140.1	145.9	152.7	155.7	156.7	166.9
Energy.....	83.4	75.1	78.8	94.1	96.8	88.8	102.0	113.0	132.6	145.9	156.4
Other.....	142.4	143.7	146.1	148.0	150.0	150.2	150.5	152.7	156.4	158.7	161.7
<b>Intermediate materials, supplies, and components</b>											
Total.....	125.6	123.0	123.2	129.2	129.7	127.8	133.7	142.6	154.0	164.0	170.6
Foods.....	123.2	123.2	120.8	119.2	124.3	123.2	134.4	145.0	146.0	146.2	161.5
Energy.....	89.0	80.8	84.3	101.7	104.1	95.9	111.9	123.2	149.2	162.8	174.6
Other.....	134.2	133.5	133.1	136.6	136.4	135.8	138.5	146.5	154.6	163.8	168.4
<b>Crude materials for further processing</b>											
Total.....	111.1	96.8	98.2	120.6	121.0	108.1	135.3	159.0	182.2	184.8	207.3
Foods.....	112.2	103.9	98.7	100.2	106.1	99.5	113.5	127.0	122.7	119.3	146.7
Energy.....	87.3	68.6	78.5	122.1	122.3	102.0	147.2	174.6	234.0	226.9	233.0
Other.....	103.5	84.5	91.1	118.0	101.5	101.0	116.9	149.2	176.7	210.0	238.8

**44. U.S. export price indexes by end-use category**

[2000 = 100]

Category	2007						2008						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>ALL COMMODITIES.....</b>	116.1	116.3	116.7	117.6	118.7	119.3	120.7	121.8	123.8	124.4	124.8	126.1	127.9
Foods, feeds, and beverages.....	149.2	151.4	157.8	164.1	165.9	171.1	180.5	188.7	196.9	192.8	193.3	198.2	211.7
Agricultural foods, feeds, and beverages.....	151.5	153.7	160.8	167.6	169.8	175.2	185.0	193.8	202.6	198.2	198.8	204.2	219.2
Nonagricultural (fish, beverages) food products.....	130.2	132.2	133.0	134.2	133.1	136.1	142.0	144.7	148.3	146.4	145.2	145.8	146.5
Industrial supplies and materials.....	148.6	148.8	148.8	150.5	153.9	154.1	157.1	159.1	165.5	167.9	169.6	173.3	177.8
Agricultural industrial supplies and materials.....	138.6	137.4	140.0	142.7	144.9	144.7	146.0	150.6	159.3	157.9	156.9	158.0	162.7
Fuels and lubricants.....	202.9	197.4	200.9	204.8	224.7	222.8	232.1	225.6	249.5	259.3	275.8	297.6	312.2
Nonagricultural supplies and materials, excluding fuel and building materials.....	144.6	145.7	145.0	146.5	147.9	148.5	150.9	154.1	158.2	160.1	160.1	161.6	165.1
Selected building materials.....	114.1	114.0	114.4	114.2	113.8	113.7	113.3	113.8	114.2	114.1	113.9	113.7	113.9
Capital goods.....	99.7	99.8	99.9	100.1	100.3	100.6	100.9	101.3	101.2	101.5	101.6	101.9	101.7
Electric and electrical generating equipment.....	106.6	106.7	106.7	107.1	107.2	107.5	107.7	108.3	108.6	108.7	108.6	108.6	108.6
Nonelectrical machinery.....	93.1	93.1	93.1	93.2	93.4	93.6	93.7	93.9	93.7	93.9	93.8	94.1	93.9
Automotive vehicles, parts, and engines.....	106.2	106.2	106.3	106.5	106.5	106.7	106.9	107.0	107.1	107.5	107.5	107.5	107.6
Consumer goods, excluding automotive.....	106.1	106.3	106.2	106.4	106.8	107.3	107.3	107.4	108.0	108.1	108.1	108.2	108.6
Nondurables, manufactured.....	107.0	107.2	107.0	107.4	108.0	108.2	108.1	108.2	109.3	109.8	110.0	110.1	110.0
Durables, manufactured.....	104.0	104.2	104.2	104.2	104.4	105.2	105.2	105.5	105.4	105.1	105.1	105.2	106.2
Agricultural commodities.....	149.0	150.5	156.8	162.8	165.0	169.3	177.5	185.6	194.3	190.5	190.8	195.4	208.4
Nonagricultural commodities.....	113.7	113.8	113.8	114.4	115.4	115.7	116.6	117.3	118.8	119.6	120.1	121.2	122.2

#### 45. U.S. import price indexes by end-use category

[2000 = 100]

Category	2007						2008						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>ALL COMMODITIES</b> .....	121.5	121.1	121.8	123.6	127.5	127.3	129.2	129.5	133.5	137.3	141.2	145.3	147.8
Foods, feeds, and beverages.....	129.4	130.1	131.8	133.2	133.4	134.4	138.1	137.8	141.8	143.7	145.0	147.5	149.7
Agricultural foods, feeds, and beverages.....	141.4	142.1	144.4	146.5	147.1	148.3	153.1	152.6	157.3	159.8	162.3	165.0	167.5
Nonagricultural (fish, beverages) food products.....	102.7	103.2	103.5	103.2	102.5	103.0	104.3	104.4	106.8	107.2	105.8	107.9	109.2
Industrial supplies and materials.....	190.9	188.5	190.7	197.2	212.8	211.3	218.2	219.0	234.5	248.7	264.7	282.2	291.5
Fuels and lubricants.....	249.8	244.0	250.0	262.4	294.8	290.3	301.9	300.0	329.0	354.6	387.6	421.5	438.5
Petroleum and petroleum products.....	260.3	256.4	264.4	277.7	312.2	306.7	319.6	315.6	347.5	375.8	411.8	448.4	466.4
Paper and paper base stocks.....	110.3	110.7	111.2	112.2	108.0	109.2	112.5	113.4	114.1	116.2	117.1	117.9	120.0
Materials associated with nondurable supplies and materials.....	126.6	127.3	128.2	131.4	133.7	135.3	143.6	146.6	147.8	148.7	149.6	152.6	156.3
Selected building materials.....	116.9	116.5	116.9	115.7	115.6	116.0	115.9	113.8	114.1	114.3	116.2	119.2	121.8
Unfinished metals associated with durable goods...	215.1	215.3	209.1	211.0	214.8	217.2	215.3	224.5	241.5	259.2	263.7	275.0	277.8
Nonmetals associated with durable goods.....	102.1	102.2	102.5	103.0	103.3	103.8	105.4	105.9	105.2	106.2	107.5	107.9	111.7
Capital goods.....	91.6	91.8	91.9	92.0	92.1	92.2	91.9	92.0	92.2	93.0	93.3	93.2	93.5
Electric and electrical generating equipment.....	105.8	106.4	106.5	106.8	107.5	107.9	107.7	108.7	109.3	111.5	111.7	112.0	113.0
Nonelectrical machinery.....	87.4	87.6	87.7	87.7	87.7	87.7	87.4	87.4	87.5	88.0	88.4	88.2	88.4
Automotive vehicles, parts, and engines.....	104.8	105.0	105.2	105.6	106.2	106.8	107.1	107.2	107.4	107.8	107.8	107.9	108.0
Consumer goods, excluding automotive.....	101.7	102.0	102.1	102.2	102.4	102.6	103.1	103.5	104.0	104.6	104.8	104.9	105.2
Nondurables, manufactured.....	104.8	104.9	105.0	105.1	105.3	105.5	106.5	106.8	107.5	107.9	108.0	108.0	108.3
Durables, manufactured.....	98.3	98.8	98.8	99.0	99.2	99.3	99.6	100.0	100.4	101.1	101.3	101.6	101.8
Nonmanufactured consumer goods.....	103.1	103.4	103.4	103.3	103.3	103.8	104.0	104.1	104.3	105.6	105.8	106.6	106.9

#### 46. U.S. international price indexes for selected categories of services

[2000 = 100, unless indicated otherwise]

Category	2006			2007				2008	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June
Import air freight.....	135.2	133.1	131.2	130.7	132.3	134.2	141.8	144.4	155.4
Export air freight.....	115.9	117.9	116.7	117.0	117.0	119.8	127.1	132.0	142.2
Import air passenger fares (Dec. 2006 = 100).....	136.7	130.9	125.4	122.9	144.6	140.2	135.3	131.3	171.6
Export air passenger fares (Dec. 2006 = 100).....	139.3	142.4	137.3	140.2	147.3	154.6	155.7	156.4	169.0

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

[1992 = 100]

Item	2005			2006				2007				2008	
	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
<b>Business</b>													
Output per hour of all persons.....	134.2	135.6	135.2	136.1	136.6	135.9	135.9	135.9	137.6	139.7	139.7	140.5	141.3
Compensation per hour.....	161.6	164.1	165.8	168.0	168.1	168.9	172.6	174.7	175.5	177.1	179.0	181.2	182.9
Real compensation per hour.....	119.5	119.6	119.6	120.6	119.6	119.1	122.1	122.4	121.7	121.9	121.7	121.9	121.6
Unit labor costs.....	120.4	121.1	122.6	123.5	123.1	124.3	127.0	128.5	127.5	126.8	128.1	128.9	129.4
Unit nonlabor payments.....	129.5	131.6	132.4	133.4	136.2	136.2	133.4	134.3	137.4	139.7	139.2	139.5	139.2
Implicit price deflator.....	123.8	125.0	126.3	127.2	128.0	128.8	129.4	130.7	131.2	131.6	132.2	132.9	133.1
<b>Nonfarm business</b>													
Output per hour of all persons.....	133.4	134.6	134.2	135.1	135.7	134.9	135.0	135.0	136.4	138.3	138.6	139.5	140.3
Compensation per hour.....	160.8	163.2	164.7	166.8	167.1	167.9	171.7	173.7	174.1	175.5	177.8	180.1	181.7
Real compensation per hour.....	118.9	118.9	118.8	119.7	118.9	118.3	121.4	121.8	120.7	120.9	121.0	121.2	120.8
Unit labor costs.....	120.5	121.2	122.7	123.5	123.1	124.4	127.1	128.7	127.7	126.9	128.3	129.1	129.5
Unit nonlabor payments.....	130.8	133.2	134.2	135.5	138.6	138.3	134.9	135.2	138.2	140.3	139.8	140.3	140.0
Implicit price deflator.....	124.3	125.6	126.9	127.9	128.8	129.5	130.0	131.1	131.5	131.8	132.5	133.2	133.4
<b>Nonfinancial corporations</b>													
Output per hour of all employees.....	143.7	142.8	144.8	146.3	146.0	147.0	146.0	146.2	147.4	148.1	148.8	149.2	–
Compensation per hour.....	158.6	160.8	161.2	164.5	164.5	165.1	167.8	170.3	171.3	172.5	175.0	177.1	–
Real compensation per hour.....	117.3	117.2	116.3	118.1	117.0	116.3	118.7	119.4	118.7	118.7	119.0	119.2	–
Total unit costs.....	110.6	113.5	111.8	112.5	113.1	112.8	115.3	116.7	116.5	116.8	117.9	118.7	–
Unit labor costs.....	110.4	112.6	111.4	112.4	112.6	112.3	114.9	116.5	116.2	116.5	117.6	118.7	–
Unit nonlabor costs.....	111.4	115.7	113.1	112.9	114.4	114.2	116.2	117.2	117.4	117.8	118.9	118.7	–
Unit profits.....	166.8	152.2	177.4	182.5	183.1	193.0	173.9	171.8	172.5	166.8	155.9	149.8	–
Unit nonlabor payments.....	126.2	125.5	130.3	131.5	132.8	135.3	131.6	131.8	132.2	130.9	128.8	127.0	–
Implicit price deflator.....	115.7	116.9	117.7	118.8	119.4	120.0	120.5	121.6	121.5	121.3	121.3	121.5	–
<b>Manufacturing</b>													
Output per hour of all persons.....	172.0	172.9	172.8	172.6	172.7	174.5	175.4	177.0	178.7	180.6	182.5	184.0	183.3
Compensation per hour.....	164.2	166.5	165.3	170.9	169.5	170.3	174.6	176.9	176.4	176.4	179.7	182.4	184.5
Real compensation per hour.....	121.4	121.3	119.2	122.7	120.7	120.0	123.5	124.0	122.3	121.4	122.2	122.8	122.7
Unit labor costs.....	95.5	96.3	95.6	99.0	98.2	97.6	99.5	100.0	98.7	97.6	98.5	99.1	100.6

NOTE: Dash indicates data not available.

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

[2000 = 100, unless otherwise indicated]

Item	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Private business</b>													
Productivity:													
Output per hour of all persons.....	87.4	90.0	91.7	94.3	97.2	100.0	102.8	107.1	111.2	114.5	116.8	118.0	120.2
Output per unit of capital services.....	104.6	104.7	104.9	103.5	102.3	100.0	96.0	94.8	95.6	97.5	98.6	99.1	98.1
Multifactor productivity.....	93.7	95.3	96.2	97.5	98.7	100.0	100.1	101.8	104.4	107.0	108.8	109.4	110.1
Output.....	79.2	82.8	87.2	91.5	96.2	100.0	100.5	102.0	105.2	109.7	113.8	117.4	120.1
Inputs:													
Labor input.....	88.8	90.7	94.2	96.4	99.0	100.0	98.6	97.2	97.0	98.4	100.2	102.8	103.8
Capital services.....	75.7	79.1	83.2	88.4	94.1	100.0	104.6	107.6	110.0	112.5	115.4	118.5	122.3
Combined units of labor and capital input.....	84.4	86.9	90.6	93.9	97.5	100.0	100.3	100.2	100.7	102.5	104.6	107.4	109.2
Capital per hour of all persons.....	83.6	85.9	87.4	91.1	95.0	100.0	107.0	112.9	116.3	117.4	118.4	119.1	122.3
<b>Private nonfarm business</b>													
Productivity:													
Output per hour of all persons.....	88.2	90.5	92.0	94.5	97.3	100.0	102.7	107.1	111.0	114.2	116.4	117.6	119.7
Output per unit of capital services.....	105.6	105.5	105.3	103.9	102.5	100.0	96.0	94.7	95.4	97.3	98.3	98.7	97.9
Multifactor productivity.....	94.5	95.9	96.5	97.8	98.8	100.0	100.1	101.8	104.3	106.8	108.6	109.0	109.7
Output.....	79.3	82.8	87.2	91.5	96.3	100.0	100.5	102.1	105.2	109.6	113.7	117.4	120.1
Inputs:													
Labor input.....	88.2	90.2	93.9	96.2	99.0	100.0	98.7	97.2	97.1	98.6	100.4	103.1	104.1
Capital services.....	75.0	78.5	82.7	88.1	93.9	100.0	104.7	107.8	110.3	112.7	115.6	118.9	122.8
Combined units of labor and capital input.....	83.9	86.4	90.3	93.6	97.4	100.0	100.5	100.2	100.8	102.6	104.7	107.6	109.4
Capital per hour of all persons.....	83.5	85.8	87.3	91.0	94.9	100.0	107.0	113.1	116.4	117.4	118.4	119.1	122.4
<b>Manufacturing [1996 = 100]</b>													
Productivity:													
Output per hour of all persons.....	79.8	82.7	87.3	92.0	96.1	100.0	101.6	108.6	115.3	117.9	123.5	125.0	—
Output per unit of capital services.....	98.7	98.0	100.6	100.7	100.4	100.0	93.5	92.3	93.2	95.4	98.9	100.2	—
Multifactor productivity.....	90.8	91.2	93.8	95.9	96.7	100.0	98.7	102.4	105.2	108.0	108.4	110.1	—
Output.....	80.3	83.1	89.2	93.8	97.4	100.0	94.9	94.3	95.2	96.9	100.4	102.3	—
Inputs:													
Hours of all persons.....	100.6	100.4	102.2	101.9	101.3	100.0	93.5	86.8	82.6	82.2	81.3	81.8	—
Capital services.....	81.4	84.8	88.7	93.2	97.0	100.0	101.5	102.1	102.1	101.6	101.5	102.0	—
Energy.....	113.7	110.4	108.2	105.4	105.5	100.0	90.6	89.3	84.4	84.0	91.6	86.6	—
Nonenergy materials.....	78.9	86.0	92.9	97.7	102.6	100.0	93.3	88.4	87.7	87.3	92.4	91.5	—
Purchased business services.....	88.8	88.5	92.1	95.0	100.0	100.0	100.7	98.2	99.1	97.0	104.5	106.6	—
Combined units of all factor inputs.....	88.5	91.1	95.1	97.8	100.7	100.0	96.2	92.1	90.5	89.7	92.7	92.9	—

NOTE: Dash indicates data not available.

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

[1992 = 100]

Item	1962	1972	1982	1992	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Business</b>													
Output per hour of all persons.....	52.9	71.2	80.1	100.0	112.8	116.1	119.1	123.9	128.7	132.4	135.0	136.4	139.0
Compensation per hour.....	15.1	26.7	63.6	100.0	125.8	134.7	140.3	145.3	151.2	156.9	163.2	169.6	178.3
Real compensation per hour.....	65.2	83.3	90.6	100.0	108.1	112.0	113.5	115.7	117.7	119.0	119.7	120.5	123.2
Unit labor costs.....	28.5	37.4	79.4	100.0	111.5	116.0	117.9	117.3	117.5	118.5	120.9	124.4	128.3
Unit nonlabor payments.....	26.1	35.7	70.1	100.0	109.4	107.2	110.0	114.2	118.3	124.7	130.8	134.6	135.4
Implicit price deflator.....	27.6	36.8	75.9	100.0	110.7	112.7	114.9	116.1	117.8	120.8	124.5	128.2	131.0
<b>Nonfarm business</b>													
Output per hour of all persons.....	55.9	73.1	80.8	100.0	112.5	115.7	118.6	123.5	128.0	131.6	134.1	135.4	137.9
Compensation per hour.....	15.6	26.9	63.9	100.0	125.2	134.2	139.5	144.6	150.4	155.9	162.1	168.5	177.1
Real compensation per hour.....	67.3	84.0	91.1	100.0	107.6	111.6	112.8	115.1	117.1	118.2	118.9	119.7	122.3
Unit labor costs.....	27.8	36.8	79.1	100.0	111.3	116.0	117.7	117.1	117.5	118.5	120.9	124.5	128.4
Unit nonlabor payments.....	25.8	34.9	69.3	100.0	110.9	108.7	111.6	116.0	119.6	125.5	132.4	136.4	136.2
Implicit price deflator.....	27.1	36.1	75.5	100.0	111.1	113.3	115.4	116.7	118.3	121.1	125.1	128.9	131.3
<b>Nonfinancial corporations</b>													
Output per hour of all employees.....	60.4	74.2	83.1	100.0	117.9	122.5	124.7	129.7	134.6	139.6	141.6	142.6	144.8
Compensation per hour.....	17.4	28.8	66.5	100.0	124.2	133.0	138.6	143.6	149.5	153.9	159.8	165.4	173.4
Real compensation per hour.....	75.1	90.0	94.7	100.0	106.7	110.6	112.1	114.3	116.4	116.7	117.2	117.5	119.8
Total unit costs.....	27.3	37.5	80.4	100.0	104.0	107.4	111.6	110.7	111.0	110.0	112.7	115.4	118.5
Unit labor costs.....	28.7	38.8	80.0	100.0	105.3	108.6	111.2	110.7	111.0	110.3	112.9	116.0	119.8
Unit nonlabor costs.....	23.4	33.9	81.3	100.0	100.4	104.2	112.6	110.8	111.1	109.3	112.2	113.8	114.9
Unit profits.....	54.5	54.1	75.2	100.0	129.1	108.7	82.2	98.0	109.9	144.8	154.4	162.9	153.5
Unit nonlabor payments.....	31.7	39.3	79.7	100.0	108.0	105.4	104.5	107.4	110.7	118.8	123.5	126.9	125.2
Implicit price deflator.....	29.7	39.0	79.9	100.0	106.2	107.5	108.9	109.6	110.9	113.1	116.4	119.7	121.6
<b>Manufacturing</b>													
Output per hour of all persons.....	—	—	—	100.0	133.7	139.1	141.2	151.0	160.4	163.9	171.9	173.8	179.7
Compensation per hour.....	—	—	—	100.0	123.5	134.7	137.8	147.8	158.2	161.5	168.3	173.0	182.6
Real compensation per hour.....	—	—	—	100.0	106.1	112.0	111.5	117.7	123.2	122.4	123.5	122.8	126.1
Unit labor costs.....	—	—	—	100.0	92.4	96.9	97.6	97.9	98.7	98.5	97.9	99.5	101.6
Unit nonlabor payments.....	—	—	—	100.0	102.9	103.5	102.0	100.3	102.9	110.2	121.1	126.2	—
Implicit price deflator.....	—	—	—	100.0	99.5	101.4	100.6	99.5	101.5	106.4	113.5	117.4	—

Dash indicates data not available.

## 50. Annual indexes of output per hour for selected NAICS industries

[1997=100]

NAICS	Industry	1987	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Mining</b>													
21	Mining.....	85.5	100.0	103.6	111.4	111.0	109.1	113.6	116.0	106.8	96.0	87.2	-
211	Oil and gas extraction.....	80.1	100.0	101.2	107.9	119.4	121.6	123.8	130.1	111.7	107.8	100.3	-
2111	Oil and gas extraction.....	80.1	100.0	101.2	107.9	119.4	121.6	123.8	130.1	111.7	107.8	100.3	-
212	Mining, except oil and gas.....	69.8	100.0	104.5	105.8	106.3	109.0	110.9	113.6	115.9	114.0	110.6	-
2121	Coal mining.....	58.5	100.0	106.5	110.3	115.8	114.6	112.4	113.2	112.8	107.6	100.0	-
2122	Metal ore mining.....	71.2	100.0	109.3	112.3	122.0	131.9	138.6	142.8	137.4	130.0	123.4	-
2123	Nonmetallic mineral mining and quarrying.....	88.5	100.0	101.3	101.2	96.2	99.3	103.6	108.1	114.2	118.2	118.7	-
<b>Utilities</b>													
2211	Power generation and supply.....	65.6	100.0	103.7	103.5	107.0	106.4	102.9	105.1	107.5	114.3	115.4	-
2212	Natural gas distribution.....	67.8	100.0	99.0	102.7	113.2	110.1	115.4	114.1	118.3	122.2	119.0	-
<b>Manufacturing</b>													
311	Food.....	94.1	100.0	103.9	105.9	107.1	109.5	113.8	116.8	117.3	123.3	121.1	-
3111	Animal food.....	83.6	100.0	109.0	110.9	109.7	131.4	142.7	165.8	149.5	165.5	150.4	-
3112	Grain and oilseed milling.....	81.1	100.0	107.5	116.1	113.1	119.5	122.4	123.9	130.3	133.0	130.7	-
3113	Sugar and confectionery products.....	87.6	100.0	103.5	106.5	109.9	108.6	108.0	112.5	118.2	130.7	129.2	-
3114	Fruit and vegetable preserving and specialty.....	92.4	100.0	107.1	109.5	111.8	121.4	126.9	123.0	126.2	132.0	126.9	-
3115	Dairy products.....	82.7	100.0	100.0	93.6	95.9	97.1	105.0	110.5	107.4	109.6	110.2	-
3116	Animal slaughtering and processing.....	97.4	100.0	100.0	101.2	102.6	103.7	107.3	106.6	108.0	117.4	116.9	-
3117	Seafood product preparation and packaging.....	123.1	100.0	120.2	131.6	140.5	153.0	169.8	173.2	162.2	186.1	203.8	-
3118	Bakeries and tortilla manufacturing.....	100.9	100.0	103.8	108.6	108.3	109.9	108.9	109.3	113.8	115.4	110.5	-
3119	Other food products.....	97.5	100.0	107.8	111.4	112.6	106.2	111.9	118.8	119.3	116.2	116.3	-
312	Beverages and tobacco products.....	78.1	100.0	97.6	87.3	88.3	89.5	82.6	90.9	94.7	100.5	94.0	-
3121	Beverages.....	77.1	100.0	99.0	90.7	90.8	92.7	99.4	108.3	114.1	120.3	112.0	-
3122	Tobacco and tobacco products.....	71.9	100.0	98.5	91.0	95.9	98.2	67.0	78.7	82.4	93.1	94.9	-
313	Textile mills.....	73.7	100.0	102.6	106.2	106.7	109.5	125.3	136.1	138.6	152.8	150.5	-
3131	Fiber, yarn, and thread mills.....	66.5	100.0	102.1	103.9	101.3	109.1	133.3	148.8	154.1	143.5	139.7	-
3132	Fabric mills.....	68.0	100.0	104.2	110.0	110.1	110.3	125.4	137.3	138.6	164.2	170.5	-
3133	Textile and fabric finishing mills.....	91.3	100.0	101.2	102.2	104.4	108.5	119.8	125.1	127.7	139.8	126.2	-
314	Textile product mills.....	93.0	100.0	98.7	102.5	107.1	104.5	107.3	112.7	123.4	128.0	121.1	-
3141	Textile furnishings mills.....	91.2	100.0	99.3	99.1	104.5	103.1	105.5	114.4	122.3	125.7	117.3	-
3149	Other textile product mills.....	92.2	100.0	96.7	107.6	108.9	103.1	105.1	104.2	120.4	128.9	126.1	-
315	Apparel.....	71.9	100.0	101.8	111.7	116.8	116.5	102.9	112.4	103.4	110.9	114.0	-
3151	Apparel knitting mills.....	76.2	100.0	96.1	101.4	108.9	105.6	112.0	105.6	96.6	120.0	123.7	-
3152	Cut and sew apparel.....	69.8	100.0	102.3	114.6	119.8	119.5	103.9	117.2	108.4	113.5	117.6	-
3159	Accessories and other apparel.....	97.8	100.0	109.0	99.3	98.3	105.2	76.1	78.7	70.8	74.0	67.3	-
316	Leather and allied products.....	71.6	100.0	106.6	112.7	120.3	122.4	97.7	99.8	109.5	123.6	132.5	-
3161	Leather and hide tanning and finishing.....	94.0	100.0	100.3	98.1	100.1	100.3	81.2	82.2	93.5	118.7	118.1	-
3162	Footwear.....	76.7	100.0	102.1	117.3	122.3	130.7	102.7	104.8	100.7	105.6	115.4	-
3169	Other leather products.....	92.3	100.0	113.3	110.4	122.8	117.6	96.2	100.3	127.7	149.7	174.6	-
321	Wood products.....	95.0	100.0	101.2	102.9	102.7	106.1	113.6	114.7	115.6	123.1	124.9	-
3211	Sawmills and wood preservation.....	77.6	100.0	100.3	104.7	105.4	108.8	114.4	121.3	118.2	127.3	129.7	-
3212	Plywood and engineered wood products.....	99.7	100.0	105.1	98.7	98.8	105.2	110.3	107.0	102.9	110.2	117.4	-
3219	Other wood products.....	103.0	100.0	101.0	104.5	103.0	104.7	113.9	113.9	119.6	126.3	125.3	-
322	Paper and paper products.....	85.8	100.0	102.3	104.1	106.3	106.8	114.2	118.9	123.4	124.5	127.3	-
3221	Pulp, paper, and paperboard mills.....	81.7	100.0	102.5	111.1	116.3	119.9	133.1	141.4	148.0	147.7	151.1	-
3222	Converted paper products.....	89.0	100.0	102.5	100.1	101.1	100.5	105.6	109.6	112.9	114.8	116.6	-
323	Printing and related support activities.....	97.6	100.0	100.6	102.8	104.6	105.3	110.2	111.1	114.5	119.5	121.1	-
3231	Printing and related support activities.....	97.6	100.0	100.6	102.8	104.6	105.3	110.2	111.1	114.5	119.5	121.1	-
324	Petroleum and coal products.....	71.1	100.0	102.2	107.1	113.5	112.1	118.0	119.2	123.4	123.8	122.8	-
3241	Petroleum and coal products.....	71.1	100.0	102.2	107.1	113.5	112.1	118.0	119.2	123.4	123.8	122.8	-
325	Chemicals.....	85.9	100.0	99.9	103.5	106.6	105.3	114.2	118.4	125.8	134.1	137.5	-
3251	Basic chemicals.....	94.6	100.0	102.8	115.7	117.5	108.8	123.8	136.0	154.4	165.2	169.3	-
3252	Resin, rubber, and artificial fibers.....	77.4	100.0	106.0	109.8	109.8	106.2	123.1	122.2	121.9	130.5	134.9	-
3253	Agricultural chemicals.....	80.4	100.0	98.8	87.4	92.1	90.0	99.2	108.4	117.4	132.5	130.7	-
3254	Pharmaceuticals and medicines.....	87.3	100.0	93.8	95.7	95.6	99.5	97.4	101.5	104.1	110.0	115.0	-
3255	Paints, coatings, and adhesives.....	89.4	100.0	100.1	100.3	100.8	105.6	108.9	115.2	119.1	120.8	115.4	-
3256	Soap, cleaning compounds, and toiletries.....	84.4	100.0	98.0	93.0	102.8	106.0	124.1	118.2	135.3	153.1	162.9	-
3259	Other chemical products and preparations.....	75.4	100.0	99.2	109.3	119.7	110.4	120.8	123.0	121.3	123.5	118.1	-
326	Plastics and rubber products.....	80.9	100.0	103.2	107.9	110.2	112.3	120.8	126.0	128.7	132.6	132.8	-
3261	Plastics products.....	83.1	100.0	104.2	109.9	112.3	114.6	123.8	129.5	131.9	135.6	133.8	-
3262	Rubber products.....	75.5	100.0	99.4	100.2	101.7	102.3	107.1	111.0	114.4	118.7	124.9	-
327	Nonmetallic mineral products.....	87.6	100.0	103.7	104.3	102.5	100.0	104.6	111.2	108.7	115.3	114.6	-
3271	Clay products and refractories.....	86.9	100.0	101.2	102.7	102.9	98.4	99.7	103.5	109.2	114.1	111.9	-
3272	Glass and glass products.....	82.4	100.0	101.3	106.7	108.1	102.9	107.5	115.3	113.8	123.6	132.9	-
3273	Cement and concrete products.....	93.6	100.0	105.1	105.9	101.6	98.0	102.4	108.3	102.8	106.5	103.1	-

## 50. Continued - Annual indexes of output per hour for selected NAICS industries

[1997=100]

NAICS	Industry	1987	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
3274	Lime and gypsum products.....	88.2	100.0	114.9	104.4	98.5	101.8	99.0	107.1	104.7	119.3	116.5	-
3279	Other nonmetallic mineral products.....	83.0	100.0	99.0	95.6	96.6	98.6	106.9	113.6	110.6	118.9	116.3	-
331	Primary metals.....	81.0	100.0	102.0	102.8	101.3	101.0	115.2	118.2	132.0	135.5	134.3	-
3311	Iron and steel mills and ferroalloy production.....	64.8	100.0	101.3	104.8	106.0	104.4	125.1	130.4	164.9	163.1	163.5	-
3312	Steel products from purchased steel.....	79.7	100.0	100.6	93.8	96.4	97.9	96.8	93.9	88.6	90.8	86.1	-
3313	Alumina and aluminum production.....	90.5	100.0	101.5	103.5	96.6	96.2	124.5	126.8	137.3	154.4	151.7	-
3314	Other nonferrous metal production.....	96.8	100.0	111.3	108.4	102.3	99.5	107.6	120.6	123.1	122.3	115.7	-
3315	Foundries.....	81.4	100.0	101.2	104.5	103.6	107.4	116.7	116.3	123.9	128.6	131.8	-
332	Fabricated metal products.....	87.3	100.0	101.3	103.0	104.8	104.8	110.9	114.4	113.4	116.9	119.7	-
3321	Forging and stamping.....	85.4	100.0	103.5	110.9	121.1	120.7	125.0	133.1	142.0	147.6	152.7	-
3322	Cutlery and handtools.....	86.3	100.0	99.9	108.0	105.9	110.3	113.4	113.2	107.6	114.1	116.6	-
3323	Architectural and structural metals.....	88.7	100.0	100.9	102.0	100.6	101.6	106.0	108.8	105.4	109.2	113.5	-
3324	Boilers, tanks, and shipping containers.....	86.0	100.0	100.0	96.5	94.2	94.4	98.9	101.6	93.6	95.7	96.6	-
3325	Hardware.....	88.7	100.0	100.5	105.2	114.3	113.5	115.5	125.4	126.0	131.8	131.1	-
3326	Spring and wire products.....	82.2	100.0	110.6	111.4	112.6	111.9	125.7	135.3	133.8	143.2	140.6	-
3327	Machine shops and threaded products.....	76.9	100.0	99.6	104.2	108.2	108.8	114.8	115.7	114.6	116.3	117.1	-
3328	Coating, engraving, and heat treating metals.....	75.5	100.0	100.9	101.0	105.5	107.3	116.1	118.3	125.3	136.5	135.5	-
3329	Other fabricated metal products.....	91.0	100.0	101.9	99.6	99.9	96.7	106.5	111.6	111.2	112.5	117.7	-
333	Machinery.....	82.3	100.0	102.9	104.7	111.5	109.0	116.6	125.2	127.0	134.1	137.4	-
3331	Agriculture, construction, and mining machinery.....	74.6	100.0	103.3	94.3	100.3	100.3	103.7	116.1	125.4	129.4	129.1	-
3332	Industrial machinery.....	75.1	100.0	95.1	105.8	130.0	105.8	117.6	117.0	126.5	122.4	135.3	-
3333	Commercial and service industry machinery.....	87.0	100.0	106.3	110.0	101.3	94.5	97.8	104.7	106.5	115.1	122.3	-
3334	HVAC and commercial refrigeration equipment.....	84.0	100.0	106.2	110.2	107.9	110.8	118.6	130.0	132.8	137.1	133.4	-
3335	Metalworking machinery.....	85.1	100.0	99.1	100.3	106.1	103.3	112.7	115.2	117.1	127.3	128.3	-
3336	Turbine and power transmission equipment.....	80.2	100.0	105.0	110.8	114.9	126.9	130.7	143.0	126.4	132.5	128.5	-
3339	Other general purpose machinery.....	83.5	100.0	103.7	106.0	113.7	110.5	117.9	128.1	127.1	138.4	143.8	-
334	Computer and electronic products.....	28.4	100.0	118.4	149.5	181.8	181.4	188.0	217.2	244.3	259.6	282.2	-
3341	Computer and peripheral equipment.....	11.0	100.0	140.4	195.9	235.0	252.2	297.4	373.4	415.1	543.3	715.7	-
3342	Communications equipment.....	39.8	100.0	107.1	135.4	164.1	152.9	128.2	143.1	148.4	143.7	178.2	-
3343	Audio and video equipment.....	61.7	100.0	105.4	119.6	126.3	128.4	150.1	171.0	239.3	230.2	240.7	-
3344	Semiconductors and electronic components.....	17.0	100.0	125.8	173.9	232.2	230.0	263.1	321.6	360.0	381.6	380.4	-
3345	Electronic instruments.....	70.2	100.0	102.3	106.7	116.7	119.3	118.1	125.3	145.4	146.6	150.6	-
3346	Magnetic media manufacturing and reproduction.....	85.7	100.0	106.4	108.9	105.8	99.8	110.4	126.1	142.6	142.1	137.7	-
335	Electrical equipment and appliances.....	75.5	100.0	103.9	106.6	111.5	111.4	113.4	117.2	123.3	130.0	129.4	-
3351	Electric lighting equipment.....	91.1	100.0	104.4	102.8	102.0	106.7	112.4	111.4	122.7	130.3	136.7	-
3352	Household appliances.....	73.3	100.0	105.2	104.0	117.2	124.6	132.3	146.7	159.6	164.5	173.2	-
3353	Electrical equipment.....	68.7	100.0	100.2	98.7	99.4	101.0	101.8	103.4	110.8	118.5	118.1	-
3359	Other electrical equipment and components.....	78.8	100.0	105.8	114.7	119.7	113.1	114.0	116.2	115.6	121.6	115.7	-
336	Transportation equipment.....	81.6	100.0	109.7	118.0	109.4	113.6	127.4	137.5	134.9	140.9	142.4	-
3361	Motor vehicles.....	75.4	100.0	113.4	122.6	109.7	110.0	126.0	140.7	142.1	148.4	163.8	-
3362	Motor vehicle bodies and trailers.....	85.0	100.0	102.9	103.1	98.8	88.7	105.4	109.8	110.7	114.2	110.9	-
3363	Motor vehicle parts.....	78.7	100.0	104.9	110.0	112.3	114.8	130.5	137.0	138.0	144.1	143.7	-
3364	Aerospace products and parts.....	87.2	100.0	119.1	120.8	103.4	115.7	118.6	119.0	113.2	125.0	117.9	-
3365	Railroad rolling stock.....	55.6	100.0	103.3	116.5	118.5	126.1	146.1	139.8	131.5	137.3	140.0	-
3366	Ship and boat building.....	95.5	100.0	99.3	112.0	122.0	121.5	131.0	133.9	138.7	131.7	127.3	-
3369	Other transportation equipment.....	73.8	100.0	111.5	113.8	132.4	140.2	150.9	163.0	168.3	184.1	197.8	-
337	Furniture and related products.....	84.8	100.0	102.0	101.6	101.4	103.4	112.6	117.0	118.4	125.0	127.8	-
3371	Household and institutional furniture.....	85.2	100.0	102.2	103.1	101.9	105.5	111.8	114.7	113.6	120.8	124.0	-
3372	Office furniture and fixtures.....	85.8	100.0	100.0	98.2	100.2	98.0	115.9	125.2	130.7	134.9	134.4	-
3379	Other furniture related products.....	86.3	100.0	106.9	102.0	99.5	105.0	110.2	110.0	121.3	128.3	130.8	-
339	Miscellaneous manufacturing.....	81.1	100.0	105.2	107.8	114.7	116.6	124.2	132.7	134.9	144.6	149.8	-
3391	Medical equipment and supplies.....	76.3	100.0	109.0	111.1	115.5	120.7	129.1	138.9	139.5	148.5	152.8	-
3399	Other miscellaneous manufacturing.....	85.4	100.0	102.1	105.0	113.6	111.8	118.0	124.7	128.6	137.8	143.2	-
	<b>Wholesale trade</b>												
42	Wholesale trade.....	73.2	100.0	103.4	111.2	116.5	117.7	123.3	127.5	134.8	135.8	138.6	141.5
423	Durable goods.....	62.3	100.0	107.1	119.2	125.0	128.9	140.2	146.6	161.5	167.4	174.5	178.4
4231	Motor vehicles and parts.....	74.5	100.0	106.4	120.4	116.7	120.0	133.4	137.6	143.5	146.5	162.7	161.8
4232	Furniture and furnishings.....	80.5	100.0	99.9	102.3	112.5	110.7	116.0	123.9	130.0	127.1	130.6	131.1
4233	Lumber and construction supplies.....	109.1	100.0	105.4	109.3	107.7	116.6	123.9	133.0	139.4	140.2	135.4	124.5
4234	Commercial equipment.....	28.0	100.0	125.5	162.0	181.9	217.9	264.9	299.1	352.8	402.0	447.3	508.5
4235	Metals and minerals.....	101.7	100.0	100.9	94.0	93.9	94.4	96.3	97.5	106.3	104.2	99.9	94.4
4236	Electric goods.....	42.8	100.0	105.9	127.5	152.8	147.6	159.5	165.7	194.1	204.6	222.1	235.1
4237	Hardware and plumbing.....	82.2	100.0	101.8	104.4	103.7	100.5	102.6	103.9	107.3	104.5	105.6	105.8
4238	Machinery and supplies.....	74.1	100.0	104.3	102.9	105.5	102.9	100.3	103.4	112.4	117.6	121.2	121.5
4239	Miscellaneous durable goods.....	89.8	100.0	100.8	113.7	114.7	116.8	124.6	119.6	135.0	135.5	122.3	118.4
424	Nondurable goods.....	91.0	100.0	99.1	100.8	105.1	105.1	105.8	110.5	113.6	114.3	113.1	115.0

**50. Continued - Annual indexes of output per hour for selected NAICS industries**

[1997=100]

NAICS	Industry	1987	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
4241	Paper and paper products.....	85.6	100.0	98.4	100.1	100.9	104.6	116.6	119.7	130.9	141.7	136.9	146.5
4242	Druggists' goods.....	70.7	100.0	94.2	93.1	85.9	84.9	89.8	100.2	105.8	112.1	109.7	104.3
4243	Apparel and piece goods.....	86.3	100.0	103.6	105.1	108.8	115.2	122.8	125.9	131.0	140.8	146.6	148.3
4244	Grocery and related products.....	87.9	100.0	101.1	101.0	102.4	101.9	98.6	104.9	104.1	103.4	103.8	109.7
4245	Farm product raw materials.....	81.6	100.0	94.3	101.6	105.1	102.1	98.1	98.2	109.3	111.0	117.9	125.1
4246	Chemicals.....	90.4	100.0	97.1	93.3	87.9	85.3	89.1	92.2	91.2	87.4	85.1	86.4
4247	Petroleum.....	84.4	100.0	88.5	102.9	138.1	140.6	153.6	151.1	163.2	153.3	149.4	149.1
4248	Alcoholic beverages.....	99.3	100.0	106.5	105.6	108.4	106.4	106.8	107.9	103.1	104.0	107.4	108.5
4249	Miscellaneous nondurable goods.....	111.2	100.0	105.4	106.8	115.0	111.9	106.1	109.8	120.7	124.1	121.9	117.1
425	Electronic markets and agents and brokers.....	64.3	100.0	102.4	112.3	120.1	110.7	109.8	104.5	101.6	91.5	95.0	98.3
4251	Electronic markets and agents and brokers.....	64.3	100.0	102.4	112.3	120.1	110.7	109.8	104.5	101.6	91.5	95.0	98.3
<b>Retail trade</b>													
44-45	Retail trade.....	79.2	100.0	105.7	112.7	116.1	120.1	125.6	131.6	137.9	141.3	147.3	152.7
441	Motor vehicle and parts dealers.....	78.4	100.0	106.4	115.1	114.3	116.0	119.9	124.3	127.3	126.7	129.3	132.2
4411	Automobile dealers.....	79.2	100.0	106.5	116.3	113.7	115.5	117.2	119.5	124.7	123.5	125.8	129.8
4412	Other motor vehicle dealers.....	74.1	100.0	109.6	114.8	115.3	124.6	133.6	133.8	143.3	134.6	142.6	146.9
4413	Auto parts, accessories, and tire stores.....	71.8	100.0	105.1	107.6	108.4	101.3	107.7	115.1	110.1	115.5	115.9	112.0
442	Furniture and home furnishings stores.....	75.1	100.0	104.1	110.8	115.9	122.4	129.3	134.6	146.7	150.5	158.2	168.7
4421	Furniture stores.....	77.3	100.0	104.3	107.5	112.0	119.7	125.2	128.8	139.2	142.3	151.1	156.6
4422	Home furnishings stores.....	71.3	100.0	104.1	115.2	121.0	126.1	134.9	142.6	156.8	161.4	168.3	184.6
443	Electronics and appliance stores.....	38.0	100.0	122.6	150.6	173.7	196.7	233.5	292.7	334.1	367.5	412.0	471.1
4431	Electronics and appliance stores.....	38.0	100.0	122.6	150.6	173.7	196.7	233.5	292.7	334.1	367.5	412.0	471.1
444	Building material and garden supply stores.....	75.8	100.0	107.4	113.8	113.3	116.8	120.8	127.1	134.6	134.8	137.9	142.2
4441	Building material and supplies dealers.....	77.6	100.0	108.3	115.3	115.1	116.7	121.3	127.4	134.0	134.9	138.0	140.0
4442	Lawn and garden equipment and supplies stores.....	66.9	100.0	102.4	105.5	103.1	118.4	118.3	125.7	140.1	134.7	138.3	162.1
445	Food and beverage stores.....	110.8	100.0	99.9	101.9	101.0	103.8	104.7	107.2	112.9	117.9	120.6	123.8
4451	Grocery stores.....	111.1	100.0	99.6	102.5	101.1	103.3	104.8	106.7	112.2	116.8	118.2	120.6
4452	Specialty food stores.....	138.5	100.0	100.5	96.4	98.5	108.2	105.3	112.2	120.3	125.3	139.4	145.4
4453	Beer, wine, and liquor stores.....	93.6	100.0	104.6	99.1	105.7	107.1	110.1	117.0	127.8	139.8	146.1	156.8
446	Health and personal care stores.....	84.0	100.0	104.0	107.1	112.2	116.2	122.9	129.5	134.3	133.4	139.3	139.0
4461	Health and personal care stores.....	84.0	100.0	104.0	107.1	112.2	116.2	122.9	129.5	134.3	133.4	139.3	139.0
447	Gasoline stations.....	83.9	100.0	106.7	110.7	107.7	112.9	125.1	119.9	122.2	124.7	124.9	129.3
4471	Gasoline stations.....	83.9	100.0	106.7	110.7	107.7	112.9	125.1	119.9	122.2	124.7	124.9	129.3
448	Clothing and clothing accessories stores.....	66.3	100.0	106.3	114.0	123.5	126.4	131.3	138.9	139.1	147.6	162.4	176.6
4481	Clothing stores.....	67.1	100.0	108.7	114.2	125.0	130.3	136.0	141.8	140.9	153.0	169.4	186.9
4482	Shoe stores.....	65.3	100.0	94.2	104.9	110.0	111.5	125.2	132.5	124.8	132.0	145.1	141.6
4483	Jewelry, luggage, and leather goods stores.....	64.5	100.0	108.7	122.5	130.5	123.9	118.7	132.9	144.3	138.9	148.3	162.9
451	Sporting goods, hobby, book, and music stores.....	74.9	100.0	107.9	114.0	121.1	127.1	127.6	131.5	151.1	163.5	170.5	167.8
4511	Sporting goods and musical instrument stores.....	73.2	100.0	111.5	119.8	129.4	134.5	136.0	141.1	166.0	179.3	191.4	189.2
4512	Book, periodical, and music stores.....	78.9	100.0	101.0	103.2	105.8	113.0	111.6	113.7	123.6	134.3	132.4	128.3
452	General merchandise stores.....	73.5	100.0	105.3	113.4	120.2	124.8	129.1	136.9	140.7	145.0	149.8	152.5
4521	Department stores.....	87.2	100.0	100.4	104.5	106.2	103.8	102.0	106.8	109.0	110.0	112.7	107.0
4529	Other general merchandise stores.....	54.8	100.0	114.7	131.0	147.3	164.7	179.3	188.8	192.9	199.8	204.8	219.3
453	Miscellaneous store retailers.....	65.1	100.0	108.9	111.3	114.1	112.6	119.1	126.1	130.8	139.2	155.0	160.8
4531	Florists.....	77.6	100.0	102.3	116.2	115.2	102.7	113.8	108.9	103.4	123.7	145.1	132.9
4532	Office supplies, stationery and gift stores.....	61.4	100.0	111.5	119.2	127.3	132.3	141.5	153.9	172.8	182.4	204.8	224.5
4533	Used merchandise stores.....	64.5	100.0	119.1	113.4	116.5	121.9	142.0	149.7	152.6	156.6	167.6	182.0
4539	Other miscellaneous store retailers.....	68.3	100.0	105.3	103.0	104.4	96.9	94.4	99.9	96.9	101.6	114.0	115.4
454	Nonstore retailers.....	50.7	100.0	114.3	128.9	152.2	163.6	182.1	195.5	215.5	220.6	261.9	290.8
4541	Electronic shopping and mail-order houses.....	39.4	100.0	120.2	142.6	160.2	179.6	212.7	243.6	273.0	290.1	355.9	397.2
4542	Vending machine operators.....	95.5	100.0	106.3	105.4	111.1	95.7	91.3	102.3	110.5	114.4	125.7	132.4
4543	Direct selling establishments.....	70.8	100.0	101.9	104.3	122.5	127.9	135.1	127.0	130.3	119.6	127.5	138.4
<b>Transportation and warehousing</b>													
481	Air transportation.....	81.1	100.0	97.6	98.2	98.1	91.9	102.1	112.8	126.9	135.5	142.5	-
482111	Line-haul railroads.....	58.9	100.0	102.1	105.5	114.3	121.9	131.9	142.0	146.4	138.4	142.8	-
48412	General freight trucking, long-distance.....	85.7	100.0	99.4	99.1	101.9	103.2	107.0	110.7	110.7	113.2	112.3	-
48421	Used household and office goods moving.....	106.7	100.0	91.0	96.1	94.8	84.0	81.6	86.2	88.6	88.3	87.0	-
491	U.S. Postal service.....	90.9	100.0	101.6	102.8	105.5	106.3	106.4	107.8	110.0	111.2	111.3	-
4911	U.S. Postal service.....	90.9	100.0	101.6	102.8	105.5	106.3	106.4	107.8	110.0	111.2	111.3	-
492	Couriers and messengers.....	148.3	100.0	112.6	117.6	122.0	123.4	131.1	134.0	126.8	125.1	128.6	-
493	Warehousing and storage.....	-	100.0	106.4	107.7	109.3	115.3	122.1	124.8	122.5	124.9	122.3	-
4931	Warehousing and storage.....	-	100.0	106.4	107.7	109.3	115.3	122.1	124.8	122.5	124.9	122.3	-
49311	General warehousing and storage.....	-	100.0	112.1	112.9	115.8	126.3	136.1	138.9	131.0	132.2	127.9	-
49312	Refrigerated warehousing and storage.....	-	100.0	97.9	103.4	95.4	85.4	87.2	92.3	99.3	97.5	88.5	-
<b>Information</b>													
511	Publishing industries, except internet.....	64.1	100.0	116.1	116.3	117.1	116.6	117.2	126.4	130.7	136.5	142.7	-

## 50. Continued - Annual indexes of output per hour for selected NAICS industries

[1997=100]

NAICS	Industry	1987	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
5111	Newspaper, book, and directory publishers.....	105.0	100.0	103.9	104.1	107.7	105.8	104.7	109.5	106.6	107.6	110.8	-
5112	Software publishers.....	10.2	100.0	134.8	129.2	119.2	117.4	122.1	138.1	160.6	173.7	177.0	-
51213	Motion picture and video exhibition.....	90.7	100.0	99.8	101.8	106.5	101.6	99.8	100.4	103.6	102.4	105.7	-
515	Broadcasting, except internet.....	99.5	100.0	100.8	102.9	103.6	99.2	104.0	107.9	112.5	117.7	125.5	-
5151	Radio and television broadcasting.....	98.1	100.0	91.5	92.6	92.1	89.6	95.1	94.6	96.6	100.9	109.5	-
5152	Cable and other subscription programming.....	105.6	100.0	136.2	139.1	141.2	128.1	129.8	146.0	158.7	164.6	169.9	-
5171	Wired telecommunications carriers.....	56.9	100.0	107.7	116.7	122.7	116.7	124.1	130.5	131.7	138.2	146.2	-
5172	Wireless telecommunications carriers.....	75.6	100.0	110.5	145.2	152.8	191.9	217.9	242.6	292.2	381.9	435.9	-
5175	Cable and other program distribution.....	105.2	100.0	97.1	95.8	91.6	87.7	95.0	101.3	113.8	110.6	110.6	-
	<b>Finance and insurance</b>												
52211	Commercial banking.....	72.8	100.0	97.0	99.8	102.7	99.6	102.1	103.6	108.4	108.5	114.2	-
	<b>Real estate and rental and leasing</b>												
532111	Passenger car rental.....	92.7	100.0	100.1	112.2	112.3	111.1	114.6	121.1	118.2	110.2	111.8	-
53212	Truck, trailer, and RV rental and leasing.....	60.3	100.0	115.4	120.9	121.7	113.5	114.0	115.8	136.6	145.1	162.2	-
53223	Video tape and disc rental.....	77.0	100.0	113.2	129.4	134.9	133.3	130.3	148.5	154.5	144.2	176.4	-
	<b>Professional and technical services</b>												
541213	Tax preparation services.....	82.9	100.0	107.6	105.8	100.9	94.4	111.4	110.0	99.9	103.6	99.7	-
54131	Architectural services.....	90.0	100.0	111.4	106.8	107.6	111.0	107.6	112.6	118.3	120.8	119.1	-
54133	Engineering services.....	90.2	100.0	98.2	98.0	102.0	100.1	100.5	100.5	107.8	115.4	116.2	-
54181	Advertising agencies.....	95.9	100.0	89.2	97.9	107.5	106.9	113.1	121.1	133.5	131.5	132.8	-
541921	Photography studios, portrait.....	98.1	100.0	124.8	109.8	108.9	102.2	97.6	104.1	93.0	93.5	95.3	-
	<b>Administrative and waste services</b>												
56131	Employment placement agencies.....	-	100.0	86.8	93.2	89.8	99.6	116.8	115.4	119.8	115.9	122.9	-
56151	Travel agencies.....	89.3	100.0	111.4	115.5	119.4	115.2	127.6	147.2	167.2	182.4	189.9	-
56172	Janitorial services.....	75.1	100.0	95.3	98.6	101.0	102.1	105.6	118.8	116.6	121.5	115.6	-
	<b>Health care and social assistance</b>												
6215	Medical and diagnostic laboratories.....	-	100.0	118.8	124.7	131.9	135.3	137.6	140.8	140.8	137.9	140.1	-
621511	Medical laboratories.....	-	100.0	117.2	121.4	127.4	127.7	123.1	128.6	130.7	126.0	128.2	-
621512	Diagnostic imaging centers.....	-	100.0	121.4	129.7	139.9	148.3	163.3	160.0	153.5	154.0	156.3	-
	<b>Arts, entertainment, and recreation</b>												
71311	Amusement and theme parks.....	112.0	100.0	110.5	105.2	106.0	93.0	106.5	113.2	101.4	109.9	97.7	-
71395	Bowling centers.....	106.0	100.0	89.9	89.4	93.4	94.3	96.4	102.4	107.9	106.1	110.6	-
	<b>Accommodation and food services</b>												
7211	Traveler accommodation.....	85.1	100.0	100.1	105.6	111.8	107.6	112.1	114.4	120.4	115.0	111.8	-
722	Food services and drinking places.....	96.0	100.0	101.0	100.9	103.5	103.8	104.4	106.3	107.0	107.9	109.7	109.2
7221	Full-service restaurants.....	92.1	100.0	100.9	100.8	103.0	103.6	104.4	104.2	104.8	105.2	106.0	105.1
7222	Limited-service eating places.....	96.5	100.0	101.2	100.4	102.0	102.5	102.7	105.4	106.8	107.5	109.8	108.6
7223	Special food services.....	89.9	100.0	100.6	105.2	115.0	115.3	114.9	117.6	118.0	119.2	118.7	120.2
7224	Drinking places, alcoholic beverages.....	136.7	100.0	99.7	98.8	100.6	97.6	102.9	118.6	112.2	121.6	135.7	145.2
	<b>Other services</b>												
8111	Automotive repair and maintenance.....	85.9	100.0	103.6	106.1	109.4	108.9	103.7	104.1	112.0	111.9	112.8	-
81211	Hair, nail, and skin care services.....	83.5	100.0	108.6	108.6	108.2	114.6	110.4	119.7	125.0	129.9	122.3	-
81221	Funeral homes and funeral services.....	103.7	100.0	106.8	103.3	94.8	91.8	94.6	95.7	92.9	93.2	99.7	-
8123	Drycleaning and laundry services.....	97.1	100.0	100.1	105.0	107.6	110.9	112.5	103.8	110.6	120.5	119.6	-
81292	Photofinishing.....	95.8	100.0	69.3	76.3	73.8	81.2	100.5	100.5	102.0	112.4	114.4	-

NOTE: Dash indicates data are not available.

## 51. Unemployment rates, approximating U.S. concepts, 10 countries, seasonally adjusted

[Percent]

Country	2006	2007	2006				2007				2008
			I	II	III	IV	I	II	III	IV	I
United States.....	4.6	4.6	4.7	4.7	4.7	4.4	4.5	4.5	4.7	4.8	4.9
Canada.....	5.5	5.3	5.7	5.4	5.6	5.4	5.4	5.3	5.2	5.2	5.2
Australia.....	4.8	4.4	5.0	4.9	4.7	4.5	4.5	4.3	4.3	4.3	4.1
Japan.....	4.2	3.9	4.2	4.2	4.2	4.1	4.0	3.8	3.8	3.9	3.9
France.....	9.5	8.6	9.8	9.7	9.5	9.2	9.0	8.8	8.5	8.2	8.1
Germany.....	10.4	8.7	11.1	10.6	10.1	9.6	9.3	8.9	8.5	8.2	7.7
Italy.....	6.9	6.1	7.3	6.9	6.7	6.4	6.3	6.1	6.0	6.0	-
Netherlands.....	3.9	3.2	4.3	3.9	3.8	3.8	3.6	3.2	3.0	3.0	-
Sweden.....	7.0	6.1	7.3	7.3	6.7	6.5	6.4	6.1	5.8	5.9	5.8
United Kingdom.....	5.5	5.4	5.3	5.5	5.6	5.5	5.5	5.4	5.4	5.2	-

NOTE: Dash indicates data not available.

Quarterly figures for France, Germany, Italy, and the Netherlands are 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. Quarterly figures for Sweden are BLS seasonally adjusted estimates derived from Swedish not seasonally adjusted data.

For further qualifications and historical annual data, see the BLS report *Comparative Civilian Labor Force Statistics, 10 Countries* (on the

Internet at <http://www.bls.gov/fls/flscomparelf.htm>). For monthly unemployment rates, as well as the quarterly and annual rates published in this table, see the BLS report *Unemployment rates in 10 countries, civilian labor force basis, approximating U.S. concepts, seasonally adjusted* (on the Internet at <http://www.bls.gov/fls/flsjec.pdf>). Unemployment rates may differ between the two reports mentioned, because the former is updated semi-annually, whereas the latter is updated monthly and reflects the most recent revisions in source data.

**52. Annual data: employment status of the working-age population, approximating U.S. concepts, 10 countries**

[Numbers in thousands]

Employment status and country	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Civilian labor force</b>											
United States.....	136,297	137,673	139,368	142,583	143,734	144,863	146,510	147,401	149,320	151,428	153,124
Canada.....	14,884	15,135	15,403	15,637	15,891	16,366	16,733	16,955	17,108	17,351	17,696
Australia.....	9,204	9,339	9,414	9,590	9,744	9,893	10,079	10,221	10,506	10,699	10,948
Japan.....	67,200	67,240	67,090	66,990	66,860	66,240	66,010	65,770	65,850	65,960	66,080
France.....	25,116	25,434	25,791	26,099	26,393	26,646	26,851	26,937	27,092	27,322	27,509
Germany.....	39,415	39,752	39,375	39,302	39,459	39,413	39,276	39,711	40,760	41,250	-
Italy.....	22,753	23,004	23,176	23,361	23,524	23,728	24,020	24,084	24,179	24,395	24,459
Netherlands.....	7,612	7,744	7,881	8,052	8,199	8,345	8,379	8,439	8,459	8,541	8,686
Sweden.....	4,414	4,401	4,423	4,482	4,522	4,537	4,557	4,571	4,694	4,748	4,823
United Kingdom.....	28,401	28,474	28,777	28,952	29,085	29,337	29,559	29,791	30,126	30,586	30,774
<b>Participation rate<sup>1</sup></b>											
United States.....	67.1	67.1	67.1	67.1	66.8	66.6	66.2	66.0	66.0	66.2	66.0
Canada.....	65.1	65.4	65.9	66.0	66.1	67.1	67.7	67.7	67.4	67.4	67.7
Australia.....	64.3	64.3	64.0	64.4	64.4	64.3	64.6	64.6	65.3	65.6	66.0
Japan.....	63.2	62.8	62.4	62.0	61.6	60.8	60.3	60.0	60.0	60.0	60.0
France.....	55.6	56.0	56.3	56.6	56.7	56.8	56.8	56.6	56.5	56.6	56.7
Germany.....	57.3	57.7	56.9	56.7	56.7	56.4	56.0	56.4	57.6	58.2	-
Italy.....	47.3	47.9	47.9	48.1	48.3	48.5	49.1	49.1	48.7	48.9	48.6
Netherlands.....	61.1	61.8	62.5	63.4	64.0	64.7	64.6	64.8	64.7	65.1	65.9
Sweden.....	63.2	62.8	62.7	63.7	63.6	63.9	63.8	63.6	64.8	65.0	65.3
United Kingdom.....	62.5	62.5	62.8	62.9	62.7	62.9	63.0	63.0	63.1	63.5	63.4
<b>Employed</b>											
United States.....	129,558	131,463	133,488	136,891	136,933	136,485	137,736	139,252	141,730	144,427	146,047
Canada.....	13,637	13,973	14,331	14,681	14,866	15,223	15,586	15,861	16,080	16,393	16,767
Australia.....	8,444	8,618	8,762	8,989	9,086	9,264	9,480	9,668	9,975	10,186	10,470
Japan.....	64,900	64,450	63,920	63,790	63,460	62,650	62,510	62,640	62,910	63,210	63,510
France.....	22,176	22,597	23,080	23,714	24,167	24,312	24,373	24,354	24,493	24,717	25,135
Germany.....	35,508	36,059	36,042	36,236	36,350	36,018	35,615	35,604	36,185	36,978	-
Italy.....	20,169	20,370	20,617	20,973	21,359	21,666	21,972	22,124	22,290	22,721	22,953
Netherlands.....	7,189	7,408	7,605	7,813	8,014	8,114	8,069	8,052	8,056	8,205	8,408
Sweden.....	3,969	4,033	4,110	4,222	4,295	4,303	4,293	4,271	4,334	4,416	4,530
United Kingdom.....	26,413	26,686	27,051	27,368	27,599	27,813	28,075	28,372	28,665	28,917	29,120
<b>Employment-population ratio<sup>2</sup></b>											
United States.....	63.8	64.1	64.3	64.4	63.7	62.7	62.3	62.3	62.7	63.1	63.0
Canada.....	59.6	60.4	61.3	62.0	61.9	62.4	63.1	63.3	63.4	63.6	64.2
Australia.....	59.0	59.3	59.6	60.3	60.0	60.2	60.7	61.1	62.0	62.5	63.1
Japan.....	61.0	60.2	59.4	59.0	58.4	57.5	57.1	57.1	57.3	57.5	57.6
France.....	49.1	49.7	50.4	51.4	51.9	51.8	51.5	51.1	51.1	51.2	51.8
Germany.....	51.6	52.3	52.1	52.2	52.2	51.5	50.8	50.6	51.2	52.2	-
Italy.....	41.9	42.2	42.6	43.2	43.8	44.3	44.9	45.1	44.9	45.5	45.6
Netherlands.....	57.7	59.1	60.3	61.5	62.6	62.9	62.2	61.8	61.6	62.5	63.8
Sweden.....	56.8	57.6	58.3	60.0	60.4	60.6	60.1	59.4	59.9	60.4	61.3
United Kingdom.....	58.2	58.5	59.1	59.4	59.5	59.6	59.8	60.0	60.1	60.1	60.0
<b>Unemployed</b>											
United States.....	6,739	6,210	5,880	5,692	6,801	8,378	8,774	8,149	7,591	7,001	7,078
Canada.....	1,248	1,162	1,072	956	1,026	1,143	1,147	1,093	1,028	958	929
Australia.....	759	721	652	602	658	629	599	553	531	512	478
Japan.....	2,300	2,790	3,170	3,200	3,400	3,590	3,500	3,130	2,940	2,750	2,570
France.....	2,940	2,837	2,711	2,385	2,226	2,334	2,478	2,583	2,599	2,605	2,374
Germany.....	3,907	3,693	3,333	3,065	3,110	3,396	3,661	4,107	4,575	4,272	-
Italy.....	2,584	2,634	2,559	2,388	2,164	2,062	2,048	1,960	1,889	1,673	1,506
Netherlands.....	423	337	277	239	186	231	310	387	402	336	278
Sweden.....	445	368	313	260	227	234	264	300	361	332	293
United Kingdom.....	1,987	1,788	1,726	1,584	1,486	1,524	1,484	1,419	1,462	1,669	1,654
<b>Unemployment rate</b>											
United States.....	4.9	4.5	4.2	4.0	4.7	5.8	6.0	5.5	5.1	4.6	4.6
Canada.....	8.4	7.7	7.0	6.1	6.5	7.0	6.9	6.4	6.0	5.5	5.3
Australia.....	8.3	7.7	6.9	6.3	6.8	6.4	5.9	5.4	5.1	4.8	4.4
Japan.....	3.4	4.1	4.7	4.8	5.1	5.4	5.3	4.8	4.5	4.2	3.9
France.....	11.7	11.2	10.5	9.1	8.4	8.8	9.2	9.6	9.6	9.5	8.6
Germany.....	9.9	9.3	8.5	7.8	7.9	8.6	9.3	10.3	11.2	10.4	8.7
Italy.....	11.4	11.5	11.0	10.2	9.2	8.7	8.5	8.1	7.8	6.9	6.2
Netherlands.....	5.6	4.4	3.5	3.0	2.3	2.8	3.7	4.6	4.8	3.9	3.2
Sweden.....	10.1	8.4	7.1	5.8	5.0	5.2	5.8	6.6	7.7	7.0	6.1
United Kingdom.....	7.0	6.3	6.0	5.5	5.1	5.2	5.0	4.8	4.9	5.5	5.4

<sup>1</sup> Labor force as a percent of the working-age population.

<sup>2</sup> Employment as a percent of the working-age population.

NOTE: Dash indicates data not available.

There are breaks in series for the United States (1998, 1999, 2000, 2003, 2004), Australia (2001), Germany (1999, 2005), the Netherlands (2000), and Sweden (2005). For further qualifications and historical annual data, see the BLS report *Comparative*

*Civilian Labor Force Statistics, 10 Countries* (on the Internet at <http://www.bls.gov/fls/flscompare.htm>). Unemployment rates may differ from those in the BLS report *Unemployment rates in 10 countries, civilian labor force basis, approximating U.S. concepts, seasonally adjusted* (on the Internet at <http://www.bls.gov/fls/flsjec.pdf>), because the former is updated semi-annually, whereas the latter is updated monthly and reflects the most recent revisions in source data.

### 53. Annual indexes of manufacturing productivity and related measures, 16 economies

[1996 = 100]

Measure and economy	1980	1990	1993	1994	1995	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Output per hour</b>																
United States.....	58.6	80.1	88.1	92.7	96.2	104.2	111.5	117.1	126.1	127.4	140.9	149.8	159.0	162.4	165.9	172.7
Canada.....	66.5	85.2	94.0	99.3	100.5	104.5	109.6	114.2	121.1	118.5	120.5	121.1	123.1	127.8	127.7	130.4
Australia.....	72.6	91.1	96.2	98.7	97.2	102.2	107.3	109.0	115.2	117.9	123.2	125.5	127.2	128.1	129.4	133.4
Japan.....	54.8	81.3	87.6	89.0	95.6	103.5	104.5	107.3	113.0	110.6	114.7	122.5	131.0	139.6	142.2	146.2
Korea, Rep. of.....	—	58.0	75.9	82.8	90.9	112.8	125.7	139.8	151.7	150.6	165.3	176.8	197.2	212.1	233.5	253.9
Taiwan.....	40.4	73.9	83.4	86.6	93.0	104.1	109.2	116.0	122.2	127.7	139.2	143.6	150.9	162.3	173.9	189.0
Belgium.....	57.2	84.7	89.6	94.4	98.6	109.8	111.2	110.2	114.1	115.3	119.1	122.0	127.6	131.5	134.4	137.3
Denmark.....	75.3	90.3	92.0	103.4	103.4	108.0	107.4	109.1	113.0	113.2	113.9	118.7	125.5	126.9	133.4	134.3
France.....	56.9	84.2	90.0	95.9	99.7	105.9	111.4	116.2	124.5	127.0	132.4	138.4	142.2	148.7	154.6	158.5
Germany.....	67.1	86.1	89.1	95.8	97.3	105.9	106.3	108.9	116.5	119.5	120.7	125.0	129.7	134.6	144.1	151.3
Italy.....	60.1	82.5	87.2	94.9	99.5	102.0	100.6	101.4	106.7	107.0	105.7	103.5	105.0	106.4	105.9	105.4
Netherlands.....	58.7	81.4	86.2	94.1	97.9	100.3	103.2	107.4	115.2	115.7	119.2	121.7	129.9	135.8	140.2	144.0
Norway.....	77.3	96.8	98.3	98.3	97.1	100.2	97.7	101.1	104.2	107.1	110.2	119.7	126.8	131.2	135.0	137.4
Spain.....	62.8	86.8	94.9	97.8	101.2	101.0	102.7	104.5	105.6	108.0	108.4	111.1	113.2	115.4	117.7	122.2
Sweden.....	60.0	73.9	82.6	91.1	96.8	109.1	115.6	126.2	134.8	131.0	145.3	157.1	173.9	184.7	195.6	197.3
United Kingdom.....	55.9	87.8	100.1	102.7	101.0	102.0	102.9	107.8	115.2	119.4	122.4	128.2	136.0	140.2	147.0	150.8
<b>Output</b>																
United States.....	60.5	80.7	85.7	92.2	96.4	106.1	113.2	118.1	125.5	118.5	121.8	123.2	130.1	131.4	135.2	138.3
Canada.....	71.2	88.7	87.7	94.4	98.7	106.3	111.7	121.0	133.1	128.0	129.0	128.3	131.4	133.5	132.2	130.8
Australia.....	80.2	93.1	92.7	97.5	96.9	102.3	105.2	105.0	109.9	108.9	114.2	116.2	116.3	115.8	114.7	118.6
Japan.....	59.0	94.3	93.5	92.1	95.9	102.5	97.1	96.7	101.8	96.2	94.7	99.8	105.6	111.1	115.8	119.0
Korea, Rep. of.....	20.5	63.2	75.5	84.1	94.0	104.9	96.6	117.6	137.6	140.6	151.2	159.6	177.3	189.8	205.9	219.3
Taiwan.....	38.2	76.7	85.0	90.1	95.0	105.7	109.1	117.1	125.7	116.4	126.7	133.5	146.5	156.7	168.4	185.8
Belgium.....	74.8	96.6	92.8	97.0	99.6	108.2	110.1	110.2	114.9	114.9	114.0	112.5	116.6	116.3	119.4	122.4
Denmark.....	85.6	94.7	90.3	100.0	104.8	108.2	109.1	110.0	113.9	114.0	110.7	107.6	109.3	105.9	111.7	116.2
France.....	83.2	97.5	93.8	96.8	100.3	104.7	109.7	113.4	118.6	119.8	119.7	121.9	123.0	125.9	127.2	128.8
Germany.....	92.3	107.2	99.9	103.1	102.1	104.4	105.6	106.6	113.9	115.8	113.4	114.2	118.3	120.0	127.0	135.0
Italy.....	74.7	92.6	89.9	95.9	100.5	101.5	102.4	102.2	106.5	106.2	105.0	102.2	103.0	102.5	103.7	104.8
Netherlands.....	70.5	89.2	90.2	95.0	98.6	101.4	104.8	108.7	116.0	115.8	115.9	114.6	118.5	120.9	124.1	128.1
Norway.....	96.7	92.9	93.2	95.7	96.1	104.3	103.6	103.5	102.9	102.2	101.6	105.0	111.0	115.9	123.9	129.3
Spain.....	75.5	94.6	92.4	94.0	97.6	106.4	112.9	119.3	124.6	128.6	128.4	130.0	130.9	132.4	134.8	138.6
Sweden.....	67.1	80.4	74.1	85.5	96.8	107.8	116.7	127.6	138.1	134.9	143.4	150.4	164.2	171.8	180.6	185.2
United Kingdom.....	80.3	96.9	93.4	97.8	99.3	101.8	102.4	103.4	105.8	104.5	101.7	101.9	104.0	102.8	104.4	105.0
<b>Total hours</b>																
United States.....	103.3	100.7	97.3	99.5	100.2	101.8	101.5	100.9	99.6	93.0	86.5	82.2	81.8	80.9	81.5	80.1
Canada.....	107.0	104.1	93.3	95.1	98.3	101.6	101.9	105.9	109.9	107.9	107.1	105.9	106.7	104.4	103.5	100.3
Australia.....	110.5	102.2	96.4	98.7	99.7	100.1	98.1	96.3	95.4	92.3	92.7	92.6	91.4	90.4	88.7	88.9
Japan.....	107.6	115.9	106.7	103.5	100.4	99.1	92.9	90.2	90.1	87.0	82.6	81.4	80.6	79.6	81.5	81.4
Korea, Rep. of.....	—	109.0	99.5	101.6	103.3	93.0	76.8	84.1	90.7	93.3	91.5	90.2	89.9	89.5	88.2	86.4
Taiwan.....	94.5	103.7	101.9	104.0	102.2	101.6	99.9	101.0	102.9	91.1	91.1	92.9	97.1	96.5	96.8	98.3
Belgium.....	130.9	114.1	103.5	102.8	101.0	98.6	98.9	100.0	100.6	99.6	95.7	92.2	91.4	88.5	88.9	89.2
Denmark.....	113.7	104.8	98.1	96.7	101.4	100.2	101.5	100.8	100.8	100.7	97.2	90.7	87.1	83.5	83.7	86.5
France.....	146.3	115.8	104.1	101.0	100.6	98.9	98.5	97.6	95.3	94.3	90.4	88.1	86.5	84.7	82.3	81.2
Germany.....	137.4	124.6	112.1	107.6	105.0	98.6	99.4	97.9	97.7	96.9	94.0	91.4	91.2	89.2	88.1	89.2
Italy.....	124.3	112.2	103.1	101.1	100.9	99.5	101.8	100.8	99.9	99.3	99.3	98.8	98.1	96.4	97.9	99.4
Netherlands.....	120.1	109.6	104.6	100.9	100.7	101.0	101.5	101.2	100.7	100.1	97.2	94.1	91.2	89.0	88.5	88.9
Norway.....	125.1	96.0	94.8	97.3	99.0	104.1	106.1	102.4	98.8	95.4	92.3	87.7	87.5	88.4	91.8	96.0
Spain.....	120.3	109.0	97.4	96.1	96.4	105.4	109.9	114.1	118.0	119.0	118.4	117.0	115.6	114.7	114.6	113.4
Sweden.....	111.8	108.8	89.7	93.9	100.0	98.8	100.9	101.1	102.4	103.0	98.7	95.7	94.4	93.0	92.4	93.9
United Kingdom.....	143.8	110.4	93.3	95.2	98.3	99.8	99.6	95.9	91.8	87.5	83.1	79.5	76.5	73.3	71.0	69.6
<b>Hourly compensation</b> (national currency basis)																
United States.....	51.2	82.7	93.3	96.3	98.1	102.6	108.6	112.9	123.2	126.1	135.2	144.7	147.7	150.5	156.7	162.2
Canada.....	43.8	82.4	93.5	96.2	98.5	102.4	107.7	110.0	113.6	116.7	120.6	125.5	129.1	135.4	138.0	143.2
Australia.....	—	79.5	89.3	90.4	95.7	103.0	107.3	111.7	116.3	123.6	129.3	134.5	141.6	150.7	160.3	169.9
Japan.....	53.7	83.0	94.1	96.0	99.2	103.3	105.9	105.7	105.1	106.5	107.2	104.9	105.9	106.8	105.3	105.0
Korea, Rep. of.....	—	36.1	61.6	70.8	85.9	108.7	118.4	119.0	127.1	131.1	144.4	151.5	173.0	186.8	202.9	218.6
Taiwan.....	23.1	66.5	82.6	86.6	93.8	103.1	107.0	108.9	111.0	118.1	114.4	116.3	118.2	122.8	125.2	127.2
Belgium.....	47.5	81.4	94.8	95.5	98.2	103.8	105.3	106.7	108.6	114.3	119.3	122.8	125.4	129.8	132.5	136.0
Denmark.....	39.5	83.1	90.9	94.1	96.0	103.4	106.1	108.8	110.9	116.2	121.2	129.4	134.4	143.6	148.0	150.5
France.....	34.6	78.9	91.8	95.3	98.1	102.9	103.7	107.0	112.8	115.8	122.8	125.7	129.7	134.4	140.9	145.0
Germany.....	43.3	72.3	86.7	90.6	95.5	102.0	103.4	105.8	111.3	114.7	117.5	120.2	120.9	122.4	127.5	129.7
Italy.....	22.6	70.5	85.1	89.6	94.9	104.7	102.8	105.4	108.1	111.8	115.0	119.3	123.4	127.4	129.9	132.7
Netherlands.....	52.4	79.0	91.7	95.7	98.3	102.3	106.7	110.5	116.1	121.4	128.4	133.5	139.0	141.1	145.0	149.3
Norway.....	34.3	81.2	89.2	91.9	96.0	104.5	110.6	116.9	123.5	130.9	138.8	144.5	149.2	156.2	165.1	172.9
Spain.....	23.1	65.9	90.3	93.6	97.6	102.4	103.2	102.9	104.5	108.7	111.8	117.4	121.5	127.3	132.7	139.2
Sweden.....	32.9	77.4	85.8	88.0	92.8	105.4	109.4	112.8	117.2	122.8	129.4	135.2	138.9	143.6	147.7	152.9
United Kingdom.....	33.4	82.8	96.2	98.6	100.3	104.4	112.3	118.9	126.2	131.8	139.1	146.1	153.7	159.7	171.0	175.3

See notes at end of table.

## 53. Continued— Annual indexes of manufacturing productivity and related measures, 16 economies

Measure and economy	1980	1990	1993	1994	1995	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Unit labor costs</b>																
(national currency basis)																
United States.....	87.4	103.3	106.0	103.9	102.0	98.5	97.4	96.4	97.7	99.0	96.0	96.6	92.9	92.6	94.4	93.9
Canada.....	65.9	96.7	99.5	96.9	98.0	98.0	98.3	96.3	93.8	98.5	100.0	103.6	104.9	106.0	108.1	109.8
Australia.....	—	87.3	92.8	91.5	98.4	100.7	100.0	102.4	100.9	104.8	105.0	107.1	111.3	117.6	123.9	127.4
Japan.....	98.0	102.1	107.5	107.9	103.8	99.8	101.3	98.6	93.0	96.2	93.5	85.6	80.8	76.5	74.0	71.8
Korea, Rep. of.....	33.6	62.3	81.2	85.5	94.5	96.4	94.2	85.1	83.8	87.0	87.3	85.7	87.8	88.1	86.9	86.1
Taiwan.....	57.1	89.9	99.1	100.0	100.9	99.0	97.9	93.9	90.9	92.5	82.2	81.0	78.4	75.7	72.0	67.3
Belgium.....	83.0	96.1	105.7	101.2	99.6	94.5	94.7	96.9	95.1	99.1	100.2	100.6	98.3	98.7	98.6	99.1
Denmark.....	52.5	91.9	98.9	91.0	92.9	95.7	98.8	99.7	98.1	102.7	106.4	109.0	107.0	113.1	110.9	112.1
France.....	60.9	93.7	102.0	99.4	98.5	97.2	93.1	92.1	90.6	91.2	92.8	90.8	91.2	90.4	91.2	91.5
Germany.....	64.5	84.0	97.3	94.6	98.2	96.3	97.3	97.1	95.5	96.0	97.4	96.1	93.2	91.0	88.5	85.7
Italy.....	37.6	85.4	97.5	94.4	95.3	102.7	102.2	104.0	101.4	104.5	108.7	115.3	117.6	119.8	122.6	125.8
Netherlands.....	89.4	97.0	106.4	101.7	100.4	102.0	103.3	102.8	100.8	104.9	107.7	109.7	107.0	103.9	103.5	103.6
Norway.....	44.4	83.9	90.7	93.4	98.9	104.2	113.2	115.7	118.5	122.2	126.0	120.7	117.6	119.1	122.3	128.3
Spain.....	36.8	76.0	95.1	95.7	96.5	101.4	100.4	98.5	99.0	100.6	103.1	105.6	107.3	110.3	112.7	113.9
Sweden.....	54.9	104.8	103.9	96.6	95.8	96.6	94.7	89.4	86.9	93.8	89.1	86.1	79.9	77.8	75.5	77.5
United Kingdom.....	59.8	94.3	96.1	96.0	99.4	102.4	109.2	110.3	109.5	110.4	113.7	113.9	113.0	113.9	116.3	116.2
<b>Unit labor costs</b>																
(U.S. dollar basis)																
United States.....	87.4	103.3	106.0	103.9	102.0	98.5	97.4	96.4	97.7	99.0	96.0	96.6	92.9	92.6	94.4	93.9
Canada.....	76.8	113.1	105.2	96.7	97.4	96.5	90.4	88.4	86.1	86.7	86.9	100.9	109.9	119.3	130.0	139.5
Australia.....	—	87.1	80.6	85.5	93.1	95.7	80.4	84.5	75.0	69.2	72.9	89.3	104.7	114.6	119.3	136.6
Japan.....	47.0	76.6	105.2	114.8	120.2	89.7	84.1	94.3	93.9	86.1	81.2	80.3	81.3	75.6	69.2	66.3
Korea, Rep. of.....	44.6	70.5	81.1	85.3	98.4	81.9	54.1	57.6	59.6	54.2	56.2	57.9	61.7	69.3	73.3	74.6
Taiwan.....	43.6	91.8	103.0	103.8	104.6	94.5	80.2	79.8	79.9	75.1	65.4	64.6	64.5	64.7	60.8	56.3
Belgium.....	87.9	89.1	94.7	93.7	104.7	81.7	80.8	79.2	67.4	68.1	72.7	87.4	93.9	94.3	95.1	104.3
Denmark.....	54.1	86.2	88.4	83.1	96.2	84.0	85.5	82.7	70.3	71.5	78.2	96.1	103.7	109.5	108.3	119.5
France.....	73.7	88.0	92.1	91.7	101.0	85.2	80.7	76.5	65.2	63.7	68.4	80.2	88.5	87.8	89.3	97.8
Germany.....	53.4	78.2	88.5	87.8	103.2	83.5	83.2	79.6	67.8	66.1	70.8	83.7	89.2	87.1	85.5	90.5
Italy.....	67.7	110.0	95.6	90.4	90.2	93.0	90.8	88.2	74.6	74.5	81.9	104.0	116.5	118.8	122.7	137.5
Netherlands.....	75.8	89.8	96.6	94.3	105.6	88.1	87.8	83.8	71.2	71.9	77.9	95.0	101.8	98.9	99.5	108.7
Norway.....	58.1	86.6	82.6	85.5	100.8	95.0	96.8	95.7	86.9	87.8	101.9	110.1	112.7	119.4	123.2	141.6
Spain.....	65.0	94.4	94.5	90.5	98.0	87.6	85.1	79.9	69.6	68.6	74.2	91.1	101.6	104.5	107.8	118.9
Sweden.....	87.0	118.7	89.4	84.0	90.0	84.7	79.8	72.5	63.6	60.8	61.4	71.5	72.9	69.8	68.7	77.0
United Kingdom.....	89.1	107.8	92.5	94.3	100.5	107.4	116.0	114.3	106.4	101.9	109.5	119.3	132.7	132.9	137.4	149.1

NOTE: Data for Germany for years before 1993 are for the former West Germany. Data for 1993 onward are for unified Germany. Dash indicates data not available.

54. Occupational injury and illness rates by industry, <sup>1</sup> United States

Industry and type of case <sup>2</sup>	Incidence rates per 100 full-time workers <sup>3</sup>												
	1989 <sup>1</sup>	1990	1991	1992	1993 <sup>4</sup>	1994 <sup>4</sup>	1995 <sup>4</sup>	1996 <sup>4</sup>	1997 <sup>4</sup>	1998 <sup>4</sup>	1999 <sup>4</sup>	2000 <sup>4</sup>	2001 <sup>4</sup>
<b>PRIVATE SECTOR<sup>5</sup></b>													
Total cases .....	8.6	8.8	8.4	8.9	8.5	8.4	8.1	7.4	7.1	6.7	6.3	6.1	5.7
Lost workday cases.....	4.0	4.1	3.9	3.9	3.8	3.8	3.6	3.4	3.3	3.1	3.0	3.0	2.8
Lost workdays.....	78.7	84.0	86.5	93.8	-	-	-	-	-	-	-	-	-
<b>Agriculture, forestry, and fishing <sup>5</sup></b>													
Total cases .....	10.9	11.6	10.8	11.6	11.2	10.0	9.7	8.7	8.4	7.9	7.3	7.1	7.3
Lost workday cases.....	5.7	5.9	5.4	5.4	5.0	4.7	4.3	3.9	4.1	3.9	3.4	3.6	3.6
Lost workdays.....	100.9	112.2	108.3	126.9	-	-	-	-	-	-	-	-	-
<b>Mining</b>													
Total cases .....	8.5	8.3	7.4	7.3	6.8	6.3	6.2	5.4	5.9	4.9	4.4	4.7	4.0
Lost workday cases.....	4.8	5.0	4.5	4.1	3.9	3.9	3.9	3.2	3.7	2.9	2.7	3.0	2.4
Lost workdays.....	137.2	119.5	129.6	204.7	-	-	-	-	-	-	-	-	-
<b>Construction</b>													
Total cases .....	14.3	14.2	13.0	13.1	12.2	11.8	10.6	9.9	9.5	8.8	8.6	8.3	7.9
Lost workday cases.....	6.8	6.7	6.1	5.8	5.5	5.5	4.9	4.5	4.4	4.0	4.2	4.1	4.0
Lost workdays.....	143.3	147.9	148.1	161.9	-	-	-	-	-	-	-	-	-
General building contractors:													
Total cases .....	13.9	13.4	12.0	12.2	11.5	10.9	9.8	9.0	8.5	8.4	8.0	7.8	6.9
Lost workday cases.....	6.5	6.4	5.5	5.4	5.1	5.1	4.4	4.0	3.7	3.9	3.7	3.9	3.5
Lost workdays.....	137.3	137.6	132.0	142.7	-	-	-	-	-	-	-	-	-
Heavy construction, except building:													
Total cases .....	13.8	13.8	12.8	12.1	11.1	10.2	9.9	9.0	8.7	8.2	7.8	7.6	7.8
Lost workday cases.....	6.5	6.3	6.0	5.4	5.1	5.0	4.8	4.3	4.3	4.1	3.8	3.7	4.0
Lost workdays.....	147.1	144.6	160.1	165.8	-	-	-	-	-	-	-	-	-
Special trades contractors:													
Total cases .....	14.6	14.7	13.5	13.8	12.8	12.5	11.1	10.4	10.0	9.1	8.9	8.6	8.2
Lost workday cases.....	6.9	6.9	6.3	6.1	5.8	5.8	5.0	4.8	4.7	4.1	4.4	4.3	4.1
Lost workdays.....	144.9	153.1	151.3	168.3	-	-	-	-	-	-	-	-	-
<b>Manufacturing</b>													
Total cases .....	13.1	13.2	12.7	12.5	12.1	12.2	11.6	10.6	10.3	9.7	9.2	9.0	8.1
Lost workday cases.....	5.8	5.8	5.6	5.4	5.3	5.5	5.3	4.9	4.8	4.7	4.6	4.5	4.1
Lost workdays.....	113.0	120.7	121.5	124.6	-	-	-	-	-	-	-	-	-
Durable goods:													
Total cases .....	14.1	14.2	13.6	13.4	13.1	13.5	12.8	11.6	11.3	10.7	10.1	-	8.8
Lost workday cases.....	6.0	6.0	5.7	5.5	5.4	5.7	5.6	5.1	5.1	5.0	4.8	-	4.3
Lost workdays.....	116.5	123.3	122.9	126.7	-	-	-	-	-	-	-	-	-
Lumber and wood products:													
Total cases .....	18.4	18.1	16.8	16.3	15.9	15.7	14.9	14.2	13.5	13.2	13.0	12.1	10.6
Lost workday cases.....	9.4	8.8	8.3	7.6	7.6	7.7	7.0	6.8	6.5	6.8	6.7	6.1	5.5
Lost workdays.....	177.5	172.5	172.0	165.8	-	-	-	-	-	-	-	-	-
Furniture and fixtures:													
Total cases .....	16.1	16.9	15.9	14.8	14.6	15.0	13.9	12.2	12.0	11.4	11.5	11.2	11.0
Lost workday cases.....	7.2	7.8	7.2	6.6	6.5	7.0	6.4	5.4	5.8	5.7	5.9	5.9	5.7
Lost workdays.....	-	-	-	128.4	-	-	-	-	-	-	-	-	-
Stone, clay, and glass products:													
Total cases .....	15.5	15.4	14.8	13.6	13.8	13.2	12.3	12.4	11.8	11.8	10.7	10.4	10.1
Lost workday cases.....	7.4	7.3	6.8	6.1	6.3	6.5	5.7	6.0	5.7	6.0	5.4	5.5	5.1
Lost workdays.....	149.8	160.5	156.0	152.2	-	-	-	-	-	-	-	-	-
Primary metal industries:													
Total cases .....	18.7	19.0	17.7	17.5	17.0	16.8	16.5	15.0	15.0	14.0	12.9	12.6	10.7
Lost workday cases.....	8.1	8.1	7.4	7.1	7.3	7.2	7.2	6.8	7.2	7.0	6.3	6.3	5.3
Lost workdays.....	168.3	180.2	169.1	175.5	-	-	-	-	-	-	-	-	11.1
Fabricated metal products:													
Total cases .....	18.5	18.7	17.4	16.8	16.2	16.4	15.8	14.4	14.2	13.9	12.6	11.9	11.1
Lost workday cases.....	7.9	7.9	7.1	6.6	6.7	6.7	6.9	6.2	6.4	6.5	6.0	5.5	5.3
Lost workdays.....	147.6	155.7	146.6	144.0	-	-	-	-	-	-	-	-	-
Industrial machinery and equipment:													
Total cases .....	12.1	12.0	11.2	11.1	11.1	11.6	11.2	9.9	10.0	9.5	8.5	8.2	11.0
Lost workday cases.....	4.8	4.7	4.4	4.2	4.2	4.4	4.4	4.0	4.1	4.0	3.7	3.6	6.0
Lost workdays.....	86.8	88.9	86.6	87.7	-	-	-	-	-	-	-	-	-
Electronic and other electrical equipment:													
Total cases .....	9.1	9.1	8.6	8.4	8.3	8.3	7.6	6.8	6.6	5.9	5.7	5.7	5.0
Lost workday cases.....	3.9	3.8	3.7	3.6	3.5	3.6	3.3	3.1	3.1	2.8	2.8	2.9	2.5
Lost workdays.....	77.5	79.4	83.0	81.2	-	-	-	-	-	-	-	-	-
Transportation equipment:													
Total cases .....	17.7	17.8	18.3	18.7	18.5	19.6	18.6	16.3	15.4	14.6	13.7	13.7	12.6
Lost workday cases.....	6.8	6.9	7.0	7.1	7.1	7.8	7.9	7.0	6.6	6.6	6.4	6.3	6.0
Lost workdays.....	138.6	153.7	166.1	186.6	-	-	-	-	-	-	-	-	-
Instruments and related products:													
Total cases .....	5.6	5.9	6.0	5.9	5.6	5.9	5.3	5.1	4.8	4.0	4.0	4.5	4.0
Lost workday cases.....	2.5	2.7	2.7	2.7	2.5	2.7	2.4	2.3	2.3	1.9	1.8	2.2	2.0
Lost workdays.....	55.4	57.8	64.4	65.3	-	-	-	-	-	-	-	-	-
Miscellaneous manufacturing industries:													
Total cases .....	11.1	11.3	11.3	10.7	10.0	9.9	9.1	9.5	8.9	8.1	8.4	7.2	6.4
Lost workday cases.....	5.1	5.1	5.1	5.0	4.6	4.5	4.3	4.4	4.2	3.9	4.0	3.6	3.2
Lost workdays.....	97.6	113.1	104.0	108.2	-	-	-	-	-	-	-	-	-

See footnotes at end of table.

54. Continued—Occupational injury and illness rates by industry,<sup>1</sup> United States

Industry and type of case <sup>2</sup>	Incidence rates per 100 workers <sup>3</sup>												
	1989 <sup>1</sup>	1990	1991	1992	1993 <sup>4</sup>	1994 <sup>4</sup>	1995 <sup>4</sup>	1996 <sup>4</sup>	1997 <sup>4</sup>	1998 <sup>4</sup>	1999 <sup>4</sup>	2000 <sup>4</sup>	2001 <sup>4</sup>
<b>Nondurable goods:</b>													
Total cases .....	11.6	11.7	11.5	11.3	10.7	10.5	9.9	9.2	8.8	8.2	7.8	7.8	6.8
Lost workday cases.....	5.5	5.6	5.5	5.3	5.0	5.1	4.9	4.6	4.4	4.3	4.2	4.2	3.8
Lost workdays.....	107.8	116.9	119.7	121.8	-	-	-	-	-	-	-	-	-
<b>Food and kindred products:</b>													
Total cases .....	18.5	20.0	19.5	18.8	17.6	17.1	16.3	15.0	14.5	13.6	12.7	12.4	10.9
Lost workday cases.....	9.3	9.9	9.9	9.5	8.9	9.2	8.7	8.0	8.0	7.5	7.3	7.3	6.3
Lost workdays.....	174.7	202.6	207.2	211.9	-	-	-	-	-	-	-	-	-
<b>Tobacco products:</b>													
Total cases .....	8.7	7.7	6.4	6.0	5.8	5.3	5.6	6.7	5.9	6.4	5.5	6.2	6.7
Lost workday cases.....	3.4	3.2	2.8	2.4	2.3	2.4	2.6	2.8	2.7	3.4	2.2	3.1	4.2
Lost workdays.....	64.2	62.3	52.0	42.9	-	-	-	-	-	-	-	-	-
<b>Textile mill products:</b>													
Total cases .....	10.3	9.6	10.1	9.9	9.7	8.7	8.2	7.8	6.7	7.4	6.4	6.0	5.2
Lost workday cases.....	4.2	4.0	4.4	4.2	4.1	4.0	4.1	3.6	3.1	3.4	3.2	3.2	2.7
Lost workdays.....	81.4	85.1	88.3	87.1	-	-	-	-	-	-	-	-	-
<b>Apparel and other textile products:</b>													
Total cases .....	8.6	8.8	9.2	9.5	9.0	8.9	8.2	7.4	7.0	6.2	5.8	6.1	5.0
Lost workday cases.....	3.8	3.9	4.2	4.0	3.8	3.9	3.6	3.3	3.1	2.6	2.8	3.0	2.4
Lost workdays.....	80.5	92.1	99.9	104.6	-	-	-	-	-	-	-	-	-
<b>Paper and allied products:</b>													
Total cases .....	12.7	12.1	11.2	11.0	9.9	9.6	8.5	7.9	7.3	7.1	7.0	6.5	6.0
Lost workday cases.....	5.8	5.5	5.0	5.0	4.6	4.5	4.2	3.8	3.7	3.7	3.7	3.4	3.2
Lost workdays.....	132.9	124.8	122.7	125.9	-	-	-	-	-	-	-	-	-
<b>Printing and publishing:</b>													
Total cases .....	6.9	6.9	6.7	7.3	6.9	6.7	6.4	6.0	5.7	5.4	5.0	5.1	4.6
Lost workday cases.....	3.3	3.3	3.2	3.2	3.1	3.0	3.0	2.8	2.7	2.8	2.6	2.6	2.4
Lost workdays.....	63.8	69.8	74.5	74.8	-	-	-	-	-	-	-	-	-
<b>Chemicals and allied products:</b>													
Total cases .....	7.0	6.5	6.4	6.0	5.9	5.7	5.5	4.8	4.8	4.2	4.4	4.2	4.0
Lost workday cases.....	3.2	3.1	3.1	2.8	2.7	2.8	2.7	2.4	2.3	2.1	2.3	2.2	2.1
Lost workdays.....	63.4	61.6	62.4	64.2	-	-	-	-	-	-	-	-	-
<b>Petroleum and coal products:</b>													
Total cases .....	6.6	6.6	6.2	5.9	5.2	4.7	4.8	4.6	4.3	3.9	4.1	3.7	2.9
Lost workday cases.....	3.3	3.1	2.9	2.8	2.5	2.3	2.4	2.5	2.2	1.8	1.8	1.9	1.4
Lost workdays.....	68.1	77.3	68.2	71.2	-	-	-	-	-	-	-	-	-
<b>Rubber and miscellaneous plastics products:</b>													
Total cases .....	16.2	16.2	15.1	14.5	13.9	14.0	12.9	12.3	11.9	11.2	10.1	10.7	8.7
Lost workday cases.....	8.0	7.8	7.2	6.8	6.5	6.7	6.5	6.3	5.8	5.8	5.5	5.8	4.8
Lost workdays.....	147.2	151.3	150.9	153.3	-	-	-	-	-	-	-	-	-
<b>Leather and leather products:</b>													
Total cases .....	13.6	12.1	12.5	12.1	12.1	12.0	11.4	10.7	10.6	9.8	10.3	9.0	8.7
Lost workday cases.....	6.5	5.9	5.9	5.4	5.5	5.3	4.8	4.5	4.3	4.5	5.0	4.3	4.4
Lost workdays.....	130.4	152.3	140.8	128.5	-	-	-	-	-	-	-	-	-
<b>Transportation and public utilities</b>													
Total cases .....	9.2	9.6	9.3	9.1	9.5	9.3	9.1	8.7	8.2	7.3	7.3	6.9	6.9
Lost workday cases.....	5.3	5.5	5.4	5.1	5.4	5.5	5.2	5.1	4.8	4.3	4.4	4.3	4.3
Lost workdays.....	121.5	134.1	140.0	144.0	-	-	-	-	-	-	-	-	-
<b>Wholesale and retail trade</b>													
Total cases .....	8.0	7.9	7.6	8.4	8.1	7.9	7.5	6.8	6.7	6.5	6.1	5.9	6.6
Lost workday cases.....	3.6	3.5	3.4	3.5	3.4	3.4	3.2	2.9	3.0	2.8	2.7	2.7	2.5
Lost workdays.....	63.5	65.6	72.0	80.1	-	-	-	-	-	-	-	-	-
<b>Wholesale trade:</b>													
Total cases .....	7.7	7.4	7.2	7.6	7.8	7.7	7.5	6.6	6.5	6.5	6.3	5.8	5.3
Lost workday cases.....	4.0	3.7	3.7	3.6	3.7	3.8	3.6	3.4	3.2	3.3	3.3	3.1	2.8
Lost workdays.....	71.9	71.5	79.2	82.4	-	-	-	-	-	-	-	-	-
<b>Retail trade:</b>													
Total cases .....	8.1	8.1	7.7	8.7	8.2	7.9	7.5	6.9	6.8	6.5	6.1	5.9	5.7
Lost workday cases.....	3.4	3.4	3.3	3.4	3.3	3.3	3.0	2.8	2.9	2.7	2.5	2.5	2.4
Lost workdays.....	60.0	63.2	69.1	79.2	-	-	-	-	-	-	-	-	-
<b>Finance, insurance, and real estate</b>													
Total cases .....	2.0	2.4	2.4	2.9	2.9	2.7	2.6	2.4	2.2	.7	1.8	1.9	1.8
Lost workday cases.....	.9	1.1	1.1	1.2	1.2	1.1	1.0	.9	.9	.5	.8	.8	.7
Lost workdays.....	17.6	27.3	24.1	32.9	-	-	-	-	-	-	-	-	-
<b>Services</b>													
Total cases .....	5.5	6.0	6.2	7.1	6.7	6.5	6.4	6.0	5.6	5.2	4.9	4.9	4.6
Lost workday cases.....	2.7	2.8	2.8	3.0	2.8	2.8	2.8	2.6	2.5	2.4	2.2	2.2	2.2
Lost workdays.....	51.2	56.4	60.0	68.6	-	-	-	-	-	-	-	-	-

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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).

<sup>4</sup> 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.

<sup>5</sup> Excludes farms with fewer than 11 employees since 1976.

NOTE: Dash indicates data not available.

### 55. Fatal occupational injuries by event or exposure, 1996-2005

Event or exposure <sup>1</sup>	1996-2000 (average)	2001-2005 (average) <sup>2</sup>	2005 <sup>3</sup>	
			Number	Percent
All events .....	6,094	5,704	5,734	100
<b>Transportation incidents</b> .....	2,608	2,451	2,493	43
Highway .....	1,408	1,394	1,437	25
Collision between vehicles, mobile equipment .....	685	686	718	13
Moving in same direction .....	117	151	175	3
Moving in opposite directions, oncoming .....	247	254	265	5
Moving in intersection .....	151	137	134	2
Vehicle struck stationary object or equipment on side of road .....	264	310	345	6
Noncollision .....	372	335	318	6
Jack-knifed or overturned--no collision .....	298	274	273	5
Nonhighway (farm, industrial premises) .....	378	335	340	6
Noncollision accident .....	321	277	281	5
Overturned .....	212	175	182	3
Worker struck by vehicle, mobile equipment .....	376	369	391	7
Worker struck by vehicle, mobile equipment in roadway .....	129	136	140	2
Worker struck by vehicle, mobile equipment in parking lot or non-road area .....	171	166	176	3
Water vehicle .....	105	82	88	2
Aircraft .....	263	206	149	3
<b>Assaults and violent acts</b> .....	1,015	850	792	14
Homicides .....	766	602	567	10
Shooting .....	617	465	441	8
Suicide, self-inflicted injury .....	216	207	180	3
<b>Contact with objects and equipment</b> .....	1,005	952	1,005	18
Struck by object .....	567	560	607	11
Struck by falling object .....	364	345	385	7
Struck by rolling, sliding objects on floor or ground level .....	77	89	94	2
Caught in or compressed by equipment or objects .....	293	256	278	5
Caught in running equipment or machinery .....	157	128	121	2
Caught in or crushed in collapsing materials .....	128	118	109	2
<b>Falls</b> .....	714	763	770	13
Fall to lower level .....	636	669	664	12
Fall from ladder .....	106	125	129	2
Fall from roof .....	153	154	160	3
Fall to lower level, n.e.c. ....	117	123	117	2
<b>Exposure to harmful substances or environments</b> .....	535	498	501	9
Contact with electric current .....	290	265	251	4
Contact with overhead power lines .....	132	118	112	2
Exposure to caustic, noxious, or allergenic substances	112	114	136	2
Oxygen deficiency .....	92	74	59	1
<b>Fires and explosions</b> .....	196	174	159	3
Fires--unintended or uncontrolled .....	103	95	93	2
Explosion .....	92	78	65	1

<sup>1</sup> Based on the 1992 BLS Occupational Injury and Illness Classification Manual.

<sup>2</sup> Excludes fatalities from the Sept. 11, 2001, terrorist attacks.

<sup>3</sup> The BLS news release of August 10, 2006, reported a total of 5,702 fatal work injuries for calendar year 2005. Since then, an additional 32 job-related fatalities were identified, bringing the total job-related fatality count for 2005 to 5,734.

NOTE: Totals for all years are revised and final. Totals for major categories may include subcategories not shown separately. Dashes indicate no data reported or data that do not meet publication criteria. N.e.c. means "not elsewhere classified."

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.