

June 2011



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

# REVIEW

U.S. Department of Labor

U.S. Bureau of Labor Statistics

Registered nurses Team assemblers Engine and other machine  
assemblers Retail salespersons Computer software engineer  
Customer service reps Assemblers and fabricators Metal worker  
and plastic workers Waiters and waitresses Electrical equipmen  
assemblers C... meat packer  
Management Counte  
attendants Fin... Engineers Amu  
ment and recreation attendants Mixing and blending machin  
operators Office clerks Logisticians Telemarketers Sales represen  
tives Computer programmers Nursing aides and orderlies  
inspectors and testers Telecommunications specialists  
mechanics mechanics

## How occupational employment is affected by mass layoffs



U.S. Department of Labor  
Hilda L. Solis, Secretary

U.S. Bureau of Labor Statistics  
Keith Hall, Commissioner

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## Schedule of Economic News Releases, July 2011

Date	Time	Release
Friday, July 08, 2011	8:30 AM	Employment Situation for June 2011
Tuesday, July 12, 2011	10:00 AM	Job Openings and Labor Turnover Survey for May 2011
Wednesday, July 13, 2011	8:30 AM	U.S. Import and Export Price Indexes for June 2011
Thursday, July 14, 2011	8:30 AM	Producer Price Index for June 2011
Friday, July 15, 2011	8:30 AM	Consumer Price Index for June 2011
Friday, July 15, 2011	8:30 AM	Real Earnings for June 2011
Tuesday, July 19, 2011	10:00 AM	Usual Weekly Earnings of Wage and Salary Workers for Second Quarter 2011
Friday, July 22, 2011	10:00 AM	Mass Layoffs for June 2011
Friday, July 22, 2011	10:00 AM	Regional and State Employment and Unemployment for June 2011
Friday, July 29, 2011	8:30 AM	Employment Cost Index for Second Quarter 2011

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The BLS calendar contains publication dates for most news releases scheduled to be issued by the BLS national office in upcoming months. It is updated as needed with additional news releases, usually at least a week before their scheduled publication date.

# MONTHLY LABOR REVIEW

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### The June Review

The article leading this month's *Review* examines changes in employment in establishments in which extended mass layoffs took place. Bureau authors Dina Itkin and Laurie Salmon analyze business establishment microdata—created from a combination of microdata from the Occupational Employment Statistics program and the Mass Layoff Statistics program—to look into how occupational employment was affected from 2000 to 2007. The authors reveal that jobs lost in establishments with extended mass layoffs tended to be those which were associated with little training and few analytical skills. Jobs in occupations associated with strong analytical skills and extensive technical training generally were retained, as were jobs in occupations that were core to their industry. The authors also include findings by industry as well as by geographic region.

As the baby-boom generation retires, it is in some ways redefining what “retirement” is. In this month's second article, Michael D. Giandrea of the Bureau, Kevin E. Cahill, and Joseph F. Quinn (the latter two from the Sloan Center on Aging & Work at Boston College) look into how this structural shift affects retirees. The authors find that retirement is no longer a “one-time, permanent event”; instead of retiring in this way, workers are increasingly likely to gradually exit the labor force by moving to another job, commonly referred to as a “bridge job,” before permanently retiring. Using data from the Retirement History Survey, the article shows that a considerable number of

older Americans with career jobs returned to the labor force after having retired. In addition, the authors indicate that workers were more likely to reenter the workforce after retirement if they were younger, were in better health, or had a defined-contribution pension plan.

This issue of the *Review* concludes with an article that compares data from multiple surveys which seem to indicate that statistics on hours worked vary according to the survey method used. The authors conclude that “time-estimate questions” generate higher estimates of the time workers spend doing paid work than do time diaries. Time-estimate questions, such as those used by the Current Population Survey, are those in which respondents are asked to estimate the amount of time they spend or spent doing a certain activity, such as working or watching television. In contrast, the diary approach, as utilized by the American Time Use Survey and two surveys conducted in Belgium, involves asking respondents to recall their activities sequentially for a specific period such as the previous day, with the total of the day's activities summing to exactly 24 hours. The article discusses the various strengths and possible weaknesses of each approach and makes suggestions regarding potential survey improvements.

### People with disabilities and employment

The unemployment rate among people with disabilities in 2010 was 14.8 percent, compared with 9.4 percent among people who did not have a disability, according to figures re-

leased this month by BLS from the Current Population Survey (CPS). The data also indicate that the share of adults with disabilities who were employed last year was 18.6 percent, compared with 63.5 percent among adults without disabilities. This gap in employment exists in part because people with disabilities tend to be older, and older people are less likely to be employed, regardless of disability status. The CPS, a household survey, asks respondents whether anyone in the household age 15 or older is deaf or has serious difficulty hearing; is blind or has serious difficulty seeing even when wearing glasses; has difficulty concentrating, remembering, or making decisions, because of a physical, mental, or emotional condition; has difficulty walking or climbing stairs; has difficulty bathing or dressing; or has difficulty doing errands alone, such as visiting a doctor's office or shopping, because of a physical, mental, or emotional condition. The news release regarding these data is available at [www.bls.gov/news.release/archives/disabl\\_06242011.htm](http://www.bls.gov/news.release/archives/disabl_06242011.htm). Additional information is available at [www.bls.gov/cps](http://www.bls.gov/cps).

### Executive editor retires

With the publication of this issue, William Parks II, executive editor of the Monthly Labor Review, retires from the Bureau of Labor Statistics. Bill's tenure at the Bureau is filled with noteworthy contributions to the agency and to the *Review*, and these contributions are a direct result of his knowledge of Bureau programs and data, his dedication to the goals and objectives of the organization, and his commitment to public service. □



# How occupational employment is affected by mass layoffs

*An analysis of business establishment microdata—created by combining microdata from the Occupational Employment Statistics program and the Mass Layoff Statistics program—reveals that jobs lost between 2000 and 2007 in establishments where extended mass layoffs occurred tended to be those which required less training and fewer analytical skills; jobs in occupations that were core to the specific industry generally were retained*

Dina Itkin  
and  
Laurie Salmon

In recent years, mass layoffs have affected large numbers of workers.<sup>1</sup> Even during times of stable employment levels or economic expansion, mass layoffs occur because of cost-cutting initiatives, relocation of operations, changes in technology or consumer demand, or other reasons. Not surprisingly, some occupations are more affected by these layoffs than are others. By using a sample of establishments that had at least one extended mass layoff during the 2000–2007 period, this article examines the types of jobs affected by layoffs. An examination of this period offers insight into the mass layoff effects on occupational employment before the start of the 2007–2009 recession.<sup>2</sup>

By combining data from two Bureau of Labor Statistics programs—Mass Layoff Statistics (MLS) and Occupational Employment Statistics (OES)—pre- and post-layoff employment snapshots were compared for each sampled establishment. The total employment of the 4,520 establishments in the sample was more than 2.5 million before layoffs and less than 2.2 million after layoffs—an overall decline in employment of approximately 350,000 jobs, or 14 percent. This study focuses on changes in occupational employment overall and by industry, geographic region, and reason for the layoff.

The pattern of changes shows that, in

general, occupations that were retained or whose employment expanded after layoffs were those that tended to require analytical skills and extensive technical training, such as computer, financial, and legal analysts. Establishments generally let go of workers in occupations that tended to require less training, such as clerical and personal care occupations, and in occupations that tended to require mainly nonanalytical skills, such as material moving and production occupations. This finding was evident in the most commonly reported reason for layoffs.

This overall pattern was driven, in part, by the industries that experienced relatively large numbers of layoff events and by the occupations' relative importance in their respective industries. Layoffs in the manufacturing and information technology industries during the study period contributed to the employment declines in production and computer occupations; however, these occupations' relative importance to their respective industries seemed to lessen the impact of the layoff.

A second finding was that establishments were more likely to retain employment in occupations that are core to their industry. For example, establishments in finance and insurance industries tended to increase employment in business and financial operations occupations, schools tended to increase

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employment of teachers, and hospitals tended to increase employment in healthcare occupations, despite layoffs in other occupations. Other industries saw declines in core occupations, but the declines were smaller than the declines in occupations with support functions.<sup>3</sup> For example, manufacturing industries saw employment declines in most occupational groups, but production workers were laid off at lower rates than were production workers in other industries.

This finding was most noticeable in geographic regions where mass layoffs occurred in industries that were dominant in their economies. For example, the Midwest, which had higher employment concentrations in manufacturing and wholesale and retail trade industries than did other regions, lost relatively fewer workers in occupations core to those sectors: production, sales, and transportation occupations. The other regions had larger percentage declines in employment in these occupations. Likewise, the West region, which had relatively high concentrations of employment in motion picture and sound recording industries, lost relatively little employment in arts, design, entertainment, and media occupations.

### Methodology and data description

The first step was to identify establishments that had an extended mass layoff and also had reported occupational employment data to the OES survey both before and after the layoff event. To obtain the largest number of sample observations, establishments that had a layoff during the 2000–2007 period were matched with OES data from 1999 to 2008.

MLS defines the universe of extended mass layoffs as private nonfarm establishments that had at least 50 initial claims for unemployment insurance benefits filed against them during a 5-week period, with at least 50 workers separated for more than 30 days.<sup>4</sup> Companies were identified by their State-specific unemployment insurance (UI) number. From 2000 to 2007, there were 45,027 extended mass layoff events. Excluding Puerto Rico, the full MLS dataset contained 44,623 events. The OES data set comes from a nationwide establishment survey of occupational employment and wages. Some 400,000 business establishments are surveyed every year, and 2,611,373 distinct establishments reported data between January 1999 and May 2008.<sup>5</sup>

If multiple layoffs occurred within a company and county, only the first layoff event was used, in order to best capture the occupations most vulnerable to layoff. Of the 44,623 layoff events, many were within both the same

company and county. Counting only the first event, there were 24,537 unique company/county layoff events. MLS records were matched to OES establishments by State, county, and UI account. There were 10,969 events that had at least one corresponding OES observation. An MLS record may match more than one of the company’s establishments in the OES survey if there are several establishments within a county.

These “before” OES observations were linked to corresponding “after” observations by UI account number, State, county, and Reporting Unit Number (RUN, a number that identifies a particular physical establishment under a parent company or UI account). The sample included multiple matching pairs of OES observations, to maximize the chance of capturing the establishments that had layoffs. The sample included all branches within the county and UI account that had the same sets of physical establishments report both before and after the layoff. Hence, the study essentially examines the effect of company-level layoffs on staffing across branches within the county.

The study found 4,520 usable sets of “before layoff” and “after layoff” OES observations, a total of 9,040 observations. The 4,520 observations that were in both the OES and MLS data represented slightly more than 10 percent of the layoff events during the 2000–2007 period. Because total OES unweighted employment in these establishments before layoffs was 2,517,133, and total unweighted employment after layoffs was 2,165,688, the net loss was 351,445 jobs.<sup>6</sup>

Approximately 96 percent of the OES observations occurred within the 4 years preceding the layoff event, and nearly 90 percent of OES observations occurred within the 4 years following the layoff event. Table 1 shows the distribution of establishments by the number of years between the OES observation and the first layoff. The lag

Number of years	Observations before layoff	Observations after layoff	Cumulative percentage of total, before	Cumulative percentage of total, after
0	715	416	15.8	9.2
1	1,342	1,081	45.5	33.1
2	1,303	1,237	74.3	60.5
3	754	857	91.0	79.4
4	232	442	96.2	89.2
5	101	230	98.4	94.3
6	55	170	99.6	98.1
7	17	84	100.0	99.9
8	1	3	100.0	100.0
Total	4,520	4,520	n/a	n/a

between data capture and layoff may impose limitations on the research findings. By the time the establishment's staffing was captured the second time, employment may have returned to its original levels, some workers may have been re-hired, or staffing could have been influenced by factors other than the layoff. There is also a chance that an establishment underwent layoffs before the study's time window.

Another limitation is that MLS captures layoffs at the company level within a county, whereas OES samples individual establishments within a company and county. Two-thirds of the study units are known to be establishment-level matches because there exists only one establishment in the company and county. For the other one-third of study units, there is a chance that although MLS captured a layoff event in a company in a particular county, the matching OES units in the sample did not actually lay off any workers. The layoff might have occurred elsewhere in the company within the same county, but not necessarily in the physical units surveyed.

A third limitation is that because this study requires OES observations both before and after the layoff in order to detect staffing changes, firms that go out of business completely before OES is able to sample them again are not included. That is, the study includes only establishments that go out of business if the permanent closure occurred after the second OES observation. According to MLS statistics, there were 6,590 extended mass layoff events that resulted in permanent worksite closures from 2000 to 2007. Because these closures were likely not random with respect to each individual characteristic (e.g., industry, occupation, and region), there is attrition bias in the sample selection.

About half the establishments in the sample had fewer than 250 employees before layoffs. Table 2 shows the distribution of establishments by number of employees. After layoffs, there was an aggregate shift toward smaller establishments. The number of establishments that were either very small (1 to 9 employees), small (10 to 49 employees), or medium-sized (50 to 249 employees) increased, while the number of establishments with either a large (250 to 999 employees) or very large (more than 1,000 employees) size decreased.

Most establishments in the survey were in the West and Midwest regions (defined later in this article). There were also large numbers of establishments in the Southeast, Southwest, and New York-New Jersey regions. The Mountain-Plains, Mid-Atlantic, and New England regions had less representation in the study sample. Table 2 also shows the distribution of establishments by region.

The industry sectors that had more than 100 establishments each were manufacturing; retail trade; construction; health care and social assistance; administrative and support and waste management and remediation services; information; transportation and warehousing; accommodation and food services; finance and insurance; and arts, entertainment, and recreation. Table 2 shows the distribution of establishments by sector.

The primary reasons for layoffs that most establishments in the sample reported were slack work/insufficient demand/nonseasonal slowdown, reorganization or restructuring, contract completion, financial difficulty, an extreme weather-related event, business-ownership change, and contract cancellation. Table 3 shows the distribution of establishments in the sample by primary layoff reason.

Finally, the study categorizes occupations into two general groups: "analytical" and "nonanalytical." This categorization is based on the 2000 Standard Occupational Classification (SOC) system descriptions of tasks performed by each occupation and on *Occupational Outlook Handbook* descriptions, and are supported by O\*NET.<sup>7</sup> The SOC definitions of detailed occupations in the analytical group often include words describing analysis. In addition, occupations in the analytical group are related to skills and abilities such as written expression, speaking, critical thinking, and deductive and inductive reasoning. At the major occupational group level, the analytical group includes occupations such as legal, healthcare, and business and financial operations. On the other hand, occupations in the nonanalytical group are related to skills and abilities such as troubleshooting; repairing; dynamic, explosive, static, and trunk strength; and stamina. The nonanalytical group includes occupations such as production; transportation and material moving; office and administrative support; sales, installation, maintenance, and repair; building and grounds cleaning and maintenance; and protective service.

### **Employment changes by occupation**

A comparison of employment before and after layoffs shows that the largest numbers of jobs lost were in occupations that involved clerical or nonanalytical labor; included among these jobs were those in the production, office and administrative support, and transportation and material moving occupational groups. Table 4 shows that, despite layoffs, seven of the occupational groups grew, including legal occupations; healthcare practitioners and technical; healthcare support; and food preparation and serving occupations. Employment in these occupations

**Table 2. Establishments by industry sector, establishment size, and geographic region, sorted by number of establishments in "before layoff" study sample**

Category	Number of establishments in full OES dataset, 1999–2008 <sup>1</sup>	Number of unique company/county layoff events in full MLS dataset, 2000–2007	Number of establishments in "before layoff" study sample	Number of establishments in "after layoff" study sample
Total number of establishments	<sup>2</sup> 2,822,082	24,750	4,520	4,520
<b>Industry group</b>				
Goods-producing industries	374,801	12,778	2,154	n/a
NAICS 31–33 Manufacturing	202,453	9,321	1,604	n/a
NAICS 23 Construction	152,417	3,219	504	n/a
NAICS 21 Mining	10,330	238	46	n/a
NAICS 11 Farming	9,601	0	0	n/a
Service-providing industries	1,597,846	11,972	2,366	n/a
NAICS 44–45 Retail trade	261,270	1,717	560	n/a
NAICS 62 Health care and social assistance	192,536	1,016	298	n/a
NAICS 56 Administrative and support and waste management and remediation services	123,146	1,953	265	n/a
NAICS 51 Information	54,028	940	263	n/a
NAICS 48–49 Transportation and warehousing	79,839	1,381	222	n/a
NAICS 72 Accommodation and food service	129,017	1,235	200	n/a
NAICS 52 Finance and insurance	89,925	1,034	145	n/a
NAICS 71 Arts, entertainment, and recreation	45,099	348	101	n/a
NAICS 81 Other services	124,662	327	84	n/a
NAICS 42 Wholesale trade	134,951	689	82	n/a
NAICS 54 Professional, scientific, and technical services	155,903	853	68	n/a
NAICS 61 Educational services	74,382	117	36	n/a
NAICS 22 Utilities	9,298	70	15	n/a
NAICS 55 Management of companies and enterprises	17,427	92	14	n/a
NAICS 53 Real estate and rental and leasing	61,439	120	8	n/a
NAICS 99 Public administration	44,924	80	5	n/a
<b>Establishment size<sup>3</sup></b>				
Establishments with 50–249 employees	544,595	n/a	1,835	1,893
Establishments with 250–999 employees	110,750	n/a	1,701	1,474
Establishments with 1,000 or more employees	20,759	n/a	505	420
Establishments with 10–49 employees	1,106,893	n/a	400	547
Establishments with 1–9 employees	1,039,085	n/a	79	186
<b>Geographic region</b>				
West	454,996	5,696	1,307	n/a
Midwest	539,060	5,680	1,211	n/a
Southeast	568,758	4,262	702	n/a
Southwest	353,174	2,264	492	n/a
New York-New Jersey	210,890	2,730	436	n/a
Mountain-Plains	213,473	1,078	251	n/a
Mid-Atlantic	283,567	1,849	91	n/a
New England	198,164	1,191	30	n/a
<sup>1</sup> Excluding Puerto Rico, Virgin Island, Guam		None of these 849,435 establishments were part of the MLS dataset.		
<sup>2</sup> There are 849,435 establishments that have only an SIC code and no NAICS code; these establishments are not included in the NAICS data and so the sum of establishments by industry does not equal the total shown.		<sup>3</sup> MLS data do not include establishment size. Although the data include the number of separations, they are not comparable because not all establishments lay off the same proportion of employees.		

increased 18 percent, 11 percent, 8 percent, and 4 percent, respectively. The occupational groups that grew were service-providing occupations and, with the exception of food preparation and serving occupations, tended to include higher paying and higher skilled occupations.

Even within the groups with the most job losses, detailed occupations that tended to have workers with more

training and education were least likely to experience layoffs. For instance, the detailed office support occupations whose employment shrank the most tended to have more workers whose educational attainment was a high school diploma and short-term on-the-job training.<sup>8</sup> Detailed office support occupations with the greatest losses included customer service representatives; general office clerks;



**Table 3. Establishments by primary reason for extended mass layoff, 2000–2007**

Reason for layoff	Number of unique company/ county layoff events in full MLS dataset, 2000–2007	Number of establishments in "before layoffs" study sample
Total number of establishments	24,750	4,520
<b>Economic difficulties</b>	16,700	3,078
Slack work/insufficient demand/non-seasonal business slowdown	4195	926
Reorganization or restructuring of company	3021	757
Contract completion	2424	346
Financial difficulty	1966	277
Bankruptcy	1003	39
Business-ownership change	940	116
Contract cancellation	726	115
Extreme weather-related event	543	130
Import competition	487	74
Domestic relocation	313	39
Overseas relocation	188	26
Product line discontinued	187	49
Cost control/cost cutting/increase profitability	157	52
Labor dispute/contract negotiations/strike	143	36
Plant or machine repair/maintenance	96	18
Material or supply shortage	63	16
Automation/technological advances	39	15
Model changeover	39	13
Excess inventory/saturated market	35	4
Non-natural disaster	32	8
Energy related	30	3
Hazardous work environment	23	7
Natural disaster (not weather related)	23	8
Governmental regulations/intervention	14	0
Domestic competition	13	4
<b>Seasonal reasons</b>	6,072	1,304
Seasonal	4551	967
Other seasonal	916	184
Vacation period/school related or otherwise	605	153
<b>Other reasons</b>	1,978	138
Data not provided: refusal	1061	60
Data not provided: does not know	917	78

shipping and traffic clerks; first-line supervisors; secretaries (except legal, medical, and executive); bill and account collectors; and data entry keyers. Table 5 shows the 20 occupations with the largest declines in employment levels and table 6 shows those with the largest percent declines. For many of these occupations, most workers had an educational attainment level of high school diploma or equivalent.<sup>9</sup>

Among office support occupations that grew the most following layoffs were interviewers, medical secretaries, and payroll and timekeeping clerks. Table 7 shows the 20 occupations with the largest increases in employment after layoffs, and table 8 shows those with the largest percent increases. More workers in these occupations had the educational attainment of either a bachelor's degree, or some college or no degree.

Within the production occupations group, detailed occu-

pations with the most losses were team assemblers, miscellaneous metal and plastic workers, electrical and electronic equipment assemblers, slaughterers and meat packers, and first-line supervisors. For these types of assembly and fabrication jobs, a high school diploma was the most prevalent level of education, but experience and additional training were often needed for advanced assembly work.<sup>10</sup> Employment declines due to productivity growth and strong foreign competition in manufacturing<sup>11</sup> may have contributed to the job losses evident in the layoff study sample. In fact, a control group (to be explained in the next section) shows that employment in production occupations declined by 2 percent among establishments from 2004 to 2008 regardless of layoff status, while employment in production occupations declined by 20 percent during a similar period in establishments with mass layoffs.

Similarly, transportation occupations that lost the most

**Table 4. Employment before and after extended mass layoff, by occupational group, 1999–2008, sorted from largest loss to largest gain**

Occupational group	Before layoffs	After layoffs	Change after layoffs	Percent change after layoffs
Production	560,997	441,624	-119,373	-21.3
Office and administrative support	379,743	307,211	-72,532	-19.1
Transportation and material moving	227,004	186,961	-40,043	-17.6
Sales and related	146,752	117,806	-28,946	-19.7
Management	116,128	94,388	-21,740	-18.7
Installation, maintenance, and repair	131,028	111,526	-19,502	-14.9
Architecture and engineering	125,699	106,762	-18,937	-15.1
Personal care and service	121,066	105,212	-15,854	-13.1
Construction and extraction	131,891	121,397	-10,494	-8.0
Arts, design, entertainment, sports, and media	34,291	28,389	-5,902	-17.2
Protective service	26,682	21,232	-5,450	-20.4
Computer and mathematical science	102,263	97,675	-4,588	-4.5
Building and grounds cleaning and maintenance	62,563	60,547	-2,016	-3.2
Life, physical, and social science	21,970	20,997	-973	-4.4
Community and social services	7,782	7,908	126	1.6
Business and financial operations	111,618	111,847	229	0.2
Legal	3,532	4,161	629	17.8
Education, training, and library	30,352	31,429	1,077	3.5
Healthcare support	19,209	20,800	1,591	8.3
Food preparation and serving related	81,386	84,849	3,463	4.3
Healthcare practitioners and technical	72,433	80,353	7,920	10.9

employment were those which involved predominantly nonanalytical skills and short-term on-the-job training: hand packers and packagers; freight, stock, and material hand movers; and industrial truck drivers. Conversely, employment increased in transportation occupations for jobs that required either more training, or certification or licensure: driver/sales workers,<sup>12</sup> as well as excavating and loading machine and dragline operators (with moderate-term on-the-job training being the most significant source of training for the two kinds of operators).

Although employment in the computer occupational group declined overall, employment grew in some of the most highly skilled occupations in the group: computer applications software engineers (which also saw the third-highest growth of all detailed occupations across groups) and computer and network systems analysts. Employment declined, however, among computer programmers and computer support specialists—occupations with job functions that, according to SOC definitions, involve less research and analysis.

Among business and financial operations occupations, employment increased in those which involved analysis and technical skills: management analysts, logisticians, accountants, financial analysts, and personal financial advisors. The most significant source of education for the five specified occupations was a bachelor's degree, and several of the occupations had high proportions of workers at the highest educational attainment level (doctoral

or professional degree). Conversely, most employment losses in this group were among occupations that generally required less academic preparation—training and development specialists, buyers, and cost estimators. The most significant source of education for buyers was long-term on-the-job training, and none of the aforementioned three occupations had high proportions of workers who had attained the highest educational level.<sup>13</sup>

The net number of jobs lost in each occupational group is a result of the rates at which companies laid off different types of workers, as well as the types of workers that tended to be employed in companies that had layoffs. To isolate these factors, the percent change is useful for assessing employment growth and decline relative to an occupation's initial employment level. (See tables 6 and 8.) The occupational groups that had the largest percent declines in employment were production, protective service, sales and related occupations, office and administrative support, and management. The groups with the highest percent growth in firms with mass layoffs were legal occupations and healthcare practitioner occupations. Healthcare practitioners; food preparation and serving; healthcare support; and education, training, and library occupations were the occupational groups with the highest levels of growth in employment. Some of the detailed occupations that grew were service-related occupations and included registered nurses, waiters and waitresses, cashiers, and interviewers. (See table 7.)

**Table 5. The 20 occupations<sup>1</sup> with the largest decline in employment level after extended mass layoff, 1999–2008, sorted by size of decline**

SOC	Occupation	Occupational group	Employment				Establishments		
			Before layoffs	After layoffs	Change	Percent change	Number reporting before layoffs	Number reporting after layoffs	Percent change in number reporting
51–2092	Team assemblers	Production	85,058	63,870	–21,188	–24.9	496	507	2.2
41–2031	Retail salespersons	Sales and related	45,972	34,116	–11,856	–25.8	491	508	3.5
43–4051	Customer service representatives	Office and administrative support	55,650	43,832	–11,818	–21.2	1394	1429	2.5
51–4199	Metal workers and plastic workers, all other	Production	16,930	6,341	–10,589	–62.5	105	80	–23.8
51–2022	Electrical and electronic equipment assemblers	Production	22,914	14,684	–8,230	–35.9	186	177	–4.8
51–3023	Slaughterers and meat packers	Production	14,358	6,149	–8,209	–57.2	30	21	–30.0
53–7064	Packers and packagers, hand	Transportation and material moving	23,890	15,736	–8,154	–34.1	596	491	–17.6
51–1011	First-line supervisors/managers of production and operating workers	Production	30,617	22,657	–7,960	–26.0	1678	1578	–6.0
39–3091	Amusement and recreation attendants	Personal care and service	13,936	6,508	–7,428	–53.3	77	90	16.9
43–9061	Office clerks, general	Office and administrative support	29,746	22,661	–7,085	–23.8	2004	1921	–4.1
15–1021	Computer programmers	Computer and mathematical science	13,857	7,183	–6,674	–48.2	697	528	–24.2
51–9061	Inspectors, testers, sorters, samplers, and weighers	Production	31,934	25,396	–6,538	–20.5	1170	1148	–1.9
51–9199	Production workers, all other	Production	25,968	19,498	–6,470	–24.9	375	309	–17.6
53–7062	Laborers and freight, stock, and material movers, hand	Transportation and material moving	52,270	45,992	–6,278	–12.0	1269	1244	–2.0
43–5071	Shipping, receiving, and traffic clerks	Office and administrative support	20,581	14,607	–5,974	–29.0	1678	1582	–5.7
41–9041	Telemarketers	Sales and related	13,182	7,586	–5,596	–42.5	117	113	–3.4
49–9042	Maintenance and repair workers, general	Installation, maintenance, and repair	32,387	26,801	–5,586	–17.2	1831	1907	4.2
17–2199	Engineers, all other	Architecture and engineering	18,085	12,579	–5,506	–30.4	405	311	–23.2
53–7051	Industrial truck and tractor operators	Transportation and material moving	24,398	18,943	–5,455	–22.4	919	858	–6.6
11–9199	Managers, all other	Management	15,221	9,852	–5,369	–35.3	914	739	–19.1

<sup>1</sup> Excluded are any occupations with fewer than 10 reporting establishments before layoffs.

*Comparison with a control group.* A control group serves to compare staffing changes among establishments that experienced layoffs with occupational changes in the economy as a whole. The change in published OES estimated employment from May 2004 to May 2008 was used as the control group. The May 2004 estimates are based on employment staffing patterns from November 2001 to May 2004. Likewise, the May 2008 estimates are based on staffing patterns from November 2005 to May 2008. These periods cover a large portion of the study sample frame. The employment changes for establishments that had layoffs and for the economy as a whole are shown in chart 1. The distance and direction from the 45-degree line show the differences in behavior between establish-

ments with layoffs and the economy as a whole. Legal occupations make up the only occupational group above the 45-degree line; the group is the only one that grew more in establishments with layoffs than in the control group.

Quadrant I comprises occupational groups with employment growth in establishments that had layoffs (the study group) and in the economy as a whole (the control group). Groups that grew in employment in both the study and control subsets included healthcare and legal occupations; food preparation and serving; and education, training, and library occupations.

Occupational groups whose employment shrank in the study subset but grew in the control subset are shown in quadrant II. These groups were the most vulnerable to

**Table 6. The 20 occupations<sup>1</sup> with the largest percent decline in employment after extended mass layoff, 1999–2008, sorted by size of decline**

SOC	Occupation	Occupational group	Employment				Establishments		
			Before layoffs	After layoffs	Change	Percent change	Number reporting before layoffs	Number reporting after layoffs	Percent change in number reporting
53-7072	Pump operators, except wellhead pumpers	Transportation and material moving	511	36	-475	-93.0	19	7	-63.2
33-2011	Fire fighters	Protective service	2,850	240	-2,610	-91.6	16	11	-31.3
43-2099	Communications equipment operators, all other	Office and administrative support	615	57	-558	-90.7	33	8	-75.8
15-2099	Mathematical scientists, all other	Computer and mathematical science	365	37	-328	-89.9	17	10	-41.2
51-6091	Extruding and forming machine setters, operators, and tenders, synthetic and glass fibers	Production	3,933	427	-3,506	-89.1	17	15	-11.8
49-2095	Electrical and electronics repairers, powerhouse, substation, and relay	Installation, maintenance, and repair	888	112	-776	-87.4	24	14	-41.7
51-8012	Power distributors and dispatchers	Production	276	36	-240	-87.0	15	5	-66.7
51-7099	Woodworkers, all other	Production	621	91	-530	-85.3	24	12	-50.0
39-9021	Personal and home care aides	Personal care and service	2,140	323	-1,817	-84.9	26	14	-46.2
53-2012	Commercial pilots	Transportation and material moving	1,438	273	-1,165	-81.0	30	32	6.7
51-2093	Timing device assemblers, adjusters, and calibrators	Production	431	106	-325	-75.4	13	10	-23.1
43-5111	Weighers, measurers, checkers, and samplers, recordkeeping	Office and administrative support	5,560	1,407	-4,153	-74.7	325	251	-22.8
51-4194	Tool grinders, filers, and sharpeners	Production	1,253	321	-932	-74.4	125	64	-48.8
17-3021	Aerospace engineering and operations technicians	Architecture and engineering	2,618	735	-1,883	-71.9	30	21	-30.0
51-2021	Coil winders, tapers, and finishers	Production	1,490	432	-1,058	-71.0	35	23	-34.3
29-1199	Health diagnosing and treating practitioners, all other	Healthcare practitioners and technical	1,689	503	-1,186	-70.2	43	22	-48.8
27-1027	Set and exhibit designers	Arts, design, entertainment, sports, and media	156	47	-109	-69.9	16	12	-25.0
51-7031	Model makers, wood	Production	318	96	-222	-69.8	25	16	-36.0
49-9045	Refractory materials repairers, except brickmasons	Installation, maintenance, and repair	81	25	-56	-69.1	10	6	-40.0
27-4014	Sound engineering technicians	Arts, design, entertainment, sports, and media	277	86	-191	-69.0	30	19	-36.7

<sup>1</sup> Excluded are any occupations with fewer than 10 reporting establishments before layoffs.

layoff in struggling businesses despite overall growth elsewhere in the economy. The occupations with the greatest inverse relationship were arts, design, entertainment, sports, and media; sales; and protective service occupations. Quadrant III shows occupational groups whose employment shrank in both the control and study groups: production, transportation, and material moving; and management occupations.<sup>14</sup>

Finally, for comparison with another type of control, table 2 shows the distribution of the full OES dataset from 1999 to May 2008 by region, industry sector, and establishment size. Table 3 shows the distribution of the full MLS dataset of unique company/county layoff events from 2000 to 2007 by reason for layoff. A comparison shows

that the sample is representative of the full data set, but there are some exceptions. For example, manufacturing had more representation in the study sample than in the control group, which might explain why we see such large employment changes in production occupations.

*Regression analysis.* Comparing the employment change in the study group with published estimates of employment change is useful in assessing whether the study's results are reflected in the economy overall. Formal regression analysis achieves the same goal but also lets us empirically control for other factors, such as industry, geographic region, establishment size, and time between observations.

**Table 7. The 20 occupations<sup>1</sup> with the largest increase in employment level after extended mass layoff, 1999–2008, sorted by size of increase**

SOC	Occupation	Occupational group	Employment				Establishments		
			Before layoffs	After layoffs	Change	Percent change	Number reporting before layoffs	Number reporting after layoffs	Percent change in number reporting
29-1111	Registered nurses	Healthcare practitioners and technical	34,917	40,876	5,959	17.1	321	291	-9.3
51-2031	Engine and other machine assemblers	Production	2,925	8,015	5,090	174.0	46	37	-19.6
15-1031	Computer software engineers, applications	Computer and mathematical science	16,704	21,679	4,975	29.8	393	447	13.7
51-2099	Assemblers and fabricators, all other	Production	42,913	46,901	3,988	9.3	257	190	-26.1
35-3031	Waiters and waitresses	Food preparation and serving related	18,934	22,356	3,422	18.1	211	200	-5.2
41-2011	Cashiers	Sales and related	23,293	26,514	3,221	13.8	669	655	-2.1
43-4111	Interviewers, except eligibility and loan	Office and administrative support	4,294	7,057	2,763	64.3	79	90	13.9
13-1111	Management analysts	Business and financial operations	8,645	11,408	2,763	32.0	461	568	23.2
35-3022	Counter attendants, cafeteria, food concession, and coffee shop	Food preparation and serving related	4,183	6,928	2,745	65.6	174	155	-10.9
17-2072	Electronics engineers, except computer	Architecture and engineering	6,205	8,779	2,574	41.5	205	224	9.3
51-9023	Mixing and blending machine setters, operators, and tenders	Production	3,293	5,558	2,265	68.8	188	172	-8.5
13-1081	Logisticians	Business and financial operations	1,857	4,098	2,241	120.7	219	342	56.2
41-3099	Sales representatives, services, all other	Sales and related	6,002	7,879	1,877	31.3	214	458	114.0
31-1012	Nursing aides, orderlies, and attendants	Healthcare support	9,278	11,134	1,856	20.0	78	82	5.1
49-2022	Telecommunications equipment installers and repairers, except line installers	Installation, maintenance, and repair	4,898	6,708	1,810	37.0	141	158	12.1
49-9041	Industrial machinery mechanics	Installation, maintenance, and repair	10,244	11,929	1,685	16.4	484	558	15.3
19-1042	Medical scientists, except epidemiologists	Life, physical, and social science	1,522	3,203	1,681	110.4	37	36	-2.7
47-2081	Drywall and ceiling tile installers	Construction and extraction	2,349	4,027	1,678	71.4	30	34	13.3
13-1079	Human resources, training, and labor relations specialists, all other	Business and financial operations	2,586	4,247	1,661	64.2	517	889	72.0
19-3021	Market research analysts	Life, physical, and social science	4,769	6,405	1,636	34.3	387	477	23.3

<sup>1</sup> Excluded are any occupations with fewer than 10 reporting establishments before layoffs.

Two sets of OES observations were created to run a regression. The study group was the set of 4,520 establishments that had layoffs. The control group was the set of 205,339 establishments that reported twice to the OES survey in the study period—once in the 1999–2000 period and then again between November 2005 and May 2008—that was not in the study group.

There were 206,377 establishments that reported to OES in both sets. Approximately 1,000 establishments that had been in both the control group and the study group were deleted from the control group to prevent duplication, resulting in 205,339 remaining control observations. For

each pair of matching establishments, the change in employment by occupational group was calculated. The other variables for this data set were region, goods-producing or service-providing industry groups, establishment size, and time between observations. The regression was based on a total of 209,859 records.

The econometric model used was

$$\Delta \text{employment}_{\text{SOC major group}} = \beta_0 + \beta_1 \text{layoff}_i + \beta_2 \text{goods} + \beta_3 \text{totalemp\_first}_i + \sum_j \delta_j I(\text{geographic region}_{ij}) + \sum_j \gamma_j I(\text{number of years between observations}_{ij}) + \varepsilon_i$$



**Table 8. The 20 occupations<sup>1</sup> with the largest percent increase in employment after extended mass layoff, 1999–2008, sorted by size of increase**

SOC	Occupation	Occupational group	Employment				Establishments		
			Before layoffs	After layoffs	Change	Percent change	Number reporting before layoffs	Number reporting after layoffs	Percent change in number reporting
43-4061	Eligibility interviewers, government programs	Office and administrative support	98	412	314	320.4	15	15	0.0
19-1012	Food scientists and technologists	Life, physical, and social science	60	191	131	218.3	19	44	131.6
39-9041	Residential advisors	Personal care and service	78	237	159	203.8	13	12	-7.7
51-9193	Cooling and freezing equipment operators and tenders	Production	139	405	266	191.4	20	32	60.0
19-2012	Physicists	Life, physical, and social science	179	509	330	184.4	14	16	14.3
51-2031	Engine and other machine assemblers	Production	2,925	8,015	5,090	174.0	46	37	-19.6
29-1129	Therapists, all other	Healthcare practitioners and technical	43	114	71	165.1	13	13	0.0
19-4011	Agricultural and food science technicians	Life, physical, and social science	194	506	312	160.8	42	40	-4.8
35-2019	Cooks, all other	Food preparation and serving related	67	174	107	159.7	11	24	118.2
47-3011	Helpers—brickmasons, blockmasons, stonemasons, and tile and marble setters	Construction and extraction	159	395	236	148.4	12	14	16.7
39-6032	Transportation attendants, except flight attendants and baggage porters	Personal care and service	933	2,239	1,306	140.0	29	31	6.9
11-9039	Education administrators, all other	Management	61	141	80	131.1	16	23	43.8
47-3014	Helpers—painters, paperhangers, plasterers, and stucco masons	Construction and extraction	131	300	169	129.0	12	19	58.3
29-9011	Occupational health and safety specialists	Healthcare practitioners and technical	438	992	554	126.5	180	293	62.8
27-1025	Interior designers	Arts, design, entertainment, sports, and media	175	394	219	125.1	37	67	81.1
29-9012	Occupational health and safety technicians	Healthcare practitioners and technical	142	316	174	122.5	44	85	93.2
13-1081	Logisticians	Business and financial operations	1,857	4,098	2,241	120.7	219	342	56.2
19-1042	Medical scientists, except epidemiologists	Life, physical, and social science	1,522	3,203	1,681	110.4	37	36	-2.7
49-2098	Security and fire alarm systems installers	Installation, maintenance, and repair	271	563	292	107.7	20	13	-35.0
11-3049	Human resources managers, all other	Management	909	1,851	942	103.6	331	637	92.4

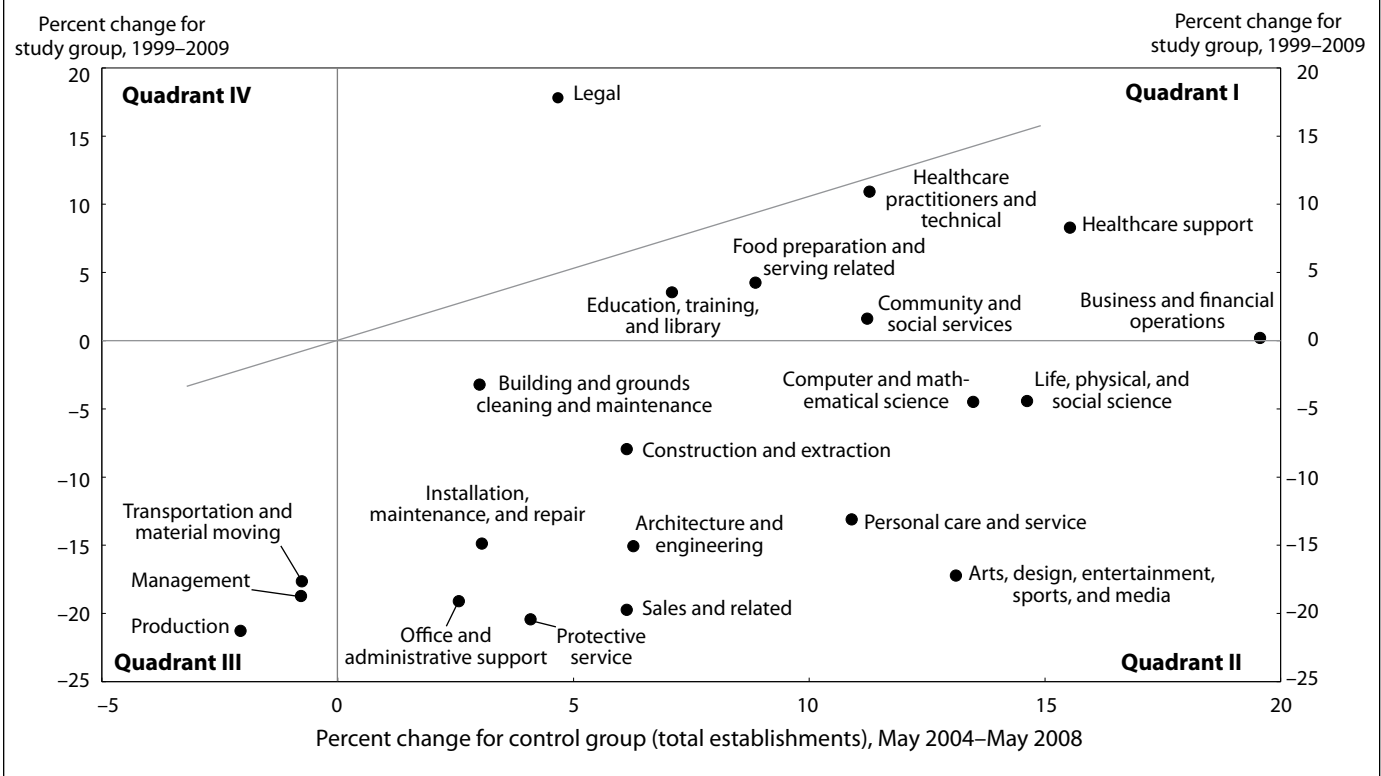
<sup>1</sup> Excluded are any occupations with fewer than 10 reporting establishments before layoffs.

where the dependent variable was the change in employment level for each major occupational group, calculated with the use of the first and second employment levels reported for each occupational group. *Layoff* was an indicator dummy variable for whether the establishment had a layoff; where  $layoff_i = 1$ , a layoff occurred. *Goods* was a dummy variable for the combined goods-producing industries, as opposed to the service-providing industries. *Totalemp\_first* was the total employment at the time of the first observation of the establishment. The *geographic region* dummy variables indicated geographic regions: West,

Southwest, Southeast, Mountain-Plains, New York-New Jersey, Midwest, Mid-Atlantic, and New England (captured in the intercept). Finally, there were nine dummy variables representing the number of years between observations, ranging from 1 to 9; 9 years was captured in the intercept.

In each of the 21 regressions, the significance of the layoff coefficient indicates whether the establishments in the study group were statistically different from establishments in the control group after controlling for these other variables. For example, some of the employment

**Chart 1. Change in employment after extended mass layoffs in study control groups**



change in production occupations in the study group may have been affected by the manufacturing plants that were letting production workers go regardless of whether the plant had mass layoffs. Appendix table A-1 shows the output for these regressions.

Of the 21 layoff indicator coefficients, 14 were statistically different from zero at the 5-percent significance level. Appendix table A-1 shows the layoff variable coefficients and their p-values. Because the dependent variable is the change in employment level, the coefficients of the variables are interpreted as the *additional* change in the employment of an occupation because of layoff.

Controlling for the preceding variables, the model indicated that an extended mass layoff was associated with a decline in employment for the following occupational groups: production; office and administrative support; sales and related; management; transportation and material moving; architecture and engineering; installation, maintenance, and repair; construction and extraction; personal care and service; and arts, design, entertainment, sports, and media. An extended mass layoff was associated with an additional employment decline of 20.8 percent in production occupations, on average.

Conversely, with the same variables controlled for, an extended mass layoff was associated with growth in employ-

ment for the following occupational groups (presented in descending order of magnitude of growth): food preparation and serving related; building and grounds cleaning and maintenance; business and financial operations; and legal.

These results are consistent with those set forth in the previous section, with some exceptions. The occupational groups with the largest declines in employment using regression also shrank relative to the control group in the first comparisons. That is, the occupations with the largest declines in the regression were generally in the lower left area of chart 1 (quadrant III and part of quadrant II); this is where declines were large in the group with layoffs relative to the economy as a whole. For the most part, occupational groups with differences that were not significant in the regression comparison were closest to the 45 degree line in the chart.

The largest differences between outcomes were in building and grounds cleaning and maintenance occupations and food preparation and serving related occupations. In the initial comparison, building and grounds cleaning and maintenance occupations grew in the economy and shrank in the layoff group. The regression comparison indicates that building and grounds cleaning and maintenances occupations grew more in the layoff group relative to the

control group. In both comparisons, food service occupations grew in the layoff group and in the control group. In the initial comparison to the economy as a whole, food service occupations grew less in the layoff group than in the control group; in the regression comparison to a control group, the food service occupations grew more in the layoff group than in the control group.

Differences in the comparison may in part be due to the differences in the control groups. The first control group, where the control is the entire economy, captures growth as a result of new establishments and may include a better representation of smaller establishments. The second control group, which matches existing establishments at two points in time, does not capture any “births,” or new establishments, in the comparison period. Also, because the OES survey uses a probability-proportional-to-size sample, it is less likely that the matched set includes smaller establishments.

*Seasonal versus “economic difficulties” reasons for layoffs.* Another regression analysis was conducted to determine whether occupational changes differed significantly—after controlling for industry, region, time between observations, and establishment size—depending on whether the layoff was due to seasonal reasons. On the basis of the 4,520 observations from the study sample, the primary layoff reasons were grouped into three broad categories: “economic difficulties,” “seasonal,” and “other.” The “economic difficulties” category included business demand, financial difficulty, reorganization or restructuring of the company, production, and domestic and overseas relocation reasons. The “other” category covered disaster/safety reasons and unidentified reasons. The “seasonal” category included seasonal, vacation period/school related or otherwise, and other seasonal reasons.<sup>15</sup>

The regression model used was

$$\Delta \text{employment}_{\text{SOC major group}} = \beta_0 + \beta_1 \text{layoff}_i \times \text{economic}_i + \beta_2 \text{layoff}_i \times \text{seasonal}_i + \beta_3 \text{goods}_i + \beta_4 \text{totalemp\_before}_i + \sum_j \delta_j I(\text{geographic region}_{ji}) + \sum_j \gamma_j I(\text{number of years between observations}_{ji}) + \varepsilon_i$$

where the dependent variable was the change in employment level for each SOC major occupational group, calculated with the use of employment levels reported for each occupational group in each establishment before and after layoff. *Layoff* was a dummy variable indicating whether the establishment had a layoff; where  $\text{layoff}_i = 1$ , a layoff occurred. (In this data set, all observations had a *lay-*

*off*; value of 1.) *Economic*, *seasonal*, and *other* were dummy variables indicating the broad category of “reason for layoff.” *Goods* was a dummy variable for the combined goods-producing industries, as opposed to the service-providing industries. *Totalemp\_before* was the total employment at the time of the first observation of the establishment. The *geographic region* dummy variables indicated geographic region: New England (captured in the intercept), New York-New Jersey, Mid-Atlantic, Southeast, Midwest, Southwest, Mountain-Plains, and West. Finally, there were nine dummy variables representing the number of years between observations, ranging from 1 to 9; 9 years was captured in the intercept.

Appendix table A-2 shows the output of these regressions. In none of the 21 regressions were the two reason variables (*economic* and *seasonal*) statistically different from each other at the 90-percent confidence level. This finding suggests that, after other variables were controlled for, the occupational changes did not differ significantly between seasonal and economic layoff reasons. The data show that, in the long term, establishments that had seasonal layoffs had staffing changes that were similar to establishments that had layoffs because of economic difficulties.<sup>16</sup> It should be noted that some establishments that report seasonal change as their primary reason for layoff might also be undergoing other staffing changes. Because OES surveys take place at the same time each year, changes as a result of seasonal effects are mixed with other effects.

*Occupations eliminated from establishments after layoffs.* Another way to examine the effects of mass layoffs on jobs in a particular occupation is to look at the change in the number of establishments reporting employment in that occupation after the layoff. This approach allows an examination of whether and how often establishments choose to eliminate all workers in a certain occupation or, alternatively, choose to retain at least some employees in that occupation.

The occupations whose employment count changed from positive to zero were those which performed functions that businesses shed completely or outsourced after layoffs. These occupations were predominantly auxiliary administrative and managerial. The group whose occupations were most likely to be eliminated from establishments after layoffs was office and administrative support. Switchboard operators, including answering service, topped the list, with 363 establishments eliminating the occupation completely; the number of establishments reporting them dropped from 781 to 418. Several human resources occupations had the same fate: employment,

recruitment, and placement specialists; training and development specialists; human resources assistants; and payroll and timekeeping clerks. Other supporting administrative occupations affected were computer operators, data entry keyers, file and procurement clerks, and janitors and cleaners.

Conversely, establishments reporting occupations commonly found in many businesses such as general managers and administrative clerks (bookkeeping, general office, shipping, and payroll) tended to keep at least one of the employees in those occupations. The share of establishments completely eliminating these occupations was relatively low, ranging from 1 percent to 12 percent. Workers fulfilling these business functions apparently were considered essential for maintaining the basic operations of the company.

Many of the occupations with the largest employment losses overall were essential, or core, to their business, so the occupations tended to be retained within the establishment, although at much lower levels of employment. In fact, the three occupations with the largest employment declines—team assemblers, retail salespersons, and customer service representatives—existed in more establishments after layoffs than before; the number of jobs in the occupation, however, was smaller after the layoffs. Similarly, although employment in sales occupations declined overall by almost 29,000 jobs, more establishments reported having employment in sales occupations after layoffs. This finding could be a result of shifts in staffing patterns after restructuring. The effect of layoffs on employment in core occupations is discussed further in the next section.

## Occupational changes by industry sector

This section examines occupational employment changes within and across industry groups. The first analysis shows that, within sectors, core occupations generally were retained. Looking across sectors, the second analysis uses regression to see how these changes differed between the goods-producing and service-providing industry groups.

*Employment changes within sectors.* Examining employment changes by industry sector provides insight into the effects of mass layoffs on the occupational structure of specific types of businesses. It allows the identification of core and support business functions in different industries and shows that the severity of mass layoffs in terms of job loss varied by occupation and the industry of the business experiencing a layoff.

After layoffs, industry sectors that followed the pattern of reducing employment in occupations requiring less specialized skills and maintaining or increasing employment in analytical occupations included information; finance and insurance; professional, scientific, and technical services; and the durable goods portion of the manufacturing sector. Examples of occupations with reduced employment in these sectors were sales and office workers; examples of occupations with increased employment were various types of analysts and engineers. These industry sectors—and particularly the durable goods manufacturing portion of the manufacturing sector—experienced large numbers of layoff events during the study period.

Establishments were more likely to retain employment in occupations that were core to their industry. (See table 9.) For example, employment in business and financial operations occupations grew in finance and insurance establishments with layoffs. The same was observed among teachers in the education sector, as well as among health-care workers in hospitals, extraction workers in mining, and computer and mathematical science occupations in the information sector. Other sectors saw smaller declines in core occupations than in occupations that have support functions. For example, in the manufacturing industries, most occupational groups saw decreases, but production workers had lower percent declines in manufacturing than in several other industries. The same pattern was observed in core occupations for other industries, including installation and maintenance occupations in the utilities sector, transportation and material moving occupations in the transportation sector, and personal care and service and food preparation occupations in the accommodation and food services sector.

The overall pattern of reducing the number of jobs in occupations requiring less specialized skills and retaining jobs in analytical occupations was driven by the industry sectors with relatively large numbers of layoff events. These sectors included information (NAICS 51); finance and insurance (NAICS 52); professional, scientific, and technical services (NAICS 54); and the durable goods portion of the manufacturing sector (NAICS 33). Employment declined in these sectors for occupations requiring less specialized skills, such as sales and office workers, while increasing for various types of analysts and engineers.

In the fourth quarter of 2007, manufacturing industries accounted for 24 percent of private nonfarm extended layoff events. This study reflects that distribution, with the three manufacturing components—food, wood, and durable goods—experiencing the largest net losses in employment compared to other industries. In durable

**Table 9. Percent change in employment after extended mass layoff, by (NAICS) industry and occupation, 1999–2008**

Occupational group	Goods-producing industries group					Information	Financial activities		Professional and business services		
	Mining (21)	Construction (23)	Manufacturing (31)	Manufacturing (32)	Manufacturing (33)	Information (51)	Finance and insurance (52)	Real estate and rental and leasing (53)	Professional, scientific, and technical services (54)	Management of companies and enterprises (55)	Administrative and support and waste management and remediation services (56)
Management	18.7	-3.4	-43.2	-11.5	-13.9	-51.0	2.4	-43.8	5.3	-59.2	-27.7
Business and financial operations	118.6	20.2	-29.2	-17.0	-1.7	6.6	2.1	2.5	59.8	-26.7	2.9
Computer and mathematical science	57.6	-5	-43.4	.1	-10.6	13.8	11.6	-28.7	-16.1	3.3	-17.9
Architecture and engineering	2.2	-14.0	-48.5	-32.7	-13.8	-19.6	29.8	.0	-14.1	67.6	-48.9
Life, physical, and social science	50.9	26.3	8.2	-15.3	-23.6	9.5	80.0	( <sup>1</sup> )	-2.1	( <sup>1</sup> )	8.0
Community and social services	.0	.0	( <sup>1</sup> )	( <sup>1</sup> )	.0	( <sup>1</sup> )	-54.5	.0	( <sup>1</sup> )	( <sup>1</sup> )	218.0
Legal	( <sup>1</sup> )	211.1	-47.6	85.0	25.5	13.4	9.7	( <sup>1</sup> )	-14.0	2.6	-3.8
Education, training, and library	.0	( <sup>1</sup> )	( <sup>1</sup> )	-100.0	-6.7	-71.9	94.1	.0	37.5	12.8	91.2
Arts, design, entertainment, sports, and media	( <sup>1</sup> )	-54.0	-19.1	108.2	.4	-5.9	1.5	-67.7	-4.2	-1.0	-41.5
Healthcare practitioners and technical	-11.7	-20.6	12.6	91.0	-19.7	73.9	14.3	( <sup>1</sup> )	-70.0	-17.5	8.6
Healthcare support	.0	( <sup>1</sup> )	( <sup>1</sup> )	.0	-50.0	.0	-23.3	.0	( <sup>1</sup> )	( <sup>1</sup> )	-64.9
Protective service	6.7	-2.2	-55.0	-50.8	-27.0	-54.0	-7.9	-42.9	.0	-14.3	-14.5
Food preparation and serving related	( <sup>1</sup> )	-27.1	216.8	-90.9	-63.0	-75.0	138.1	-24.7	( <sup>1</sup> )	-23.9	16.4
Building and grounds cleaning and maintenance	70.0	-18.4	-16.7	-38.6	-42.4	-60.2	-48.9	( <sup>1</sup> )	46.0	.6	-1.5
Personal care and service	( <sup>1</sup> )	-50.7	( <sup>1</sup> )	( <sup>1</sup> )	-50.0	-55.4	( <sup>1</sup> )	.0	( <sup>1</sup> )	-7.8	30.1
Sales and related	208.6	-31.6	-24.0	61.8	-16.5	-41.7	-35.2	-71.0	-5.9	-73.8	-36.9
Office and administrative support	6.1	4.1	-21.2	-16.5	-21.6	-34.3	-33.2	31.6	-21.7	-21.2	-20.6
Construction and extraction	25.5	-2.8	-42.6	-35.9	-29.2	-57.3	( <sup>1</sup> )	( <sup>1</sup> )	-71.9	( <sup>1</sup> )	21.4
Installation, maintenance, and repair	3.9	7.4	-13.0	-27.2	-22.6	8.1	-26.8	.0	-60.4	-22.3	12.1
Production	-30.4	42.2	-23.4	-20.2	-22.8	-28.1	61.2	( <sup>1</sup> )	-58.2	-34.9	11.0
Transportation and material moving	-12.8	.0	-17.0	-30.9	-22.1	-47.9	31.4	.2	3.4	-65.9	8.2

See note at end of table.

goods manufacturing—which had the largest net employment loss of the three manufacturing components in the study—losses in employment levels were mostly in production occupations, such as team assemblers, electrical equipment assemblers, and weighers. Durable goods manufacturers hired workers in analytical occupations, such as electronics engineers, computer applications software engineers, and logisticians.

Within durable goods manufacturing, transportation

equipment manufacturing (NAICS 336) had the highest net employment loss. Table 10 shows the transportation equipment manufacturing occupations that shrank by more than 1,000 jobs in the study group. Most of the losses were in production occupations. Some occupations that grew were related to product design and engineering: computer software applications engineers, logisticians, commercial and industrial designers, and mechanical engineers.



**Table 9. Continued—Percent change in employment after extended mass layoff, by (NAICS) industry and occupation, 1999–2008**

Occupational group	Trade, transportation, and utilities						Education and health care		Leisure and hospitality		Other services	Public administration
	Utilities (22)	Wholesale trade (42)	Retail trade (44)	Retail trade (45)	Transportation (48)	Warehousing (49)	Educational services (61)	Health care and social assistance (62)	Arts, entertainment, and recreation (71)	Accommodation and food services (72)	Other services (81)	Public administration (99)
Management	-21.9	-28.4	-34.4	-17.0	-25.1	-26.0	-6.9	-7.7	-7.6	-25.1	-11.3	-3.5
Business and financial operations	-24.1	-22.7	1.4	8.6	-11.2	13.9	-2.3	6.4	48.2	9.9	25.4	-16.4
Computer and mathematical science	-37.3	-26.5	-1.8	-9.6	13.2	31.9	1.6	4.0	57.9	-2.4	86.4	-30.1
Architecture and engineering	-74.4	21.8	-43.0	-55.8	-45.6	78.4	35.0	-46.1	409.4	-54.8	-4.4	-69.7
Life, physical, and social science	-94.5	-34.3	9.4	-40.4	-10.6	.0	84.5	-7.7	-8.8	-62.7	14.3	( <sup>1</sup> )
Community and social services	.0	.0	.0	.0	( <sup>1</sup> )	.0	-33.9	10.4	( <sup>1</sup> )	( <sup>1</sup> )	-29.3	.0
Legal	20.8	-31.5	270.0	81.3	-29.5	( <sup>1</sup> )	33.3	104.5	472.7	109.1	( <sup>1</sup> )	( <sup>1</sup> )
Education, training, and library	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	-46.0	.0	2.7	5.0	-23.2	-22.2	13.5	( <sup>1</sup> )
Arts, design, entertainment, sports, and media	161.4	-19.2	21.1	34.4	-9.9	-90.0	12.6	22.9	-48.6	9.4	126.6	-42.8
Healthcare practitioners and technical	( <sup>1</sup> )	-47.1	55.1	13.8	-33.8	31.3	-2.0	12.1	-10.6	93.6	21.1	( <sup>1</sup> )
Healthcare support	.0	.0	-38.0	108.2	-19.4	( <sup>1</sup> )	-5.0	11.4	-91.4	48.7	( <sup>1</sup> )	.0
Protective service	-91.9	-44.7	-68.1	-12.3	-10.2	-34.1	-11.0	9.7	-35.9	-1.8	-42.0	( <sup>1</sup> )
Food preparation and serving related	.0	-99.0	13.2	-30.4	24.4	( <sup>1</sup> )	15.4	.5	76.3	-6.5	23.5	( <sup>1</sup> )
Building and grounds cleaning and maintenance	-81.4	35.9	-49.0	-22.2	13.0	-64.7	-2.2	8.7	52.4	-5.0	-16.4	-35.9
Personal care and service	( <sup>1</sup> )	.0	-43.1	-4.3	-9.7	( <sup>1</sup> )	-59.2	-39.0	-24.9	-5.0	-6	.0
Sales and related	90.8	-46.1	14.2	-21.6	-14.4	-19.0	7.6	23.6	-40.3	-13.9	-32.5	2400.0
Office and administrative support	-40.5	-33.7	-10.7	-11.9	-21.3	42.9	2.1	6.7	-8.0	-5.2	-25.8	-45.3
Construction and extraction	85.5	50.3	-41.3	-80.4	32.3	( <sup>1</sup> )	-23.9	-37.0	-39.1	19.9	-34.2	50.9
Installation, maintenance, and repair	-18.4	12.5	-9.7	-16.4	-15.5	-79.1	26.6	31.4	-11.3	-6.3	-49.5	-28.6
Production	-71.6	-9.0	-39.3	-10.0	8.3	20.3	-43.2	-10.5	43.8	-12.9	-22.7	-30.9
Transportation and material moving	-12.5	-25.5	-16.4	-19.0	-15.0	12.7	348.3	-40.6	-21.4	-9.5	-65.8	-53.9

<sup>1</sup> Percent change excluded because it is based on fewer than 5 establishments reporting occupations in the occupational group before layoffs.

Establishments that had layoffs in the information sector reduced employment in occupations that require less specialized training: sales supervisors and representatives, customer service representatives, and stock clerks. After layoffs, they had higher employment in occupations involving technical skills: computer software engineers; telecommunications equipment repairers; management, computer systems, and network systems analysts; and accountants and auditors.

Similarly, most finance and insurance businesses which had layoffs shed jobs in occupations that tended to pay less and that did not include analysis as a primary job function: clerical workers, such as customer service representatives, telemarketers, brokerage clerks, and general office clerks. These establishments increased employment in analytical occupations, such as computer systems analysts, financial analysts, market research analysts, and management analysts. They also added technical positions that tended to

**Table 10. Transportation equipment manufacturing (NAICS 336) occupations whose employment declined by at least 1,000 after extended mass layoff, 1999–2008**

SOC	Occupation	Employment			Establishments	
		Before layoffs	After layoffs	Change	Number reporting before layoffs	Number reporting after layoffs
51–2092	Team assemblers	36,788	23,907	–12,881	104	93
51–4199	Metal workers and plastic workers, all other	13,208	5,068	–8,140	39	42
51–9199	Production workers, all other	10,973	6,496	–4,477	59	55
51–1011	First-line supervisors/managers of production and operating workers	8,683	5,681	–3,002	228	205
17–2011	Aerospace engineers	8,266	5,360	–2,906	24	18
51–2011	Aircraft structure, surfaces, rigging, and systems assemblers	6,801	4,228	–2,573	15	11
51–4121	Welders, cutters, solderers, and brazers	6,720	4,493	–2,227	126	109
51–4111	Tool and die makers	6,629	4,651	–1,978	126	121
53–7051	Industrial truck and tractor operators	5,090	3,195	–1,895	117	115
51–9061	Inspectors, testers, sorters, samplers, and weighers	9,020	7,357	–1,663	184	175
43–5061	Production, planning, and expediting clerks	3,060	1,469	–1,591	159	143
49–9042	Maintenance and repair workers, general	5,623	4,079	–1,544	166	163
53–7062	Laborers and freight, stock, and material movers, hand	4,831	3,371	–1,460	99	97
51–9122	Painters, transportation equipment	3,998	2,564	–1,434	61	56
13–1199	Business operations specialists, all other	6,966	5,698	–1,268	105	88
53–6051	Transportation inspectors	1,508	332	–1,176	20	7
51–4031	Cutting, punching, and press machine setters, operators, and tenders, metal and plastic	3,570	2,404	–1,166	74	59

be highly paid, such as computer software engineers, accountants and auditors, and personal financial advisors.

The professional, scientific, and technical services sector also followed this pattern. These businesses reduced the employment of general office clerks, computer support specialists, customer service representatives, and data entry keyers. They added computer systems analysts, management analysts, and market research analysts, in addition to accountants and auditors.

Most establishments in the health care and social assistance sector tended to lay off administrative support occupations not directly related to healthcare, such as general office and billing clerks. They hired health care workers including registered nurses, nursing aides, and licensed practical nurses. The number of medical secretaries grew, but by less than the employment decline among other administrative support occupations.

Four sectors fared relatively well after layoffs and grew in total employment. Those with net gains in employment were health care and social assistance (NAICS 62); educational services (NAICS 61); mining (NAICS 21); and postal service/couriers/warehousing (NAICS 49). (See table 9.) Within health care and social assistance—which was the sector with the highest net gain in employment—hospitals and ambulatory health care services grew the most, increasing the number of jobs with functions related to health care and administration: office and administrative

support, business and financial operations, management, and computer and mathematical science occupations. Production occupations experienced the largest losses; hospitals especially reduced the number of laundry and drycleaning jobs.

It is informative to examine the occupations that declined in employment after layoffs in sectors which nonetheless experienced net employment gains. Personal and home care aides lost the most employment overall in the health care sector. Mining establishments that underwent layoffs shed several occupations that required less specialized training and skills: general maintenance and repair workers, industrial truck and tractor operators, and machinery maintenance workers. They added operating engineers, industrial machinery mechanics, heavy and tractor-trailer truck drivers, and mobile heavy equipment mechanics.

*Occupational changes in goods-producing versus service-providing establishments.* A regression analysis was conducted to analyze the effect of layoffs by goods-producing and service-providing aggregations (simply termed “groups”) on occupational employment, controlling for region, time between observations, and establishment size. The variables of interest were the two interaction dummy variables for layoff × group. To see if the large employment decline in production occupations in goods-producing industries

was due to the overall decline in employment in production industries, the model also includes a non-interaction dummy variable for the group of goods-producing establishments. The regression was based on a total of 209,858 observations—205,339 control observations and 4,520 study observations.

The model used was

$$\Delta \text{employment}_{\text{SOC major group}} = \beta_0 + \beta_1 \text{layoff}_i \times \text{goods-producing group} + \beta_2 \text{layoff}_i \times \text{service-providing group} + \beta_3 \text{totalemp\_first}_i + \beta_4 \text{goods-producing group} + \sum_j \delta_j I(\text{geographic region}_{ji}) + \sum_j \gamma_j I(\text{number of years between observations}_{ji}) + \varepsilon_i$$

where the dependent variable was the change in employment level for each occupational group between the first observation and the second. *Layoff* was a dummy variable indicating whether the establishment had a layoff; where  $\text{layoff}_i = 1$ , a layoff occurred. *Goods* was a dummy variable for the goods-producing aggregation, as opposed to the service-providing aggregation. *Layoff*  $\times$  *goods* and *layoff*  $\times$  *service* were interaction dummy variables. *Totalemp\_first* was the total employment at the time of the first observation of the establishment. The *geographic region* dummy variables indicated geographic region: West, Southwest, Southeast, Mountain-Plains, New York-New Jersey, Midwest, Mid-Atlantic, and New England (captured in the intercept). Finally, there were nine dummy variables representing the number of years between observations, ranging from 1 to 9; 9 years was captured in the intercept.

With region, time between observations, and establishment size controlled for, an extended mass layoff in the *goods-producing* aggregation was associated with a greater employment decline than in the service-providing aggregation for two occupational groups: architecture and engineering; and installation, maintenance and repair. For production occupations, layoffs were associated with employment decline in the goods-producing group, while layoffs in the service-providing group were actually associated with slight employment growth (significant only at the 11-percent level). The differences between the interaction term coefficients were statistically significant, and the coefficients themselves were statistically significant. Appendix table A-3 shows the regression parameter estimates and statistics for the goods-producing and service-providing interaction variables.

With region, time between observations, and establishment size controlled for, an extended mass layoff in the *service-providing* aggregation was associated with a greater employment decline than in the aggregation of goods-

producing sectors for management and for sales and related occupations. For sales and office and administrative occupations, the employment decline was substantially greater in the service-providing group. In protective service occupations and personal care and service, a layoff in the service-providing group was associated with employment decline, while a layoff in the goods-producing group was associated with employment growth.

Conversely, in building and grounds cleaning and maintenance occupations, an extended mass layoff in the service-providing group was associated with greater employment growth than in the goods-producing group.

Finally, for three occupational groups, the individual goods-producing and service-providing group parameter estimates were significant, but the differences between the two were not. Employment in transportation and material moving occupations declined the same amount in both groups. The difference between them was not statistically significant. Similarly, employment in legal occupations and food preparation and serving-related occupations grew significantly in both the goods-producing and service-providing groups, but the difference between the two coefficients was not statistically significant.

## Occupational changes by reason for layoff

The MLS program asks employers for a primary reason for the layoff. Employers could report 30 reasons for extended mass layoffs over the study period. These reasons can be grouped into six broad categories: business demand, financial, organizational, production, disaster/safety, and seasonal. Business demand accounted for 34 percent of the events in the fourth quarter of 2007, the highest in the economic reasons category excluding seasonal and other reasons. Extended mass layoffs stemming from financial issues accounted for 7 percent of layoff events, the next highest in the economic reasons category. (See table 11.)<sup>17</sup>

The pattern of employers retaining or adding workers in higher skilled analytical or technical occupations while letting go of workers in occupations that require nonanalytical or office and clerical skills was, in general, evident regardless of the reason for the layoff. It is apparent from table 11 that workers in production, material moving, installation and maintenance, and office and administrative support occupations were let go after almost all types of layoffs. The number of jobs in computer and mathematical science occupations, architecture and engineering occupations, and business and financial operations occupations either grew, or declined proportionally less than the number of jobs for lesser skilled workers, regardless of the

**Table 11. Percent change in employment in the study group after extended mass layoff, by primary reason for layoff and occupation, 1999–2008**

Occupational group	Business demand						Disaster/safety				Financial		
	Contract cancellation	Contract completion	Domestic competition	Excess inventory/saturated market	Import competition	Slack work/insufficient demand/non-seasonal business slowdown	Hazardous work environment	Natural disaster (not weather related)	Non-natural disaster	Extreme weather-related event	Bankruptcy	Cost control/cost cutting/increase profitability	Financial difficulty
Management	-21.4	1.3	-55.0	-24.3	-36.7	-22.0	9.3	-9.1	-32.9	13.1	-16.9	-39.5	-13.0
Business and financial operations	9.4	21.8	-78.6	-23.5	-10.6	-7.5	-21.4	-16.1	280.0	4.2	-27.0	.3	9.0
Computer and mathematical science	-29.8	-10.1	( <sup>1</sup> )	( <sup>1</sup> )	-25.1	-12.4	5.0	77.8	( <sup>1</sup> )	5.9	-27.0	41.3	-20.3
Architecture and engineering	-51.2	23.5	-43.8	-44.4	-25.2	-26.2	-2.0	170.4	( <sup>1</sup> )	-7.2	-46.3	-76.1	-15.5
Life, physical, and social science	-49.6	11.5	.0	.0	25.0	19.6	57.1	( <sup>1</sup> )	.0	-40.2	218.4	-36.8	-2.1
Community and social services	-69.4	92.2	.0	.0	.0	7.4	.0	.0	.0	107.4	( <sup>1</sup> )	.0	10.8
Legal	46.7	8.7	.0	.0	( <sup>1</sup> )	10.8	.0	.0	.0	( <sup>1</sup> )	-22.5	11.4	.3
Education, training, and library	32.6	-14.8	.0	.0	( <sup>1</sup> )	-35.3	.0	.0	.0	281.3	( <sup>1</sup> )	( <sup>1</sup> )	2.5
Arts, design, entertainment, sports, and media	14.2	-81.4	.0	.0	-51.3	-10.1	( <sup>1</sup> )	( <sup>1</sup> )	.0	111.8	-40.5	40.6	-12.0
Healthcare practitioners and technical	-37.2	27.3	( <sup>1</sup> )	( <sup>1</sup> )	-50.0	-7.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	-30.5	-7.0	32.5	23.3
Healthcare support	( <sup>1</sup> )	( <sup>1</sup> )	.0	.0	.0	-42.5	.0	.0	.0	-47.8	-1.3	( <sup>1</sup> )	6.8
Protective service	-16.7	-8.2	.0	.0	-44.4	-5.2	( <sup>1</sup> )	( <sup>1</sup> )	-29.4	-35.6	-23.2	50.3	30.4
Food preparation and serving related	-72.7	-16.3	.0	.0	( <sup>1</sup> )	0.6	-100.0	-3.3	-23.9	-23.4	-15.6	7.9	21.2
Building and grounds cleaning and maintenance	-6.9	-6.2	( <sup>1</sup> )	( <sup>1</sup> )	-57.2	-4.5	( <sup>1</sup> )	-68.4	9.4	-40.4	-57.2	32.8	2.3
Personal care and service	-31.4	-43.0	.0	.0	.0	-16.3	( <sup>1</sup> )	( <sup>1</sup> )	-68.4	-40.2	-9.1	50.3	-11.6
Sales and related	-5	-38.2	.0	.0	-58.3	-24.3	( <sup>1</sup> )	-32.4	-16.1	-29.1	-29.3	-17.4	-21.8
Office and administrative support	-34.9	1.0	-55.6	-2.9	-36.8	-15.6	-36.7	-51.2	22.7	-27.4	-17.7	-27.7	-11.2
Construction and extraction	19.8	1.2	-42.0	( <sup>1</sup> )	-39.2	-13.8	-28.8	22.3	( <sup>1</sup> )	49.7	-56.6	88.2	3.7
Installation, maintenance, and repair	-14.5	-22.2	-21.1	-27.7	-51.9	-14.3	-4.6	-9.1	-20.5	12.7	-27.0	-26.6	-14.0
Production	-16.1	-9.1	-66.1	-7.5	-50.4	-17.8	-28.2	5.6	-41.3	13.5	-5.4	-36.7	-32.8
Transportation and material moving	-12.1	14.8	-69.4	-72.7	-52.5	-7.5	-46.1	-41.0	75.6	-31.0	-12.2	2.6	-34.4

See notes at end of table.

reason for the layoff, although there were some exceptions. At the detailed occupation level, employment of customer service representatives, general office clerks, and book-keeping clerks declined after most types of layoffs.

This overall pattern was driven, in part, by layoffs due to a number of reasons: the reorganization or restructuring of a business, a change in ownership, financial difficulty, slack work, competition from imports, cost control or cost

**Table 11. Continued—Percent change in employment after extended mass layoff, by primary reason for layoff and occupation, 1999–2008**

Occupational group	Organizational		Production								Other	
	Business-ownership change	Reorganization or restructuring of company	Automation/technological advances	Energy related	Governmental regulations/intervention	Labor dispute/contract negotiations/strike	Material or supply shortage	Model change-over	Plant or machine repair/maintenance	Product line discontinued	Domestic relocation	Overseas relocation
Management	-37.3	-12.5	-45.0	-36.8	0.0	21.1	-19.0	-31.1	-13.0	-31.8	11.5	-60.1
Business and financial operations	25.1	-4.0	-7	-18.6	.0	8.9	-20.7	-30.9	16.2	146.5	40.6	-16.0
Computer and mathematical science	-17.1	9.3	57.7	( <sup>1</sup> )	.0	20.8	30.0	-45.5	5.9	112.7	2.4	-61.1
Architecture and engineering	-26.6	-12.7	111.6	( <sup>1</sup> )	.0	48.5	-7.2	-47.1	-3.8	36.3	14.0	-57.7
Life, physical, and social science	-47.4	-11.3	-75.5	( <sup>1</sup> )	.0	-61.7	-41.7	-73.3	-37.3	-56.4	-77.7	-88.5
Community and social services	-14.0	-17.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Legal	12.4	14.7	( <sup>1</sup> )	.0	.0	.0	.0	.0	.0	( <sup>1</sup> )	( <sup>1</sup> )	-46.2
Education, training, and library	-95.3	-31.4	.0	.0	.0	-45.5	.0	.0	.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Arts, design, entertainment, sports, and media	-55.7	46.1	-14.3	.0	.0	-1.8	( <sup>1</sup> )	-100.0	( <sup>1</sup> )	33.0	111.5	54.2
Healthcare practitioners and technical	-17.5	5.9	-15.8	( <sup>1</sup> )	.0	39.0	( <sup>1</sup> )	-57.1	( <sup>1</sup> )	-16.3	-15.6	-84.6
Healthcare support	-16.5	13.1	( <sup>1</sup> )	.0	.0	48.7	.0	( <sup>1</sup> )	.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Protective service	-57.9	-19.9	-21.3	( <sup>1</sup> )	.0	-4.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	51.0	-95.7	-12.5
Food preparation and serving related	-12.8	10.7	-19.7	.0	.0	3.4	.0	24.7	-24.7	( <sup>1</sup> )	25.9	-100.0
Building and grounds cleaning and maintenance	-25.4	-6.3	-57.2	( <sup>1</sup> )	.0	-34.6	( <sup>1</sup> )	14.3	355.6	-26.4	-85.7	-15.9
Personal care and service	9.9	-8.4	33.8	-3.1	.0	-87.5	.0	( <sup>1</sup> )	.0	.0	5.7	.0
Sales and related	-32.6	-23.3	-32.9	( <sup>1</sup> )	.0	24.7	( <sup>1</sup> )	-89.3	4.7	52.2	-2.2	-55.1
Office and administrative support	-18.7	-23.4	-35.1	6.0	.0	-21.2	-61.1	-76.7	3.8	-6.1	-40.3	12.2
Construction and extraction	-92.7	-28.6	-47.6	( <sup>1</sup> )	.0	-70.4	2.1	-1.0	-70.0	-18.3	-93.8	-75.0
Installation, maintenance, and repair	-26.7	-14.2	-40.1	-4.4	.0	5.3	-28.1	13.6	-7.7	-30.1	-59.8	-21.3
Production	-31.4	-29.3	160.7	-28.9	.0	-26.4	-13.4	-8.6	1.9	-29.2	-68.8	-36.7
Transportation and material moving	-43.5	-34.4	-57.3	-31.4	.0	-14.2	-25.2	176.3	-38.9	14.4	-56.9	-56.8

NOTE: Table does not show "data not provided (refusal);" "data not provided (does not know);" "seasonal;" "vacation period/school related or otherwise;" or "other seasonal."

<sup>1</sup> Percent change excluded because it is based on fewer than 5 establishments reporting occupations in the occupational group before layoffs.

cutting, and the relocation of domestic work.<sup>18</sup> These reasons accounted for a large number of layoffs and a large share of the employment losses among lesser

skilled occupations and increased employment in analytical or technical occupations during the period studied. Layoffs that occurred after either the reloca-



tion of domestic work or the discontinuation of a product line followed the pattern closely. However, the types of jobs affected by layoffs often depended on the reason for the layoff. Patterns within each group are examined next.

*Organizational change.* The largest cause of job loss from layoffs was organizational change, which includes the reorganization or restructuring of companies and changes in business ownership. Establishments that *reorganized or restructured* (representing 10 percent of all layoffs, the third most commonly reported reason for a layoff event<sup>19</sup>) tended to eliminate jobs in production occupations—these jobs declined by more than 27,000—and in administrative support occupations, such as customer service representatives, general office clerks, and data entry keyers; employment in administrative support occupations declined by 23,000. Businesses that reorganized or restructured also reduced jobs for occupations that involved less technical skill, such as retail salespersons, hand laborers, hand packers, team assemblers, and general maintenance workers. Employers cut back on jobs in some technical occupations and added jobs in others, resulting in a net gain in computer and mathematical occupations.

Reorganized and restructured establishments hired more workers in occupations that develop new software and applications—occupations such as computer systems and applications software engineers, computer systems analysts, computer hardware engineers, engineering managers, electronics engineers, telecommunications equipment installers, and logisticians—while reducing the number of other technical jobs—such as jobs for computer programmers, who primarily code programs for existing software. Some occupational groups, however, fared well after this type of layoff: arts, design, entertainment, sports, and media; education; legal; community and social service; and life, physical, and social sciences occupations.

Establishments with layoffs resulting from *business-ownership changes*, the seventh most commonly reported reason for a layoff event,<sup>20</sup> followed the pattern of shedding workers in less technical occupations and hiring additional analytical workers. After production, office and administrative, and transportation and material moving occupations, sales workers accounted for most of the job loss. Following layoffs induced by business-ownership changes, establishments had fewer workers in occupations related to sales, marketing, and maintenance; these occupations included customer service representatives, general office clerks, marketing managers, market research analysts, sales managers, janitors and cleaners, and maintenance and repair workers. The production occupa-

tion that lost the most employment was textile cutting machine setters, operators, and tenders. As was seen in businesses that reorganized, the computer occupations that declined in employment among establishments with business-ownership changes required less technical skill than those which increased in employment. Other occupations that grew involved financial and accounting business functions: among these occupations were payroll and timekeeping clerks; management analysts; bookkeeping, accounting, and auditing clerks; financial managers; and accountants and auditors.

*Business demand.* The second-largest cause of job loss from layoffs was a decline in business demand. Compared with other reasons for layoffs, business demand factors resulted in relatively greater losses of technical workers and also resulted in large losses of lesser skilled workers. Specifically, layoffs due to slack work, insufficient demand, and nonseasonal business slowdown resulted in the largest employment declines among any of the 30 reasons for layoffs. Production occupations accounted for the most losses after this type of layoff. The production occupations that topped the list of losses were aircraft structure, surfaces, rigging, and systems assemblers; miscellaneous metal and plastic workers; team assemblers; slaughterers and meat packers; electrical and electronic equipment assemblers; and production first-line supervisors.

Employment in computer and mathematical science occupations shrank after layoffs for at least four of the layoff reasons related to business demand, and business and financial occupations and architecture and engineering occupations lost employment from layoffs due to at least four of the reasons.

Layoffs because of *slack work* resulted in employment declines in many occupational groups, about a third of which were production jobs. Most affected were metal and plastic workers, team assemblers, production supervisors, electrical equipment assemblers, and sewing machine operators. The occupations that grew were hand laborers, computer applications software engineers, customer service representatives, stock clerks, and market research analysts.

After layoffs due to *excess inventory* and *domestic competition*, overall employment levels shrank in every occupational group in which employment had been reported before the layoffs; cutbacks occurred in both core and noncore occupations regardless of business function.

*Financial.* Financial-related reasons for layoffs include financial difficulty; bankruptcy; and measures to control

costs, cut costs, and increase profitability. As with layoffs related to business demand, financial-related layoffs resulted in job losses among skilled workers, in addition to losses among less skilled workers. Notable outcomes were a large decline in personal care and service occupations after bankruptcy, sales workers after cost control layoffs, and architecture and engineering occupations after financial difficulty.

The largest employment declines in layoffs due to general *financial difficulty* were in production, transportation and material moving, and office and administrative support occupations. Production occupations with job losses included inspectors, testers, and weighers; team assemblers; and production supervisors. This type of layoff also resulted in the employment of fewer transportation workers; recordkeeping weighers, measurers, checkers, and samplers; flight attendants; and parking lot attendants. Among computer and engineering jobs lost were computer programmers and computer systems software engineers, and applications engineers. The same set of establishments eventually hired workers for computer science occupations that were less research intensive in nature: computer systems analysts; network support and data communications analysts; and network and computer systems administrators. They also hired many more registered nurses, cashiers, and accountants and auditors.

Occupations that experienced employment cutbacks after *bankruptcy* were reservation and transportation ticket agents, stock clerks and order fillers, industrial truck and tractor operators, vehicle and equipment cleaners, and electronics engineers (except computer), among others.

*Cost control and cost cutting* resulted in large employment declines, in terms of both percentages and levels, among architecture and engineering occupations, but the change was concentrated in a few establishments. Establishments with this type of layoff had employment declines in several administrative support and sales occupations directly related to sales functions: customer service representatives; shipping, receiving, and traffic clerks; stock clerks and order fillers; and retail salespersons. These establishments also cut some production and maintenance workers who tended to be paid higher wages: supervisors of mechanics, installers, and repairers; transportation managers; and supervisors of production workers.

Some administrative support occupations whose employment grew after cost-cutting layoffs were those related to internal staffing and support: payroll and timekeeping clerks, human resources workers, administrative support supervisors, general office clerks, and bookkeeping and accounting clerks. In addition, employers whose layoffs were

a result of controlling or cutting costs hired workers for several laborer occupations that tended to be paid lower wages: hand laborers and freight and stock movers; and janitors and cleaners.

*Production.* The kinds of jobs lost from production-related extended mass layoffs related to the specific reason cited for the layoff. Although production worker employment shrank overall, it grew in establishments whose layoffs had been due to automation or technological advances. Transportation and material moving occupations grew in establishments whose layoffs had been due to model changeover or product line discontinuations.

After *product line discontinuation*, employment changes in a few large establishments accounted for the large decreases in production worker employment. Occupations that shrank included slaughterers and meat packers, assemblers and fabricators, transportation equipment painters, synthetic and glass fiber machine setters, inspectors and weighers, welders, semiconductor processors, and engine assemblers. Production occupations that grew included production worker helpers, packaging and filling machine operators, bakers, coating and painting machine operators, and upholsterers.

Layoffs due to *plant or machine repair or maintenance* tended to affect occupations directly related to the operation of machines and production systems, and more production workers were eventually added than dropped. Occupations whose employment decreased included inspectors and weighers, extruding and compacting machine operators, furnace operators and tenders, and chemical plant and system operators. Occupations with employment increases included metal and plastic drilling and boring machine tool operators; meat, poultry, and fish cutters and trimmers; cleaning and metal pickling equipment operators; and coating and spraying machine operators.

Occupations whose employment declined after *automation/technological advances* provide insight into the types of jobs at risk as technology advances. Declines occurred among engine machine assemblers, machine feeders and offbearers, metal and plastic computer-controlled machine tool operators, tool and die makers, data entry keyers, and tool grinders.

*Disaster/safety.* Disaster/safety concerns comprised a hazardous work environment, a natural (not weather related) disaster, a nonnatural disaster, and extreme weather-related events. Extreme weather-related events were responsible for most of the employment declines in this category. Jobs lost after layoffs that were due to extreme

weather-related events affected primarily service workers providing transportation (transit and intercity bus drivers), security (security guards), food service (waiters and waitresses and restaurant cooks), housekeeping (maids, housekeeping cleaners, and janitors), and entertainment (gaming dealers, and tour guides and escorts); many of these occupations may be affected by tourism. Job gains were in construction occupations.

*Domestic and overseas relocation.* Although the sample size of establishments that laid off workers due to domestic and overseas relocation is smaller than the sample for other layoff reasons (MLS ended the two series with the 2003 data), the study sample still had almost 300 units reporting under the former reason and more than 200 units under the latter—enough to study the outcomes of layoffs for these reasons.

After layoffs due to *overseas relocation*, only two occupational groups grew in employment: office and administrative support; and arts, design, entertainment, sports, and media. Detailed occupations that shrank included various assemblers, machine operators, hand laborers, and industrial and electronic engineers and their managers. Despite the reductions among major occupational groups, the establishments hired workers in occupations related to sales, shipping, human resources, and computer network support (such as stock, billing, and shipping clerks; sales representatives; network administrators; and human resource specialists).

After layoffs due to *domestic relocation*,<sup>21</sup> establishments reduced employment in two of the higher skilled groups: healthcare practitioner and technical occupations; and life, physical, and social science occupations. Establishments reduced employment in occupations involving nonanalytical skill, such as production; office and administrative support; transportation and material moving; installation, maintenance, and repair; protective service; building and grounds cleaning and maintenance; construction and extraction; and sales and related occupations. In contrast, the establishments with layoffs due to domestic relocations hired more analytical occupations: business and financial operations; architecture and engineering; management; arts, design, entertainment, sports, and media; computer and mathematical science; as well as personal care and service occupations.

### Occupational changes by geographic region

*Without regression analysis.* The effect of layoffs on occupational employment levels varied across the country

because of differences in industry composition, local labor market conditions, and other economic factors. In the entire MLS data set (the universe of mass layoff events during the 2000–2007 period), the Midwest, West, and Southeast regions had the most worker separations, with losses of 2.5, 2.2, and 1.2 million jobs, respectively. The New York-New Jersey, Mid-Atlantic, and Southwest regions had between 500,000 and 900,000 separations. New England and the Mountain-Plains region had the fewest number of worker separations, each less than 500,000 over the same period.

Table 12 shows the percent change in employment after layoffs, by geographic region and occupational group. The States within each region are shown in figure 1.

Occupational groups that shrank in employment across most regions involved administration, personal service, and mainly nonanalytical skills: production, sales, office and administrative support, protective service, management, transportation, installation, construction, personal care, and building maintenance. Employment in occupation groups involving analytical skills grew in more regions than did other occupations. Business and financial operations, legal, computer and mathematical science, healthcare practitioner and technical, and community and social service occupations had lower percent declines in employment in most regions relative to declines among other occupational groups.

Within regions, the pattern of reducing employment in occupations involving clerical and nonanalytical skills while retaining jobs requiring analytical skills was most prevalent in the Mid-Atlantic, New England, New York-New Jersey, and Southwest regions. The first three regions have high concentrations of industries that experienced relatively large numbers of layoffs. Establishments undergoing layoffs in the Mid-Atlantic region shed team assemblers; data entry keyers; shipping, receiving, and order clerks; retail salespersons; and hand laborers. The Mid-Atlantic establishments added financial analysts, industrial machinery mechanics, and computer systems analysts.

The primary finding in this regional analysis was that when entire industries retained or increased employment in occupations core to their business, the pattern also manifested itself throughout most of the geographic regions. In 6 of the 8 geographic areas—all except the Southeast and Southwest—employers either added workers or lost fewer workers in job functions core to the industries dominant in their economies. The industry distribution of each region's employment was used to estimate which industries were dominant.<sup>22</sup>

In the Midwest region, which had the most worker

**Table 12. Percent change in employment after extended mass layoff, by geographic region and occupational group, 1999–2008**

Occupational group	New England	New York–New Jersey	Mid–Atlantic	Southeast	Midwest	Southwest	Mountain–Plains	West
Management	–38.5	24.7	–47.2	–26.2	–18.0	–34.2	–39.9	–15.5
Business and financial operations	70.4	20.1	–21.5	–12.6	–7.4	8.4	35.7	–3.3
Computer and mathematical science	–25.6	35.9	31.7	–5	–5.5	–13.3	–3.0	–16.4
Architecture and engineering	–63.8	–16.0	–26.4	–9.0	–20.9	–4.9	–9.1	–17.5
Life, physical, and social science	–69.5	17.8	261.4	–7.3	20.6	–50.4	–44.1	–31.1
Community and social services	.0	3.7	67.2	16.8	–2.7	–6.8	–10.6	1.8
Legal	19.57	49.8	.9	7.5	56.4	–27.8	44.1	–2.5
Education, training, and library	–35.6	21.0	–30.8	–33.3	4.4	4.1	–2.2	8.5
Arts, design, entertainment, sports, and media	–78.1	26.7	27.7	–58.0	1.9	–22.0	–12.4	–8.7
Healthcare practitioners and technical	( <sup>1</sup> )	5.2	–8	–3.4	–9.9	79.6	–13.5	6.3
Healthcare support	( <sup>1</sup> )	26.2	( <sup>1</sup> )	12.6	–24.0	78.5	–34.4	–11.3
Protective service	( <sup>1</sup> )	–40.4	–12.1	–32.6	–8.0	–20.5	–63.0	–6.0
Food preparation and serving related	( <sup>1</sup> )	.7	–42.6	67.0	–27.9	–1.3	–20.0	1.0
Building and grounds cleaning and maintenance	–16.8	–7.6	–30.8	24.1	–3.9	–.8	–50.4	–2.6
Personal care and service	( <sup>1</sup> )	–20.3	–39.5	–30.9	–3.7	–3.1	–9.6	–4.2
Sales and related	–64.0	–38.0	–23.9	–24.8	–11.9	–22.6	–19.7	–13.7
Office and administrative support	–29.7	–21.9	–30.5	–21.4	–9.1	–16.2	–21.8	–23.8
Construction and extraction	3.1	–13.0	–16.7	–2.6	–14.0	–11.7	–15.1	–.1
Installation, maintenance, and repair	–39.1	–11.7	–28.5	–25.8	–14.4	27.2	–15.9	–21.4
Production	–52.8	–17.6	–28.1	–31.3	–18.3	–4.9	–24.3	–19.8
Transportation and material moving	–3.0	–29.8	–26.9	–28.8	–12.3	–14.6	9.6	–16.7

<sup>1</sup> Percent change excluded because it is based on fewer than 5 establishments reporting occupations in the occupational group before layoffs

separations, food preparation and serving-related occupations composed the group that experienced the largest percent decline in employment. The Midwest division<sup>23</sup> had relatively high employment concentrations in manufacturing (15.7 percent) and wholesale and retail trade (15.2 percent) in 2004. After layoffs, Midwest region employment in the occupations core to these sectors—production, sales, and transportation and material moving occupations—showed relatively small losses. The other regions had larger percent declines in employment in these occupations.

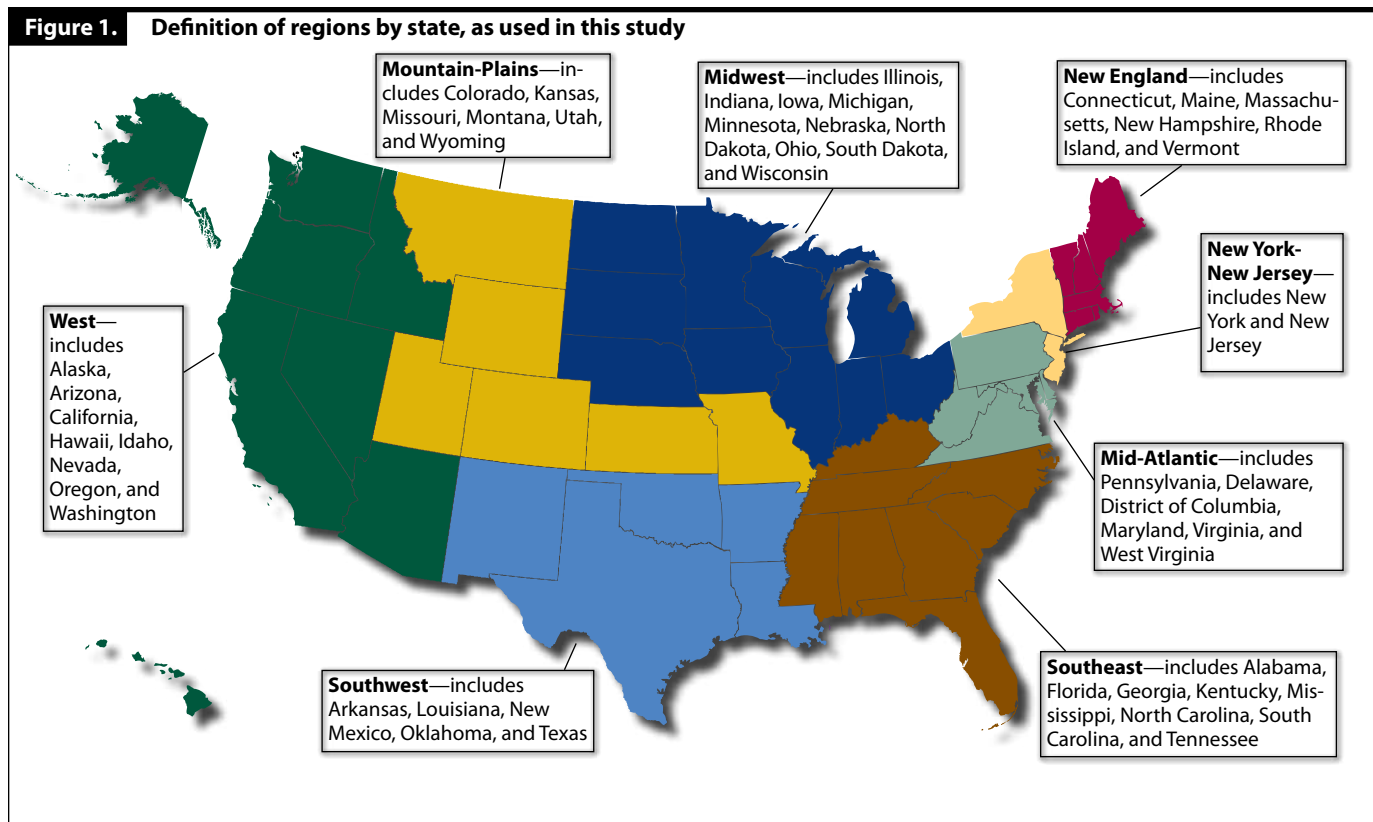
Likewise, the Pacific division<sup>24</sup> had relatively high concentrations of employment in the information sector (3.0 percent)—particularly in motion picture and sound recording industries—and the study’s West region lost relatively little employment in the arts, design, entertainment, and media occupations, which are core to this industry.

New York and New Jersey, which both have relatively high proportions of their employment in the information and financial activities sectors, tended to hire workers in the sectors’ core occupations.<sup>25</sup> Employers in the New York–New Jersey region hired workers in analytical occupations such as computer applications engineers, management and computer systems analysts, accountants, and industrial engineers; they let go of retail salespersons, parking lot attendants, team assemblers, hand laborers, and telemarketers.

Employers in New England cut jobs of office and production worker supervisors, general maintenance workers, janitors and cleaners, and stock clerks. Meanwhile, they hired accountants and financial managers. New England had relatively high concentrations of employment in the education (9.8 percent), health care (14.4 percent), and finance and insurance (6 percent) sectors. After layoffs, businesses in the region added workers in occupations that are core to some of these industries; employment in business and financial operations occupations increased by 70 percent in the study group.

Employers in the Mountain–Plains region also followed the pattern of shedding relatively few workers in occupations core to the industries that dominate the region’s economy. In 2004, among all Census regions, the Mountain division<sup>26</sup> was the geographic area with the highest concentrations of employment in leisure and hospitality (11.2 percent). Perhaps, as a result, the region had lower percent declines in employment in food preparation, personal care, and sales occupations than did other regions.

As noted earlier, however, not every region followed the pattern of retaining or increasing jobs in occupations core to the region’s dominant industries, in part due to changing technology, consumer trends, or business practices. The combined South Atlantic and East South Central Census divisions—together approximating the study’s Southeast region<sup>27</sup>—had relatively high employment con-



centrations in the transportation and utilities industries but lost a comparatively large number of jobs in transportation and material moving occupations. Similarly, the Southwest region deviated from the pattern of regions retaining occupations core to dominant industries. Relative to other regions, the Census-defined West South Central division<sup>28</sup> had a high proportion of employment in the mining sector (1.5 percent) and the telecommunications industry (1.2 percent). In May 2008, telecommunications businesses were one of the largest employers of telemarketers. After layoffs, however, the study's Southwest region had fewer telemarketers.

*Regression analysis.* A final regression analysis was conducted to analyze the effect of layoffs on occupational employment by geographic region, controlling for industry, time between observations, and establishment size. The variables of interest were the eight interaction terms for layoff × region. The model included non-interaction dummies for all regions except the Mountain-Plains region, so the interaction terms did not combine the impacts of being located in a particular region with having layoffs in that region. The regression was based on a total of 209,858 observations: 205,339 control observations and 4,520 study observations.

The model used was

$$\Delta \text{employment}_{\text{SOC major group}} = \beta_0 + \beta_1 \text{layoff}_i \times \text{West} + \beta_2 \text{layoff}_i \times \text{Southwest} + \beta_3 \text{layoff}_i \times \text{Southeast} + \beta_4 \text{layoff}_i \times \text{Mountain-Plains} + \beta_5 \text{layoff}_i \times \text{New York-New Jersey} + \beta_6 \text{layoff}_i \times \text{Midwest} + \beta_7 \text{layoff}_i \times \text{Mid-Atlantic} + \beta_8 \text{layoff}_i \times \text{New England} + \beta_9 \text{goods} + \beta_{10} \text{totalemp\_first}_i + \sum_j \delta_j I(\text{geographic region}_{ji}) + \sum_j \gamma_j I(\text{number of years between observations}_{ji}) + \varepsilon_i$$

where the dependent variable was the change in employment level for each occupational group between the first and second observations. *Layoff* was a dummy variable indicating whether the establishment had a layoff; where  $\text{layoff}_i = 1$ , a layoff occurred. The *geographic region* dummy variables indicated geographic region: West, Southwest, Southeast, Mountain-Plains, New York-New Jersey, Midwest, Mid-Atlantic, and New England. *Geographic region* included non-interaction dummies for all regions except the Mountain-Plains region. *Layoff* × [region] was an interaction dummy variable. *Goods* was a dummy variable for the goods-producing aggregation, as opposed to the service-providing aggregation. *Totalemp\_first* was the total employment in the establishment at the time of the first observation. Finally, there were nine dummy variables

representing the number of years between observations, ranging from 1 to 9; 9 years was captured in the intercept.

In general, the Mid-Atlantic region saw the most substantial employment change for many occupational groups, compared with other regions. Appendix table A-4 shows the regression output for the eight regional interaction variables. For seven occupational groups, an extended mass layoff was associated with a decline in additional employment in all geographic areas (where a change was statistically significant). Production employment shrank in every region, most noticeably in the Mid-Atlantic, followed by the Southwest, Mountain-Plains, New England, and Midwest regions. Production employment declined the least in New York-New Jersey. Employment in transportation and material moving occupations declined the most in the Mid-Atlantic, Southeast, and New York-New Jersey regions. It grew only in the Mountain-Plains. Employment in office and administrative support occupations declined the most in the Mid-Atlantic region and the least in the Mountain-Plains.

Similarly, employment in sales and related occupations declined in all regions; the largest decline was in New York-New Jersey and the Southeast, and the smallest was in the Midwest. Construction and extraction employment shrank everywhere (where a change was statistically significant), especially in the Midwest. Finally, architecture and engineering employment declined substantially in New England and fell the least in the Southeast.

For four occupational groups, an extended mass layoff was associated with a decline in additional employment in nearly all geographic areas (where statistically significant). Healthcare practitioners and technical employment grew only in the Southwest and actually declined in the Midwest and Southeast. Similarly, healthcare support employment grew only in the Southwest and declined in the West and Midwest. Management employment declined the most in the Mid-Atlantic and Mountain-Plains, and grew only in New York-New Jersey. Employment in the arts, design, entertainment, sports, and media occupational group declined the most in the Southeast and New England, and grew only in New York-New Jersey.

In contrast, for three occupational groups, an extended mass layoff was associated with an increase in additional employment in all geographic areas (where statistically significant). Employment in legal occupations grew the most in New York-New Jersey. The Southeast was the region with the most growth in building and grounds cleaning and maintenance employment, and also in food preparation and serving occupations employment.

Finally, the regression yielded mixed results for five occupational groups. Business and financial operations grew the most in New England and the Mountain-Plains, but declined in the Southeast and Midwest. Computer and mathematical science employment grew the most in the Mid-Atlantic and New York-New Jersey regions, but declined in the West and Southwest. Life, physical, and social science employment grew the most in the Mid-Atlantic, and declined the most in the Southwest. Personal care and service employment grew in the Midwest and declined the most in the Southeast. Installation, maintenance and repair employment grew in the Southwest and shrank the most in the Southeast and New England. Finally, protective service employment grew in the Midwest but declined in New York-New Jersey and the Southeast.

DURING THE PERIOD COVERED BY THIS STUDY, the economy experienced both the dot-com bubble burst and large numbers of layoffs in manufacturing. The occupations that were most affected in establishments with layoffs were those which generally involved nonanalytical skills and abilities and tended to represent business support functions, while the occupations whose employment level was relatively unaffected by the layoffs were those which involved analytical skills and abilities or were core to their business. Today's labor market turbulence can be found in different industries, such as real estate and finance. Repeating the study with newer data would reveal whether the patterns observed in this analysis hold under different economic circumstances. In addition, using data further from the layoff date, rather than the first observation after the first layoff, might reveal different long-term restructuring outcomes. □

## NOTES

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<sup>1</sup> According to the MLS, during the first quarter of 2009, there were 3,979 extended mass layoff events, resulting in the separation of

705,141 workers from their jobs for at least 31 days. In the first quarter of 2011, there were 1,397 mass layoff events that resulted in 190,895 separations. Extended mass layoff events and separations have shown an over-the-year decrease for six consecutive quarters. BLS Mass Layoff Statistics are available at <http://www.bls.gov/news.release/mslo.toc.htm> (visited June 28, 2011). Extended mass layoff data have been available since second quarter 1995.



## Mass Layoffs and Employment

<sup>2</sup> Recessions are identified by the National Bureau of Economic Research (NBER). For a list of recession start and end dates, see “U.S. Business Cycle Expansions and Contractions” (Cambridge, MA, National Bureau of Economic Research, June 20, 2011), <http://www.nber.org/cycles/cyclesmain.html> (visited June 20, 2011).

<sup>3</sup> This article uses the term “function” differently than does the MLS program, so the data are not comparable.

<sup>4</sup> Approximately 30 days after a mass layoff begins, the employer is contacted for additional information.

<sup>5</sup> The universe of OES establishments from which the study sample was drawn includes only usable units that passed all BLS tests and that reported all requested employment data and all or partial wage data.

<sup>6</sup> Farming, fishing, and forestry occupations were included in the total calculations, but were not included in the analysis, because MLS and OES data include only nonfarm industries.

<sup>7</sup> See “O\*NET OnLine: Browse by O\*NET Data,” <http://online.onetcenter.org/find/descriptor/browse/Abilities> (visited July 26, 2010). O\*NET identifies six descriptors (categories of occupational information): knowledge, skills, abilities, work activities, interests, and work values. Each descriptor has a set of elements, and each element has importance scores for all O\*NET occupations.

Occupations in the “analytical” group have high importance scores in skills such as reading comprehension; writing; speaking; math; science; critical thinking; complex problem solving; judgment and decision making; systems analysis; active listening; monitoring; social perceptiveness; coordination; persuasion; negotiation; instructing; service orientation; and management of time, financial, material, and personnel resources. “Analytical” occupations also have high importance scores in elements such as deductive and inductive reasoning, fluency of ideas, informative ordering, mathematical reasoning, memorization, number facility, oral and written expression and comprehension, perceptual speed, and problem sensitivity.

Occupations in the “nonanalytical” group have high importance scores in nonanalytical skills such as equipment maintenance, troubleshooting, repairing, and quality control analysis. These occupations have high importance scores in nonanalytical abilities such as dynamic and extent flexibility; dynamic, explosive, static, and trunk strength; gross body coordination and equilibrium, and stamina. “Nonanalytical” occupations also tend to possess elements of psychomotor abilities, such as control precision and manual dexterity.

<sup>8</sup> Education and training data come from “Employment Projections: EPP Tables—Occupations” (U.S. Bureau of Labor Statistics, no date), table 1.11, <http://www.bls.gov/emp/#tables>, (visited July 27, 2010). This observation references an occupation’s distribution of employment by educational attainment (found in the table). See also *Occupational Outlook Handbook, 2010–11 Edition* (U.S. Bureau of Labor Statistics, no date), <http://www.bls.gov/oco> (visited June 13, 2011). Information about general office clerks, customer service representatives, and secretaries and administrative assistants is also from the *Handbook*, at <http://www.bls.gov/oco/ocos130.htm#training>, <http://www.bls.gov/oco/ocos280.htm#training>, and <http://www.bls.gov/oco/ocos151.htm#training>, respectively (visited July 27, 2010).

<sup>9</sup> “Employment Projections: EPP Tables—Occupations.”

<sup>10</sup> See “Assemblers and Fabricators,” in *Occupational Outlook Handbook, 2010–11 Edition*, <http://www.bls.gov/oco/ocos217.htm> (visited July 27, 2010).

<sup>11</sup> See *Career Guide to Industries, 2010–11 Edition* (Bureau of Labor Statistics, no date), <http://www.bls.gov/oco/cg> (visited June 13,

2011).

<sup>12</sup> See “Truck Drivers and Driver/Sales Workers: Training, Other qualifications, and Advancement,” in *Occupational Outlook Handbook, 2010–11 Edition*, <http://www.bls.gov/oco/ocos246.htm#training> (visited July 27, 2010).

<sup>13</sup> “Employment Projections: EPP Tables—Occupations.”

<sup>14</sup> The reduced employment in management occupations overall may be, in part, a result of improvements in the classification of managers in the OES survey. The interpretation of the employment change in management occupations should be made with caution.

<sup>15</sup> Layoffs because of contract completion or contract cancellation could be attributable to seasonal factors, but, for the purposes of this study, they were included in the “economic difficulties” category.

<sup>16</sup> Because the OES program surveys the same establishment at the same time each year, staffing pattern changes in the seasonal layoffs category are long-term changes rather than the result of seasonal changes.

<sup>17</sup> See “Mass Layoff Statistics” (U.S. Bureau of Labor Statistics, no date), <http://www.bls.gov/mls> (visited Mar. 18, 2010).

<sup>18</sup> MLS ended the domestic/foreign relocation series with the 2003 data. Relocation of work was then replaced by movement of work data. The category of controlling costs was added as a reason in 2007.

<sup>19</sup> The rankings excluded seasonal layoffs—although they were included in the count of total mass layoffs.

<sup>20</sup> The rankings excluded seasonal layoffs, refusal to respond, “other,” and “does not know” as reasons for layoffs—although they were included in the count of total mass layoffs.

<sup>21</sup> The data relating to domestic relocation reflect occupations with at least 10 establishments reporting them initially.

<sup>22</sup> From *Geographic Profile of Employment and Unemployment, 2004*, “Table 7. Census regions and divisions: percent distribution of employed persons by industry, sex, race, and Hispanic or Latino ethnicity, 2004 annual averages” (U.S. Bureau of Labor Statistics, January 2009), also available online at [http://www.bls.gov/opub/gp/pdf/gp04\\_07.pdf](http://www.bls.gov/opub/gp/pdf/gp04_07.pdf) (visited June 13, 2011).

<sup>23</sup> The Midwest division is similar to the study’s Midwest region but also includes Missouri and Kansas.

<sup>24</sup> The Pacific division is similar to the study’s West region but excludes Arizona, Idaho, and Nevada.

<sup>25</sup> From *Geographic Profile of Employment and Unemployment, 2004*, “Table 20. States: percent distribution of employed persons by sex, race, Hispanic or Latino ethnicity, and industry, 2004 annual averages” (U.S. Bureau of Labor Statistics, January 2009), also available online at [http://www.bls.gov/opub/gp/pdf/gp04\\_20.pdf](http://www.bls.gov/opub/gp/pdf/gp04_20.pdf) (visited June 13, 2011).

<sup>26</sup> The Mountain division is similar to the study’s Mountain-Plains region but excludes Missouri and Kansas and includes Arizona and New Mexico.

<sup>27</sup> The South Atlantic and East South Central Census divisions are similar to the study’s Southeast region, except that the combined Census-defined divisions include Virginia, Delaware, the District of Columbia and West Virginia; these four jurisdictions are all in the study’s Mid-Atlantic region.

<sup>28</sup> The West South Central division is similar to the study’s Southwest region but excludes New Mexico.

## Appendix tables: Output for regressions

**Table A-1. Output for 21 regressions of occupational group on layoff<sub>it</sub> and control variables (industry, region, establishment size, and number of years between observations)**

Dependent variable (change in employment in occupational group)	Layoff <sub>it</sub> parameter estimate	Standard error on layoff <sub>it</sub> parameter estimate	t-value	p-value
Production	-20.76	1.00	-20.86	<.0001
Office and administrative support	-10.97	1.23	-8.91	<.0001
Sales and related	-7.66	.51	-15.05	<.0001
Management	-6.13	.43	-14.27	<.0001
Transportation and material moving	-6.04	.79	-7.69	<.0001
Architecture and engineering	-4.29	.54	-7.96	<.0001
Installation, maintenance, and repair	-3.38	.46	-7.41	<.0001
Construction and extraction	-1.92	.43	-4.42	<.0001
Education	-1.61	1.54	-1.05	.2938
Personal care and service	-1.28	.61	-2.1	.0356
Arts, design, entertainment, sports, and media	-1.13	.32	-3.51	.0004
Computer and mathematical science	-.48	.67	-.71	.4792
Healthcare practitioner and technical	-.05	.78	-.06	.9513
Protective service	-.04	.40	-.09	.9263
Healthcare support	-.03	.39	-.08	.9371
Life, physical, and social science	-.03	.34	-.09	.9309
Legal	.60	.11	5.32	<.0001
Community and social services	.68	.44	1.54	.1225
Business and financial operations	1.28	.48	2.66	.0078
Building and grounds cleaning and maintenance	2.62	.37	7.09	<.0001
Food preparation and serving related	5.36	.58	9.27	<.0001

NOTE: Table excludes output for control variables to conserve space, and excludes farming, fishing, and forestry occupations. Degrees of freedom=1 for all regressions.

Mass Layoffs and Employment

**Table A-2. Output for 21 regressions of occupational group on economic<sub>t</sub>, seasonal<sub>t</sub>, and control variables (industry, region, establishment size, and number of years between observations)**

Dependent variable (change in employment in occupational group)	Interaction term	Coefficient	Standard error	t-value	p-value	Are the two interaction terms significantly different?
Management	layoff <sub>t</sub> *economic <sub>t</sub>	0.00	3.49	0	0.9996	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	-.65	3.68	-.18	.8608	
Business and financial operations	layoff <sub>t</sub> *economic <sub>t</sub>	3.73	4.11	.91	.3633	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	.12	4.33	.03	.9781	
Computer and mathematical science	layoff <sub>t</sub> *economic <sub>t</sub>	1.36	5.43	.25	.8022	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	-1.56	5.72	-.27	.7858	
Architecture and engineering	layoff <sub>t</sub> *economic <sub>t</sub>	.69	5.80	.12	.906	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	3.53	6.12	.58	.5645	
Life, physical, and social science	layoff <sub>t</sub> *economic <sub>t</sub>	-.32	2.05	-.16	.8767	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	.68	2.16	.31	.7536	
Community and social services	layoff <sub>t</sub> *economic <sub>t</sub>	-.33	.69	-.48	.6341	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	-.14	.73	-.19	.8514	
Legal	layoff <sub>t</sub> *economic <sub>t</sub>	.04	.38	.1	.9174	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	.11	.40	.27	.7853	
Education	layoff <sub>t</sub> *economic <sub>t</sub>	-1.31	2.13	-.61	.539	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	.88	2.25	.39	.6963	
Arts, design, entertainment, sports, and media	layoff <sub>t</sub> *economic <sub>t</sub>	6.11	4.15	1.47	.1408	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	-3.47	4.37	-.79	.4279	
Healthcare practitioner and technical	layoff <sub>t</sub> *economic <sub>t</sub>	7.60	6.93	1.1	.2726	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	6.62	7.31	.91	.365	
Healthcare support	layoff <sub>t</sub> *economic <sub>t</sub>	3.03	1.85	1.64	.1007	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	2.45	1.94	1.26	.2078	
Protective service	layoff <sub>t</sub> *economic <sub>t</sub>	3.41	1.74	1.96	.0505	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	-1.05	1.84	-.57	.5689	
Food preparation and serving related	layoff <sub>t</sub> *economic <sub>t</sub>	-9.22	7.75	-1.19	.2341	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	6.21	8.16	.76	.4465	
Building and grounds cleaning and maintenance	layoff <sub>t</sub> *economic <sub>t</sub>	-.18	2.80	-.07	.9476	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	4.36	2.95	1.48	.1393	
Personal care and service	layoff <sub>t</sub> *economic <sub>t</sub>	7.66	5.65	1.36	.1752	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	-.60	5.96	-.1	.9197	
Sales and related	layoff <sub>t</sub> *economic <sub>t</sub>	-4.80	5.90	-.81	.4167	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	-4.70	6.22	-.76	.4499	
Office and administrative support	layoff <sub>t</sub> *economic <sub>t</sub>	7.87	9.58	.82	.4114	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	11.47	10.10	1.14	.2563	
Construction and extraction	layoff <sub>t</sub> *economic <sub>t</sub>	-4.50	4.07	-1.11	.2686	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	-6.86	4.29	-1.6	.1098	
Installation, maintenance, and repair	layoff <sub>t</sub> *economic <sub>t</sub>	3.26	5.28	.62	.5374	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	4.52	5.57	.81	.4169	
Production	layoff <sub>t</sub> *economic <sub>t</sub>	-15.62	12.30	-1.27	.2041	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	.10	12.96	.01	.9941	
Transportation and material moving	layoff <sub>t</sub> *economic <sub>t</sub>	-2.67	7.47	-.36	.721	no
	layoff <sub>t</sub> *seasonal <sub>t</sub>	-4.55	7.88	-.58	.5631	

NOTE: Table excludes output for control variables to conserve space, and excludes farming, fishing, and forestry occupations. Degrees of freedom=1 for all regressions.

**Table A-3. Output for 21 regressions of occupational group on  $\text{layoff}_i$  goods-producing group,  $\text{layoff}_i$  service-providing group, and control variables (region, establishment size, years between observations, and goods-producing group)**

Dependent variable (change in employment in occupational group)	Interaction term	Coefficient	Standard error	t-value	p-value	Are the parameter estimates significantly different at the 5-percent significance level?
Management	$\text{layoff}_i^* \text{goods}_i$	-4.94	0.55	-8.92	<.0001	yes
	$\text{layoff}_i^* \text{service}_i$	-7.12	.52	-13.77	<.0001	
Business and financial operations	$\text{layoff}_i^* \text{goods}_i$	.85	.62	1.36	.173	no
	$\text{layoff}_i^* \text{service}_i$	1.65	.58	2.83	.0046	
Computer and mathematical science	$\text{layoff}_i^* \text{goods}_i$	-.92	.86	-1.06	.2869	no
	$\text{layoff}_i^* \text{service}_i$	-.11	.81	-.13	.8948	
Architecture and engineering	$\text{layoff}_i^* \text{goods}_i$	-7.45	.69	-10.76	<.0001	yes
	$\text{layoff}_i^* \text{service}_i$	-1.66	.65	-2.57	.0102	
Life, physical, and social science	$\text{layoff}_i^* \text{goods}_i$	-.51	.44	-1.16	.2445	yes
	$\text{layoff}_i^* \text{service}_i$	.37	.41	.9	.3694	
Community and social services	$\text{layoff}_i^* \text{goods}_i$	.82	.57	1.44	.1503	no
	$\text{layoff}_i^* \text{service}_i$	.57	.53	1.07	.2838	
Legal	$\text{layoff}_i^* \text{goods}_i$	.62	.14	4.27	<.0001	no
	$\text{layoff}_i^* \text{service}_i$	.58	.14	4.31	<.0001	
Education	$\text{layoff}_i^* \text{goods}_i$	-1.13	1.98	-.57	.5685	no
	$\text{layoff}_i^* \text{service}_i$	-2.01	1.85	-1.09	.2761	
Arts, design, entertainment, sports, and media	$\text{layoff}_i^* \text{goods}_i$	.01	.41	.01	.9898	yes
	$\text{layoff}_i^* \text{service}_i$	-2.06	.39	-5.34	<.0001	
Healthcare practitioner and technical	$\text{layoff}_i^* \text{goods}_i$	-1.29	1.01	-1.27	.203	no
	$\text{layoff}_i^* \text{service}_i$	.98	.94	1.03	.3015	
Healthcare support	$\text{layoff}_i^* \text{goods}_i$	-.11	.50	-.22	.8277	no
	$\text{layoff}_i^* \text{service}_i$	.03	.46	.07	.942	
Protective service	$\text{layoff}_i^* \text{goods}_i$	1.12	.52	2.17	.0298	yes
	$\text{layoff}_i^* \text{service}_i$	-1.00	.48	-2.06	.0392	
Food preparation and serving related	$\text{layoff}_i^* \text{goods}_i$	4.47	.74	6.01	<.0001	no
	$\text{layoff}_i^* \text{service}_i$	6.09	.70	8.75	<.0001	
Building and grounds cleaning and maintenance	$\text{layoff}_i^* \text{goods}_i$	2.17	.47	4.57	<.0001	yes
	$\text{layoff}_i^* \text{service}_i$	2.99	.44	6.72	<.0001	
Personal care and service	$\text{layoff}_i^* \text{goods}_i$	1.82	.78	2.32	.0204	yes
	$\text{layoff}_i^* \text{service}_i$	-3.84	.73	-5.24	<.0001	
Sales and related	$\text{layoff}_i^* \text{goods}_i$	-1.87	.65	-2.86	.0042	yes
	$\text{layoff}_i^* \text{service}_i$	-12.44	.61	-20.32	<.0001	
Office and administrative support	$\text{layoff}_i^* \text{goods}_i$	-1.28	1.58	-.81	.4202	yes
	$\text{layoff}_i^* \text{service}_i$	-18.99	1.48	-12.82	<.0001	
Construction and extraction	$\text{layoff}_i^* \text{goods}_i$	-4.33	.56	-7.76	<.0001	yes
	$\text{layoff}_i^* \text{service}_i$	.08	.52	.15	.8812	
Installation, maintenance, and repair	$\text{layoff}_i^* \text{goods}_i$	-5.16	.59	-8.77	<.0001	yes
	$\text{layoff}_i^* \text{service}_i$	-1.92	.55	-3.48	.0005	
Production	$\text{layoff}_i^* \text{goods}_i$	-48.17	1.28	-37.71	<.0001	yes
	$\text{layoff}_i^* \text{service}_i$	1.91	1.19	1.6	.1093	
Transportation and material moving	$\text{layoff}_i^* \text{goods}_i$	-5.83	1.01	-5.77	<.0001	no
	$\text{layoff}_i^* \text{service}_i$	-6.22	.95	-6.58	<.0001	

NOTE: Table excludes output for control variables to conserve space, and excludes farming, fishing, and forestry occupations. Degrees of freedom=1 for all regressions.

**Table A-4. Output for regressions of change in employment in each occupational group on all 8 layoff region interaction variables, and controls**

Dependent variable (change in employment in occupational group)	Output for interaction terms	Interaction term							
		New England	New York/New Jersey	Mid-Atlantic	Southeast	Midwest	Southwest	Mountain-Plains	West
Management	Coefficient Standard error p-value	-12.26 3.85 .00	3.81 1.06 .00	-14.92 2.23 <.0001	-7.06 .84 <.0001	-5.55 .67 <.0001	-10.03 1.04 <.0001	-13.47 1.35 <.0001	-5.80 .67 <.0001
Business and financial operations	Coefficient Standard error p-value	20.99 4.32 <.0001	6.32 1.19 <.0001	-4.36 2.50 .08	-2.06 .95 .03	-.92 .76 .23	2.87 1.17 .01	11.57 1.52 <.0001	.16 .75 .83
Computer and mathematical science	Coefficient Standard error p-value	-8.69 6.02 .15	9.13 1.66 <.0001	9.78 3.49 .01	.50 1.32 .70	-.15 1.05 .88	-3.82 1.62 .02	-1.00 2.12 .64	-3.98 1.04 .00
Architecture and engineering	Coefficient Standard error p-value	-11.21 4.82 .02	-2.81 1.33 .03	-2.65 2.79 .34	-2.05 1.06 .05	-5.25 .84 <.0001	-1.85 1.30 .16	-3.89 1.70 .02	-6.03 .84 <.0001
Life, physical, and social science	Coefficient Standard error p-value	-1.15 3.05 .71	1.49 .84 .08	8.60 1.77 <.0001	-.05 .67 .94	1.36 .53 .01	-2.04 .82 .01	-1.54 1.07 .15	-1.40 .53 .01
Community and social service	Coefficient Standard error p-value	.52 3.97 .90	.23 1.09 .83	1.74 2.30 .45	1.30 .87 .13	.74 .70 .29	.49 1.07 .64	.71 1.40 .61	.45 .69 .51
Legal	Coefficient Standard error p-value	.61 1.01 .54	1.01 .28 .00	.54 .58 .35	.56 .22 .01	.79 .18 <.0001	.22 .27 .42	.75 .36 .03	.39 .17 .03
Education	Coefficient Standard error p-value	-2.69 13.76 .85	3.00 3.79 .43	-3.56 7.97 .66	-4.65 3.01 .12	-.61 2.41 .80	-3.11 3.71 .40	-3.36 4.84 .49	-1.48 2.38 .54
Arts, design, entertainment, sports, media	Coefficient Standard error p-value	-5.61 2.87 .05	1.45 .79 .07	2.14 1.67 .20	-6.31 .63 <.0001	.18 .50 .72	-1.03 .78 .19	-.56 1.01 .58	-.81 .50 .10
Healthcare practitioners and technical	Coefficient Standard error p-value	-1.11 7.02 .87	-1.07 1.94 .58	-2.99 4.07 .46	-2.78 1.54 .07	-3.12 1.23 .01	17.20 1.90 <.0001	-2.61 2.47 .29	-.68 1.22 .58
Healthcare support	Coefficient Standard error p-value	-.13 3.45 .97	.79 .95 .40	.27 2.00 .89	-.11 .75 .89	-1.19 .60 .05	4.74 .93 <.0001	-.20 1.21 .87	-.90 .60 .13
Protective service	Coefficient Standard error p-value	.38 3.60 .92	-1.55 .99 .12	1.29 2.09 .54	-1.63 .79 .04	1.30 .63 .04	-.02 .97 .99	-1.61 1.27 .20	.34 .62 .58
Food preparation and serving related	Coefficient Standard error p-value	3.53 5.18 .50	4.56 1.43 .00	-2.83 3.00 .35	15.58 1.13 <.0001	2.29 .91 .01	4.68 1.40 .00	2.11 1.82 .25	4.77 .90 <.0001
Building and grounds cleaning and maintenance	Coefficient Standard error p-value	1.45 3.30 .66	.71 .91 .44	2.02 1.91 .29	5.12 .72 <.0001	2.91 .58 <.0001	3.06 .89 .00	-.11 1.16 .93	2.23 .57 <.0001
Personal care and service	Coefficient Standard error p-value	2.33 5.45 .67	-3.43 1.50 .02	-7.18 3.16 .02	-10.05 1.19 <.0001	1.76 .95 .07	.89 1.47 .55	.40 1.92 .83	.39 .94 .68
Sales and related	Coefficient Standard error p-value	-9.54 4.56 .04	-16.01 1.26 <.0001	-7.41 2.64 .01	-10.39 1.00 <.0001	-4.05 .80 <.0001	-9.25 1.23 <.0001	-7.05 1.60 <.0001	-6.20 .79 <.0001

See note at end of table.

**Table A-4. Output for regressions of change in employment in each occupational group on all 8 layoff region interaction variables, and controls**

Dependent variable (change in employment in occupational group)	Output for interaction terms	Interaction term							
		New England	New York/ New Jersey	Mid-Atlantic	Southeast	Midwest	Southwest	Mountain-Plains	West
Office and administrative support	Coefficient	-18.65	-13.33	-29.98	-15.98	-0.07	-14.21	-12.41	-15.12
	Standard error	11.02	3.03	6.39	2.41	1.93	2.98	3.88	1.91
	p-value	.09	<.0001	<.0001	<.0001	.97	<.0001	.00	<.0001
Construction and extraction	Coefficient	.80	-2.49	-2.62	.27	-4.14	-2.32	-3.54	-.16
	Standard error	3.88	1.07	2.25	.85	.68	1.05	1.37	.67
	p-value	.84	.02	.25	.75	<.0001	.03	.01	.81
Installation, maintenance, and repair	Coefficient	-8.15	-1.19	-7.78	-10.40	-3.12	9.23	-4.77	-4.52
	Standard error	4.09	1.13	2.37	.89	.72	1.10	1.44	.71
	p-value	.05	.29	.00	<.0001	<.0001	<.0001	.00	<.0001
Production	Coefficient	-29.86	-7.14	-53.37	-48.97	-23.78	-.55	-42.18	-6.93
	Standard error	8.90	2.45	5.16	1.95	1.56	2.40	3.13	1.54
	p-value	.00	.00	<.0001	<.0001	<.0001	.82	<.0001	<.0001
Transportation and material moving	Coefficient	1.66	-12.61	-15.27	-14.35	-4.61	-4.59	7.54	-3.95
	Standard error	7.03	1.94	4.08	1.54	1.23	1.90	2.48	1.22
	p-value	.81	<.0001	.00	<.0001	.00	.02	.00	.00

NOTE: Table excludes output for control variables to conserve space, and excludes farming, fishing, and forestry occupations. Degrees of freedom=1 for all regressions.



## Reentering the labor force after retirement

*Data from the longitudinal Health and Retirement Study indicate that approximately 15 percent of older Americans with career jobs returned to the labor force after having retired; respondents were more likely to reenter the workforce if they were younger, were in better health, or had a defined-contribution pension plan*

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For most older Americans with full-time career jobs, retirement is not a one-time, permanent event. Instead, their exits from the labor force are more gradual, with many career workers moving to another job before leaving the labor force completely.<sup>1</sup> Jobs that follow full-time career employment and precede complete withdrawal from the labor force are commonly known as *bridge jobs*. The prevalence and determinants of bridge jobs have been studied extensively in the literature on retirement. In a summary of such literature from the 1970s and 1980s, Joseph Quinn, Richard Burkhauser, and Daniel Meyers concluded that, for many older Americans, retirement is a *process*.<sup>2</sup> Data from the Retirement History Survey (RHS), a longitudinal dataset of older American men and unmarried women conducted from 1969 to 1979, show that the majority of older career workers had changed jobs or exited and reentered the labor force following career employment, where “career” was defined as the longest spell of employment with a single firm.<sup>3</sup>

More recent data from the Health and Retirement Study (HRS) confirm these earlier findings and reveal that one-time permanent retirements are the exception rather than the rule. Examining data from

the first three waves of the HRS, spanning 1992 to 1996, Quinn estimated that, at a minimum, between one-third and one-half of older career workers would experience a transition to bridge-job employment prior to complete withdrawal from the labor force.<sup>4</sup> Extending Quinn’s study with more recent data, Cahill, Giandrea, and Quinn found that, between 1992 and 2002, approximately 60 percent of older workers who had left a career job moved to a bridge job prior to exiting the labor force.<sup>5</sup> In a followup study, these authors found a similar prevalence of bridge jobs among a slightly younger cohort of HRS respondents known as the “War Babies.”<sup>6</sup>

People take bridge jobs for many reasons. For some, bridge jobs are a way to remain active through work or to try something new. For others, bridge jobs are a financial necessity, a result of a changing landscape in which workers are faced with a “do-it-yourself” approach to retirement income security.<sup>7</sup> The movement away from traditional defined-benefit pensions over the past 30 years has been a pivotal part of this change.<sup>8</sup> Between 1983 and 2004, the percentage of workers with a pension who had only a defined-benefit plan decreased from 62 percent to 20 percent.<sup>9</sup> The percentage with both a defined-benefit and a defined-contribution plan also declined over the same period, from 26 percent to 17 percent, although these percentages are somewhat sensitive to the underlying

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data source.<sup>10</sup> More recent data from 2007 indicate that, among family heads who participated in an employer-based pension, 18 percent had only a defined-benefit pension and another 18 percent had both a defined-benefit and a defined-contribution plan.<sup>11</sup> Further, many of the remaining defined-benefit plans have been converted to cash balance plans.<sup>12</sup>

In defined-contribution plans, workers decide how much to contribute and how to invest their funds.<sup>13</sup> One implication of this shift is that more employees—those with defined-contribution plans—are assuming the investment risk associated with their pension plans. The result is that the pension wealth of many older workers and retirees is now more susceptible to financial market fluctuations than in the past. Further, any changes to Social Security are likely to reduce or delay benefits in order to maintain the solvency of the program.<sup>14</sup>

One way that individuals can insure against uncertainty in retirement is to reenter the labor force after “retiring.” Reentry can come about in two ways. First, it can be planned, as a way to move out of career employment gradually by taking a break from paid work for a certain length of time before moving to another job. Planned reentry is one way to extend the worklife of those who would have otherwise remained out of the labor force. Indeed, older workers are already extending their worklives, as a century-old trend toward earlier and earlier retirement among American men halted in the mid-1980s and then reversed.<sup>15</sup> Labor force participation rates among older men and especially women have increased in recent years.<sup>16</sup>

When reentry is not planned, the option to rejoin the workforce provides a form of insurance against unforeseen contingencies. Workers initially may leave the labor force and adjust their consumption to match their retirement income. Although this approach has the disadvantage of potentially reducing one’s living standard, the retiree may still be better off if the reduction in consumption is offset by the additional leisure. Reentry can then serve as a backup plan in the event that an individual’s standard of living in retirement falls short of expectations.

Viewed this way, the possibility of reentry blurs what it means to retire. Moreover, if contingent reentry is common, an examination of work decisions later in life might not provide a complete picture of the transitional nature of retirement. A fraction of those who leave the labor force directly from their full-time career jobs may actually be expecting to return to work if retirement is not fulfilling or if retirement income proves inadequate. In fact, some of these workers will return to work and

some will not. One study suggests that a substantial change in retirement income may be needed to induce this type of contingent reentry: Courtney Coile and Phillip Levine used HRS data to examine reentry in the context of the booming stock market valuations of the late 1990s and the subsequent bust from 2000 to 2002.<sup>17</sup> They found no statistically significant impact of the stock market decline on the rate of reentry.

The literature to date indicates that a sizable minority of older workers reenters the labor force following an initial exit. Quinn, Burkhauser, and Meyers reported that about 10 percent of career workers interviewed for the RHS reentered the labor force after being out for at least 2 years. The authors noted that this estimate was likely to be a lower bound because reentry could have occurred beyond the RHS observation period, which ended in 1979.<sup>18</sup> A subsequent study by David Blau investigated transitions among older workers and found a higher rate of reentry: approximately 26 percent of older men who were not employed moved to either part-time or full-time employment later, while 23 percent of part-time employed older men returned to full-time employment.<sup>19</sup> Blau also found that the quarterly hazard rate for moving from being out of the labor force to full-time employment was 5 percent for 56-year-olds.<sup>20</sup> This rate remained high until age 62 and then fell below 1 percent by age 64. The hazard rate of reentry into part-time employment among older workers was below 1.2 percent for the ages examined.

In a particularly relevant recent study, Nicole Maestas examined the extent to which workers anticipated, prior to retirement, that they might reenter the labor force after retirement.<sup>21</sup> Using the first six waves of HRS data, Maestas analyzed retirement transitions partly on the basis of self-identified retirement status. She found that about one-half of workers retired in the “traditional” fashion, directly from either full-time or part-time employment to full retirement, defined as complete withdrawal from the labor force. She then focused on the transitions that workers made from retirement: from complete retirement to partial retirement (the latter being a self-report of “retirement” combined with non-full-time employment), from complete retirement to full-time employment, and from partial retirement to full-time employment. Maestas found that at least 25 percent of retirees had returned to the labor force by 2002 (the last wave of the HRS survey examined in her study). As expected, reentry into the labor force was substantially higher among those who first retired in their early to mid-50s than among those who first retired later in life. Maestas established that returning to the labor force is common among retirees and that more than 80 percent of those who reentered anticipated doing so prior to retirement. Labor market reentry is another method by which workers can smooth the transition from employment to full retirement.

A drawback of some reentry studies is their reliance on self-

reported retirement, which is not consistently defined across respondents. This article addresses that issue by using the respondent’s actual work status at the time of each survey to identify retirement transitions. Using nine waves of HRS data, the article focuses on the prevalence and determinants of reentering the workforce after retirement. This period covered by the nine waves, from 1992 to 2008, makes it possible to observe many different work histories and reveals a variety of interesting paths to retirement.

The next section describes the dataset and methods used in the analysis that follows, with a detailed description of a key subsample: workers who have had a full-time career job in their work history. The final two sections present and summarize the findings obtained from the analysis.

### Data and methods

The HRS is an ongoing nationally representative longitudinal survey of older Americans that began in 1992.<sup>22</sup> The survey, which includes detailed information on the demographic and economic characteristics of the sample, has been conducted every other year since 1992, with data currently available through 2008. The initial group of about 12,600 respondents (from approximately 7,600 households) varied in age from 51 to 61 years at the time of their first interview in 1992. Attrition from one wave to the next ranged from 4 percent to 9 percent, and about 62 percent of the original sample remained after 16 years.<sup>23</sup> For the purposes of this article, a key feature of the survey is a set of questions related to the respondents’ work status in each wave. The longitudinal nature of the dataset permits an analysis of each individual’s job decisions over time, including the way in which the person exits the labor force. Because the focus of the article is labor force exit and retirement patterns, the sample is restricted to respondents who worked at some point after age 49. As the following tabulation of HRS “core” respondents—those who were ages 51 to 61 in 1992—shows, 91 percent of the men and 78 percent of the women had work experience after age 49:

<i>Survey participation or work status</i>	<i>Total</i>	<i>Men</i>	<i>Women</i>
Participated in wave 1:			
Sample size.....	12,652	5,869	6,783
Worked after age 49:			
Sample size.....	10,639	5,353	5,286
Percent of HRS core.....	84	91	78
Had a full-time career job after age 49:			
Sample size.....	7,432	4,288	3,144
Percent of HRS core.....	59	73	46
In a full-time career job in 1992:			
Sample size.....	5,617	3,061	2,556
Percent of HRS core.....	44	52	38

Also noted in this tabulation are those who worked in a full-time career job after age 49, including those who had a job in 1992 that ultimately became a full-time career job. A full-time career job is defined as a job in which an individual works at least 1,600 hours per year for at least 10 years. The initial questionnaire asked about a respondent’s current (in 1992) job and all previous jobs that lasted 5 or more years. This information makes it possible to determine whether a respondent ever held a full-time career job. Further, respondents who were not working at the time of the initial interview were asked about the most recent job held, regardless of tenure. In all, as shown in the tabulation, 73 percent of men and 46 percent of women had a full-time career job after age 49.

The bulk of the analysis that follows utilizes just those with full-time career jobs at the time of the first (1992) interview, because the first HRS survey contains key questions about demographics and job characteristics. In the HRS, 52 percent of men ( $n = 3,061$ ) and 38 percent of women ( $n = 2,556$ ) had a full-time career job in 1992.

### Results

The analysis begins with the group of HRS respondents who held a full-time career job after age 49. As shown in the following tabulation, in 2008 slightly more than 40 percent of these men and women either were still in a full-time career job or were working in a bridge job:<sup>24</sup>

<i>Work status in 2008</i>	<i>Men</i>	<i>Women</i>
Still in a full-time career job.....	22.6	23.3
Moved to a bridge job:		
Still in a bridge job.....	20.9	18.7
Moved out of the labor force.....	23.1	23.0
Still out of the labor force.....	21.2	21.1
Reentered the labor force.....	1.9	1.9
Exited directly from a full-time career job.	33.4	35.1
Still out of the labor force.....	27.0	29.2
Reentered the labor force.....	6.4	5.9

The respondents of interest in this study are the remainder: those who had left the labor force by 2008, as did 56 percent of the men and 58 percent of the women.<sup>25</sup> As shown in the tabulation, some left the labor force directly from full-time career employment (about 33 percent of the men and 35 percent of the women) while others left from a postcareer bridge job (another 23 percent of the men and 23 percent of the women).<sup>26</sup> Of those who did exit the labor force, about 15 percent  $((1.9 + 6.4)/56.5)$  of the men and about 13 percent  $((1.9 + 5.9)/58.1)$  of the women later returned.

*Demographic and economic characteristics of labor force reentrants.* What factors are associated with reentry? To answer this question, rates of reentry are examined across various demographic and economic categories, measured at the time the respondents left their full-time career jobs. However, because much of this information is not available if the respondent's full-time career job ended before the first interview, respondents here were restricted to those who had a full-time career job in 1992. This restriction reduced the sample size from 7,432 to 5,617. Of these remaining respondents, 1,559 men and 1,311 women (see sample sizes at the bottom of table 1) subsequently left the labor force for two or more consecutive survey waves and 15 percent of them (16 percent of the men and 14 percent of the women) later returned. These reentry percentages are close to those derived from the slightly larger sample mentioned earlier, which included all those with a full-time career job after age 49.

Reentry was more common among those who were younger and in better health at the time of their transition from their full-time career job. (See table 1 for reentry rates by various demographic characteristics.) Rates of reentry declined with age for both men and women. For men, the rate of reentry dropped from 22 percent for those less than 56 years of age, to 16 percent for those ages 56 to 61, 13 percent for those 62 to 64, and only 8 percent among those 65 years and older. The rate of reentry associated with each age category was slightly lower for women than for men, but the pattern by age was the same. For women, the rate of reentry was 20 percent for those less than age 56 at the time of transition and to just 3 percent for those 65 years and older.

Health status also appears to be an important factor in the decision to reenter; reentry was highest for those who rated their health as excellent or very

**Table 1. Reentry status of HRS core respondents with a full-time career job in 1992 who exited the workforce for at least two survey waves, by selected demographic characteristics**

[In percent]

Characteristic	Men		Women	
	Still out of the labor force	Reentered	Still out of the labor force	Reentered
Age prior to transition: <sup>1</sup>				
Less than 56 years	78	22	80	20
56– 61 years	84	16	87	13
62– 64 years	87	13	91	9
65 years and older	92	8	97	3
Subjective health status: <sup>2</sup>				
Excellent or very good	82	18	84	16
Good	88	12	88	12
Fair or poor	90	10	93	7
Education:				
College degree	83	17	85	15
Less than college degree	85	15	86	14
Marital status: <sup>3</sup>				
Married	84	16	86	14
Not married	87	13	86	14
Dependent children status: <sup>4</sup>				
Has dependent children	82	18	82	18
Has no dependent children	85	15	88	12
Spouse's health status:				
Excellent or very good	85	15	87	13
Good	86	14	85	15
Fair or poor	86	14	88	12
Spouse's employment status:				
Employed	83	17	85	15
Not employed	86	14	87	13
Sample size	1,315	244	1,129	182

<sup>1</sup> Differences in the rate of reentry by age among men, among women, and across gender are statistically significant at the 1-percent level.

<sup>2</sup> Differences in the rate of reentry by subjective health status among men and among women are statistically significant at the 1-percent level.

<sup>3</sup> Differences in the rate of reentry by marital status across gender are statistically significant at the 1-percent level.

<sup>4</sup> Differences in the rate of reentry by child dependency status among women and across gender are statistically significant at the 1-percent level.

NOTE: HRS core respondents are those who were 51 to 61 years old in 1992. Demographic characteristics are defined as of the survey wave prior to work force exit. In some cases, a value could not be determined in the survey wave prior to transition.

SOURCE: Authors' calculations based on the Health and Retirement Study (HRS).

good prior to leaving their career jobs and lowest for those who rated their health as fair or poor. In particular, 18 percent of the men and 16 percent of the women with excellent or very good health reentered, compared with just 10 percent of the men and 7 percent of the women with fair or poor health and intermediate percentages (12 percent) for men and women with self-described good health. This finding may indicate that healthy men and women have more opportunity to rejoin the labor market, or they may face broader choices of occupations and industries.

One other notable finding from the examination of demographic characteristics is that women with dependent children at the time they left full-time career employment were significantly more likely to reenter the workforce than those without dependent children (18 percent and 12 percent, respectively); this was not true for men.

In addition to these differences by demographic characteristics, rates of reentry differed across various economic categories, including those associated with an individual's full-time career job. (See table 2.) The rate of reentry was lower among those with only defined-benefit pensions compared with those with only defined-contribution pensions or no pension, but the difference, which was more pronounced among women than men, was not statistically significant at the 10-percent level. These results are consistent with the literature on bridge jobs, which finds that those with defined-benefit plans are less likely to experience gradual retirement.<sup>27</sup> The results are also consistent with the idea that those with defined-benefit plans have a more financially stable retirement than those with no pensions or with defined-contribution pensions and therefore may be less likely to reenter the labor force to supplement their retirement income.

Labor market reentry also appeared

**Table 2. Reentry status of HRS core respondents with a full-time career job in 1992 who exited the workforce for at least two survey waves, by selected economic characteristics**

[In percent]

Characteristic	Men		Women	
	Still out of the labor force	Reentered	Still out of the labor force	Reentered
Health insurance status:				
Not covered on career job	88	12	88	12
Covered and would maintain coverage	85	15	86	14
Covered and would lose coverage	85	15	90	10
Pension status:				
No pension	85	15	85	15
Defined benefit only	87	13	89	11
Defined contribution only	84	16	83	17
Defined benefit and defined contribution	77	23	89	11
Category of employment <sup>1</sup>				
Self-employed	82	18	77	23
Wage-and-salary worker	85	15	87	13
Occupation status: <sup>2</sup>				
White collar, highly skilled	84	16	86	14
White collar, other	85	15	87	13
Blue collar, highly skilled	83	17	86	14
Blue collar, other	87	13	86	14
Wage rate: <sup>2</sup>				
\$0–\$10/hour	82	18	85	15
\$10–\$20/hour	86	14	87	13
\$20–\$50/hour	85	15	87	13
More than \$50/hour	83	17	85	15
Wealth (nonpension, nonhousing assets):				
\$0–\$25,000	83	17	87	13
\$25,000–\$100,000	85	15	83	17
\$100,000–\$500,000	86	14	87	13
More than \$500,000	82	18	90	10
Home ownership status: <sup>3</sup>				
Do not own home	80	20	86	14
Own home	85	15	86	14
Sample size	1,315	244	1,129	182

<sup>1</sup> Differences in the rate of reentry by category of employment among women are statistically significant at the 1-percent level.

<sup>2</sup> Differences in the rate of reentry by occupational status and wage rate across gender are statistically significant at the 1-percent level.

<sup>3</sup> Differences in the rate of reentry by home ownership status among men are statistically significant at the 5-percent level.

NOTE: HRS core respondents are those who were 51 to 61 years old in 1992. Economic characteristics are defined as of the survey wave prior to work force exit. In some cases, a value could not be determined in the survey wave prior to transition.

SOURCE: Authors' calculations based on Health and Retirement Study (HRS).

to be slightly more common among those with the lowest wage rates (less than \$10/hour) and the highest wage rates (more than \$50/hour) than those in the middle at the time of transition. The differences by wage rate, however, were not statistically significant. This u-shaped pattern also has been observed in the literature on bridge jobs, with workers at both ends of the socioeconomic scale being more likely to utilize bridge jobs on the way out than those in the middle—those at the lower end because they have to and those at the upper end because they want to.<sup>28</sup>

Among men, the rate of reentry was higher for those who did not own a home than for those who did. For many older Americans, their home is their largest nonpension asset. Overall, more than 55 percent of all those who exited had less than \$100,000 in nonpension, nonhousing assets prior to leaving their full-time career jobs (data not shown in table 2).

Given the flexibility associated with self-employment, it seems, a priori, that the rate of reentry would be higher for respondents who were self-employed in their full-time career jobs than for analogous wage-and-salary workers. This turned out to be true, but only among the women in the sample. Self-employed men were not significantly more likely to reenter the workforce than wage-and-salary men. One possible explanation for this finding among men is that the self-employed can ease out of their career jobs by reducing their hours (an option less likely on wage-and-salary jobs), thereby decreasing the need to change jobs later in life in order to retire gradually. Another possibility in this bivariate analysis (here and throughout tables 1 and 2) is that other factors, which are not held constant, may be blurring the impact of self-employment.

*Determinants of reentry.* Logistic regression was used to examine simultaneously the determinants of labor force reentry later in life. Individuals were included in the regression if they were in a full-time career job in 1992 and were subsequently out of the labor force for at least two consecutive survey waves. The dependent variable equals 1 if an individual later reentered the labor force and equals 0 otherwise. The explanatory variables consist of the demographic and economic characteristics previously described, as well as some other variables.<sup>29</sup> All time-varying variables, such as age, health status, and spouse's employment status, were measured as of the time of the transition from full-time career employment. Regressions were run for men and women separately. Selected marginal effects from the regressions, evaluated at sample means, are reported in table 3.

Consistent with the results of Maestas, one of the strongest predictors of reentry was age.<sup>30</sup> The older respondents were at the time they left their full-time career jobs, the less

likely they were to reenter the labor force. Men and women who were ages 56 to 61 at the time of their transition, for example, were about 5 percentage points less likely to reenter than those younger than age 56 (the control group for age); men and women who were ages 62 to 64 were, respectively, 8 percentage points and 11 percentage points less likely to reenter than those younger than 56; and men and women ages 65 and older were, respectively, 14 percentage points and 23 percentage points less likely to reenter than those younger than 56. All the age coefficients were statistically significant.

With age controlled for, respondents who rated their health as either fair or poor at the time of the transition were less likely to reenter the labor force than those who rated their health as good (the control group for health) and those who rated their health as either very good or excellent were more likely than the control group to reenter. Only one of the four health coefficients ("excellent or very good" and "fair or poor," for men and for women) was statistically significant, but the other three were close to significant at the 10-percent level.

Pension status, home ownership, and spousal work status also were significant determinants of reentry among men. Men with only a defined-contribution pension plan, and therefore with some of their retirement wealth subject to market risk, were about 5 percentage points more likely to reenter the labor force than those without a pension; in contrast, those with only a defined-benefit plan were no more likely to reenter than those without a pension. The same defined-contribution effect appears for women, although the coefficient is not quite significant at the 10-percent level. These results are consistent with the descriptive results presented in table 2.

One difference between the descriptive and multivariate analyses is the impact of having an employed spouse. In the descriptive analysis, both men and women with a working spouse were more likely to reenter the labor force than those without a working spouse. (See table 1.) In the multivariate analysis, however, although the point estimates are similar (about +.04), this result is statistically significant for the men only. Men (but not women) who owned a home were 5 percentage points less likely to reenter, suggesting that home ownership is a sign of financial stability in retirement. Finally, self-employed women (but not men) were significantly more likely (about 7 percentage points) to reenter than wage-and-salary women, a finding that is also consistent with the descriptive results.

THE EVIDENCE PRESENTED IN THIS ARTICLE suggests that returning to the labor force plays an important role in the retirement process. According to 1992–2008 data



**Table 3. Selected marginal effects from logistic regression, HRS core respondents with a full-time career job in 1992 who were not working for at least two consecutive interviews following full-time career employment**

Variable	Men		Women	
	Marginal effect	p-value	Marginal effect	p-value
Age:				
55 years or younger	...	...	...	...
56–61 years	<sup>1</sup> –0.053	0.019	<sup>1</sup> –0.055	0.004
62–64 years	<sup>1</sup> –.078	.005	<sup>1</sup> –.105	.001
65 years or older	<sup>1</sup> –.142	.000	<sup>1</sup> –.230	.000
Respondent's health status:				
Excellent or very good	.033	.107	.030	.124
Good	...	...	...	...
Fair or poor	–0.042	.196	<sup>1</sup> –.077	.018
Spouse's health status:				
Excellent or very good	–0.017	.476	–0.015	.535
Good	...	...	...	...
Fair or poor	.004	.911	–0.026	.456
Education:				
Less than high school	.017	.487	.039	.100
High school graduate	...	...	...	...
College graduate	.022	.406	.013	.647
Married	–0.031	.322	–0.046	.151
Has dependent child	<sup>2</sup> .040	.091	.027	.154
Health insurance status:				
Portable	–0.011	.606	.004	.833
Nonportable	...	...	...	...
None	–0.063	.176	–0.056	.184
Pension status:				
Defined benefit only	.011	.629	–0.010	.642
Defined contribution only	<sup>1</sup> .048	.034	.035	.119
Defined benefit and defined contribution	.021	.630	–0.038	.533
None	...	...	...	...
Occupational status:				
White collar, highly skilled	–0.017	.579	–0.010	.739
White collar, other	–0.019	.578	–0.035	.176
Blue collar, high skilled	.016	.541	–0.002	.952
Blue collar, other	...	...	...	...
Self-employed	.040	.227	<sup>1</sup> .071	.024
Spouse works	<sup>1</sup> .046	.036	.039	.149
Own home	<sup>2</sup> –.045	.068	.018	.471

<sup>1</sup> Statistically significant at the 5-percent level.

<sup>2</sup> Statistically significant at the 10-percent level.

NOTE: HRS core respondents are those who were 51 to 61 years in 1992. Dependent variable: reentered labor force (reentered = 1).

Besides controlling for the variables shown, the regression controlled for ethnicity, wage, wage squared, wealth, wealth squared, and region.

SOURCE: Authors' calculations based on Health and Retirement Study (HRS).

from the Health and Retirement Study, about 15 percent of older career workers who left the labor force subsequently returned to work. This rate of reentry is higher than the 10-percent rate estimated by Quinn, Burkhauser, and Meyers with data from the 1970s<sup>31</sup> and lower than the recent “unretirement” rate identified by Maestas, which exceeded 20 percent.<sup>32</sup> The difference is due in part to the more restrictive requirement used in this article of being observed to be out of the labor force during at least two survey waves, compared with Maestas’s definition, which combined a measure of hours worked with self-reported retirement status. The two-wave requirement means that reentries after labor market departures that did not overlap two HRS surveys will not be counted and therefore that the 15 percent estimated here should be viewed as a lower bound.

The determinants of reentry among older Americans are similar to those of other job transitions late in life, such as transitions from career employment to bridge jobs, as described by Quinn, Cahill, Giandrea, and Quinn, and by Ruhm.<sup>33</sup> Respondents were more likely to reenter after leaving the labor force if they were younger and in good health; also, female HRS respondents were more likely to do so if they had dependent children at the time of the transition. Individuals with employer-provided defined-contribution pensions in their full-time career job were more likely to reenter than those without pensions, whereas those with defined-benefit plans were not. Finally, men who did not own a home and those whose wives were still working were more likely to reenter.

The findings presented here provide additional evidence beyond that in the existing literature that retirement transitions are diverse and that many workers’ exits from the labor force are not permanent. This ability to reverse retirement decisions may become increasingly important to older Americans in the years ahead as the effects of the shift in employer-provided pensions from defined-benefit to defined-contribution plans set in. Older Americans who once would have relied on a steady source of retirement income from defined-benefit plans now face the risk of outliving their assets. In light of this reality, these workers may recon-

sider some aspects of their retirement plans. One response to the risk of outliving one’s assets is to reduce consumption to allow existing assets to last longer. Working longer—delaying the age at which one permanently leaves the labor force—is another option, one with advantages for both individuals and society as a whole, because living standards can be maintained and national output is increased. With the possibility of reentry, older Americans can exit the labor force and retain the option of working again if necessary.

For reentry to be a viable option, however, a retiree must have confidence that a job will be available if needed. This issue of labor demand was not a large concern during much of the past 20 years, with unemployment mostly in the 4- to 6-percent range. More recently, however, in light of persistently higher unemployment rates, older Americans might well be less confident about finding a job after exiting the labor force, perhaps limiting the extent to which reentry is viewed as a viable option in retirement.

Because of uncertainty about finding a new job if needed, older workers may be reluctant to leave a career job later in life. Instead, they may choose to remain in career employment in order to accumulate additional wealth for retirement. Further, older retirees hoping to work again may experience a reduction in living standards if their job search drags on. In that case, some will turn to social programs they would otherwise not have needed. Indeed, labor demand might be a key consideration in older workers’ assessments of labor force reentry as a way to supplement inadequate retirement income.

Recent research on when and how Americans retire, as well as this and other studies on labor force reentry, has established that the work patterns of older Americans are many and varied. Retirement is not a one-time, permanent event for most older Americans, even for those who initially leave the labor force directly from career employment. A sizable minority of the latter subsequently return to the labor force. When reentry is considered together with the prevalence of bridge jobs, it becomes clear that retirement from a career job is indeed a process that takes place over time for the majority of older Americans. □

## Notes

<sup>1</sup> See Joseph F. Quinn, “Retirement Patterns and Bridge Jobs in the 1990s,” EBRI Issue Brief No. 206 (Washington, DC, Employee Benefit Research Institute, February 1999), [http://www.ebri.org/publications/ib/index.cfm?fa=ibDisp&content\\_id=119](http://www.ebri.org/publications/ib/index.cfm?fa=ibDisp&content_id=119) (visited June 24, 2008), and “New Paths to Retirement,” in Brett Hammond, Olivia Mitchell, and Anna Rappaport, eds., *Forecasting Retirement Needs and Retirement Wealth* (Philadelphia, University of Pennsylvania Press, 2000), pp. 13–32; Kevin E. Cahill, Michael D. Giandrea, and Joseph F. Quinn, “Retirement

Patterns from Career Employment,” *The Gerontologist*, August 2006, pp. 514–23; Michael D. Giandrea, Kevin E. Cahill, and Joseph F. Quinn, “Bridge Jobs: A Comparison Across Cohorts,” *Research on Aging*, September 2009, pp. 549–76; and Jan E. Mutchler, Jeffrey A. Burr, Amy M. Pienta, and Michael P. Massagli, “Pathways to Labor Force Exit: Work Transitions and Work Instability,” *Journal of Gerontology*, January 1997, pp. S4–S12.

<sup>2</sup> Joseph F. Quinn, Richard V. Burkhauser, and Daniel A. Myers,

*Passing the Torch: The Influence of Economic Incentives on Work and Retirement* (Kalamazoo, MI, W. E. Upjohn Institute for Employment Research, 1990).

<sup>3</sup> Christopher J. Ruhm, “Bridge Jobs and Partial Retirement,” *Journal of Labor Economics*, October 1990, pp. 482–501.

<sup>4</sup> Quinn, “Retirement Patterns and Bridge Jobs.”

<sup>5</sup> Cahill, Giandrea, and Quinn, “Retirement Patterns.”

<sup>6</sup> Giandrea, Cahill, and Quinn, “Bridge Jobs.”

<sup>7</sup> See Alicia H. Munnell, Kevin E. Cahill, Andrew D. Eschtruth, Kevin Meme, Amy Chasse, Natalia Jivan, Greg Wiles, Mauricio Soto, Steven A. Sass, and Tatiana Mihailovschi-Muntean, “The Graying of Massachusetts: Aging, the New Rules of Retirement, and the Changing Workforce” (Boston, MassINC, June 1, 2004), <http://www.massinc.org/Research/The-Graying-of-Massachusetts.aspx> (visited Dec. 12, 2010); and Alicia H. Munnell, “Working Longer: A Potential Win-win Proposition,” in Teresa Ghilarducci and John Turner, eds., *Work Options for Older Americans* (Notre Dame, Indiana: University of Notre Dame Press, 2007), pp. 11–43.

<sup>8</sup> See Alicia H. Munnell and Annika Sundén, *Coming Up Short: The Challenge of 401(k) Plans* (Washington, DC, The Brookings Institution Press, 2004); and Alicia H. Munnell and Pamela Perun, “An Update on Private Pensions,” Issue in Brief No. 50 (Chestnut Hill, MA, Center for Retirement Research at Boston College, August 2006), [http://crr.bc.edu/briefs/an\\_update\\_on\\_private\\_pensions.html](http://crr.bc.edu/briefs/an_update_on_private_pensions.html) (visited Dec. 12, 2010).

<sup>9</sup> Munnell and Perun, “An Update on Private Pensions.”

<sup>10</sup> *Ibid.*

<sup>11</sup> Craig Copeland, “Retirement Plan Participation and Asset Allocation, 2007,” EBRI vol. 30, no. 11 (Washington, DC, Employee Benefit Research Institute, November 2009), [http://www.ebri.org/pdf/notespdf/EBRI\\_Notes\\_11-Nov09.Ret-Part.pdf](http://www.ebri.org/pdf/notespdf/EBRI_Notes_11-Nov09.Ret-Part.pdf) (visited June 20, 2011).

<sup>12</sup> See Kevin E. Cahill and Mauricio Soto, “How Do Cash Balance Plans Affect the Pension Landscape?” Issue in Brief No. 14 (Chestnut Hill, MA, Center for Retirement Research at Boston College, December 2003), [http://crr.bc.edu/briefs/how\\_do\\_cash\\_balance\\_plans\\_affect\\_the\\_pension\\_landscape.html](http://crr.bc.edu/briefs/how_do_cash_balance_plans_affect_the_pension_landscape.html) (visited Jan. 6, 2011). Cahill and Soto provide more information on cash balance plans, which are often referred to as “hybrid” pension plans, because they contain characteristics of both defined-benefit and defined-contribution plans.

<sup>13</sup> Munnell and Sundén, *Coming Up Short*.

<sup>14</sup> For data on the financial solvency of Social Security, see *The 2011 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds* (Board of Trustees, Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, 2011), <http://www.ssa.gov/oact/TR/2011/tr2011.pdf> (visited June 21, 2011); and “CBO’s Long-Term Projections for Social Security: 2009 Update” (Congressional Budget Office, August 2009), [http://www.cbo.gov/ftpdocs/104xx/doc10457/08-07-SocialSecurity\\_Update.pdf](http://www.cbo.gov/ftpdocs/104xx/doc10457/08-07-SocialSecurity_Update.pdf) (visited Dec. 12, 2010).

<sup>15</sup> See Quinn, “Retirement Patterns,” and “Work, Retirement, and the Encore Career: Elders and the Future of the American Workforce,” *Generations: Journal of the American Society on Aging*, fall 2010, pp. 45–55.

<sup>16</sup> See Patrick Purcell, “Older Workers: Employment and Retirement Trends,” CRS Report for Congress (Congressional Research Service,

Sept. 16, 2009), <http://aging.senate.gov/crs/pension34.pdf> (visited Dec. 12, 2010).

<sup>17</sup> See Courtney C. Coile and Phillip B. Levine, “Bulls, Bears, and Retirement Behavior,” *Industrial and Labor Relations Review*, April 2006, pp. 408–29.

<sup>18</sup> Quinn, Burkhauser, and Myers, *Passing the Torch*.

<sup>19</sup> See David M. Blau, “Labor Force Dynamics of Older Men,” *Econometrica*, January 1994, pp. 117–56.

<sup>20</sup> *Hazard rate*, in this context, refers to the conditional probability of entering full employment in a particular quarter given that one is still out of the labor force at the beginning of that quarter.

<sup>21</sup> See Nicole Maestas, “Back to Work: Expectations and Realizations of Work after Retirement,” *Journal of Human Resources*, summer 2010, pp. 719–48.

<sup>22</sup> See F. Thomas Juster and Richard Suzman, “An Overview of the Health and Retirement Study,” *Journal of Human Resources*, Special Issue on the Health and Retirement Study: Data Quality and Early Results, vol. 30, 1995, pp. S7–S56; and *Growing Older in America: The Health & Retirement Study* (U.S. Department of Health and Human Services, 2007), <http://www.nia.nih.gov/ResearchInformation/ExtramuralPrograms/BehavioralAndSocialResearch/HRS.htm> (visited Dec. 12, 2010).

<sup>23</sup> Attrition is due to many factors, including the death of the respondent, an inability to locate the respondent, or refusal to participate in the survey.

<sup>24</sup> Respondents classified as “still in a full-time career job” are those who were in a full-time career job in 2008 and those who were last observed as being in a full-time career job.

<sup>25</sup> Respondents who were judged to have left the labor force were required to be out of the labor force for at least two surveys in order to avoid misclassifying those who had only a temporary lull in employment—for example, someone who left a career job just before the 2004 survey and moved to a bridge job several weeks later, but just after the 2004 survey. Therefore, a respondent had to exit the labor force before the 2004 interview in order to qualify for reentry status. For example, a respondent who worked in 2002, was out of the labor force in 2004 and 2006, and was back in the workforce in 2008 would qualify.

<sup>26</sup> The survey was unable to identify retirement transitions for about 8 percent of the sample. These individuals are not reflected in this tabulation.

<sup>27</sup> See, for example, Cahill, Giandrea, and Quinn, “Retirement Patterns.”

<sup>28</sup> *Ibid.*

<sup>29</sup> Other variables included in the regression, but not shown in table 3, are ethnicity, wage rate, financial wealth, and region. The coefficients of these variables were not statistically significant at the 5-percent level.

<sup>30</sup> Maestas, “Back to Work.”

<sup>31</sup> Quinn, Burkhauser, and Myers, *Passing the Torch*.

<sup>32</sup> Maestas, “Back to Work.”

<sup>33</sup> See Quinn, “Retirement Patterns”; Cahill, Giandrea, and Quinn, “Retirement Patterns”; and Ruhm, “Bridge Jobs.”

## The overestimated workweek revisited

*Data from the American Time Use Survey (ATUS) and a Belgian national survey using weekly diaries indicate that, when asked to estimate their number of work hours, employed respondents tend to overestimate their work hours by 5–10 percent in relation to the work hours they report in their time diaries; most of the overestimation is accounted for by respondents who estimate longer work hours*

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Until recently, most data about the public's time use came from survey questions that ask respondents to estimate how much time they spend or spent on an activity during a particular period, usually a week or day (often "last week" or "yesterday"); an example is "How many hours a week (day) do you spend working (watching television, doing house cleaning, etc.)?" There is a rich body of historical U.S. data that rely solely on this method, which can be called "the time-estimate approach"; in this article, questions asked with this approach generally are referred to as "time-estimate questions" or simply "estimate questions." As examples of the time-estimate approach, the Current Population Survey (CPS) is used to calculate data on time spent working, the Independent Sector (a coalition of charities, corporate giving foundations, and foundations) and other organizations estimate time spent doing volunteer work, the Census Bureau and the U.S. Department of Transportation estimate time spent traveling, and the Roper Organization and the General Social Survey are sources of data on time spent watching television. In *Middletown Families*, Theodore Caplow and colleagues

used the responses to a number of estimate questions to support their arguments about changes in daily life in the United States, and in *Bowling Alone*, Robert Putnam used similar data to support his arguments about declining social capital in the Nation.<sup>1</sup>

The most widely used time estimates of work hours come from the CPS, in which respondents estimate how many hours they worked the previous week as well as estimating the "usual" number of hours per week that they work. The CPS has been considered the premier data source for assessing the extent of and changes in the work patterns of men and women in the United States. One of the great advantages of CPS-type estimate questions is that they are asked of very large samples with high response rates. For example, the CPS surveys about 60,000 households every month for all 12 months of the year regarding work and job-search activities, and these questions have been asked over a very long period, extending back four or more decades. The CPS data thus make it possible to identify not only trends in the overall average number of hours worked, but also trends in hours worked by sex, by age, by marital status, by presence and ages of children, and by other demographics. Juliet Schor, for example, used these data to support her conclusion that Americans are overworked.<sup>2</sup>

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Time-estimate questions have drawbacks, however. Recalling details about time spent in an activity involves complicated calculations. Asking someone "How many hours do you work?" assumes that each respondent interprets "work" the same way, searches his or her memory for *all* episodes of work during an extended period, and is able to properly add up all the lengths of all the episodes across the day or across days in the previous week. Another problem with survey estimate questions is that the respondents are expected to provide on-the-spot answers in a few seconds. What seems at first to be a simple estimation turns out to involve several steps that are quite difficult to perform, even for a respondent with regular and clear work hours and a repetitive daily routine.

An alternative to the time-estimate approach is the time-diary approach. The appeal of time diaries is that respondents are not asked to make complex, vague, or subjective calculations, but simply to recall their activities sequentially for a specific period, usually the previous day. In that way, it becomes possible to reduce the respondents' recall period, to cover all daily activity, and to ensure that the account of one's day respects the "zero-sum" property of time (since the respondents' daily activities must total to exactly 24 hours).

The first U.S. national time-diary studies were conducted at the University of Michigan in 1965 and 1976 and subsequently at the University of Maryland. Since 2003, diaries have been collected by the U.S. Census Bureau for the Bureau of Labor Statistics American Time Use Survey (ATUS), which uses much larger samples of respondents than the earlier studies used. The people in the ATUS sample are age 15 and older and are asked to report all their activities for the previous day. All ATUS respondents are interviewed by telephone.<sup>3</sup>

Despite its usefulness, the diary method is not without its own problems. Respondents can still distort, embellish or even lie outright about what they do. When asked to recall what they did, many simply cannot remember and may substitute a habitual activity for what actually took place. In addition, the method demands a fair amount of time and effort from both the interviewer and the respondent, although survey respondents often enjoy the task of recalling their daily activities.

Analysts might wish for fuller or more verifiable accounts of activity than the oral retrospective diary accounts in the ATUS. Among the alternatives that have been undertaken are "experience sampling method" (ESM) studies, in which respondents report what they are doing when an electronic "beeper" goes off at random moments during the day; the observational approach employed in

the Middletown Media Studies of Ball State University, in which participants are shadowed throughout the day by an observer who digitally records their activity every 10 seconds; and less precise observational approaches, such as those which have been used often in anthropology.<sup>4</sup> Nonetheless, diaries are a richer and more contextualized source of information about people's activities than any present alternative, particularly because of their high response rate and 24-hour-per-day coverage.

### Time estimates versus diary figures

The results from time-diary studies challenge many existing beliefs. Most notably, time-diary-based estimates of paid work hours typically are lower than estimates derived from the CPS.<sup>5</sup> Perhaps because of the diary's implicit constraint on the numbers of hours in a day (all activities must add up to exactly 24 hours), diary respondents tend to report fewer hours at work per day or week than respondents to time-estimate questions. Responding to questions of the type "How many hours do you usually work (or did you work last week)?" workers within the range of 35- to 45-hour work weeks tend to report relatively similar work hours when filling out time diaries and when answering questions asked with the time-estimate approach, but the higher the respondent's estimated number of hours per workweek, the larger is the gap between the estimates obtained with the two approaches. Workers estimating 50- to 80-hour workweeks had progressively greater gaps between this estimate and what they reported in their diaries. This suggests that data obtained from time-estimate questions tend to follow the pattern of "The greater the estimate, the greater the overestimate."

Jerry Jacobs has challenged this notion of inaccurate estimates, arguing that the gap was simply a result of the familiar "regression to the mean" phenomenon. He produced statistical models that could account for these gaps. Using more recent data from the ATUS, Harley Frazis and Jay Stewart found no notable difference between diary data and data from estimate questions, also arguing that any gaps might result from regression to the mean.<sup>6</sup> However, Frazis and Stewart's results were mainly for days in "reference weeks" during the month and not for days in other weeks of the month.

### Previous findings about the gap

In contrast to many previous studies, it is argued here that, in comparing responses to estimate questions about time

spent working with data from time diaries on time spent working, there are several findings from both recent and earlier time-diary research that support the conclusion that the gap between answers to estimate questions and time-diary figures is persistent and consistent (although it does not appear to be especially large) and that respondents tend to give even more inaccurate answers when asked estimate questions about a number of different nonwork daily activities, like housework and sleep.

This section of the article presents arguments and findings from the literature that relate to the gap. Each argument or finding is in italics and is followed by an explanation.

*Estimates across all, or almost all, activities ultimately sum to more than 168 hours per week.* In some studies, respondents have been asked to estimate the durations of virtually all their daily activities, not just work or housework, but sleep, TV, and socializing, among many others. When asked to provide such daily and weekly estimates, survey respondents tend to give estimates that add up to considerably more than the 168 hours in each week. David R. Chase and Geoffrey C. Godbey obtained similar results when they asked members of swimming and tennis clubs how many times they had used the club during the previous 12 months and checked their responses against the sign-in system each club had. For both types of clubs, almost half of all respondents overestimated the actual number of times they participated by more than 100 percent.<sup>7</sup> In other words, there seems to be a tendency for respondents to inflate estimates, either by double counting activities that were done simultaneously or by giving socially desirable responses (as argued later in this article).

*The gap in work hours is found in several other countries.* John Robinson and Jonathan Gershuny found consistent overreporting of paid work hours by employed people, not only in the United States but also in 10 other Western countries. In each country, diary work hours were lower than the number of hours that workers gave in response to estimate questions.<sup>8</sup> The gap was also observed in more recent diary studies conducted in three other countries: Russia, China and Japan.

*The gap was smaller in the 1960s and has varied over time.* John Robinson and Ann Bostrom have noted that the size of the gap was notably smaller in 1965 when the first national diary study was conducted.<sup>9</sup> In 1965, the gap was 1.3 hours; in 1975, 3.6 hours; and in 1985, 6.2 hours. The gap then decreased to 2.7 hours for the 1993–95 period,

increased to 3.7 hours for the 1998–2001 period, and fell to 2.4 hours for the 2003–07 period.

The changing magnitude of the discrepancy since 1965 makes it difficult to argue that the discrepancy simply results from a “regression to the mean” effect, given that there was little evidence of a discrepancy in the earlier studies. It is argued here that, instead, with the movement of the labor force into more service occupations and other occupations in which work schedules are becoming more irregular (with no time clock to punch as a vivid reminder), workers have fewer benchmarks to use in estimating the number of hours in their workweek.

*The gap is in evidence for estimates of work hours arrived at with more precise methods.* Alain Chenu and John Robinson have described a national diary study in France in which workers were asked to complete a “work grid” over a 1-week period, recording for each day the precise times they began and ended work.<sup>10</sup> The grid not only showed work hours that were much closer to diary figures than workers’ standard time estimates were, but also showed the pattern of higher discrepancies among respondents giving higher estimates.

*Even larger overestimates have been found for time spent on housework.* Both a study by Margaret Marini and Beth Shelton and another by Julie E. Press and Eleanor Townsley found notably shorter times spent on various housework tasks, like cooking and cleaning, in national time diaries than in answers to time-estimate questions from the 1984 National Survey of Families and Households (NSFH).<sup>11</sup> The NSFH questions about housework are of particular interest because they deal with unpaid work in society, which is a productive area of daily activity outside of paid work and is of considerable economic relevance, and because they have been extensively analyzed in the family studies literature.

However, both the Marini and Shelton and the Press and Townsley studies had to depend on data from separate time-diary and time-estimate surveys. In the 1998–2001 national diary study described in chapter 2 of *Changing Rhythms of American Family Life*, by Suzanne M. Bianchi, John P. Robinson, and Melissa A. Milkie, both the time-estimate data and daily diary data were collected from the same respondents, making it possible to show that the discrepancy between the two datasets is not a result of confounding factors.<sup>12</sup> Indeed, across each of nine separate household tasks, like cooking and laundry, respondents estimated higher numbers of hours for housework than they reported in their time diaries. After



the time spent doing these nine tasks was added up, it was found that, per week, men estimated a total of 23 hours of housework versus 10 hours in the diary, and women estimated 32 hours versus 17 hours in the diary. Including housework done as a secondary activity (multitasking) in the diary did decrease that gap, but by only 2 hours for men and 3 hours for women. Moreover, the authors found that reducing the time-estimate recall period by changing from a “last week” to a single “yesterday” estimate did not reduce the gap between the estimate and diary figures, even though that “yesterday” was the diary day itself. Furthermore, when the time-estimate data and time-diary data are plotted against each other, the same pattern emerges, with the largest overestimates of housework reported by those estimating the most housework.

*The gap is found in using weekly as well as daily time diaries.* Another way to compare standard estimates with diary figures involves the use of weekly diaries, and this method may be better since here one is using the *same* weekly reference period instead of comparing a day with a week. A study conducted this way thus can move beyond the assumption that daily diary figures can be synthetically aggregated to produce average weekly figures, an assumption that was made in creating work-hour categories for this article. Weekly diaries were used in two studies conducted in Belgium, which are the second main data source for this article; the first source is the ATUS and CPS.

### A hypothesis about the gap

Unlike the case for paid work hours, for which the discrepancy between answers to estimate questions and diary figures is in the 5-percent to 10-percent range, the gap for housework is almost double. This suggests that, although purporting to be measuring the same phenomena, estimate figures and diary figures might better be treated as highly correlated but essentially different from each other. In this article, it is hypothesized that there is not a single “mean” to which to regress, but instead at least two separate means—one for answers to estimate questions and a second for diary figures.

Despite the methodological concerns regarding different wordings of estimate questions—with some asking respondents about “last week,” others about a “usual week,” and so forth—there is evidence in table 1 which suggests that there are in fact two means; specifically, the averages of work hours that respondents estimated are very similar to one another for a given demographic, the diary figures are very similar to one another for a given demographic,

and the gaps between the two datasets are very visible. An answer to a time-estimate question is a *perception* rather than a number arrived at through pure addition, and the perception probably is influenced by implicit or explicit work-hour arrangements between the employer and the employee; in addition, the perception is not formally verified. Moreover, it appears that even more “means” of work hours are introduced by the other observational measures described in the introductory section of this article; for example, “beeper” studies have found notable amounts of time at work being spent on nonwork activities.

### The ATUS and the CPS

The ATUS is a survey of adults age 15 and older that has been conducted across each year since 2003 in the United States with a nationally representative sample. The present study analyzes 2003–07 data from the ATUS and the CPS. Although people ages 15 years and older were interviewed, only those ages 18–64 who were employed are considered here. Between January 1 of 2003 and December 31 of 2007, more than 70,000 adults ages 15 and over were interviewed for the ATUS, with an overall response rate of about 56 percent. The interviews were conducted by telephone by interviewers from the U.S. Census Bureau and were spread across the entire year, with just over 1,500 interviews a month in 2003 and just over 1,000 per month in 2004–07. Approximately half of the interviews asked about weekdays, and the other half asked about (more variable) weekend days.

Each respondent completed a “yesterday diary” for the 24 hours of the previous day, following procedures described in the ATUS section of the BLS Web site. Additionally, the survey includes an estimate question about work hours in addition to demographic and background questions. Other background information and information about works hours had been collected from one randomly chosen member in that household—not necessarily the same respondent—who had been interviewed eight times over the previous 2 years as part of the CPS; the CPS contains two estimate questions about work hours. The ATUS is funded by the Bureau of Labor Statistics and was not specifically designed to be comparable to earlier national time-diary surveys, although it has resulted in diary figures highly similar to those from the earlier surveys.<sup>13</sup>

The diary figures include all activity clearly reported as work in the diary, including short breaks and social events that took place during the workday. Two work-related activities that were not coded as work in these diaries were the commute to and from work and breaks for lunch or

**Table 1. The mean number of hours that respondents directly estimated working, their mean number of work hours according to their diaries, and the difference between the two, 2003–07 data**

Estimate question	1 or more hours			20 or more hours			35 or more hours		
	Estimated	Diary	Estimate minus diary	Estimated	Diary	Estimate minus diary	Estimated	Diary	Estimate minus diary
<b>All workers</b>									
ATUS question about "usual" work hours	39.5	36.3	3.2	41.3	37.4	3.9	44.0	40.4	3.6
CPS question about "usual" work hours	39.5	35.9	3.6	41.3	37.3	4.0	43.5	38.1	5.4
CPS question about work hours "last week"	38.7	35.9	2.8	41.3	37.6	3.7	43.5	40.4	3.1
<b>Women</b>									
ATUS question about "usual" work hours	35.5	32.3	3.2	38.4	34.8	3.6	41.9	37.4	4.5
CPS question about "usual" work hours	36.7	32.1	4.6	39.1	33.9	5.2	42.2	36.2	6.0
CPS question about work hours "last week"	35.5	31.9	3.6	38.7	33.5	5.2	43.9	37.6	6.3
<b>Men</b>									
ATUS question about "usual" work hours	42.7	40.6	2.1	44.2	41.8	2.4	45.8	42.8	3.0
CPS question about "usual" work hours	42.5	40.0	2.5	43.6	40.7	2.9	44.8	41.7	3.1
CPS question about work hours "last week"	42.5	40.0	2.5	43.8	41.3	2.5	46.7	42.8	3.9
NOTE: The diary data differ within a given column and demographic because the diaries are matched with the people who answered the respective estimate questions (the ATUS estimate question and the two									
from the CPS) so as to calculate reliable "estimate minus diary" figures.									
SOURCES: The American Time Use Survey and the Current Population Survey.									

other meals. In order to generate synthetic weekly estimates from these daily diaries, data for each day were aggregated. Thus, if respondents averaged 7 hours of paid work as recorded in the diary for Monday, 8 hours as recorded for Tuesday through Thursday, 6 hours for Friday, 3 hours for Saturday, and 0 hour for Sunday, the aggregated weekly diary time for this sample would be (7 + 8 + 8 + 8 + 6 + 3 + 0 =) 40 hours.

Three estimate questions (each composed of two sub-questions) are asked about work hours, one question asked in the ATUS and the other two asked in the CPS. The ATUS asks the following:

- 1) a) How many hours do you usually work per week at your main job? and b) How many hours do you usually work per week at your other jobs?

The other two questions are the ones the original household respondent had answered for all employed house-

hold members in the CPS interview 2–5 months previous to the ATUS survey. One question is the same as the one asked in the ATUS:

- 2) a) How many hours do you usually work per week at your main job? and b) How many hours do you usually work per week at your other jobs?

The other question in the CPS interview was in regard to each worker's actual work hours from the previous week:

- 3) Last week, how many hours did you actually work at your main job? and b) Last week, how many hours did you actually work at your other jobs?

Note that all these questions include second jobs in the total, as do the diary figures for all working people.

The mean values for the responses to each of these three estimate questions appear in table 1 alongside the

mean work hours that were calculated from the diary for the same groups of people that answered the respective estimate questions. The diary figures were weighted such that equal weight is given to each day of the week.

### ATUS and CPS results

As can be seen in table 1, the three questions presented in the previous section of this article resulted in remarkably similar mean estimates. The hours worked as calculated from the diary are in another column, and the differences between the data in these two columns are shown in the third column. These three columns exist across the three categories of workers in the table. In order to show that the gap between the work hours given in response to estimate questions and the work hours calculated from diaries applies both to workers with heavier workweeks and to those with lighter workweeks, data are provided for three categories of workers: 1) those estimating 1 or more hours of work per week, 2) those estimating 20 or more hours of work a week, and 3) those estimating 35 or more hours of work a week. In addition, the data are calculated for all workers together and also calculated separately for female and male workers.

It can be seen that, for both the questions about usual work hours and the question about work hours from the previous week, and for both female and male workers, the estimates are larger than the diary figures, as hypothesized and as found in previous studies. That gap tends to be larger for full-time workers than for full-time and part-time workers together, and larger for women than men. The gap between the answers to the CPS question on actual hours and the diary data is lower than both of the other gaps for men and women together, but not lower than both for men and women separately. The “estimate–diary” gaps range from 2.1 hours to 6.3 hours; in other words, relative to the work hours they recorded in their diaries, when asked how many hours they usually worked or had worked the previous week, people overestimated by between 5 percent and 12 percent.

Averaged across all years, estimated works hours come to over 39 hours of work per week, whereas the diary figures averaged closer to 36 hours. Chart 1 shows the gap as a function of the estimated number of hours worked for each of the three estimate questions. The chart shows the familiar “greater estimate, greater overestimate” pattern from previous gap studies. As might be expected, compared with the diary figures, the responses to the CPS question about work hours during the prior week differed the least, and the responses to the CPS question about

usual hours (asked 2–5 months previously) differed the most, with the responses to the ATUS question about usual work hours in between. Nonetheless, the three lines on the chart are remarkably close and similar to one other.

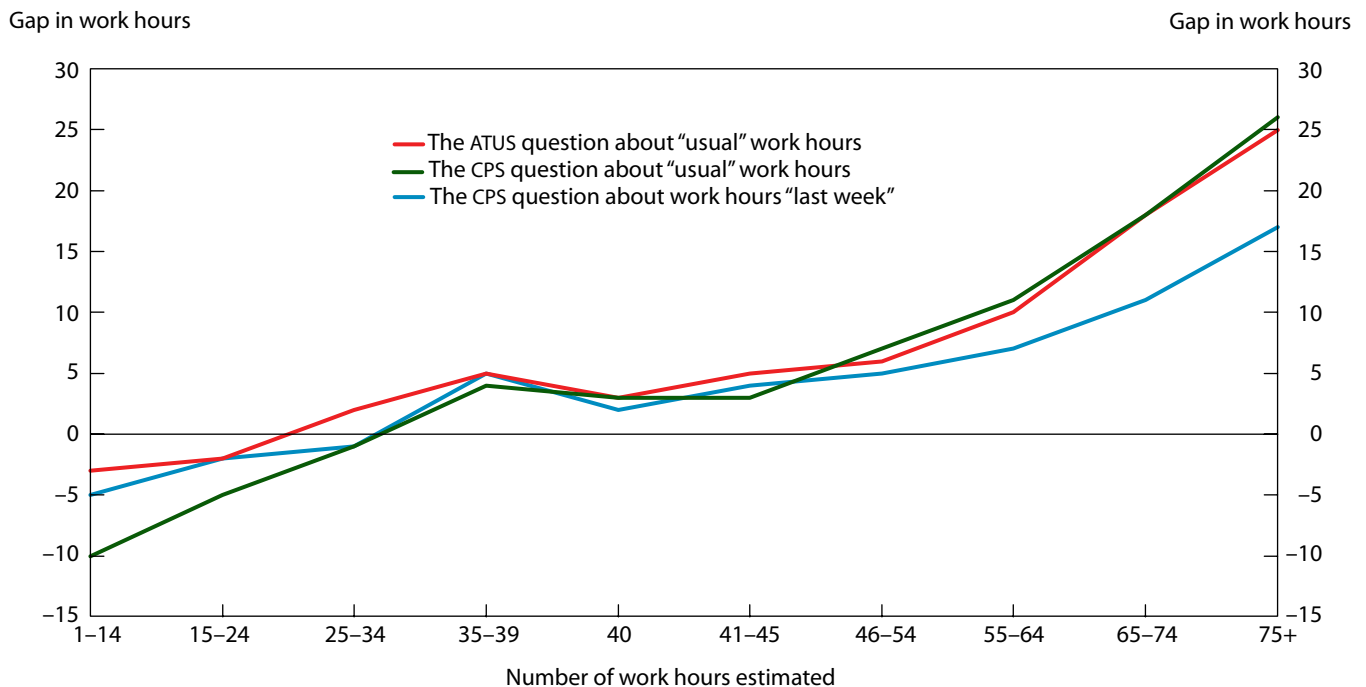
If chart 1 were also to show these gaps by sex, the general pattern would hold both for women and for men, although for both sexes the gap is not as marked as in most previous studies. Note that the same “greater estimate, greater overestimate” pattern in chart 1 holds after multivariate adjustment for each respondent’s age, education, marital status and parental status.

### Weekly time diary studies in Belgium

National time-diary data were gathered in Flanders, the Dutch-speaking part of northern Belgium in 1999 and in 2004 by data collectors who visited people’s homes. Respondents were selected randomly from the government’s General Register (containing all Belgians) in 1999 and from a commercial mailing list (claiming to contain more than 95 percent of Belgians) in 2004. A total of 1,533 respondents ages 16 to 75 years took part in the 1999 study, and a total of 1,780 respondents ages 18 to 75 years participated in the 2004 study. In both studies the field work took place between mid-April and mid-July and from the first of September to the end of October. The response rate in 1999 was about 27 percent; in 2004, it was approximately 37 percent. After adjustments for invalid addresses, deceased persons, those who did not speak Dutch, those who were sick, people who were handicapped in a way that prevented them from responding, and those who were on vacation or business travel during the period, the response rates increased to 29 percent for the 1999 study and to 42 percent for the 2004 study. Although these response rates are low, they are higher than one might have expected given that the survey involved a fairly high level of respondent burden. In addition, both datasets were weighted for educational level, sex, and age to be in accordance with national demographic figures. The diary weeks and the starting days were both assigned randomly across respondents. For this article, the data from the two studies were pooled. Only people ages 18 to 64 years old who had a job were selected ( $n = 1,796$ : 977 men and 819 women).

Respondents were contacted in person. After instructions from the interviewers on how to record their activities, respondents filled out a multipage diary for the next 7 consecutive days, describing on each page their main activities with the starting and ending times for each activity, and also writing down secondary activities occurring simultaneously, the location of each activity, any means of

**Chart 1. The mean number of work hours directly estimated by respondents in the ATUS and CPS minus the mean number of work hours as calculated from ATUS time diaries, 2003–07 data**



SOURCES: The American Time Use Survey and the Current Population Survey.

transport taken during the activity, and the people whom they were with while doing all activities. The respondents were instructed to carry the diary with them throughout the day. It was an open-interval diary, meaning that respondents could report exact starting and ending times. To record their main and secondary activities, they were instructed to refer to a list of 163 activities (154 in 1999) that had been created with the intent to cover all relevant human activity. If respondents felt that one or more of their activities were not on the list, they could write it out in their own words. The use of a precoded activity list has the advantage of steering respondents toward employing the same level of detail in reporting their activities.

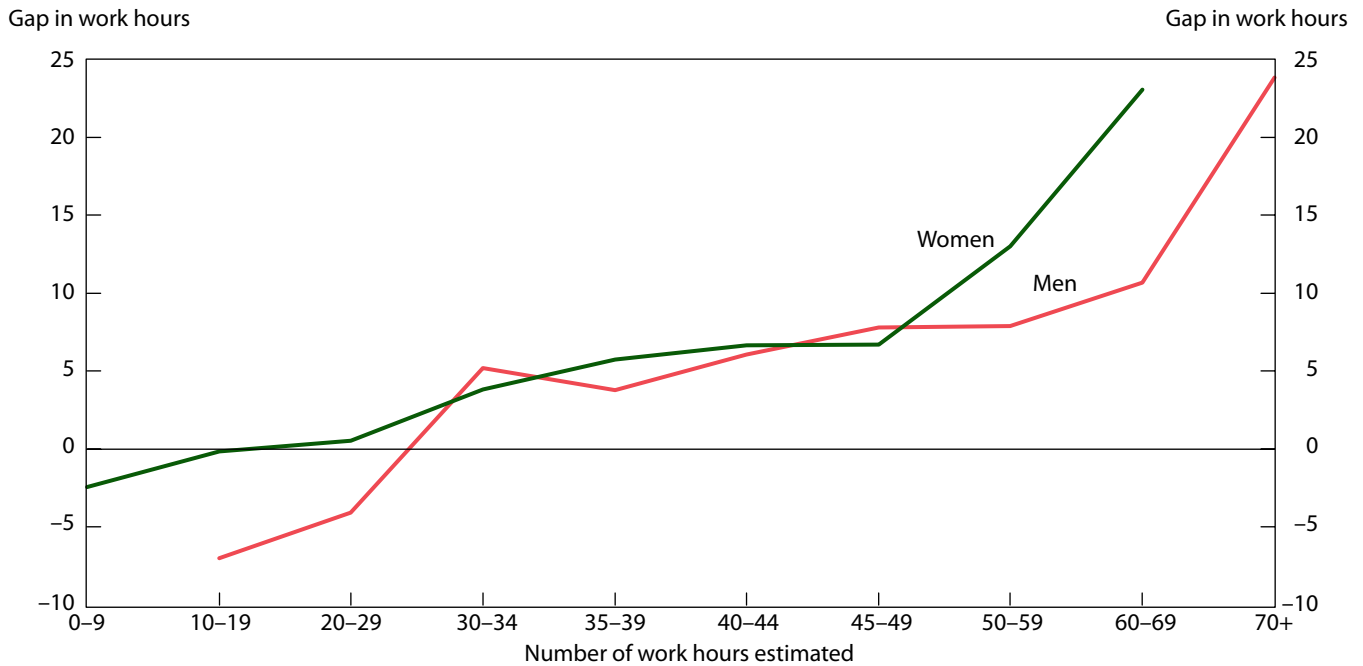
The diary information was supplemented in both surveys by two questionnaires. The first was administered face-to-face before the diary period and contained mainly questions on sociodemographic factors, attitudes, and other background information, as well as instructions for filling out the diary correctly. The first questionnaire asked the following question on work hours: "How many hours do you generally spend per week (weekend included) on paid work? By work we mean all the work you do for your main job, including paid and unpaid overtime. Thus, it is

the real time you work on your main job. Please do not include the time you travel between home and work."

The question has the advantage over the aforementioned CPS questions of asking respondents to exclude their work commute. Respondents were not explicitly asked to exclude meal times. However, since the preceding question asked about the number of hours that respondents were contracted to work, it should have been clear to the respondents not to take meal times into account. Nevertheless, this ambiguity could be a factor behind the discrepancies between diary times and people's responses to the estimate question about work hours. The estimate question was repeated for those respondents with a second job. These two estimates (one for the first job, the other for the second) were counted together to arrive at one estimate of the total amount of time spent on paid work per week. This general estimate was then coded into 1 of the 10 work-hour categories shown in chart 2.

During the second visit to the respondent, the interviewer checked over the diary with the respondent to resolve any problems or ambiguities in the diary before collecting it. The interviewer also conducted the second questionnaire, which asked whether respondents had dif-

**Chart 2. The mean number of work hours directly estimated by respondents in Belgium minus the mean number of work hours as calculated from time diaries in the same study, 1999 and 2004 data**



NOTE: There were not enough men who estimated 0-9 work hours or women who estimated 70 or more work hours for data to be reported.  
 SOURCE: Ignace Glorieux, J. Minnen, and J. Vandeweger, "Technisch verslag bij de tijdsbudgetenquête" (Technical report on the time-use survey) (Brussels, Belgium, 1999 and 2004, unpublished manuscripts).

faculties managing their time and also asked about the division of labor within the household.<sup>14</sup>

The advantage of these Belgian data over the ATUS diary data is that they cover an entire week of activities for each individual rather than a single day. Moreover, the estimate question in the Belgian survey asks about general work hours to provide a firm benchmark against which to compare actual work hours as reported in the diary, rather than asking for a "last week" (actual) estimate that may not have been typical.

### Results from the Belgian studies

Chart 2 displays data from the Belgian studies and is similar to chart 1 in that it measures estimated work hours on the *x*-axis and the difference between estimated hours and diary hours on the *y*-axis. It can be seen that chart 2 conforms to the "greater estimate, greater overestimate" pattern in chart 1 and in previous studies. Perhaps not surprisingly, people who worked "normal hours" (in the 30- to 49-hour range) overestimated their work hours by the smallest amount. As in chart 1 and earlier studies, respondents working less than 30 hours were found

to underestimate their work hours relative to the hours reported in their diaries, counter to the pattern for those working 50 or more hours found in these and other studies. (In the Belgian studies, the overestimate begins even before the 40- to 44-hour range.) In these Belgian studies and a number of others, women, on the whole, seem to overestimate time spent at work more than men do; this is especially true among people who estimate working 50 hours or more. For the sample as a whole, there is a clear general tendency for the estimated number of work hours to be larger than the number calculated from the weekly diary, which is consistent with the hypothesis that there are "diary means" and "estimate means" and that one should not expect a one-to-one correspondence between the two.

### Possible reasons for the gap

As noted earlier, there may still be ambiguities in survey questions that underlie gaps between people's responses to estimate questions and the hours they report in time diaries. The possibility that respondents might include their time spent commuting or on their lunch breaks

in their estimates of work hours was minimized in the Belgian survey, but the possibility still exists. Moreover, it is also possible that workers fail to subtract time lost to household crises or other sudden nonwork demands (such as the need to take care of a sick child or repair one's car).

Another factor behind the aforementioned gap may be the well-known survey phenomenon of social desirability.<sup>15</sup> Respondents may believe that low estimates of time spent on paid work or housework estimates could be taken as a sign of being lazy or irresponsible. It seems that the effect of social desirability is a factor behind the discrepancies shown in chapter 2 of *Changing Rhythms of American Family Life* between respondents' estimates of time spent on housework and parallel diary figures. In the ATUS and CPS results calculated for this article, however, the gaps for paid work and housework—approximately 2–3 hours a week for paid work and 10–15 hours a week for housework and family care—are much smaller, both in relative and absolute terms. The housework estimates are almost double the corresponding diary figures, whereas respondents' estimates of paid work hours average 5–10 percent higher than the hours figures calculated from their diaries. (The housework diary figures in *Changing Rhythms* were quite close to those reported in the 2003–07 ATUS diaries.)

There are, as might be expected, several other reasons for the lower overestimates of paid work compared with the overestimates of housework. Paid work hours are far more regularized and often have fixed schedules, with coworkers and supervisors monitoring and depending on reciprocal work activity. When people do unpaid work at home, new home appliances often make it possible to multitask (for example, by doing childcare and other tasks as the washing machine is running); thus, many housework activities become blended together, making it virtually impossible to get an accurate count of hours spent without videotaping the people in the sample or having an observer record their activities.

The misestimation of time in a socially desirable direction seems to carry over to other activities as well, such as attendance at religious services and volunteering. Respondents overestimated their time at religious services by almost 50 percent—1.5 estimated weekly hours, compared with about 1.0 hour in the ATUS diaries. As with other examples of overestimation, there could be simple explanations for such a pattern: people arriving late or leaving early from services, people counting socializing after a service as time at the service, people including driving time, etc. However, the social desirability explanation does seem to fit this overestimation of time, given that religion

is, for the most part, a highly valued activity in American society. Religious services usually have clear start and end times and a regularized agenda, which might help explain why the overestimation for religious services is lower than that for volunteering, in which respondents report engaging for an average of 2 hours a week, compared with the mean weekly ATUS diary figure of about 1 hour.

The social desirability argument also fits with two other activities for which respondents *underestimate* their weekly hours spent relative to the diary, namely, sleep and free time. Since the first diary study in 1965, respondents have consistently reported somewhere around 8 hours of sleep in their diaries (and closer to 8.5 hours a day in ATUS), yet several surveys contain estimates of closer to 7 hours.<sup>16</sup> And when asked to estimate how many hours of free time they have per week (with an accompanying definition of the seven most common types of free time, including watching TV and socializing), respondents report less than 20 hours per week, compared with at least 35 hours in the ATUS diary.

An argument different from that of social desirability would be needed to explain the underestimation of work hours by those with shorter workweeks and the unemployed. It was anecdotally reported that, in one study of workers classified as unemployed (from lists of such workers), when interviews ran longer than expected, several of these “unemployed” interviewees broke off the interview by saying, in effect, “I’m sorry, but I have to go to work.” These workers either still considered themselves unemployed (possibly because they were underemployed) or did not take fully into account the hours they were putting in, perhaps because their work schedule was irregular or unpredictable.

Time estimates are not invariably overestimates. However, for more “productive” activities, it appears the estimates are subject to the common survey issue of social desirability, although far more for unpaid housework than for paid work.

THIS ARTICLE HAS COMPARED DATA from time diaries on the number of hours people worked with data gathered from employed respondents who were asked to estimate directly the number of hours they usually work or actually worked. Results suggest that, overall, the “estimate questions” generate higher estimates of the time men and women spend doing paid work than do figures from daily diaries that are extrapolated across the week. Moreover, there is consistent evidence that larger discrepancies tend to arise from respondents who estimate more hours in their workweek. In *Changing Rhythms of American Family*



*Life*, there was little indication that reducing the estimate timeframe from a week to a day decreased the gap between the estimates respondents gave and the work hours they reported in their time diaries, providing further evidence that data on work hours obtained from estimate questions ought to be treated as a different concept or variable than the figures generated obtained from diaries.

These estimate–diary comparisons are consistent with earlier U.S. diary studies and those from several other countries in that they show minor overestimates of hours spent at work, mainly due to workers who estimate the greatest (60 or more) number of hours at work. This difference in the accuracy of estimates between people who work more hours and those who work fewer hours may be due to those estimating longer workweeks (and the diaries confirm that they *do* work longer hours than those giving lower estimates) feeling overworked during hours when other workers are enjoying their time off from work.

These hypotheses for why some groups seem to estimate work time more accurately than others could be supported by follow-up questions that ask respondents if they had to take off any time from work during the “diary day” for personal reasons. Another potential avenue for research would be to identify workers in the ATUS data who have service jobs or other jobs that allow nonwork activities as an official part of the workday and to compare their work hours with workers whose jobs do not allow nonwork activities as part of the workday.

Another approach would involve a panel study design and weekly diaries. Workers would first be asked to estimate their work hours for the upcoming week. They would then be asked to fill out a diary for each of the next 7 days. When the interviewer returns to collect the week’s worth of diary entries, the interviewer would ask the respondent to estimate how many hours he or she worked over the previous 7 days and then compare those answers with the hours in the weekly diary. The study would be strengthened by other methods of estimating the workweek, such as the “work grid” described in Chenu and Robinson’s article.<sup>17</sup>

Ultimately, however, there will be a need to employ more intensive and verifiable methods, presumably employing some method of direct observation. Currently, work activity is something of a “black box,” in that researchers must depend on respondents’ self-reported accounts of work. When diary respondents say that they were working during a given part of the workday, even if that time was spent purely on socializing or recreation having no relevance to work, it is counted as work time. Thus, some unknown percentage of the reports of “work” in diaries include time spent using the Internet or telephone for personal matters, having water-cooler discussions, daydreaming, and doing dozens of other nonwork activities. Until some form of “beeper” or on-site observation study focused on work hours is conducted, however, the factors behind the gap between respondents’ estimates and their diary entries remain open to speculation. □

## Notes

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<sup>1</sup> Theodore Caplow, Bruce A. Chadwick, Howard M. Bahr, and Reuben Hill, *Middletown Families: Fifty Years of Change and Continuity* (Minneapolis, MN, University of Minnesota Press, 1982); and Robert Putnam, *Bowling Alone: The Collapse and Revival of American Community* (New York, Simon & Schuster, Ltd., 2001).

<sup>2</sup> Juliet B. Schor, *The Overworked American: The Unexpected Decline of Leisure* (New York, NY, Basic Books, 1992).

<sup>3</sup> See <http://www.bls.gov/tus> (visited May 27, 2011) for more information about the ATUS. In addition, see Katherine G. Abraham, Aaron Maitland, and Suzanne M. Bianchi, “Nonresponse in the American Time Use Survey: Who Is Missing from the Data and How Much Does It Matter?” *Public Opinion Quarterly*, 2006, vol. 70, no. 5, pp. 676–703. More general reviews of the diary method can be found in William Michelson, *Time Use: Expanding Explanation in the Social*

*Sciences* (Boulder, Colorado: Paradigm Press, 2005); Jonathan Gershuny, *Changing Times: Work and Leisure in Postindustrial Society* (Oxford, England, Oxford University Press, 2000); and John P. Robinson and Geoffrey Godbey, *Time for Life: The Surprising Ways Americans Use Their Time* (University Park, PA, Pennsylvania State University Press, 1999). In these sources, evidence is provided to support the basic reliability and validity of the diary method. That is, the accounts of work time from different diary studies tend to be fairly similar both with one another and with data on work hours collected in a number of other ways, such as direct observation (e.g., studies in which respondents are observed directly and studies in which respondents report their activity at random moments during the day when a beeper goes off).

<sup>4</sup> See Mihaly Csikszentmihalyi, *Flow: The Psychology of Optimal Experience* (New York, NY, HarperCollins, 1990); and Michael Holmes and Mike Bloxham, “An Observational Method for Time Use Research: Lessons Learned from the Middletown Media Studies,” *Social Indicators Research*, August 2009, pp. 245–48.

<sup>5</sup> See John P. Robinson and Ann Bostrom, “The overestimated workweek? What time diary measures suggest,” *Monthly Labor Review*, August 1994, pp. 11–23; and John Robinson and Jonathan Gershuny,

"Measuring Hours of Paid Work: Time-Diary vs Estimate Questions" *Bulletin of Labour Statistics*, 1994, pp. 11–17.

<sup>6</sup> Jerry A. Jacobs, "Measuring time at work: are self-reports accurate?" *Monthly Labor Review*, December 1998, pp. 42–53; and Harley Frazis and Jay Stewart, "What can time-use data tell us about hours of work?" *Monthly Labor Review*, December 2004, pp. 3–9.

<sup>7</sup> See Douglass K. Hawes, W. Wayne Talarzyk, and Roger D. Blackwell, "Consumer Satisfaction from Leisure Time Pursuits," in Mary Jane Schlinger, ed., *Advances in Consumer Research* (Chicago, Association for Consumer Research, 1975), pp. 817–36; Lois Verbrugge and Ann Gruber-Baldini, *Baltimore Study of Activity Patterns* (Ann Arbor, Institute of Gerontology, University of Michigan, 1993); and David Chase and Geoffrey C. Godbey, "Accuracy of Self-Reported Participation Rates: Research Notes," *Leisure Studies*, issue 2, 1983, pp. 231–35.

<sup>8</sup> Robinson and Gershuny, "Measuring Hours of Paid Work."

<sup>9</sup> Robinson and Bostrom, "The overestimated workweek?"

<sup>10</sup> Alain Chenu and John P. Robinson, "Synchronicity in the work schedules of working couples," *Monthly Labor Review*, April 2002, pp. 55–63.

<sup>11</sup> Margaret Marini and Beth Shelton, "Measuring Household Work: Recent Experience in the United States," *Social Science Research*, December 1993, pp. 361–82; and Julie E. Press and Eleanor Townsley, "Wives' and Husbands' Housework reporting: Gender, Class and Social Desirability," *Gender and Society*, April 1998, pp. 188–218.

<sup>12</sup> Suzanne M. Bianchi, John P. Robinson, and Melissa A. Milkie,

*Changing Rhythms of American Family Life*, (New York, Russell Sage Foundation, 2006).

<sup>13</sup> Mark Aguiar and Erik Hurst, "A Summary of Trends in American Time Allocation: 1965–2005," *Social Indicators Research*, August 2009, pp. 57–64; and Kimberly Fisher, Muriel Egerton, Jonathan I. Gershuny, and John P. Robinson, "Gender Convergence in the American Heritage Time Use Study," *Social Indicators Research*, May 2007, pp. 1–33.

<sup>14</sup> More details on the field procedures used in this study can be found in Ignace Glorieux, Joeri Minnen, and Jessie Vandeweyer *Technisch verslag bij de tijdsbudgetenquete* (Technical report on the time-use survey (Vrije Universiteit Brussel, Brussels, Belgium, 2005); and Ignace Glorieux, S. Koelet and M. Moens, *Technisch verslag bij de tijdsbudgetenquete* (Vrije Universiteit Brussel, Brussels, Belgium, 2000). Both of these reports are unpublished.

<sup>15</sup> Jon Krosnick, "Maximizing Questionnaire Quality," in John P. Robinson, Phillip R. Shaver, and Lawrence S. Wrightsman, eds., *Measures of Political Attitudes* (San Diego, CA, Academic Press, 1998), pp. 35–55; and Seymour Sudman and Norman M. Bradburn, *Asking Questions: A Practical Guide to Questionnaire Design* (San Francisco, CA, Jossey-Bass, 1983).

<sup>16</sup> *National Sleep Foundation Bedroom Poll: Summary of Findings*, [http://www.sleepfoundation.org/sites/default/files/bedroompoll/NSF\\_Bedroom\\_Poll\\_Report.pdf](http://www.sleepfoundation.org/sites/default/files/bedroompoll/NSF_Bedroom_Poll_Report.pdf) (visited June 22, 2011).

<sup>17</sup> Chenu and Robinson, "Synchronicity in the work schedules of working couples."

## The “golden years”: who gets there and how?

An American dream is that, after a worklife of four or five decades, we will have won a hard-earned retirement, pension (or at least annuity) in hand, ready to enjoy our “golden years.” But not as many as we would like actually realize that dream: far too many seniors live entirely on Social Security or on some combination of Social Security and meager savings. Why is this so? In “Financial Literacy and Retirement Planning in the United States,” (National Bureau of Economic Research, Working Paper 17108, June 2011), Annamaria Lusardi and Olivia S. Mitchell attribute the situation to a failure to plan for retirement, based on a widespread lack of knowledge of even the rudiments of economics and finances.

The authors rated Americans’ financial knowledge through the use of three simple multiple-choice questions. As an example, here is one of them:

1) Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?

More than \$102

Exactly \$102

Less than \$102

Do not know

Refuse to answer

The respondents’ answers to the three questions demonstrated that “a discouragingly low number” of Americans could be said to be even minimally financially literate, especially “given the question’s simplicity and the fact that respondents did not have to make a calculation but could merely select from a set of

answers” (p. 4). The number of correct answers improved with the age of the respondent, but not by much. Across all age groups, 46 percent got the first two questions (but not the third) right and just 30 percent got all three questions right. Financial literacy was lowest among those under age 35 and those older than 65.

A statistically significant finding is that women were less financially literate than men and were more likely than men to state that they could not answer a question—the latter finding being “indicative of very low levels of knowledge” (p. 6). As might be expected, financial literacy is positively correlated with educational attainment: those without a high school diploma are the least financially literate, and the number of correct answers to the questions rises with the respondent’s education level.

Among racial and ethnic groups, Hispanic and African-American respondents were less financially literate than White and Asian-American respondents. The lower financial literacy of Hispanics may be related to their tendency not to hold checking accounts and their avoidance of banks in general. (The direction of the putative causality is uncertain.) The results on racial and ethnic groups support similar findings in the literature.

An interesting finding is that respondents appear to believe that they are more financially literate than they really are: almost 70 percent believe that they are above the median with regard to financial knowledge, a percentage that far exceeds what the questions show about their actual knowledge. The young, however, seem more self-aware than older respondents: those in the youngest age group (age 25–34) rate themselves the lowest of any

age group, whereas 27 percent of respondents age 65 and older give themselves the highest possible self-rated score; furthermore, the older respondents’ average self-rating is higher than that of any other age group. This misplaced confidence “may explain why older people often are offered less financially attractive deals than other groups” (p. 8).

Finally, respondents were asked whether they “ever tried to figure out how much [they] need to save for retirement” (p. 9). On a discouraging note, just 43 percent answered this question in the affirmative—and that merely meant that they had at some time *tried* to do so, not that they in fact did figure out how much they needed.

To learn whether financial literacy and retirement planning were correlated, the financial literacy of those who planned for retirement was compared with the financial literacy of those who did not so plan. Those who got all three financial literacy questions right were found to be much more likely to have tried to figure out how much they needed to save for retirement. The authors then used a multivariate model to examine the links between financial literacy and retirement planning in detail. Under two distinct measures of financial literacy, an ordinary least squares regression showed a positive, statistically significant coefficient. That is to say, financial literacy is positively linked to planning for retirement. For instance, those who answered all three financial literacy questions correctly were almost 10 percentage points more likely to plan for retirement than those who got at least one question wrong, and those who answered one or more financial literacy questions correctly were 4 percentage points more likely to plan than those who got none right. □

## Innovation and economic growth

*The Past and Future of America's Economy: Long Waves of Innovation that Power Cycles of Growth.* By Robert D. Atkinson, Northampton, MA, Edward Elgar Publishing, Inc., 2004, 368 pp., \$140.00/cloth.

I was a little reluctant to accept this book for review given its age; how could something written before the December 2007 beginning of a serious recession still apply today? I am glad I decided to open the book and read a few chapters before I closed my mind. Robert Atkinson takes a far broader view of economic history. He thinks in time spans roughly 10 times as long as the approximately 5 years averaged by post World War II business cycles.

The first half of *The Past and Future of America's Economy* is a very readable and competent survey of the long-term trends of American economic history and their driving technological themes. From about 1840 to about 1890, economic growth was driven by the transformation of the economy from a horse-driven agricultural society into an increasingly urban, steam-powered, "mercantile/craft" economy. From 1890 to 1940, a steel-framed, producer-oriented "factory-based industrial" economy ran its course. From 1940 to 1990, the economy was marked by "corporate mass production" and its concomitant mass consumption. In the 1990s, the economy morphed into the "entrepreneurial, knowledge-based" model we are riding in today.

All of this comports with my admittedly general knowledge of the broad themes of economic

history, and where Atkinson's narrative brushes areas I have more specialized knowledge of (productivity and other labor statistics, for example) it does not raise any issues. In fact, this narrative by itself is worth the read, not only because it is a well-written summary of a history that seems to get short shrift in economic education, but also because it allows the reader to ask the big questions: What is the driver of growth in an economy? What does that imply for production, consumption, capital, labor, and the whole host of social and economic issues?

Atkinson presents the information technology revolution, globalization, and entrepreneurial dynamism of the era that started in about 1990 as being so fundamentally different from what went before it as to have completely rewritten the old rules. No longer are the big questions those of controlling the business cycle; for example, "Will quantitative easing work?" or "Which tax plan most encourages recovery?" Instead, the big questions are "How do we promote long-term technological innovation and productivity growth?" and "How do we build a more humane economy?" Once again, it seems, the death of the business cycle has been announced prematurely.

To be fair, if I had written this review shortly after Atkinson wrote the book, I would have been in at least weak agreement with this pronouncement. Business cycles were less frequent, shorter, and milder than they had been. Even today, after absorbing the most recent downturn into the averages, recessions are less frequent. They would not seem to be milder and shorter, however. (The average duration of the last three recessions has been about 11

months compared to 10 months for the post-WWII era.)

So, one of the big questions Atkinson was unable to ask was, "What are the new characteristics of the business cycle that we should take into account?" One answer, perhaps a small one, is that recoveries tend to be termed "jobless." In October 2002, an information Web site sought to explain the term "jobless recovery" by pointing out that, rather than hire new employees, many employers instead began purchasing business equipment, implementing productivity improvements, and demanding more hours from their workers. In May 2003, roughly 18 months into the recovery from the 2001 recession, *The Economist* reported "Of all the signs that America's economy is sputtering, none is more striking than the jobs market."

While this explanation is interesting, a recent report from the San Francisco Fed leads me to discount it somewhat. "In the earlier recoveries [of 1975, 1980, and 1983], employment growth was strong, as was (inflation-adjusted) business investment in equipment and software. In contrast, during the 1990s recovery, employment was essentially flat, while business investment grew only modestly, and during the most recent recovery [of 2001], employment and business investment in equipment and software actually fell."

In sum, Atkinson wrote a book that takes a long view and asks large questions in its first half. The second half attempts large answers but, in hindsight, suffers from the lack of additional data that we enjoy now. My own take is that the "small" questions of the business cycle and its ramifications are still pretty big after all, because most innovation

and growth policies work better in an environment of economic stability. As far as the specific innovation and economic growth solutions Atkinson proposed, my questions ranged from the relatively small, “Is a Department of Homeland Security-model collection of tech-oriented government agencies (such as his

proposed National Innovation Corporation) the right organizational tool for innovation?” to the pretty large “Even given that private profit-seeking markets may indeed underinvest in research and development, is a rent-seeking market for government favor any better?”

In a more stable day, those may be

among the questions asked, and certainly this book ought to be among those read.

—Richard M. Devens  
Principal Consultant  
First XV Communications  
Formerly Executive Editor  
*Monthly Labor Review*

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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 usually are revised in the March issue of the *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 *International 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 season-

ally 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 2007 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 posi-

tions. 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

With the release of data for January 2010, the CES program introduced its annual revision of national estimates of employment, hours, and earnings from the monthly survey of nonfarm establishments. Each year, the CES survey realigns its sample-based estimates to incorporate universe counts of employment—a process known as benchmarking. Comprehensive counts of employment, or benchmarks, are derived primarily from unemployment insurance (UI) tax reports that nearly all employers are required to file with State Workforce Agencies. With the release in June 2003, CES 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 pub-

lished 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 2007, publications presenting data from the Covered Employment and Wages program have

switched to the 2007 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 mil-

lion 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 2007 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 combined 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 pub-

lished 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 North American Indus-

try 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 family of measures which include single-factor input measures, such as output per hour,

output per unit of labor input, or output per unit of capital input, as well as measures of multifactor productivity (output per unit of combined labor and capital inputs). The Bureau indexes show the change in output relative to changes in the various inputs. The measures cover the business, nonfarm business, manufacturing, and nonfinancial corporate sectors.

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

### Definitions

**Output per hour of all persons** (labor productivity) is the quantity of goods and services produced per hour of labor input. **Output per unit of capital services** (capital productivity) is the quantity of goods and services produced per unit of capital services input. **Multifactor productivity** is the quantity of goods and services produced per combined inputs. For private business and private nonfarm business, inputs include labor and capital units. For manufacturing, inputs include labor, capital, energy, 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 organization of production; managerial skill; and characteristics and efforts of the work force.

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

## Industry productivity measures

### Description of the series

The BLS industry productivity 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 adjusted to 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/opus/mlr/2000/06/art1full.pdf](http://www.bls.gov/opus/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 definitions 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 and 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 job seekers. 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 Introduction and Appendix B. Country Notes in *International Comparisons of Annual Labor Force Statistics, Adjusted to U.S. Concepts, 10 Countries, 1997-2009*, on the Internet at [www.bls.gov/ilc/flscomparelf.htm](http://www.bls.gov/ilc/flscomparelf.htm), and the Notes for Table 1 in the monthly report *International Unemployment Rates and Employment Indexes, Seasonally Adjusted, 2008-2010*,

on the Internet at [www.bls.gov/ilc/intl\\_unemployment\\_rates\\_monthly.htm](http://www.bls.gov/ilc/intl_unemployment_rates_monthly.htm).

## 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 19 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, manufacturing 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 the United States, the output measure is a chain-weighted index of real value added produced by the Bureau of Economic Analysis. BLS uses this series here to preserve international comparability. However, for its domestic industry measures, shown in tables 47–50 in this section, BLS uses a different output measures called “sectoral output,” which is gross output less intra-sector 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, Singapore, and Sweden, compensation is increased to account for important taxes on payroll or employment. For the Czech Republic, Finland, and the United Kingdom, compensation is reduced in certain years 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.

### 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 more in-depth information on sources and methods, see <http://www.bls.gov/news.release/prod4.toc.htm>.

FOR ADDITIONAL INFORMATION on international comparisons, contact the Division of International Labor Comparisons: (202) 691-5654 or [ilchelp@bls.gov](mailto:ilchelp@bls.gov).

## 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 ac-

counts, 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	2009	2010	2009				2010				2011
			I	II	III	IV	I	II	III	IV	I
<b>Employment data</b>											
Employment status of the civilian noninstitutional population (household survey): <sup>1</sup>											
Labor force participation rate.....	65.4	64.7	65.7	65.7	65.3	64.9	64.8	64.9	64.7	64.5	64.2
Employment-population ratio.....	59.3	58.5	60.3	59.6	59.0	58.4	58.5	58.6	58.5	58.3	58.4
Unemployment rate.....	9.3	9.6	8.2	9.3	9.7	10.0	9.7	9.6	9.6	9.6	8.9
Men.....	10.3	10.5	9.0	10.4	10.8	11.1	10.7	10.6	10.5	10.3	9.4
16 to 24 years.....	20.1	20.8	18.1	20.0	20.7	22.0	21.5	20.9	20.7	20.2	19.0
25 years and older.....	8.8	8.9	7.6	8.9	9.4	9.5	9.0	9.0	9.0	8.8	7.9
Women.....	8.1	8.6	7.3	8.0	8.4	8.7	8.5	8.6	8.6	8.8	8.5
16 to 24 years.....	14.9	15.8	13.2	14.6	15.6	15.9	15.5	16.0	15.5	16.4	16.5
25 years and older.....	6.9	7.4	6.3	6.9	7.1	7.5	7.4	7.4	7.4	7.6	7.1
Employment, nonfarm (payroll data), in thousands: <sup>1</sup>											
Total nonfarm.....	130,807	129,818	132,041	130,493	129,726	129,320	129,438	129,981	129,844	130,260	130,784
Total private.....	108,252	107,337	109,473	107,936	107,221	106,835	106,916	107,258	107,570	108,008	108,594
Goods-producing.....	18,557	17,755	19,233	18,417	18,026	17,765	17,701	17,763	17,784	17,797	17,953
Manufacturing.....	11,847	11,524	12,213	11,728	11,579	11,456	11,471	11,548	11,545	11,565	11,677
Service-providing.....	112,249	112,064	112,808	112,076	111,700	111,555	111,737	112,218	112,060	112,463	112,831
Average hours:											
Total private.....	33.1	33.4	33.1	33.0	33.0	33.2	33.3	33.4	33.5	33.5	33.6
Manufacturing.....	39.8	41.1	39.3	39.6	40.0	40.6	41.0	41.0	41.3	41.3	41.5
Overtime.....	2.9	3.8	2.6	2.8	3.0	3.5	3.7	3.8	3.9	4.0	4.3
<b>Employment Cost Index<sup>1,2,3</sup></b>											
Total compensation:											
Civilian nonfarm <sup>4</sup> .....	1.4	2.0	.4	.3	.5	.2	.7	.4	.5	.3	.7
Private nonfarm.....	1.2	2.1	.4	.3	.4	.2	.8	.5	.4	.3	.7
Goods-producing <sup>5</sup> .....	1.0	2.3	.4	.3	.2	.2	1.0	.5	.6	.1	.8
Service-providing <sup>5</sup> .....	1.3	2.0	.4	.3	.4	.3	.7	.4	.4	.4	.7
State and local government.....	2.3	1.8	.6	.4	1.0	.3	.3	.2	1.0	.3	.3
Workers by bargaining status (private nonfarm):											
Union.....	2.9	3.3	1.0	.6	.6	.5	1.5	.8	.8	.2	.7
Nonunion.....	.9	1.8	.3	.2	.3	.2	.7	.5	.4	.3	.8

<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	2009	2010	2009				2010				2011
			I	II	III	IV	I	II	III	IV	I
<b>Compensation data<sup>1, 2, 3</sup></b>											
Employment Cost Index—compensation:											
Civilian nonfarm.....	1.4	2.0	0.4	0.3	0.5	0.2	0.7	0.4	0.5	0.3	0.7
Private nonfarm.....	1.2	2.1	.4	.3	.4	.2	.8	.5	.4	.3	.7
Employment Cost Index—wages and salaries:											
Civilian nonfarm.....	1.5	1.6	.4	.3	.5	.3	.4	.4	.4	.4	.4
Private nonfarm.....	1.3	1.8	.4	.3	.5	.3	.5	.4	.4	.4	.4
<b>Price data<sup>1</sup></b>											
Consumer Price Index (All Urban Consumers): All Items.....	-4	1.6	1.2	1.4	.1	.0	.8	.2	.2	.3	2.0
Producer Price Index:											
Finished goods.....	-2.6	4.2	.2	3.1	-6	1.6	1.8	-1	.6	1.4	3.7
Finished consumer goods.....	-3.9	5.6	.3	4.3	-7	1.9	2.4	-1	.7	1.8	4.8
Capital equipment.....	1.9	.4	-2	-2	-4	.8	.0	-1	.0	.5	.6
Intermediate materials, supplies, and components.....	-8.4	6.3	-2.1	2.8	1.2	1.1	2.6	1.2	.4	2.0	5.1
Crude materials.....	-30.4	21.1	-7.2	12.3	-3.5	12.7	8.8	-4.2	2.7	8.5	9.1
<b>Productivity data<sup>4</sup></b>											
Output per hour of all persons:											
Business sector.....	3.7	3.9	3.9	8.8	6.8	6.8	4.2	-1.7	2.6	2.7	.7
Nonfarm business sector.....	3.7	3.9	3.8	8.9	6.5	6.7	4.6	-1.7	2.3	2.9	1.6
Nonfinancial corporations <sup>5</sup> .....	2.0	5.7	-3.8	5.0	5.3	13.8	9.7	.3	-3.2	2.6	-

<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—					
	2010				2011	2010				2011	
	I	II	III	IV	I	I	II	III	IV	I	
Average hourly compensation: <sup>1</sup>											
All persons, business sector.....	-0.4	2.9	2.7	1.7	2.4	3.6	2.0	1.9	1.7	2.5	
All persons, nonfarm business sector.....	-2	3.1	2.5	1.9	2.6	3.6	2.0	1.9	1.8	2.5	
Employment Cost Index—compensation: <sup>2</sup>											
Civilian nonfarm <sup>3</sup> .....	.7	.4	.5	.3	.7	1.7	1.9	1.9	2.0	2.0	
Private nonfarm.....	.8	.5	.4	.3	.7	1.6	1.9	2.0	2.1	2.0	
Union.....	1.5	.8	.8	.2	.7	3.4	3.6	3.7	3.3	2.5	
Nonunion.....	.7	.5	.4	.3	.8	1.4	1.6	1.7	1.8	1.9	
State and local government.....	.3	.2	1.0	.3	.3	2.0	1.7	1.8	1.8	1.8	
Employment Cost Index—wages and salaries: <sup>2</sup>											
Civilian nonfarm <sup>3</sup> .....	.4	.4	.4	.4	.4	1.5	1.6	1.5	1.6	1.6	
Private nonfarm.....	.5	.4	.4	.4	.4	1.5	1.6	1.6	1.8	1.6	
Union.....	.5	.5	.5	.2	.6	2.5	2.3	2.3	1.8	1.9	
Nonunion.....	.5	.4	.4	.3	.4	1.3	1.5	1.6	1.6	1.6	
State and local government.....	.2	.2	.6	.2	.3	1.6	1.3	1.2	1.2	1.2	

<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		2010									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
<b>TOTAL</b>															
Civilian noninstitutional															
population <sup>1</sup> .....	235,801	237,830	237,329	237,499	237,690	237,890	238,099	238,322	238,530	238,715	238,889	238,704	238,851	239,000	239,146
Civilian labor force.....	154,142	153,889	154,520	154,237	153,684	153,628	154,117	154,124	153,960	153,950	153,690	153,186	153,246	153,406	153,421
Participation rate.....	65.4	64.7	65.1	64.9	64.7	64.6	64.7	64.7	64.5	64.5	64.3	64.2	64.2	64.2	64.2
Employed.....	139,877	139,064	139,382	139,353	139,092	138,991	139,267	139,378	139,084	138,909	139,206	139,323	139,573	139,864	139,674
Employment-population ratio <sup>2</sup> .....	59.3	58.5	58.7	58.7	58.5	58.4	58.5	58.5	58.3	58.2	58.3	58.4	58.4	58.5	58.4
Unemployed.....	14,265	14,825	15,138	14,884	14,593	14,637	14,849	14,746	14,876	15,041	14,485	13,863	13,673	13,542	13,747
Unemployment rate.....	9.3	9.6	9.8	9.6	9.5	9.5	9.6	9.6	9.7	9.8	9.4	9.0	8.9	8.8	9.0
Not in the labor force.....	81,659	83,941	82,809	83,262	84,006	84,262	83,983	84,198	84,570	84,765	85,199	85,518	85,605	85,594	85,725
<b>Men, 20 years and over</b>															
Civilian noninstitutional															
population <sup>1</sup> .....	105,493	106,596	106,301	106,407	106,522	106,641	106,761	106,887	107,007	107,114	107,216	107,203	107,292	107,381	107,469
Civilian labor force.....	78,897	78,994	79,279	79,178	79,094	78,993	79,295	79,289	79,016	78,980	78,906	78,506	78,795	78,764	78,856
Participation rate.....	74.8	74.1	74.6	74.4	74.3	74.1	74.3	74.2	73.8	73.7	73.6	73.2	73.4	73.4	73.4
Employed.....	71,341	71,230	71,348	71,451	71,329	71,340	71,505	71,559	71,365	71,130	71,480	71,589	71,954	71,959	71,939
Employment-population ratio <sup>2</sup> .....	67.6	66.8	67.1	67.1	67.0	66.9	67.0	66.9	66.7	66.4	66.7	66.8	67.1	67.0	66.9
Unemployed.....	7,555	7,763	7,931	7,728	7,765	7,653	7,789	7,729	7,651	7,849	7,426	6,917	6,841	6,805	6,917
Unemployment rate.....	9.6	9.8	10.0	9.8	9.8	9.7	9.8	9.7	9.7	9.9	9.4	8.8	8.7	8.6	8.8
Not in the labor force.....	26,596	27,603	27,022	27,229	27,428	27,648	27,467	27,599	27,991	28,134	28,310	28,698	28,497	28,617	28,612
<b>Women, 20 years and over</b>															
Civilian noninstitutional															
population <sup>1</sup> .....	113,265	114,333	114,066	114,160	114,264	114,372	114,481	114,596	114,704	114,801	114,894	114,637	114,714	114,792	114,868
Civilian labor force.....	68,856	68,990	69,167	69,057	68,826	68,797	68,883	69,082	69,018	69,151	69,027	68,839	68,802	68,898	68,896
Participation rate.....	60.8	60.3	60.6	60.5	60.2	60.2	60.2	60.3	60.2	60.2	60.1	60.0	60.0	60.0	60.0
Employed.....	63,699	63,456	63,501	63,487	63,483	63,340	63,379	63,562	63,400	63,385	63,428	63,392	63,319	63,566	63,479
Employment-population ratio <sup>2</sup> .....	56.2	55.5	55.7	55.6	55.6	55.4	55.4	55.5	55.3	55.2	55.2	55.3	55.2	55.4	55.3
Unemployed.....	5,157	5,534	5,665	5,570	5,343	5,458	5,504	5,520	5,618	5,766	5,599	5,447	5,483	5,332	5,417
Unemployment rate.....	7.5	8.0	8.2	8.1	7.8	7.9	8.0	8.0	8.1	8.3	8.1	7.9	8.0	7.7	7.9
Not in the labor force.....	44,409	45,343	44,899	45,103	45,438	45,575	45,598	45,514	45,687	45,651	45,867	45,798	45,912	45,894	45,972
<b>Both sexes, 16 to 19 years</b>															
Civilian noninstitutional															
population <sup>1</sup> .....	17,043	16,901	16,962	16,932	16,904	16,877	16,857	16,839	16,819	16,800	16,780	16,863	16,845	16,827	16,809
Civilian labor force.....	6,390	5,906	6,074	6,002	5,764	5,838	5,939	5,754	5,927	5,820	5,757	5,841	5,649	5,744	5,669
Participation rate.....	37.5	34.9	35.8	35.4	34.1	34.6	35.2	34.2	35.2	34.6	34.3	34.6	33.5	34.1	33.7
Employed.....	4,837	4,378	4,533	4,416	4,279	4,312	4,383	4,256	4,319	4,393	4,298	4,341	4,300	4,339	4,255
Employment-population ratio <sup>2</sup> .....	28.4	25.9	26.7	26.1	25.3	25.5	26.0	25.3	25.7	26.2	25.6	25.7	25.5	25.8	25.3
Unemployed.....	1,552	1,528	1,542	1,586	1,485	1,526	1,556	1,497	1,607	1,426	1,460	1,500	1,350	1,405	1,413
Unemployment rate.....	24.3	25.9	25.4	26.4	25.8	26.1	26.2	26.0	27.1	24.5	25.4	25.7	23.9	24.5	24.9
Not in the labor force.....	10,654	10,995	10,888	10,931	11,140	11,039	10,918	11,085	10,893	10,980	11,022	11,022	11,196	11,083	11,140
<b>White<sup>3</sup></b>															
Civilian noninstitutional															
population <sup>1</sup> .....	190,902	192,075	191,749	191,856	191,979	192,109	192,245	192,391	192,527	192,641	192,749	192,516	192,601	192,688	192,771
Civilian labor force.....	125,644	125,084	125,739	125,327	124,964	125,094	125,358	125,333	124,914	124,824	124,700	124,192	124,237	124,497	124,650
Participation rate.....	65.8	65.1	65.6	65.3	65.1	65.1	65.2	65.1	64.9	64.8	64.7	64.5	64.5	64.6	64.7
Employed.....	114,996	114,168	114,465	114,350	114,176	114,312	114,457	114,433	113,975	113,728	114,079	114,197	114,330	114,706	114,652
Employment-population ratio <sup>2</sup> .....	60.2	59.4	59.7	59.6	59.5	59.5	59.5	59.5	59.2	59.0	59.2	59.3	59.4	59.5	59.5
Unemployed.....	10,648	10,916	11,275	10,977	10,788	10,782	10,901	10,899	10,940	11,096	10,620	9,995	9,907	9,791	9,998
Unemployment rate.....	8.5	8.7	9.0	8.8	8.6	8.6	8.7	8.7	8.8	8.9	8.5	8.0	8.0	7.9	8.0
Not in the labor force.....	65,258	66,991	66,009	66,529	67,015	67,016	66,887	67,058	67,612	67,817	68,049	68,325	68,364	68,191	68,122
<b>Black or African American<sup>3</sup></b>															
Civilian noninstitutional															
population <sup>1</sup> .....	28,241	28,708	28,624	28,653	28,685	28,718	28,755	28,794	28,831	28,865	28,896	28,947	28,976	29,005	29,035
Civilian labor force.....	17,632	17,862	17,967	17,961	17,745	17,676	17,876	17,777	17,946	18,020	17,958	17,857	17,865	17,836	17,849
Participation rate.....	62.4	62.2	62.8	62.7	61.9	61.5	62.2	61.7	62.2	62.4	62.1	61.7	61.7	61.5	61.5
Employed.....	15,025	15,010	14,996	15,175	15,020	14,908	14,972	14,920	15,127	15,142	15,119	15,048	15,124	15,067	14,966
Employment-population ratio <sup>2</sup> .....	53.2	52.3	52.4	53.0	52.4	51.9	52.1	51.8	52.5	52.5	52.3	52.0	52.2	51.9	51.5
Unemployed.....	2,606	2,852	2,971	2,785	2,725	2,767	2,904	2,857	2,818	2,878	2,839	2,809	2,741	2,769	2,882
Unemployment rate.....	14.8	16.0	16.5	15.5	15.4	15.7	16.2	16.1	15.7	16.0	15.8	15.7	15.3	15.5	16.1
Not in the labor force.....	10,609	10,846	10,657	10,692	10,941	11,043	10,879	11,017	10,885	10,845	10,939	11,090	11,112	11,169	11,186

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		2010									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
<b>Hispanic or Latino ethnicity</b>															
Civilian noninstitutional population <sup>1</sup> .....	32,891	33,713	33,498	33,578	33,662	33,747	33,836	33,927	34,014	34,102	34,188	34,001	34,079	34,155	34,233
Civilian labor force.....	22,352	22,748	22,674	22,739	22,677	22,737	22,733	22,896	22,814	22,915	22,868	22,823	22,519	22,676	22,798
Participation rate.....	68.0	67.5	67.7	67.7	67.4	67.4	67.2	67.5	67.1	67.2	66.9	67.1	66.1	66.4	66.6
Employed.....	19,647	19,906	19,854	19,913	19,867	19,980	19,991	20,042	19,936	19,899	19,906	20,099	19,912	20,105	20,110
Employment-population ratio <sup>2</sup> .....	59.7	59.0	59.3	59.3	59.0	59.2	59.1	59.1	58.6	58.4	58.2	59.1	58.4	58.9	58.7
Unemployed.....	2,706	2,843	2,820	2,826	2,810	2,757	2,742	2,854	2,878	3,016	2,962	2,724	2,606	2,571	2,688
Unemployment rate.....	12.1	12.5	12.4	12.4	12.4	12.1	12.1	12.5	12.6	13.2	13.0	11.9	11.6	11.3	11.8
Not in the labor force.....	10,539	10,964	10,824	10,839	10,986	11,010	11,102	11,031	11,201	11,188	11,320	11,178	11,561	11,479	11,435

<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		2010									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
<b>Characteristic</b>															
Employed, 16 years and older..	139,877	139,064	139,382	139,353	139,092	138,991	139,267	139,378	139,084	138,909	139,206	139,323	139,573	139,864	139,674
Men.....	73,670	73,359	73,526	73,603	73,385	73,466	73,600	73,594	73,470	73,337	73,600	73,800	74,122	74,108	73,973
Women.....	66,208	65,705	65,856	65,750	65,706	65,526	65,667	65,784	65,613	65,572	65,605	65,523	65,451	65,756	65,702
Married men, spouse present.....	43,998	43,292	43,248	43,343	43,341	43,372	43,418	43,701	43,301	43,130	43,081	42,915	42,957	42,880	42,987
Married women, spouse present.....	35,207	34,582	34,592	34,231	34,359	34,345	34,271	34,469	34,553	34,543	34,612	34,571	34,496	34,236	34,062
<b>Persons at work part time<sup>1</sup></b>															
All industries:															
Part time for economic reasons.....	8,913	8,874	9,146	8,776	8,631	8,533	8,883	9,506	9,100	8,960	8,931	8,407	8,340	8,433	8,600
Slack work or business conditions.....	6,648	6,174	6,247	6,141	6,172	6,164	6,357	6,732	6,174	6,025	6,011	5,771	5,630	5,595	5,689
Could only find part-time work.....	1,966	2,375	2,492	2,299	2,123	2,301	2,379	2,478	2,564	2,557	2,568	2,510	2,415	2,332	2,480
Part time for noneconomic reasons.....	18,710	18,251	18,035	17,977	17,963	18,219	18,566	18,256	18,230	18,326	18,184	17,929	18,220	18,417	18,282
Nonagricultural industries:															
Part time for economic reasons.....	8,791	8,744	9,048	8,630	8,482	8,384	8,752	9,380	8,991	8,822	8,789	8,242	8,248	8,265	8,475
Slack work or business conditions.....	6,556	6,087	6,186	6,038	6,080	6,051	6,276	6,649	6,108	5,941	5,911	5,661	5,558	5,504	5,581
Could only find part-time work.....	1,955	2,358	2,480	2,282	2,098	2,235	2,347	2,454	2,534	2,555	2,542	2,513	2,383	2,305	2,457
Part time for noneconomic reasons.....	18,372	17,911	17,733	17,691	17,694	17,886	18,175	17,911	17,848	17,929	17,829	17,552	17,835	17,984	17,967

<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		2011									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
<b>Characteristic</b>															
Total, 16 years and older.....	9.3	9.6	9.8	9.6	9.5	9.5	9.6	9.6	9.7	9.8	9.4	9.0	8.9	8.8	9.0
Both sexes, 16 to 19 years.....	24.3	25.9	25.4	26.4	25.8	26.1	26.2	26.0	27.1	24.5	25.4	25.7	23.9	24.5	24.9
Men, 20 years and older.....	9.6	9.8	10.0	9.8	9.8	9.7	9.8	9.7	9.7	9.9	9.4	8.8	8.7	8.6	8.8
Women, 20 years and older.....	7.5	8.0	8.2	8.1	7.8	7.9	8.0	8.0	8.1	8.3	8.1	7.9	8.0	7.7	7.9
White, total <sup>1</sup> .....	8.5	8.7	9.0	8.8	8.6	8.6	8.7	8.7	8.8	8.9	8.5	8.0	8.0	7.9	8.0
Both sexes, 16 to 19 years.....	21.8	23.2	23.4	24.2	23.2	23.4	23.7	23.3	23.4	21.1	22.5	22.8	21.3	21.6	22.3
Men, 16 to 19 years.....	25.2	26.3	27.2	26.6	27.1	26.2	27.0	26.8	26.0	23.3	25.7	24.4	22.5	23.3	24.8
Women, 16 to 19 years.....	18.4	20.0	19.6	21.8	19.3	20.4	20.4	19.9	20.8	18.7	19.1	21.0	20.0	19.9	19.8
Men, 20 years and older.....	8.8	8.9	9.3	8.8	8.9	8.8	8.9	8.9	8.9	9.1	8.5	7.9	7.8	7.7	7.9
Women, 20 years and older.....	6.8	7.2	7.3	7.3	7.1	7.1	7.1	7.2	7.3	7.5	7.3	7.0	7.1	6.9	7.0
Black or African American, total <sup>1</sup> .....	14.8	16.0	16.5	15.5	15.4	15.7	16.2	16.1	15.7	16.0	15.8	15.7	15.3	15.5	16.1
Both sexes, 16 to 19 years.....	39.5	43.0	38.3	38.5	40.4	41.3	45.7	49.2	47.7	46.3	44.2	45.4	38.4	42.1	41.6
Men, 16 to 19 years.....	46.0	45.4	37.0	36.4	43.7	44.6	51.2	48.3	51.3	49.5	42.5	47.9	41.9	40.3	45.5
Women, 16 to 19 years.....	33.4	40.5	39.7	40.2	37.0	37.7	39.5	50.1	44.0	43.1	45.8	42.6	34.9	43.8	37.9
Men, 20 years and older.....	16.3	17.3	17.7	17.1	17.4	16.7	17.2	17.4	16.2	16.6	16.5	16.5	16.2	16.8	17.0
Women, 20 years and older.....	11.5	12.8	13.8	12.4	11.8	12.9	13.2	12.7	12.8	13.1	13.2	12.9	13.0	12.5	13.4
Hispanic or Latino ethnicity.....	12.1	12.5	12.4	12.4	12.4	12.1	12.1	12.5	12.6	13.2	13.0	11.9	11.6	11.3	11.8
Married men, spouse present.....	6.6	6.8	6.7	6.7	6.8	6.6	6.8	6.8	6.9	6.9	6.6	5.8	5.8	5.9	6.0
Married women, spouse present.....	5.5	5.9	6.2	6.2	5.9	5.8	5.9	5.7	5.8	5.6	5.6	5.4	5.4	5.7	5.7
Full-time workers.....	10.0	10.4	10.6	10.4	10.2	10.2	10.3	10.4	10.5	10.7	10.2	9.7	9.5	9.4	9.6
Part-time workers.....	6.0	6.3	6.5	6.6	6.4	6.4	6.7	6.1	6.3	5.8	6.0	6.2	6.5	6.3	6.4
<b>Educational attainment<sup>2</sup></b>															
Less than a high school diploma.....	14.6	14.9	14.7	14.9	14.1	13.9	14.2	15.4	15.3	15.7	15.3	14.2	13.9	13.7	14.6
High school graduates, no college <sup>3</sup> .....	9.7	10.3	10.5	10.8	10.7	10.1	10.2	10.0	10.1	10.0	9.8	9.4	9.5	9.5	9.7
Some college or associate degree.....	8.0	8.4	8.3	8.3	8.3	8.4	8.7	9.1	8.5	8.7	8.1	8.0	7.8	7.4	7.5
Bachelor's degree and higher <sup>4</sup> .....	4.6	4.7	4.8	4.6	4.4	4.5	4.6	4.5	4.7	5.1	4.8	4.2	4.3	4.4	4.5

<sup>1</sup> Beginning in 2003, persons who selected this race group only; persons who reported 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	2010									2011			
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Less than 5 weeks.....	2,695	2,763	2,779	2,833	2,756	2,872	2,659	2,824	2,725	2,678	2,390	2,449	2,691
5 to 14 weeks.....	3,000	3,060	3,138	3,098	3,604	3,329	3,427	3,336	3,184	3,016	3,094	2,914	2,907
15 weeks and over.....	8,933	8,884	8,900	8,709	8,471	8,517	8,734	8,843	8,647	8,495	8,172	8,078	7,845
15 to 26 weeks.....	2,274	2,174	2,209	2,171	2,210	2,364	2,500	2,515	2,205	2,285	2,179	1,957	2,006
27 weeks and over.....	6,659	6,710	6,691	6,539	6,261	6,153	6,234	6,328	6,441	6,210	5,993	6,122	5,839
Mean duration, in weeks.....	33.1	34.3	34.8	33.9	33.5	33.4	33.9	33.9	34.2	36.9	37.1	39.0	38.3
Median duration, in weeks.....	21.6	22.8	25.5	21.7	20.6	20.5	21.3	21.7	22.4	21.8	21.2	21.7	20.7

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		2010									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Job losers <sup>1</sup> .....	9,160	9,250	9,237	9,194	9,097	9,090	9,285	9,286	9,070	9,471	8,923	8,519	8,334	8,209	8,144
On temporary layoff.....	1,630	1,431	1,356	1,448	1,403	1,268	1,505	1,340	1,293	1,430	1,402	1,249	1,270	1,197	1,251
Not on temporary layoff.....	7,530	7,819	7,881	7,746	7,694	7,822	7,780	7,947	7,777	8,042	7,521	7,270	7,064	7,013	6,894
Job leavers.....	882	889	933	966	897	896	868	809	854	864	914	910	898	896	942
Reentrants.....	3,187	3,466	3,749	3,430	3,272	3,417	3,418	3,441	3,498	3,427	3,408	3,357	3,352	3,262	3,375
New entrants.....	1,035	1,220	1,217	1,192	1,147	1,197	1,260	1,193	1,278	1,269	1,311	1,351	1,337	1,360	1,346
<b>Percent of unemployed</b>															
Job losers <sup>1</sup> .....	64.2	62.4	61.0	62.2	63.1	62.3	62.6	63.0	61.7	63.0	61.3	60.3	59.9	59.8	59.0
On temporary layoff.....	11.4	9.6	9.0	9.8	9.7	8.7	10.1	9.1	8.8	9.5	9.6	8.8	9.1	8.7	9.1
Not on temporary layoff.....	52.8	52.7	52.1	52.4	53.4	53.6	52.5	54.0	52.9	53.5	51.7	51.4	50.7	51.1	49.9
Job leavers.....	6.2	6.0	6.2	6.5	6.2	6.1	5.9	5.5	5.8	5.8	6.3	6.4	6.4	6.5	6.8
Reentrants.....	22.3	23.4	24.8	23.2	22.7	23.4	23.0	23.4	23.8	22.8	23.4	23.7	24.1	23.8	24.4
New entrants.....	7.3	8.2	8.0	8.1	8.0	8.2	8.5	8.1	8.7	8.4	9.0	9.6	9.6	9.9	9.8
<b>Percent of civilian labor force</b>															
Job losers <sup>1</sup> .....	5.9	6.0	6.0	6.0	5.9	5.9	6.0	6.0	5.9	6.2	5.8	5.6	5.4	5.4	5.3
Job leavers.....	.6	.6	.6	.6	.6	.6	.6	.5	.6	.6	.6	.6	.6	.6	.6
Reentrants.....	2.1	2.3	2.4	2.2	2.1	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.1	2.2
New entrants.....	.7	.8	.8	.8	.7	.8	.8	.8	.8	.8	.9	.9	.9	.9	.9

<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		2010									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Total, 16 years and older.....	9.3	9.6	9.8	9.6	9.5	9.5	9.6	9.6	9.7	9.8	9.4	9.0	8.9	8.8	9.0
16 to 24 years.....	17.6	18.4	19.5	18.0	18.2	18.5	18.1	17.9	18.6	18.3	18.1	18.1	17.7	17.6	17.6
16 to 19 years.....	24.3	25.9	25.4	26.4	25.8	26.1	26.2	26.0	27.1	24.5	25.4	25.7	23.9	24.5	24.9
16 to 17 years.....	25.9	29.1	29.2	29.8	29.3	30.4	31.2	30.0	30.3	24.9	27.1	27.8	28.8	29.0	31.4
18 to 19 years.....	23.4	24.2	24.1	24.9	24.0	23.7	23.8	23.3	24.7	24.2	24.5	24.6	21.5	22.5	22.2
20 to 24 years.....	14.7	15.5	17.1	14.6	15.3	15.6	14.9	14.9	15.3	15.9	15.3	15.2	15.4	15.0	14.9
25 years and older.....	7.9	8.2	8.3	8.3	8.2	8.1	8.3	8.3	8.2	8.4	8.1	7.6	7.6	7.4	7.6
25 to 54 years.....	8.3	8.6	8.6	8.7	8.5	8.4	8.6	8.7	8.5	8.7	8.5	7.9	7.9	7.8	8.0
55 years and older.....	6.6	7.0	7.0	7.1	6.9	6.9	7.3	7.2	7.2	7.2	6.9	6.7	6.4	6.5	6.5
Men, 16 years and older.....	10.3	10.5	10.7	10.4	10.5	10.4	10.5	10.4	10.4	10.5	10.1	9.5	9.3	9.3	9.4
16 to 24 years.....	20.1	20.8	22.4	19.4	20.9	21.1	20.6	20.3	20.1	20.5	19.9	19.0	18.9	19.0	19.2
16 to 19 years.....	27.8	28.8	29.2	28.2	29.2	29.0	29.5	29.3	29.4	26.6	27.8	27.2	25.9	26.2	28.1
16 to 17 years.....	28.7	31.8	32.3	32.4	33.0	32.4	32.8	33.3	33.8	28.5	29.0	29.1	28.5	28.5	32.7
18 to 19 years.....	27.4	27.4	27.7	26.4	27.3	26.7	27.8	26.2	26.8	25.5	27.4	26.6	24.8	25.3	26.4
20 to 24 years.....	17.0	17.8	19.8	16.1	17.8	18.2	17.3	17.1	16.5	18.1	16.9	15.9	16.4	16.4	16.1
25 years and older.....	8.8	8.9	8.9	9.0	9.0	8.8	9.1	9.0	8.9	9.0	8.6	8.0	7.9	7.8	7.9
25 to 54 years.....	9.2	9.3	9.3	9.4	9.4	9.1	9.2	9.3	9.1	9.3	8.9	8.3	8.1	8.0	8.2
55 years and older.....	7.0	7.7	7.5	7.6	7.6	7.8	8.5	7.9	8.3	8.0	7.2	7.1	7.1	6.8	6.9
Women, 16 years and older.....	8.1	8.6	8.7	8.8	8.3	8.5	8.6	8.6	8.8	8.9	8.7	8.5	8.5	8.3	8.4
16 to 24 years.....	14.9	15.8	16.3	16.4	15.3	15.7	15.4	15.4	17.0	15.9	16.1	17.1	16.3	16.1	16.0
16 to 19 years.....	20.7	22.8	21.5	24.7	22.2	23.2	22.9	22.8	24.8	22.3	22.8	24.0	21.8	22.7	21.8
16 to 17 years.....	23.1	26.5	26.1	27.3	25.8	28.4	29.6	26.8	27.0	21.2	25.2	26.4	29.1	29.5	30.1
18 to 19 years.....	19.4	20.9	20.2	23.3	20.5	20.6	19.7	20.4	22.6	22.8	21.5	22.5	17.8	19.7	17.9
20 to 24 years.....	12.3	13.0	14.2	13.0	12.5	12.7	12.3	12.4	13.9	13.5	13.5	14.4	14.2	13.5	13.7
25 years and older.....	6.9	7.4	7.5	7.6	7.2	7.3	7.4	7.4	7.5	7.7	7.5	7.1	7.2	7.1	7.3
25 to 54 years.....	7.2	7.8	7.9	7.8	7.5	7.7	7.8	7.9	7.9	8.1	7.9	7.5	7.7	7.5	7.7
55 years and older <sup>1</sup> .....	6.0	6.2	5.7	5.9	6.5	6.9	6.9	6.4	5.9	6.2	5.8	6.3	5.7	5.8	5.4

<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	Mar. 2010	Feb. 2011 <sup>P</sup>	Mar. 2011 <sup>P</sup>	State	Mar. 2010	Feb. 2011 <sup>P</sup>	Mar. 2011 <sup>P</sup>
Alabama.....	10.0	9.3	9.2	Missouri.....	9.6	9.4	9.1
Alaska.....	8.2	7.6	7.4	Montana.....	7.1	7.4	7.4
Arizona.....	10.1	9.6	9.5	Nebraska.....	4.9	4.3	4.2
Arkansas.....	7.9	7.8	7.7	Nevada.....	14.8	13.6	13.2
California.....	12.4	12.1	12.0	New Hampshire.....	6.4	5.4	5.2
Colorado.....	9.0	9.3	9.2	New Jersey.....	9.7	9.2	9.3
Connecticut.....	9.2	9.0	9.1	New Mexico.....	8.2	8.7	8.1
Delaware.....	8.6	8.5	8.3	New York.....	8.8	8.2	8.0
District of Columbia.....	10.1	9.5	9.5	North Carolina.....	11.3	9.8	9.7
Florida.....	11.3	11.5	11.1	North Dakota.....	4.0	3.7	3.6
Georgia.....	10.2	10.2	10.0	Ohio.....	10.5	9.2	8.9
Hawaii.....	6.8	6.3	6.3	Oklahoma.....	7.3	6.5	6.1
Idaho.....	9.0	9.7	9.7	Oregon.....	11.0	10.2	9.9
Illinois.....	11.0	8.9	8.8	Pennsylvania.....	8.8	8.0	7.8
Indiana.....	10.6	8.8	8.5	Rhode Island.....	11.8	11.2	11.0
Iowa.....	6.1	6.0	6.1	South Carolina.....	11.5	10.2	9.9
Kansas.....	7.2	6.8	6.8	South Dakota.....	5.1	4.8	4.9
Kentucky.....	10.8	10.4	10.2	Tennessee.....	10.2	9.5	9.5
Louisiana.....	7.2	7.9	8.1	Texas.....	8.2	8.2	8.1
Maine.....	8.3	7.5	7.6	Utah.....	8.0	7.7	7.6
Maryland.....	7.6	7.1	6.9	Vermont.....	6.6	5.6	5.4
Massachusetts.....	8.7	8.2	8.0	Virginia.....	7.1	6.4	6.2
Michigan.....	13.3	10.4	10.3	Washington.....	9.9	9.1	9.2
Minnesota.....	7.6	6.7	6.6	West Virginia.....	8.8	9.4	9.1
Mississippi.....	10.8	10.2	10.2	Wisconsin.....	9.0	7.4	7.4
				Wyoming.....	7.3	6.2	6.2

<sup>P</sup> = preliminary

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

State	Mar. 2010	Feb. 2011 <sup>P</sup>	Mar. 2011 <sup>P</sup>	State	Mar. 2010	Feb. 2011 <sup>P</sup>	Mar. 2011 <sup>P</sup>
Alabama.....	2,144,821	2,123,067	2,132,376	Missouri.....	3,027,149	3,016,118	3,020,793
Alaska.....	361,179	363,306	363,706	Montana.....	497,116	498,129	499,140
Arizona.....	3,180,297	3,171,584	3,180,281	Nebraska.....	979,462	980,758	984,262
Arkansas.....	1,351,795	1,365,408	1,369,842	Nevada.....	1,360,911	1,315,992	1,317,903
California.....	18,217,386	18,116,716	18,078,299	New Hampshire.....	745,253	744,980	744,405
Colorado.....	2,704,538	2,677,768	2,686,491	New Jersey.....	4,527,853	4,480,557	4,493,450
Connecticut.....	1,898,538	1,896,761	1,898,239	New Mexico.....	951,919	955,544	951,595
Delaware.....	429,217	424,056	425,145	New York.....	9,677,291	9,590,817	9,582,634
District of Columbia.....	336,432	334,289	334,366	North Carolina.....	4,561,830	4,466,980	4,478,418
Florida.....	9,195,815	9,264,634	9,251,792	North Dakota.....	370,108	372,110	372,746
Georgia.....	4,710,792	4,678,945	4,678,737	Ohio.....	5,910,488	5,897,839	5,898,117
Hawaii.....	629,199	631,901	633,897	Oklahoma.....	1,761,359	1,741,720	1,737,697
Idaho.....	757,733	760,710	762,922	Oregon.....	1,983,548	1,995,187	1,997,417
Illinois.....	6,647,391	6,614,917	6,602,134	Pennsylvania.....	6,362,567	6,361,289	6,364,005
Indiana.....	3,153,309	3,117,090	3,118,360	Rhode Island.....	575,305	573,831	571,971
Iowa.....	1,669,325	1,680,579	1,683,612	South Carolina.....	2,169,577	2,154,838	2,152,400
Kansas.....	1,505,720	1,504,370	1,506,029	South Dakota.....	443,668	447,545	448,601
Kentucky.....	2,085,822	2,103,176	2,110,336	Tennessee.....	3,061,493	3,087,053	3,103,196
Louisiana.....	2,075,803	2,082,877	2,076,517	Texas.....	12,110,678	12,214,178	12,232,574
Maine.....	698,531	698,800	698,199	Utah.....	1,378,239	1,355,952	1,357,155
Maryland.....	2,984,969	2,973,874	2,982,607	Vermont.....	361,274	363,660	364,483
Massachusetts.....	3,493,926	3,501,407	3,503,277	Virginia.....	4,195,888	4,185,858	4,193,818
Michigan.....	4,818,454	4,739,994	4,745,277	Washington.....	3,538,832	3,508,108	3,501,073
Minnesota.....	2,966,601	2,962,476	2,964,800	West Virginia.....	786,662	782,636	782,720
Mississippi.....	1,313,290	1,332,139	1,336,852	Wisconsin.....	3,081,932	3,048,976	3,059,572
				Wyoming.....	295,737	291,167	292,096

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		2010									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. <sup>P</sup>	Apr. <sup>P</sup>
<b>TOTAL NONFARM.....</b>	130,807	129,818	129,715	130,173	129,981	129,932	129,873	129,844	130,015	130,108	130,260	130,328	130,563	130,757	130,989
<b>TOTAL PRIVATE.....</b>	108,252	107,337	107,145	107,193	107,258	107,351	107,461	107,570	107,713	107,841	108,008	108,102	108,363	108,582	108,833
<b>GOODS-PRODUCING.....</b>	18,557	17,755	17,762	17,763	17,763	17,791	17,790	17,784	17,785	17,793	17,797	17,835	17,916	17,956	17,994
<b>Natural resources and</b>															
<b>mining.....</b>	694	705	687	698	704	711	719	725	734	735	734	739	744	759	768
Logging.....	50.4	49.5	51.0	50.8	50.2	50.5	50.7	49.5	49.1	47.8	47.2	48.1	48.4	49.8	47.8
Mining.....	643.3	655.9	636.2	647.3	653.5	660.1	668.3	675.0	685.0	686.8	686.7	691.0	695.1	708.9	719.8
Oil and gas extraction.....	159.8	158.9	157.8	159.0	158.1	158.2	159.8	160.9	162.5	161.2	161.6	163.4	165.0	167.2	168.7
Mining, except oil and gas <sup>1</sup> .....	208.3	202.9	201.3	202.4	202.6	202.9	204.3	205.2	206.1	205.6	205.1	206.1	206.1	208.1	210.9
Coal mining.....	81.5	80.6	79.3	80.6	80.5	80.6	81.1	81.8	82.4	82.6	83.2	83.2	83.0	83.9	85.3
Support activities for mining.....	275.2	294.1	277.1	285.9	292.8	299.0	304.2	308.9	316.4	319.5	319.5	322.5	324.0	333.6	340.2
<b>Construction.....</b>	6,016	5,526	5,566	5,529	5,511	5,500	5,520	5,514	5,512	5,504	5,498	5,478	5,517	5,522	5,527
Construction of buildings.....	1,357.2	1,231.6	1,249.7	1,243.3	1,231.2	1,221.8	1,221.5	1,223.0	1,217.1	1,219.0	1,222.1	1,219.7	1,221.4	1,224.2	1,220.0
Heavy and civil engineering.....	851.3	828.6	831.6	820.3	823.4	825.9	837.3	841.4	845.1	845.7	834.2	830.5	839.0	839.3	851.6
Specialty trade contractors.....	3,807.9	3,465.5	3,484.7	3,465.6	3,456.6	3,452.4	3,461.1	3,449.4	3,450.1	3,439.7	3,441.2	3,427.8	3,456.5	3,458.0	3,455.8
<b>Manufacturing.....</b>	11,847	11,524	11,509	11,536	11,548	11,580	11,551	11,545	11,539	11,554	11,565	11,618	11,655	11,675	11,699
Production workers.....	8,322	8,075	8,072	8,091	8,103	8,123	8,094	8,083	8,072	8,080	8,093	8,133	8,162	8,188	8,214
<b>Durable goods.....</b>	7,284	7,067	7,039	7,065	7,079	7,114	7,092	7,095	7,097	7,113	7,126	7,183	7,211	7,232	7,250
Production workers.....	4,990	4,831	4,815	4,833	4,849	4,874	4,851	4,854	4,846	4,854	4,854	4,906	4,929	4,953	4,969
Wood products.....	358.7	341.1	345.1	346.2	347.4	342.8	340.0	337.7	336.0	337.7	337.4	340.9	343.1	342.7	340.2
Nonmetallic mineral products.....	394.3	372.0	372.2	374.4	373.0	371.6	370.7	372.5	371.8	370.6	367.5	369.6	371.4	372.1	371.9
Primary metals.....	362.1	360.7	357.8	361.0	363.8	365.2	365.0	365.2	365.3	366.6	368.2	369.4	374.5	376.4	380.4
Fabricated metal products.....	1,311.6	1,284.6	1,271.2	1,279.7	1,286.6	1,295.2	1,296.1	1,299.9	1,300.6	1,305.7	1,312.5	1,323.2	1,329.8	1,339.0	1,344.7
Machinery.....	1,028.6	992.9	986.8	992.0	996.1	998.2	997.6	998.4	1,000.2	1,007.3	1,010.2	1,018.3	1,025.8	1,030.8	1,036.1
Computer and electronic products <sup>1</sup> .....	1,136.9	1,100.1	1,094.8	1,096.9	1,099.5	1,101.4	1,103.0	1,103.0	1,102.9	1,106.7	1,111.1	1,115.2	1,117.9	1,119.6	1,123.1
Computer and peripheral equipment.....	166.4	161.6	159.6	159.9	160.6	161.8	162.4	162.2	163.5	164.9	166.1	167.6	169.7	169.5	170.0
Communications equipment.....	120.5	118.0	116.1	117.3	118.1	118.2	119.2	119.3	120.1	119.6	119.0	119.2	117.8	118.3	119.6
Semiconductors and electronic components.....	378.1	369.7	368.0	368.9	370.5	371.3	373.2	372.0	372.1	372.9	375.5	377.5	380.1	382.3	383.2
Electronic instruments.....	421.6	406.0	405.6	405.5	405.1	405.4	404.3	405.8	403.8	405.5	406.2	406.3	405.2	404.1	404.1
Electrical equipment and appliances.....	373.6	360.7	358.0	359.4	359.2	362.1	362.3	363.9	364.7	365.2	367.7	368.2	368.5	368.1	368.8
Transportation equipment.....	1,347.9	1,329.9	1,326.3	1,329.3	1,327.3	1,353.5	1,334.5	1,332.5	1,333.3	1,332.7	1,329.8	1,351.8	1,354.0	1,357.1	1,360.1
Furniture and related products.....	385.7	357.4	359.5	358.8	360.1	356.8	356.9	355.7	354.5	351.4	350.3	352.2	350.6	351.1	350.3
Miscellaneous manufacturing.....	584.4	567.6	567.3	567.1	565.9	566.7	566.0	566.3	567.5	569.5	571.2	574.2	575.5	575.0	574.2
<b>Non-durable goods.....</b>	4,563	4,457	4,470	4,471	4,469	4,466	4,459	4,450	4,442	4,441	4,439	4,435	4,444	4,443	4,449
Production workers.....	3,332	3,244	3,257	3,258	3,254	3,249	3,243	3,231	3,226	3,226	3,228	3,227	3,233	3,235	3,245
Food manufacturing.....	1,456.4	1,446.8	1,450.8	1,451.4	1,452.7	1,451.4	1,449.2	1,445.2	1,440.3	1,442.1	1,444.9	1,446.9	1,452.6	1,449.7	1,456.0
Beverages and tobacco products.....	187.4	182.3	183.4	182.9	182.3	180.3	181.4	183.2	184.4	183.8	182.4	177.6	180.2	179.8	180.6
Textile mills.....	124.4	119.3	119.7	119.5	119.8	119.8	118.8	118.8	118.8	119.0	119.8	119.9	120.8	121.4	121.9
Textile product mills.....	125.7	118.5	119.5	120.0	119.9	119.9	118.8	118.5	117.1	115.8	116.3	115.6	116.4	116.4	116.2
Apparel.....	167.5	157.7	158.3	157.4	156.5	156.7	155.8	155.0	156.6	157.1	157.6	157.9	156.3	156.2	157.1
Leather and allied products.....	29.0	27.8	26.7	27.3	27.6	27.4	28.1	28.0	28.3	28.7	28.5	28.2	29.1	29.2	29.0
Paper and paper products.....	407.0	396.8	397.6	397.7	397.5	396.5	396.7	396.8	396.6	396.2	396.8	396.5	397.4	397.5	397.9
Printing and related support activities.....	521.8	486.9	490.4	490.3	489.1	489.1	485.8	483.0	481.3	480.9	476.2	476.4	474.5	473.5	472.4
Petroleum and coal products.....	115.3	114.0	115.6	114.1	114.4	114.3	114.1	114.0	115.5	113.2	113.0	111.6	112.6	112.7	112.9
Chemicals.....	804.1	783.8	785.4	785.9	783.6	782.8	782.6	781.8	779.4	777.8	777.5	774.9	774.9	776.1	777.3
Plastics and rubber products.....	624.9	623.2	622.5	624.5	625.6	628.0	627.8	625.4	623.9	626.4	626.1	630.2	629.5	630.6	628.1
<b>SERVICE-PROVIDING.....</b>	112,249	112,064	111,953	112,410	112,218	112,141	112,083	112,060	112,230	112,315	112,463	112,493	112,647	112,801	112,995
<b>PRIVATE SERVICE-PROVIDING.....</b>	89,695	89,582	89,383	89,430	89,495	89,560	89,671	89,786	89,928	90,048	90,211	90,267	90,447	90,626	90,839
<b>Trade, transportation, and utilities.....</b>	24,906	24,605	24,581	24,584	24,587	24,609	24,601	24,627	24,670	24,684	24,746	24,740	24,775	24,791	24,869
<b>Wholesale trade.....</b>	5,586.6	5,456.0	5,445.9	5,444.6	5,450.7	5,453.8	5,454.5	5,456.0	5,467.4	5,475.7	5,479.5	5,492.4	5,508.2	5,522.6	5,527.9
Durable goods.....	2,809.9	2,719.4	2,710.1	2,714.8	2,712.3	2,717.6	2,718.5	2,722.4	2,728.3	2,733.7	2,736.0	2,744.6	2,755.9	2,764.0	2,766.7
Non-durable goods.....	1,966.1	1,931.6	1,934.5	1,928.0	1,930.1	1,929.9	1,930.5	1,928.7	1,931.8	1,932.7	1,935.5	1,939.6	1,941.7	1,945.7	1,946.5
Electronic markets and agents and brokers.....	810.7	805.1	801.3	801.8	808.3	806.3	805.5	804.9	807.3	809.3	808.0	808.2	810.6	812.9	814.7
<b>Retail trade.....</b>	14,522.4	14,413.9	14,424.3	14,421.0	14,408.5	14,419.3	14,412.6	14,430.3	14,456.6	14,441.0	14,447.2	14,477.7	14,477.8	14,472.2	14,536.2
Motor vehicles and parts dealers <sup>1</sup> .....	1,637.5	1,624.5	1,621.3	1,624.4	1,619.5	1,616.5	1,622.9	1,627.3	1,634.9	1,643.1	1,648.1	1,650.8	1,656.2	1,659.9	1,667.3
Automobile dealers.....	1,018.2	1,006.4	1,003.2	1,001.6	1,002.4	1,001.9	1,004.5	1,007.0	1,012.6	1,018.7	1,021.4	1,023.3	1,026.9	1,030.1	1,035.3
Furniture and home furnishings stores.....	449.2	436.3	436.6	436.7	437.6	435.0	432.8	436.0	439.6	435.8	435.8	435.4	434.7	435.1	435.1
Electronics and appliance stores.....	491.0	497.5	492.4	494.2	493.6	494.7	497.5	500.8	506.1	508.6	503.2	500.0	496.4	496.3	501.4

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		2010									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. <sup>P</sup>	Apr. <sup>P</sup>
Building material and garden supply stores.....	1,155.6	1,125.7	1,146.5	1,139.1	1,123.9	1,120.8	1,118.9	1,115.1	1,109.9	1,112.0	1,112.0	1,117.3	1,115.2	1,124.1	1,131.7
Food and beverage stores.....	2,830.0	2,810.5	2,814.2	2,811.2	2,806.8	2,808.4	2,811.1	2,812.4	2,810.6	2,810.9	2,814.1	2,816.1	2,818.1	2,819.9	2,832.2
Health and personal care stores.....	986.0	978.9	979.6	980.7	979.5	978.1	976.3	976.3	977.6	976.4	970.9	971.9	971.1	969.7	971.9
Gasoline stations.....	825.5	816.4	816.4	817.8	815.5	820.2	816.6	816.0	814.4	815.3	816.1	814.9	813.2	814.5	816.2
Clothing and clothing accessories stores.....	1,363.9	1,376.5	1,373.9	1,372.1	1,376.1	1,378.2	1,377.7	1,388.0	1,401.1	1,404.4	1,405.4	1,412.1	1,417.0	1,418.5	1,422.4
Sporting goods, hobby, book, and music stores.....	614.0	600.5	602.7	600.0	601.0	600.6	599.0	597.8	597.4	600.4	601.5	597.6	598.3	598.9	597.3
General merchandise stores <sup>1</sup> .....	2,966.2	2,970.6	2,959.2	2,965.1	2,974.3	2,987.0	2,983.6	2,986.1	2,988.2	2,968.2	2,972.8	2,987.2	2,984.7	2,958.0	2,984.9
Department stores.....	1,472.9	1,487.6	1,486.1	1,487.2	1,493.0	1,497.3	1,496.9	1,495.8	1,495.1	1,484.3	1,484.2	1,498.9	1,499.5	1,488.4	1,498.0
Miscellaneous store retailers.....	782.4	760.4	763.9	761.5	759.6	760.7	757.9	756.6	757.8	754.9	753.9	758.7	758.9	762.8	761.7
Nonstore retailers.....	421.1	416.1	417.6	418.2	421.1	419.1	418.3	417.9	419.0	411.0	413.4	415.7	414.0	414.5	414.1
<b>Transportation and warehousing.....</b>	<b>4,236.4</b>	<b>4,183.5</b>	<b>4,156.3</b>	<b>4,165.3</b>	<b>4,175.8</b>	<b>4,184.8</b>	<b>4,184.1</b>	<b>4,192.4</b>	<b>4,196.2</b>	<b>4,218.3</b>	<b>4,268.4</b>	<b>4,221.2</b>	<b>4,238.2</b>	<b>4,246.2</b>	<b>4,253.2</b>
Air transportation.....	462.8	464.2	461.9	463.4	463.7	462.6	462.8	463.4	463.7	466.9	467.7	469.3	470.5	472.6	470.8
Rail transportation.....	218.2	214.9	211.8	212.2	214.4	216.0	217.1	217.6	218.4	219.0	218.5	219.1	220.1	221.5	221.8
Water transportation.....	63.4	62.8	61.9	62.8	63.1	62.8	62.8	62.8	63.5	64.2	64.7	65.1	66.2	64.6	64.2
Truck transportation.....	1,268.2	1,244.1	1,237.5	1,241.2	1,241.9	1,246.7	1,248.4	1,248.5	1,250.2	1,256.0	1,255.9	1,255.2	1,265.2	1,270.7	1,274.0
Transit and ground passenger transportation.....	421.7	432.4	425.5	424.5	427.6	437.5	433.7	438.6	442.9	444.3	445.2	443.9	445.1	444.8	448.5
Pipeline transportation.....	42.6	42.4	42.5	41.9	42.1	41.9	42.3	41.9	41.8	41.9	42.3	42.4	42.6	43.2	43.2
Scenic and sightseeing transportation.....	27.6	27.3	27.6	27.7	27.8	27.6	27.5	27.6	28.1	27.1	26.7	27.1	27.2	28.0	26.8
Support activities for transportation.....	548.5	540.1	538.1	541.4	543.4	544.4	543.2	542.3	543.0	540.6	542.0	546.1	550.5	552.3	555.7
Couriers and messengers.....	546.3	527.1	521.0	520.4	520.6	518.3	518.9	521.0	516.5	527.3	573.6	524.9	522.2	521.6	520.9
Warehousing and storage.....	637.1	628.3	628.5	629.8	631.2	627.0	627.4	628.7	628.1	631.0	631.8	628.1	628.6	626.9	627.3
<b>Utilities.....</b>	<b>560.0</b>	<b>551.9</b>	<b>554.1</b>	<b>553.4</b>	<b>551.7</b>	<b>550.7</b>	<b>550.2</b>	<b>548.6</b>	<b>549.8</b>	<b>549.3</b>	<b>551.2</b>	<b>548.9</b>	<b>550.6</b>	<b>550.1</b>	<b>551.6</b>
<b>Information.....</b>	<b>2,804</b>	<b>2,711</b>	<b>2,716</b>	<b>2,715</b>	<b>2,701</b>	<b>2,706</b>	<b>2,711</b>	<b>2,701</b>	<b>2,697</b>	<b>2,699</b>	<b>2,694</b>	<b>2,687</b>	<b>2,684</b>	<b>2,683</b>	<b>2,682</b>
Publishing industries, except Internet.....	796.4	761.0	762.4	761.9	760.5	760.5	761.3	759.4	758.9	757.2	756.9	756.2	757.7	756.1	756.8
Motion picture and sound recording industries.....	357.6	372.0	370.2	375.7	365.8	372.8	378.2	373.3	372.0	373.4	372.6	371.1	365.2	367.5	364.5
Broadcasting, except Internet.....	300.5	294.5	294.6	293.6	293.6	294.8	295.7	296.1	296.0	296.3	295.7	295.8	297.1	296.1	295.8
Internet publishing and broadcasting.....	965.7	899.7	906.5	901.0	898.3	894.1	892.0	887.7	886.2	886.0	881.8	876.8	875.9	872.4	871.0
ISPs, search portals, and data processing.....	248.5	242.0	243.2	242.3	241.7	241.5	240.4	240.5	240.6	240.4	241.0	239.8	239.8	240.1	239.8
Other information services.....	135.0	141.5	139.5	140.5	141.0	142.5	143.0	143.5	143.3	143.3	145.7	147.0	148.3	150.7	153.9
<b>Financial activities.....</b>	<b>7,769</b>	<b>7,630</b>	<b>7,648</b>	<b>7,640</b>	<b>7,628</b>	<b>7,618</b>	<b>7,616</b>	<b>7,616</b>	<b>7,617</b>	<b>7,616</b>	<b>7,617</b>	<b>7,607</b>	<b>7,606</b>	<b>7,611</b>	<b>7,609</b>
Finance and insurance.....	5,774.9	5,691.3	5,695.7	5,694.4	5,689.4	5,686.7	5,684.0	5,686.7	5,685.6	5,685.3	5,681.5	5,677.0	5,669.8	5,668.5	5,665.5
Monetary authorities—central bank.....	21.0	20.8	20.6	20.7	20.6	20.7	20.6	20.7	20.8	21.1	21.2	21.1	21.0	21.1	21.0
Credit intermediation and related activities <sup>1</sup> .....	2,590.2	2,544.7	2,540.3	2,542.3	2,540.9	2,541.8	2,542.6	2,547.2	2,552.0	2,552.1	2,549.0	2,543.9	2,539.7	2,536.8	2,535.9
Depository credit intermediation <sup>1</sup> .....	1,753.8	1,733.4	1,729.9	1,731.2	1,732.2	1,732.4	1,733.0	1,735.8	1,738.9	1,740.9	1,741.9	1,743.1	1,744.2	1,746.3	1,749.0
Commercial banking.....	1,316.9	1,308.4	1,305.2	1,305.2	1,306.0	1,307.6	1,308.8	1,310.8	1,313.8	1,314.4	1,316.4	1,315.8	1,316.3	1,317.6	1,320.4
Securities, commodity contracts, investments.....	811.3	800.9	802.0	801.5	801.8	803.0	801.2	805.5	800.3	801.2	803.1	804.7	806.7	807.4	807.9
Insurance carriers and related activities.....	2,264.1	2,238.0	2,245.8	2,242.6	2,238.8	2,233.8	2,232.6	2,226.6	2,225.7	2,224.0	2,221.7	2,220.1	2,215.1	2,215.9	2,213.7
Funds, trusts, and other financial vehicles.....	88.4	86.9	87.0	87.3	87.3	87.4	87.0	86.7	86.8	86.9	86.5	87.2	87.3	87.3	87.0
Real estate and rental and leasing.....	1,994.0	1,938.9	1,952.2	1,945.9	1,938.9	1,931.7	1,931.5	1,928.9	1,931.7	1,930.6	1,935.3	1,929.5	1,935.7	1,942.8	1,943.5
Real estate.....	1,420.2	1,395.5	1,406.0	1,400.5	1,393.2	1,387.8	1,389.5	1,389.8	1,391.6	1,388.0	1,395.0	1,390.8	1,394.7	1,396.2	1,400.7
Rental and leasing services.....	547.3	518.2	520.9	520.2	520.9	519.1	517.2	514.3	514.7	517.3	515.0	513.0	515.4	520.9	517.1
Lessors of nonfinancial intangible assets.....	26.5	25.2	25.3	25.2	24.8	24.8	24.8	24.8	25.4	25.3	25.3	25.7	25.6	25.7	25.7
<b>Professional and business services.....</b>	<b>16,579</b>	<b>16,688</b>	<b>16,615</b>	<b>16,640</b>	<b>16,683</b>	<b>16,681</b>	<b>16,711</b>	<b>16,719</b>	<b>16,759</b>	<b>16,844</b>	<b>16,902</b>	<b>16,953</b>	<b>16,991</b>	<b>17,066</b>	<b>17,116</b>
Professional and technical services <sup>1</sup> .....	7,508.5	7,424.0	7,416.2	7,407.0	7,408.5	7,414.8	7,430.6	7,414.1	7,422.9	7,455.1	7,469.4	7,486.6	7,507.1	7,549.6	7,575.9
Legal services.....	1,124.9	1,113.7	1,113.2	1,113.1	1,109.7	1,111.2	1,113.8	1,115.7	1,115.9	1,116.1	1,113.7	1,115.1	1,113.5	1,112.1	1,111.4
Accounting and bookkeeping services.....	914.2	888.3	891.3	884.8	881.8	882.0	887.6	875.6	871.4	893.3	881.8	883.3	879.5	904.3	908.5
Architectural and engineering services.....	1,324.7	1,276.7	1,278.5	1,277.0	1,274.0	1,275.2	1,276.4	1,273.7	1,272.6	1,273.9	1,278.5	1,280.5	1,289.2	1,291.3	1,295.6

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		2010									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. <sup>P</sup>	Apr. <sup>P</sup>
Computer systems design and related services.....	1,422.6	1,441.5	1,433.5	1,434.8	1,436.3	1,441.7	1,445.9	1,447.1	1,456.9	1,459.6	1,464.9	1,472.1	1,477.6	1,485.7	1,491.5
Management and technical consulting services.....	994.9	991.4	987.4	982.7	991.6	990.0	989.6	991.5	994.6	1,000.3	1,008.1	1,011.8	1,020.4	1,022.7	1,032.9
Management of companies and enterprises.....	1,866.9	1,863.0	1,859.0	1,861.3	1,863.9	1,862.8	1,864.9	1,870.6	1,869.9	1,870.8	1,873.3	1,871.4	1,870.5	1,875.8	1,877.5
Administrative and waste services.....	7,203.3	7,401.0	7,339.6	7,371.2	7,410.9	7,403.2	7,415.8	7,434.6	7,466.3	7,517.9	7,559.6	7,594.6	7,613.6	7,641.0	7,662.2
Administrative and support services <sup>1</sup> .....	6,851.6	7,044.3	6,987.8	7,014.5	7,052.8	7,041.9	7,054.2	7,074.1	7,106.6	7,159.1	7,199.8	7,234.7	7,252.3	7,279.4	7,299.8
Employment services <sup>1</sup> .....	2,480.8	2,716.7	2,664.8	2,696.9	2,728.9	2,713.8	2,719.6	2,745.7	2,765.8	2,808.0	2,843.6	2,867.1	2,881.2	2,910.3	2,913.3
Temporary help services.....	1,823.3	2,078.8	2,027.3	2,057.5	2,076.1	2,073.3	2,090.2	2,110.1	2,137.3	2,164.1	2,207.2	2,206.1	2,217.6	2,247.6	2,246.0
Business support services.....	820.0	806.4	804.3	804.1	805.1	808.5	809.1	807.6	809.2	808.8	805.2	805.4	806.1	802.3	803.5
Services to buildings and dwellings.....	1,753.3	1,742.5	1,741.0	1,740.0	1,741.1	1,744.9	1,747.3	1,747.2	1,747.9	1,754.5	1,765.0	1,770.5	1,765.1	1,763.3	1,768.5
Waste management and remediation services.....	351.7	356.7	351.8	356.7	358.1	361.3	361.6	360.5	359.7	358.8	359.8	359.9	361.3	361.6	362.4
<b>Educational and health services</b> .....	19,193	19,564	19,482	19,508	19,535	19,571	19,612	19,631	19,695	19,732	19,760	19,789	19,832	19,865	19,919
Educational services.....	3,090.4	3,149.6	3,135.2	3,138.2	3,147.0	3,154.9	3,160.3	3,145.1	3,170.1	3,176.9	3,179.5	3,190.0	3,205.6	3,203.1	3,215.7
Health care and social assistance.....	16,102.7	16,414.5	16,346.3	16,369.7	16,388.1	16,416.3	16,451.2	16,485.5	16,524.4	16,555.3	16,580.6	16,598.5	16,626.1	16,662.1	16,703.1
Ambulatory health care services <sup>1</sup> .....	5,793.4	5,975.8	5,942.4	5,954.8	5,961.8	5,980.2	5,996.1	6,013.5	6,033.4	6,039.7	6,051.3	6,056.1	6,073.0	6,088.5	6,108.4
Offices of physicians.....	2,279.1	2,315.8	2,309.8	2,311.6	2,312.7	2,314.1	2,318.8	2,322.2	2,327.8	2,324.5	2,330.0	2,333.4	2,334.4	2,343.4	2,350.3
Outpatient care centers.....	557.5	599.6	597.9	597.5	598.6	600.7	603.5	604.5	607.2	607.2	611.4	611.8	614.7	615.6	617.8
Home health care services.....	1,027.1	1,080.6	1,073.5	1,074.2	1,074.6	1,082.2	1,084.4	1,091.7	1,096.1	1,099.6	1,102.3	1,105.0	1,113.4	1,112.8	1,115.8
Hospitals.....	4,667.4	4,685.3	4,679.6	4,678.5	4,682.5	4,681.0	4,686.5	4,690.5	4,694.1	4,701.5	4,708.0	4,712.0	4,718.8	4,728.6	4,740.1
Nursing and residential care facilities <sup>1</sup> .....	3,082.2	3,129.1	3,117.5	3,120.8	3,125.5	3,133.3	3,139.0	3,140.9	3,147.5	3,153.6	3,163.1	3,167.7	3,171.0	3,175.6	3,180.9
Nursing care facilities.....	1,644.9	1,660.8	1,656.4	1,657.7	1,659.1	1,662.6	1,663.4	1,664.6	1,667.0	1,674.1	1,674.8	1,679.4	1,677.5	1,680.3	1,680.7
Social assistance <sup>1</sup> .....	2,559.8	2,624.3	2,606.8	2,615.6	2,618.3	2,621.8	2,629.6	2,640.6	2,649.4	2,660.5	2,658.2	2,662.7	2,663.3	2,669.4	2,673.7
Child day care services.....	852.8	851.8	851.3	852.6	850.5	847.1	851.5	855.4	856.1	858.4	856.6	860.2	858.3	860.5	861.5
<b>Leisure and hospitality</b> .....	13,077	13,020	12,998	12,995	13,018	13,013	13,051	13,103	13,072	13,057	13,074	13,071	13,125	13,171	13,203
Arts, entertainment, and recreation.....	1,915.5	1,908.6	1,908.0	1,899.8	1,920.9	1,924.1	1,925.2	1,933.3	1,899.8	1,895.0	1,896.4	1,886.5	1,897.0	1,904.7	1,904.5
Performing arts and spectator sports.....	396.8	410.0	404.2	411.1	412.7	419.3	423.2	429.7	404.8	410.6	410.5	406.8	413.8	415.6	409.9
Museums, historical sites, zoos, and parks.....	129.4	127.3	127.6	127.0	127.6	127.8	127.0	126.8	125.9	126.6	127.2	128.0	129.5	129.7	131.0
Amusements, gambling, and recreation.....	1,389.2	1,371.3	1,376.2	1,361.7	1,380.6	1,377.0	1,375.0	1,376.8	1,369.1	1,357.8	1,358.7	1,351.7	1,353.7	1,359.4	1,363.6
Accommodations and food services.....	11,161.9	11,110.9	11,090.4	11,095.3	11,097.5	11,088.6	11,125.3	11,169.7	11,172.4	11,162.0	11,177.4	11,184.3	11,228.2	11,266.3	11,298.4
Accommodations.....	1,763.0	1,759.1	1,750.7	1,758.3	1,768.2	1,774.1	1,781.4	1,772.7	1,766.2	1,759.3	1,763.3	1,769.0	1,773.1	1,783.4	1,787.4
Food services and drinking places.....	9,398.9	9,351.8	9,339.7	9,337.0	9,329.3	9,314.5	9,343.9	9,397.0	9,406.2	9,402.7	9,414.1	9,415.3	9,455.1	9,482.9	9,511.0
<b>Other services</b> .....	5,367	5,364	5,343	5,348	5,343	5,362	5,369	5,389	5,418	5,416	5,418	5,420	5,434	5,439	5,441
Repair and maintenance.....	1,150.4	1,136.8	1,134.7	1,139.0	1,134.3	1,136.5	1,139.6	1,141.2	1,145.2	1,144.7	1,142.3	1,148.5	1,149.8	1,152.2	1,150.2
Personal and laundry services.....	1,280.6	1,264.8	1,265.4	1,264.4	1,262.8	1,260.9	1,258.2	1,263.3	1,272.3	1,269.9	1,271.6	1,268.0	1,276.0	1,278.5	1,279.0
Membership associations and organizations.....	2,936.0	2,962.3	2,943.1	2,944.2	2,946.0	2,964.5	2,970.8	2,984.0	3,000.0	3,001.4	3,004.1	3,003.3	3,007.8	3,008.7	3,012.2
<b>Government</b> .....	22,555	22,482	22,570	22,980	22,723	22,581	22,412	22,274	22,302	22,267	22,252	22,226	22,200	22,175	22,156
Federal.....	2,832	2,968	2,985	3,413	3,184	3,041	2,927	2,850	2,847	2,844	2,853	2,850	2,853	2,854	2,850
Federal, except U.S. Postal Service.....	2,128.5	2,311.7	2,323.3	2,753.3	2,527.8	2,388.2	2,275.7	2,200.6	2,199.9	2,200.4	2,210.0	2,210.8	2,216.5	2,220.3	2,217.8
U.S. Postal Service.....	703.4	656.4	662.0	659.7	656.5	652.4	651.7	648.9	646.6	643.1	643.4	639.1	636.5	633.7	632.4
State.....	5,169	5,142	5,138	5,135	5,134	5,154	5,132	5,138	5,146	5,144	5,140	5,136	5,121	5,119	5,113
Education.....	2,360.2	2,377.1	2,364.5	2,367.1	2,369.5	2,393.3	2,378.1	2,383.7	2,393.7	2,392.9	2,392.6	2,396.0	2,393.3	2,397.2	2,397.0
Other State government.....	2,808.8	2,764.4	2,773.7	2,768.1	2,764.4	2,760.8	2,754.0	2,753.9	2,752.2	2,751.4	2,747.3	2,739.6	2,728.0	2,721.4	2,716.1
Local.....	14,554	14,372	14,447	14,432	14,405	14,386	14,353	14,286	14,309	14,279	14,259	14,240	14,226	14,202	14,193
Education.....	8,078.8	8,010.4	8,058.1	8,052.5	8,039.0	8,030.1	8,004.1	7,948.6	7,980.0	7,961.9	7,951.8	7,939.3	7,932.2	7,918.0	7,919.2
Other local government.....	6,474.9	6,361.2	6,388.5	6,379.7	6,366.1	6,355.6	6,349.2	6,337.3	6,328.6	6,316.6	6,307.3	6,300.8	6,293.3	6,284.4	6,273.4

<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		2010									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. <sup>P</sup>	Apr. <sup>P</sup>
<b>TOTAL PRIVATE</b> .....	33.1	33.4	33.4	33.4	33.4	33.5	33.5	33.5	33.5	33.5	33.5	33.4	33.6	33.6	33.6
<b>GOODS-PRODUCING</b> .....	39.2	40.4	40.5	40.5	40.3	40.3	40.5	40.7	40.6	40.5	40.5	40.2	40.7	40.7	40.8
<b>Natural resources and mining</b> .....	43.2	44.6	44.7	45.3	44.7	44.7	45.5	44.6	44.6	44.7	44.9	46.2	45.9	46.0	46.7
<b>Construction</b> .....	37.6	38.4	38.8	38.1	38.3	38.2	38.6	39.0	38.9	38.7	38.6	37.6	38.7	38.6	38.8
<b>Manufacturing</b> .....	39.8	41.1	41.2	41.5	41.0	41.1	41.1	41.3	41.2	41.2	41.3	41.1	41.3	41.4	41.4
Overtime hours.....	2.9	3.8	3.8	4.0	3.8	3.8	3.8	3.9	3.9	4.0	4.0	4.1	4.2	4.2	4.1
Durable goods.....	39.8	41.3	41.4	41.6	41.3	41.4	41.3	41.4	41.4	41.6	41.6	41.5	41.7	41.9	41.7
Overtime hours.....	2.7	3.8	3.8	3.9	3.8	3.8	3.8	3.9	3.9	4.0	4.1	4.1	4.3	4.4	4.2
Wood products.....	37.4	39.1	39.7	39.6	38.8	38.2	38.5	39.4	39.2	39.4	39.4	39.4	39.3	40.2	39.9
Nonmetallic mineral products.....	40.8	41.7	41.7	41.7	41.6	41.6	41.6	41.7	42.2	42.0	41.9	41.3	41.9	42.4	42.2
Primary metals.....	40.7	43.7	43.9	44.3	43.7	43.6	43.5	43.8	44.0	44.3	44.7	44.1	44.6	44.9	45.0
Fabricated metal products.....	39.4	41.4	41.3	41.6	41.4	41.5	41.6	41.7	41.4	41.8	41.9	41.8	41.7	41.9	41.9
Machinery.....	40.1	42.1	41.8	42.2	42.2	42.2	42.3	42.5	42.5	42.6	42.9	43.1	43.1	43.0	42.8
Computer and electronic products.....	40.4	40.9	41.1	41.3	40.7	41.0	41.0	40.9	40.8	40.5	40.6	40.4	40.4	40.3	40.3
Electrical equipment and appliances.....	39.3	41.1	41.5	41.4	41.7	41.5	41.6	41.1	41.5	41.2	41.1	40.9	40.4	41.2	40.7
Transportation equipment.....	41.2	42.9	42.8	43.2	42.9	43.0	42.6	42.7	42.8	43.0	42.6	42.4	43.2	43.5	42.7
Furniture and related products.....	37.7	38.5	38.6	38.7	38.2	38.3	38.2	38.4	38.4	39.7	39.6	39.5	39.9	40.1	40.1
Miscellaneous manufacturing.....	38.5	38.7	38.8	39.3	38.7	38.7	38.2	38.4	38.3	38.6	38.9	38.8	39.3	38.8	38.7
Non-durable goods.....	39.8	40.8	40.9	41.2	40.5	40.7	40.9	41.0	40.9	40.6	40.7	40.5	40.8	40.7	40.9
Overtime hours.....	3.2	3.8	3.9	4.1	3.8	3.7	3.9	3.9	4.0	3.9	3.9	4.0	4.0	4.0	4.0
Food manufacturing.....	40.0	40.7	40.8	40.9	40.5	40.7	40.8	41.2	40.8	40.3	40.2	39.9	39.9	39.8	40.3
Beverage and tobacco products.....	35.7	37.5	35.5	38.9	36.5	38.1	39.1	38.7	40.5	37.5	38.2	38.3	38.7	39.0	38.9
Textile mills.....	37.7	41.3	42.6	42.3	41.2	41.3	41.7	41.6	40.4	40.1	40.9	39.0	41.6	41.2	42.0
Textile product mills.....	37.9	39.0	39.2	39.1	37.9	38.3	37.9	39.0	39.4	39.4	39.2	37.9	39.1	39.2	39.2
Apparel.....	36.0	36.6	36.4	36.1	36.3	36.0	36.7	36.5	37.2	37.2	37.8	37.6	38.7	38.4	38.5
Leather and allied products.....	33.6	39.1	38.6	38.6	38.9	39.4	39.7	39.9	39.5	40.4	40.3	41.1	40.0	39.0	39.2
Paper and paper products.....	41.8	42.9	42.8	43.2	42.6	42.9	42.9	43.0	43.0	42.7	43.2	42.6	43.5	43.7	42.8
Printing and related support activities.....	38.0	38.2	38.6	38.8	38.5	38.3	38.5	38.4	38.2	37.6	37.8	37.7	38.2	37.9	38.0
Petroleum and coal products.....	43.4	43.0	43.9	43.5	42.6	42.6	43.3	43.2	44.0	43.5	42.3	42.8	42.7	42.6	43.8
Chemicals.....	41.4	42.2	42.2	42.4	41.5	41.8	42.1	42.2	42.1	42.4	42.5	42.7	42.5	42.7	43.2
Plastics and rubber products.....	40.2	41.9	42.5	42.8	42.0	41.7	41.7	41.6	41.6	42.0	41.9	42.0	42.0	42.0	42.0
<b>PRIVATE SERVICE-PROVIDING</b> .....	32.1	32.2	32.2	32.2	32.2	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.4	32.4	32.4
<b>Trade, transportation, and utilities</b> .....	32.9	33.3	33.2	33.3	33.2	33.4	33.4	33.3	33.4	33.5	33.6	33.5	33.6	33.6	33.7
Wholesale trade.....	37.6	37.9	37.9	38.0	37.8	38.0	38.1	38.2	38.2	38.1	38.2	38.3	38.4	38.5	38.5
Retail trade.....	29.9	30.2	30.1	30.2	30.1	30.4	30.3	30.1	30.2	30.3	30.5	30.4	30.3	30.3	30.5
Transportation and warehousing.....	36.0	37.1	37.1	36.9	37.2	37.3	37.3	37.2	37.4	37.6	37.7	37.4	38.0	38.0	37.9
Utilities.....	42.0	42.1	41.8	42.2	42.1	42.2	42.3	42.1	42.6	42.3	42.2	42.4	42.3	42.7	42.8
<b>Information</b> .....	36.6	36.3	36.4	36.5	36.5	36.2	36.4	36.1	36.3	36.4	36.1	36.3	36.4	36.3	36.4
<b>Financial activities</b> .....	36.1	36.1	36.2	36.3	36.3	36.2	36.4	36.3	36.3	36.2	36.3	36.3	36.3	36.2	36.2
<b>Professional and business services</b> .....	34.7	35.1	35.0	35.1	35.0	35.2	35.1	35.2	35.3	35.2	35.3	35.1	35.2	35.1	35.3
<b>Education and health services</b> .....	32.2	32.1	32.2	32.2	32.2	32.1	32.2	32.2	32.3	32.1	32.1	32.1	32.2	32.2	32.2
<b>Leisure and hospitality</b> .....	24.8	24.8	24.9	24.8	24.7	24.9	24.9	24.8	24.9	24.9	24.7	24.7	24.8	24.9	24.9
<b>Other services</b> .....	30.5	30.7	30.7	30.7	30.7	30.8	30.8	30.8	30.8	30.6	30.7	30.7	30.8	30.8	30.7

<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		2010									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. <sup>P</sup>	Apr. <sup>P</sup>
<b>TOTAL PRIVATE</b>															
Current dollars.....	\$18.63	\$19.07	\$18.98	\$19.03	\$19.05	\$19.08	\$19.13	\$19.14	\$19.23	\$19.24	\$19.23	\$19.31	\$19.32	\$19.32	\$19.37
Constant (1982) dollars.....	8.89	8.91	8.89	8.93	8.97	8.94	8.94	8.93	8.94	8.94	8.89	8.88	8.83	8.78	8.76
<b>GOODS-PRODUCING.....</b>	19.90	20.28	20.18	20.21	20.24	20.26	20.33	20.33	20.41	20.45	20.49	20.55	20.57	20.59	20.59
<b>Natural resources and mining.....</b>	23.29	23.83	23.79	23.76	23.86	23.92	23.87	24.10	23.86	24.02	24.02	24.14	24.18	24.33	23.88
<b>Construction.....</b>	22.66	23.22	23.07	23.10	23.16	23.22	23.30	23.21	23.38	23.42	23.44	23.48	23.51	23.49	23.57
<b>Manufacturing.....</b>	18.24	18.61	18.51	18.59	18.59	18.60	18.63	18.65	18.71	18.75	18.80	18.91	18.89	18.91	18.91
Excluding overtime.....	17.59	17.78	17.69	17.74	17.77	17.78	17.81	17.81	17.86	17.88	17.93	18.01	17.98	18.00	18.02
Durable goods.....	19.36	19.80	19.70	19.78	19.76	19.76	19.79	19.81	19.88	19.94	20.03	20.14	20.12	20.12	20.14
Nondurable goods.....	16.56	16.80	16.74	16.81	16.81	16.84	16.88	16.89	16.92	16.91	16.91	16.99	16.98	17.01	16.99
<b>PRIVATE SERVICE-PRIVATE SERVICE-PROVIDING.....</b>	18.35	18.81	18.73	18.78	18.80	18.83	18.87	18.88	18.98	18.98	18.97	19.05	19.05	19.05	19.12
<b>Trade, transportation, and utilities.....</b>	16.48	16.83	16.78	16.81	16.81	16.81	16.84	16.90	16.99	16.96	16.97	17.04	17.05	17.07	17.10
Wholesale trade.....	20.84	21.53	21.45	21.47	21.51	21.55	21.55	21.64	21.82	21.73	21.79	21.90	21.86	21.84	21.91
Retail trade.....	13.01	13.24	13.20	13.20	13.22	13.23	13.25	13.29	13.38	13.37	13.36	13.37	13.39	13.41	13.43
Transportation and warehousing.....	18.81	19.17	19.14	19.28	19.12	19.12	19.19	19.18	19.22	19.22	19.28	19.47	19.36	19.31	19.39
Utilities.....	29.48	30.04	29.83	30.15	30.12	30.22	30.27	30.28	30.38	30.26	30.13	30.23	30.33	30.74	31.16
<b>Information.....</b>	25.45	25.86	25.63	25.81	25.78	26.04	25.91	26.01	26.22	26.13	26.09	26.23	26.35	26.51	26.69
<b>Financial activities.....</b>	20.85	21.49	21.43	21.43	21.47	21.54	21.57	21.45	21.68	21.69	21.63	21.74	21.62	21.71	21.81
<b>Professional and business services.....</b>	22.35	22.78	22.69	22.76	22.78	22.85	22.93	22.94	23.00	22.96	22.84	23.02	23.03	23.00	23.11
<b>Education and health services.....</b>	19.49	20.12	19.98	20.03	20.08	20.14	20.20	20.24	20.33	20.37	20.42	20.48	20.49	20.46	20.50
<b>Leisure and hospitality.....</b>	11.12	11.31	11.32	11.35	11.34	11.33	11.35	11.27	11.30	11.30	11.31	11.32	11.36	11.40	11.43
<b>Other services.....</b>	16.59	17.08	17.01	17.06	17.10	17.09	17.08	17.13	17.19	17.26	17.24	17.22	17.24	17.14	17.21

<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		2010									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. <sup>P</sup>	Apr. <sup>P</sup>
<b>TOTAL PRIVATE</b> .....	\$18.63	\$19.07	\$19.01	\$19.06	\$18.92	\$18.97	\$19.06	\$19.14	\$19.24	\$19.23	\$19.24	\$19.51	\$19.39	\$19.32	\$19.39
Seasonally adjusted.....	-	-	18.98	19.03	19.05	19.08	19.13	19.14	19.23	19.24	19.23	19.31	19.32	19.32	19.37
<b>GOODS-PRODUCING</b> .....	19.90	20.28	20.14	20.19	20.20	20.33	20.39	20.45	20.51	20.48	20.50	20.48	20.46	20.48	20.54
<b>Natural resources and mining</b> .....	23.29	23.83	23.96	23.62	23.58	23.79	23.71	24.06	23.75	23.91	24.25	24.38	24.28	24.69	23.97
<b>Construction</b> .....	22.66	23.22	22.97	23.03	23.01	23.24	23.38	23.34	23.55	23.47	23.48	23.39	23.42	23.37	23.47
<b>Manufacturing</b> .....	18.24	18.61	18.52	18.57	18.54	18.56	18.57	18.74	18.70	18.74	18.86	18.97	18.93	18.89	18.90
Durable goods.....	19.36	19.80	19.69	19.74	19.70	19.73	19.74	19.94	19.89	19.94	20.14	20.17	20.17	20.11	20.12
Wood products.....	14.92	14.85	14.85	14.88	14.79	14.82	14.83	14.90	14.74	14.98	14.97	14.96	14.89	14.82	14.93
Nonmetallic mineral products.....	17.28	17.49	17.53	17.49	17.55	17.52	17.53	17.55	17.47	17.64	17.72	17.81	17.94	17.84	18.04
Primary metals.....	20.10	20.11	20.20	20.11	20.01	20.18	19.86	20.23	20.12	19.94	20.25	20.14	20.14	19.95	20.11
Fabricated metal products.....	17.48	17.94	17.94	17.88	17.90	17.91	17.90	17.99	18.03	17.98	18.20	18.16	18.09	18.08	18.07
Machinery.....	18.39	18.96	18.77	18.86	19.01	19.04	18.99	19.01	19.08	19.26	19.36	19.49	19.38	19.38	19.40
Computer and electronic products.....	21.87	22.79	22.57	22.89	22.55	22.76	22.93	22.88	22.75	22.97	23.31	23.54	23.42	23.23	23.37
Electrical equipment and appliances.....	16.27	16.87	16.60	16.63	16.69	16.81	16.78	16.93	17.15	17.07	17.53	17.81	18.15	17.99	17.92
Transportation equipment.....	24.98	25.22	25.06	25.10	25.06	25.12	25.04	25.65	25.50	25.43	25.60	25.42	25.45	25.48	25.51
Furniture and related products.....	15.04	15.05	14.96	15.08	15.00	14.98	15.09	15.26	15.10	15.16	15.10	15.14	15.11	15.22	15.26
Miscellaneous manufacturing.....	16.13	16.55	16.40	16.44	16.46	16.49	16.60	16.63	16.76	16.81	16.96	17.08	17.00	16.91	16.88
Nondurable goods.....	16.56	16.80	16.74	16.80	16.78	16.80	16.83	16.95	16.89	16.90	16.88	17.08	16.97	16.97	16.99
Food manufacturing.....	14.39	14.40	14.36	14.39	14.43	14.41	14.33	14.42	14.42	14.49	14.51	14.62	14.53	14.52	14.58
Beverages and tobacco products.....	20.49	21.78	22.29	22.45	22.20	21.41	21.85	21.69	20.88	21.46	21.03	20.79	20.77	20.58	20.32
Textile mills.....	13.71	13.55	13.40	13.32	13.46	13.63	13.67	13.77	13.48	13.64	13.66	14.08	14.09	13.94	13.91
Textile product mills.....	11.44	11.80	11.78	11.94	11.66	11.84	11.72	11.76	11.77	12.01	11.83	11.74	12.08	12.20	12.37
Apparel.....	11.37	11.43	11.30	11.30	11.42	11.47	11.38	11.61	11.65	11.65	11.47	12.06	11.90	11.72	11.64
Leather and allied products.....	13.90	13.03	13.24	12.90	13.12	12.74	12.58	12.69	12.84	13.20	12.96	13.03	13.05	13.35	13.28
Paper and paper products.....	19.29	20.03	20.28	20.24	20.19	20.24	20.05	20.31	20.00	19.95	20.13	20.25	20.10	19.95	20.13
Printing and related support activities.....	16.75	16.92	16.76	16.86	16.71	16.69	16.76	17.07	17.06	17.01	16.98	17.29	17.31	17.25	17.17
Petroleum and coal products.....	29.61	31.34	31.40	31.34	30.56	30.61	31.43	31.46	31.50	31.72	32.01	32.15	32.24	31.88	31.89
Chemicals.....	20.30	21.08	20.71	20.92	21.04	21.04	21.69	21.80	21.53	21.22	21.22	21.42	21.13	21.38	21.22
Plastics and rubber products.....	16.01	15.71	15.60	15.64	15.60	15.81	15.60	15.69	15.70	15.80	15.89	16.10	15.94	15.85	15.88
<b>PRIVATE SERVICE-PROVIDING</b> .....	18.35	18.81	18.77	18.82	18.64	18.68	18.78	18.86	18.97	18.97	18.97	19.31	19.17	19.08	19.15
<b>Trade, transportation, and utilities</b> .....	16.48	16.83	16.82	16.84	16.75	16.75	16.83	16.95	16.99	16.89	16.81	17.17	17.13	17.05	17.15
Wholesale trade.....	20.84	21.53	21.46	21.45	21.33	21.47	21.49	21.58	21.77	21.74	21.86	22.07	21.95	21.67	21.89
Retail trade.....	13.01	13.24	13.25	13.23	13.19	13.21	13.25	13.39	13.36	13.27	13.20	13.47	13.42	13.42	13.50
Transportation and warehousing.....	18.81	19.17	19.12	19.23	19.11	19.14	19.25	19.16	19.21	19.23	19.19	19.54	19.44	19.28	19.35
Utilities.....	29.48	30.04	29.86	30.23	29.90	29.96	30.05	30.36	30.48	30.37	30.19	30.17	29.92	30.83	31.28
<b>Information</b> .....	25.45	25.86	25.55	25.94	25.56	25.97	25.95	26.11	26.37	26.13	25.98	26.51	26.33	26.37	26.65
<b>Financial activities</b> .....	20.85	21.49	21.46	21.58	21.33	21.42	21.60	21.45	21.67	21.65	21.60	21.92	21.61	21.72	21.84
<b>Professional and business services</b> .....	22.35	22.78	22.69	22.91	22.55	22.68	22.89	22.78	22.82	22.87	22.87	23.50	23.23	23.00	23.09
<b>Education and health services</b> .....	19.49	20.12	20.03	19.99	20.02	20.18	20.15	20.25	20.34	20.35	20.46	20.53	20.48	20.46	20.51
<b>Leisure and hospitality</b> .....	11.12	11.31	11.32	11.34	11.26	11.20	11.24	11.26	11.33	11.34	11.43	11.39	11.46	11.42	11.43
<b>Other services</b> .....	16.59	17.08	17.09	17.15	17.08	16.95	16.98	17.12	17.13	17.23	17.24	17.31	17.23	17.22	17.25

<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		2010									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. <sup>P</sup>	Apr. <sup>P</sup>
<b>TOTAL PRIVATE</b> .....	\$617.18	\$636.91	\$633.03	\$642.32	\$631.93	\$637.39	\$648.04	\$639.28	\$646.46	\$644.21	\$644.54	\$649.68	\$643.75	\$643.36	\$649.57
Seasonally adjusted.....	-	-	633.93	635.60	636.27	639.18	640.86	641.19	644.21	644.54	644.21	644.95	649.15	649.15	650.83
<b>GOODS-PRODUCING</b> .....	779.68	819.18	813.66	819.71	820.12	823.37	835.99	828.23	840.91	835.58	836.40	813.06	818.40	829.44	835.98
<b>Natural resources and mining</b> .....	1006.67	1063.28	1056.64	1067.62	1065.82	1061.03	1102.52	1065.86	1071.13	1075.95	1083.98	1114.17	1095.03	1120.93	1117.00
<b>CONSTRUCTION</b> .....	851.76	891.85	891.24	884.35	895.09	911.01	928.19	898.59	932.58	910.64	899.28	853.74	871.22	890.40	910.64
<b>Manufacturing</b> .....	726.12	765.08	761.17	768.80	761.99	757.25	766.94	773.96	776.05	779.58	788.35	772.08	774.24	780.16	780.57
Durable goods.....	771.39	818.75	813.20	821.18	817.55	810.90	819.21	823.52	829.41	837.48	847.89	828.99	833.02	840.60	839.00
Wood products.....	557.74	580.39	586.58	601.15	587.16	573.53	579.85	579.61	582.23	593.21	588.32	574.46	570.29	588.35	595.71
Nonmetallic mineral products.....	705.54	728.96	732.75	731.08	738.86	749.86	753.79	745.88	752.96	753.23	737.15	705.28	719.39	738.58	761.29
Primary metals.....	817.67	879.35	884.76	886.85	878.44	865.72	861.92	877.98	885.28	893.31	919.35	888.17	892.20	899.75	906.96
Fabricated metal products.....	689.06	742.82	740.92	743.81	741.06	739.68	750.01	746.59	751.85	758.76	773.50	751.82	745.31	755.74	758.94
Machinery.....	737.97	797.56	786.46	792.12	800.32	792.06	795.68	798.42	814.72	828.18	844.10	843.92	837.22	835.28	832.26
Computer and electronic products.....	883.02	932.33	920.86	940.78	922.30	926.33	937.84	928.93	930.48	946.36	953.38	946.31	939.14	936.17	934.80
Electrical equipment and appliances.....	639.34	693.52	692.22	685.16	699.31	687.53	696.37	685.67	715.16	711.82	725.74	726.65	722.37	737.59	731.14
Transportation equipment.....	1028.37	1081.28	1070.06	1084.32	1080.09	1057.55	1076.72	1102.95	1099.05	1101.12	1116.16	1067.64	1099.44	1108.38	1089.28
Furniture and related products.....	566.66	579.55	574.46	585.10	580.50	578.23	582.47	581.41	579.84	601.85	608.53	584.40	593.82	614.89	608.87
Miscellaneous manufacturing.....	620.74	640.57	637.96	646.09	637.00	638.16	640.76	636.93	645.26	650.55	663.14	659.29	664.70	657.80	654.94
Nondurable goods.....	658.68	685.16	681.32	690.48	681.27	680.40	690.03	700.04	694.18	692.90	695.46	686.62	683.89	687.29	691.49
Food manufacturing.....	575.51	585.83	577.27	588.55	584.42	583.61	587.53	602.76	594.10	589.74	589.11	577.49	569.58	572.09	578.83
Beverages and tobacco products.....	731.37	816.49	793.52	882.29	814.74	815.72	871.82	852.42	843.55	804.75	790.73	779.63	793.41	798.50	786.38
Textile mills.....	516.86	558.84	566.82	566.10	555.90	564.28	578.24	576.96	543.24	561.97	561.43	530.82	581.92	568.75	589.78
Textile product mills.....	433.13	459.53	458.24	466.85	448.91	452.29	444.19	458.64	459.03	476.80	467.29	436.73	472.33	480.68	482.43
Apparel.....	408.86	418.33	415.84	407.93	415.69	410.63	419.92	413.32	433.38	438.04	441.60	452.25	456.96	452.39	452.80
Leather and allied products.....	466.62	509.22	516.36	499.23	509.06	493.04	503.20	497.45	505.90	529.32	524.88	535.53	522.00	524.66	521.90
Paper and paper products.....	806.19	858.68	865.96	870.32	856.06	866.27	860.15	885.52	864.00	859.85	885.72	860.63	866.31	863.84	857.54
Printing and related support activities.....	635.68	646.26	643.58	650.80	638.32	630.88	650.29	660.61	656.81	646.38	646.94	643.19	650.86	652.05	650.74
Petroleum and coal products.....	1284.44	1347.00	1343.92	1357.02	1311.02	1325.41	1370.35	1371.66	1395.45	1386.16	1338.02	1369.59	1347.63	1332.58	1374.46
Chemicals.....	841.18	888.84	867.75	878.64	875.26	875.26	913.15	919.96	908.57	908.22	914.58	916.78	895.91	910.79	914.58
Plastics and rubber products.....	643.91	658.69	666.12	667.83	659.88	651.37	652.08	654.27	654.69	666.76	675.33	674.59	664.70	664.12	668.55
<b>PRIVATE SERVICE-PROVIDING</b> .....	588.20	606.11	602.52	611.65	600.21	605.23	615.98	607.29	612.73	610.83	612.73	623.71	615.36	612.47	618.55
<b>Trade, transportation, and utilities</b> .....	541.88	559.62	555.06	562.46	557.78	566.15	570.54	566.13	567.47	562.44	566.50	570.04	565.29	569.47	576.24
Wholesale trade.....	784.49	816.15	811.19	823.68	806.27	811.57	827.37	820.04	831.61	826.12	832.87	847.49	834.10	827.79	840.58
Retail trade.....	388.57	399.74	396.18	400.87	398.34	408.19	408.10	405.72	403.47	399.43	405.24	402.75	398.57	402.60	409.05
Transportation and warehousing.....	677.56	710.63	699.79	711.51	710.89	717.75	731.50	716.58	718.45	728.82	727.30	724.93	725.11	724.93	727.56
Utilities.....	1239.37	1263.33	1251.13	1278.73	1261.78	1258.32	1271.12	1284.23	1307.59	1293.76	1277.04	1270.16	1268.61	1307.19	1345.04
<b>Information</b> .....	931.08	938.89	922.36	952.00	927.83	940.11	957.56	942.57	957.23	951.13	935.28	967.62	953.15	949.32	962.07
<b>Financial activities</b> .....	752.03	776.82	772.56	798.46	770.01	768.98	801.36	772.20	780.12	779.40	777.60	813.23	780.12	777.58	786.24
<b>Professional and business services</b> .....	775.81	798.59	794.15	815.60	789.25	793.80	817.17	795.02	807.83	802.74	802.74	824.85	810.73	802.70	815.08
<b>Education and health services</b> .....	628.45	646.52	640.96	645.68	642.64	649.80	652.86	650.03	654.95	653.24	656.77	665.17	655.36	654.72	656.32
<b>Leisure and hospitality</b> .....	275.95	280.87	279.60	284.63	281.50	285.60	289.99	278.12	280.98	278.96	277.75	274.50	279.62	282.07	282.32
<b>Other services</b> .....	506.26	524.01	522.95	529.94	522.65	523.76	529.78	527.30	527.60	525.52	525.82	531.42	527.24	526.93	527.85

<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.
<b>Private nonfarm payrolls, 278 industries</b>												
Over 1-month span:												
2007.....	60.1	55.8	58.1	51.9	54.7	47.9	48.7	43.1	53.7	54.1	54.5	50.7
2008.....	50.6	47.6	50.2	42.1	41.9	34.5	30.5	33.1	30.0	32.0	23.4	20.6
2009.....	19.5	18.5	17.0	18.2	27.9	25.5	30.0	33.3	34.3	29.0	38.8	38.4
2010.....	46.1	48.3	58.8	63.9	56.0	55.2	56.4	53.7	51.9	58.2	57.7	58.6
2011.....	60.5	70.8	65.7	65.0								
Over 3-month span:												
2007.....	60.7	59.0	62.0	57.5	58.1	54.5	51.7	48.1	49.6	47.6	57.1	53.2
2008.....	57.1	47.6	47.9	43.3	37.6	32.4	30.9	27.7	26.0	26.0	22.1	19.9
2009.....	18.4	13.3	12.5	14.2	17.8	20.4	20.6	20.6	28.3	25.1	27.7	28.3
2010.....	32.2	39.7	50.9	59.0	64.0	60.7	56.9	56.4	56.0	58.8	59.2	62.9
2011.....	61.8	66.5	72.1	71.2								
Over 6-month span:												
2007.....	59.9	59.4	63.5	62.4	59.4	58.8	55.6	54.3	56.4	51.1	53.0	52.1
2008.....	50.6	51.7	51.7	49.4	42.3	36.1	33.1	29.6	26.6	27.2	23.6	22.3
2009.....	19.1	15.5	13.3	11.6	13.9	12.4	14.2	16.1	18.5	20.4	22.7	24.2
2010.....	25.1	26.4	34.1	45.5	51.9	55.6	58.8	63.1	63.3	58.4	59.6	61.8
2011.....	64.8	68.0	71.5	71.7								
Over 12-month span:												
2007.....	63.5	59.2	60.9	59.7	59.4	58.4	56.9	57.1	59.9	59.4	58.6	60.1
2008.....	54.9	56.6	53.0	47.0	48.1	43.8	40.6	39.7	36.0	32.6	28.5	26.6
2009.....	24.9	17.4	15.2	15.0	15.4	15.7	14.4	12.7	13.9	14.4	13.9	15.5
2010.....	15.7	15.5	18.9	23.4	28.1	35.0	41.8	42.1	45.1	50.6	54.7	58.6
2011.....	60.1	67.4	67.8	65.7								
<b>Manufacturing payrolls, 84 industries</b>												
Over 1-month span:												
2007.....	54.9	43.2	37.0	28.4	40.1	34.6	38.9	26.5	35.2	36.4	52.5	41.4
2008.....	41.4	36.4	43.8	35.8	41.4	24.7	17.9	22.2	19.1	22.2	11.1	7.4
2009.....	6.8	10.5	7.4	16.0	8.0	9.3	24.7	25.3	22.2	23.5	32.7	37.7
2010.....	38.9	53.1	53.7	66.7	62.3	51.2	51.9	44.4	49.4	45.1	58.0	59.3
2011.....	73.5	67.9	63.0	64.8								
Over 3-month span:												
2007.....	42.0	35.8	46.9	32.1	33.3	35.2	30.9	29.6	24.1	23.5	35.8	40.1
2008.....	50.0	37.7	35.8	33.3	34.0	27.2	19.8	11.7	15.4	13.6	13.6	7.4
2009.....	5.6	2.5	4.3	8.6	7.4	6.8	4.9	8.0	17.9	14.2	20.4	24.1
2010.....	29.6	43.8	48.8	60.5	65.4	63.0	56.8	51.2	49.4	44.4	54.9	56.2
2011.....	64.2	72.8	75.9	71.6								
Over 6-month span:												
2007.....	35.2	32.1	33.3	35.2	34.6	38.9	34.0	27.2	27.2	23.5	30.2	24.7
2008.....	25.9	28.4	41.4	39.5	35.8	29.6	22.2	18.5	10.5	15.4	13.6	11.7
2009.....	7.4	4.9	2.5	4.3	2.5	6.2	8.6	6.2	6.2	6.2	8.6	14.2
2010.....	16.7	19.8	30.2	42.0	49.4	54.3	60.5	61.7	61.7	48.8	51.9	54.9
2011.....	59.9	66.7	69.1	72.8								
Over 12-month span:												
2007.....	39.5	36.4	37.0	31.5	29.6	30.2	30.2	28.4	32.7	29.6	35.2	36.4
2008.....	28.4	29.6	26.5	24.7	30.2	25.9	22.2	19.8	23.5	19.1	15.4	13.6
2009.....	7.4	3.7	4.9	6.2	3.7	4.9	7.4	3.7	4.9	4.9	3.7	4.3
2010.....	5.6	1.2	6.2	7.4	18.5	25.9	35.8	35.2	40.1	45.7	48.8	54.9
2011.....	58.6	63.0	63.6	61.7								

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							
	2010			2011				2010			2011				
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. <sup>P</sup>	Apr. <sup>P</sup>	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. <sup>P</sup>	Apr. <sup>P</sup>	
Total <sup>2</sup> .....	2,905	2,966	2,921	2,741	3,025	3,123	2,972	2.2	2.2	2.2	2.1	2.3	2.3	2.2	
<b>Industry</b>															
Total private <sup>2</sup> .....	2,560	2,639	2,500	2,418	2,695	2,793	2,657	2.3	2.4	2.3	2.2	2.4	2.5	2.4	
Construction.....	69	94	44	60	55	68	96	1.2	1.7	0.8	1.1	1.0	1.2	1.7	
Manufacturing.....	193	213	184	207	209	235	230	1.6	1.8	1.6	1.7	1.8	2.0	1.9	
Trade, transportation, and utilities.....	445	430	463	470	448	472	484	1.8	1.7	1.8	1.9	1.8	1.9	1.9	
Professional and business services.....	575	647	609	459	606	613	522	3.3	3.7	3.5	2.6	3.4	3.5	3.0	
Education and health services.....	569	528	510	482	553	609	544	2.8	2.6	2.5	2.4	2.7	3.0	2.7	
Leisure and hospitality.....	274	253	270	301	378	340	311	2.1	1.9	2.0	2.3	2.8	2.5	2.3	
Government.....	345	327	421	323	330	331	315	1.5	1.4	1.9	1.4	1.5	1.5	1.4	
<b>Region<sup>3</sup></b>															
Northeast.....	605	603	548	492	594	675	542	2.4	2.4	2.2	1.9	2.3	2.6	2.1	
South.....	1,084	1,053	1,023	960	1,082	1,082	1,003	2.2	2.2	2.1	2.0	2.2	2.2	2.1	
Midwest.....	584	634	617	513	630	672	670	1.9	2.1	2.0	1.7	2.1	2.2	2.2	
West.....	740	769	829	573	715	752	685	2.5	2.6	2.8	2.0	2.4	2.5	2.3	

<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 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							
	2010			2011				2010			2011				
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. <sup>P</sup>	Apr. <sup>P</sup>	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. <sup>P</sup>	Apr. <sup>P</sup>	
Total <sup>2</sup> .....	3,865	3,943	3,905	3,769	3,986	4,067	3,972	3.0	3.0	3.0	2.9	3.1	3.1	3.0	
<b>Industry</b>															
Total private <sup>2</sup> .....	3,580	3,668	3,631	3,494	3,729	3,807	3,710	3.3	3.4	3.4	3.2	3.4	3.5	3.4	
Construction.....	331	324	356	254	369	338	339	6.0	5.9	6.5	4.6	6.7	6.1	6.1	
Manufacturing.....	259	272	264	246	250	269	257	2.2	2.4	2.3	2.1	2.1	2.3	2.2	
Trade, transportation, and utilities.....	777	799	756	783	816	803	795	3.1	3.2	3.1	3.2	3.3	3.2	3.2	
Professional and business services.....	730	761	780	810	791	840	798	4.4	4.5	4.6	4.8	4.7	4.9	4.7	
Education and health services.....	465	491	465	437	468	470	461	2.4	2.5	2.4	2.2	2.4	2.4	2.3	
Leisure and hospitality.....	596	590	596	588	632	681	672	4.6	4.5	4.6	4.5	4.8	5.2	5.1	
Government.....	285	275	274	275	257	260	262	1.3	1.2	1.2	1.2	1.2	1.2	1.2	
<b>Region<sup>3</sup></b>															
Northeast.....	690	701	680	633	646	717	688	2.8	2.8	2.7	2.5	2.6	2.9	2.8	
South.....	1,449	1,572	1,513	1,412	1,466	1,535	1,475	3.1	3.3	3.2	3.0	3.1	3.2	3.1	
Midwest.....	880	879	878	920	901	862	935	3.0	3.0	3.0	3.1	3.0	2.9	3.1	
West.....	839	883	806	939	862	851	842	2.9	3.1	2.8	3.3	3.0	3.0	2.9	

<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							
	2010			2011				2010			2011				
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. <sup>P</sup>	Apr. <sup>P</sup>	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. <sup>P</sup>	Apr. <sup>P</sup>	
Total <sup>2</sup> .....	3,702	3,869	3,836	3,612	3,825	3,805	3,743	2.8	3.0	2.9	2.8	2.9	2.9	2.9	
<b>Industry</b>															
Total private <sup>2</sup> .....	3,436	3,568	3,539	3,337	3,538	3,534	3,455	3.2	3.3	3.3	3.1	3.3	3.3	3.2	
Construction.....	323	342	393	281	324	334	345	5.9	6.2	7.2	5.1	5.9	6.0	6.3	
Manufacturing.....	266	265	252	184	234	245	233	2.3	2.3	2.2	1.6	2.0	2.1	2.0	
Trade, transportation, and utilities.....	741	773	718	769	800	772	733	3.0	3.1	2.9	3.1	3.2	3.1	3.0	
Professional and business services.....	709	687	735	756	760	719	731	4.2	4.1	4.3	4.5	4.5	4.2	4.3	
Education and health services.....	408	460	450	394	441	429	422	2.1	2.3	2.3	2.0	2.2	2.2	2.1	
Leisure and hospitality.....	613	595	583	596	582	650	619	4.7	4.6	4.5	4.6	4.4	4.9	4.7	
Government.....	265	300	297	275	287	271	287	1.2	1.3	1.3	1.2	1.3	1.2	1.3	
<b>Region<sup>3</sup></b>															
Northeast.....	678	715	598	569	703	649	757	2.7	2.9	2.4	2.3	2.8	2.6	3.0	
South.....	1,290	1,407	1,476	1,499	1,451	1,519	1,394	2.7	3.0	3.1	3.2	3.1	3.2	2.9	
Midwest.....	822	890	841	912	830	912	921	2.8	3.0	2.8	3.1	2.8	3.1	3.1	
West.....	782	829	759	817	857	872	858	2.7	2.9	2.7	2.9	3.0	3.0	3.0	

<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							
	2010			2011				2010			2011				
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. <sup>P</sup>	Apr. <sup>P</sup>	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. <sup>P</sup>	Apr. <sup>P</sup>	
Total <sup>2</sup> .....	1,755	1,756	1,838	1,679	1,910	1,924	1,857	1.4	1.3	1.4	1.3	1.5	1.5	1.4	
<b>Industry</b>															
Total private <sup>2</sup> .....	1,654	1,653	1,731	1,572	1,793	1,820	1,747	1.5	1.5	1.6	1.5	1.7	1.7	1.6	
Construction.....	77	56	81	56	62	72	89	1.4	1.0	1.5	1.0	1.1	1.3	1.6	
Manufacturing.....	95	103	107	83	94	115	103	.8	.9	.9	.7	.8	1.0	.9	
Trade, transportation, and utilities.....	376	388	373	338	442	443	412	1.5	1.6	1.5	1.4	1.8	1.8	1.7	
Professional and business services.....	342	317	335	361	396	357	342	2.0	1.9	2.0	2.1	2.3	2.1	2.0	
Education and health services.....	228	248	244	206	241	251	232	1.2	1.3	1.2	1.0	1.2	1.3	1.2	
Leisure and hospitality.....	357	335	368	352	353	382	386	2.7	2.6	2.8	2.7	2.7	2.9	2.9	
Government.....	101	102	107	107	117	104	111	.5	.5	.5	.5	.5	.5	.5	
<b>Region<sup>3</sup></b>															
Northeast.....	266	248	251	214	335	293	274	1.1	1.0	1.0	.9	1.3	1.2	1.1	
South.....	679	702	761	656	779	779	737	1.4	1.5	1.6	1.4	1.6	1.6	1.6	
Midwest.....	415	403	411	368	455	437	452	1.4	1.4	1.4	1.2	1.5	1.5	1.5	
West.....	377	367	343	366	447	455	390	1.3	1.3	1.2	1.3	1.6	1.6	1.4	

<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 2010.

County by NAICS supersector	Establishments, third quarter 2010 (thousands)	Employment		Average weekly wage <sup>1</sup>	
		September 2010 (thousands)	Percent change, September 2009-10 <sup>2</sup>	Third quarter 2010	Percent change, third quarter 2009-10 <sup>2</sup>
United States <sup>3</sup> .....	9,044.4	128,440.4	0.2	\$870	3.4
Private industry .....	8,746.3	107,007.4	.4	861	4.0
Natural resources and mining .....	126.9	1,926.7	3.3	884	5.7
Construction .....	796.6	5,686.9	-4.6	946	1.3
Manufacturing .....	343.4	11,584.3	-3	1,074	6.8
Trade, transportation, and utilities .....	1,877.4	24,381.8	-2	742	4.4
Information .....	144.5	2,701.5	-2.3	1,416	7.4
Financial activities .....	818.0	7,379.9	-1.7	1,235	4.6
Professional and business services .....	1,544.9	16,869.8	3.3	1,093	3.1
Education and health services .....	893.5	18,661.9	1.9	842	2.8
Leisure and hospitality .....	748.6	13,292.8	.7	370	3.6
Other services .....	1,267.9	4,342.8	-1	562	3.5
Government .....	298.0	21,433.0	-8	918	1.2
Los Angeles, CA .....	427.0	3,844.5	-8	972	3.1
Private industry .....	421.4	3,311.1	-3	948	3.6
Natural resources and mining .....	.5	10.8	5.9	1,903	45.9
Construction .....	13.0	104.2	-9.3	1,010	-1.6
Manufacturing .....	13.5	374.1	-1.7	1,079	4.6
Trade, transportation, and utilities .....	52.2	732.2	.1	783	2.9
Information .....	8.5	196.9	1.2	1,644	3.1
Financial activities .....	22.4	209.4	-1.1	1,456	8.4
Professional and business services .....	42.0	528.2	.9	1,145	1.1
Education and health services .....	29.0	508.8	2.6	931	2.6
Leisure and hospitality .....	27.1	390.4	.9	544	2.6
Other services .....	200.8	248.5	-5.9	451	7.9
Government .....	5.6	533.4	-4.0	1,123	1.1
Cook, IL .....	143.4	2,354.8	-4	1,008	3.2
Private industry .....	142.0	2,055.8	-1	1,000	3.5
Natural resources and mining .....	.1	1.0	-8.4	1,051	7.5
Construction .....	12.2	67.2	-10.0	1,228	-3.3
Manufacturing .....	6.7	194.3	-1.0	1,069	6.3
Trade, transportation, and utilities .....	27.7	428.9	.2	784	3.2
Information .....	2.6	51.0	-3.5	1,439	6.4
Financial activities .....	15.4	187.9	-2.8	1,644	7.6
Professional and business services .....	30.2	407.7	2.6	1,259	1.7
Education and health services .....	14.9	391.0	( <sup>4</sup> )	903	( <sup>4</sup> )
Leisure and hospitality .....	12.4	230.9	.2	463	4.5
Other services .....	15.4	92.5	( <sup>4</sup> )	761	5.3
Government .....	1.4	298.9	-2.5	1,067	1.5
New York, NY .....	120.9	2,273.0	1.2	1,572	4.7
Private industry .....	120.6	1,834.9	1.6	1,685	4.6
Natural resources and mining .....	.0	.1	-5.0	1,853	-9.3
Construction .....	2.2	30.5	-7.0	1,608	3.5
Manufacturing .....	2.5	26.7	-2.5	1,256	6.1
Trade, transportation, and utilities .....	21.1	233.4	2.2	1,130	2.4
Information .....	4.4	131.0	-8	2,042	7.8
Financial activities .....	19.0	348.8	1.3	2,903	5.5
Professional and business services .....	25.6	458.2	1.9	1,880	3.8
Education and health services .....	9.1	290.0	1.7	1,147	5.5
Leisure and hospitality .....	12.3	223.3	3.2	756	3.7
Other services .....	18.6	86.3	.2	1,026	9.5
Government .....	.3	438.1	-6	1,098	3.8
Harris, TX .....	100.0	1,995.8	1.1	1,083	3.9
Private industry .....	99.4	1,734.1	1.0	1,095	4.6
Natural resources and mining .....	1.6	75.2	4.0	2,692	3.9
Construction .....	6.5	133.6	-3.4	1,038	.6
Manufacturing .....	4.5	169.0	.4	1,357	6.6
Trade, transportation, and utilities .....	22.5	415.8	.2	969	5.4
Information .....	1.3	27.9	-5.1	1,298	6.1
Financial activities .....	10.4	111.4	-2.8	1,283	5.5
Professional and business services .....	19.8	322.3	2.8	1,310	4.6
Education and health services .....	11.1	238.7	3.5	902	3.7
Leisure and hospitality .....	8.0	179.2	1.2	398	2.3
Other services .....	13.2	59.8	3.0	620	2.1
Government .....	.6	261.7	( <sup>4</sup> )	1,003	( <sup>4</sup> )
Maricopa, AZ .....	95.0	1,597.0	-5	859	2.4
Private industry .....	94.3	1,382.4	-3	851	2.9
Natural resources and mining .....	.5	6.5	-12.0	787	9.8
Construction .....	8.9	80.4	-10.0	892	2.4
Manufacturing .....	3.2	106.6	-2.6	1,250	9.6
Trade, transportation, and utilities .....	22.0	328.7	-1.0	797	4.2
Information .....	1.5	26.7	1.3	1,118	2.2
Financial activities .....	11.3	131.2	-2.1	1,025	2.9
Professional and business services .....	22.0	259.5	.7	896	.4
Education and health services .....	10.4	231.5	( <sup>4</sup> )	919	( <sup>4</sup> )
Leisure and hospitality .....	6.9	165.5	.3	409	3.0
Other services .....	6.8	45.1	-3	571	2.5
Government .....	.7	214.6	-1.8	915	-7

See footnotes at end of table.

22. Continued—Quarterly Census of Employment and Wages: 10 largest counties, third quarter 2010.

County by NAICS supersector	Establishments, third quarter 2010 (thousands)	Employment		Average weekly wage <sup>1</sup>	
		September 2010 (thousands)	Percent change, September 2009-10 <sup>2</sup>	Third quarter 2010	Percent change, third quarter 2009-10 <sup>2</sup>
Dallas, TX .....	67.8	1,415.0	0.9	\$1,032	2.0
Private industry .....	67.3	1,246.2	.9	1,035	2.0
Natural resources and mining .....	.6	8.4	10.9	2,861	-.1
Construction .....	4.0	69.2	-3.6	944	-.4
Manufacturing .....	2.9	113.1	-3.8	1,174	2.2
Trade, transportation, and utilities .....	14.9	279.8	.1	961	2.9
Information .....	1.6	45.1	-.3	1,507	3.5
Financial activities .....	8.5	136.0	-.8	1,329	2.5
Professional and business services .....	14.8	261.7	3.7	1,175	1.2
Education and health services .....	7.0	165.3	3.4	962	2.2
Leisure and hospitality .....	5.5	128.5	1.7	462	2.0
Other services .....	7.0	38.2	1.7	642	1.4
Government .....	.5	168.9	1.0	1,005	1.5
Orange, CA .....	101.7	1,348.8	-.1	975	2.8
Private industry .....	100.4	1,215.9	-.3	966	3.2
Natural resources and mining .....	.2	3.9	-1.9	620	-2.7
Construction .....	6.4	67.9	-5.0	1,073	-3.1
Manufacturing .....	5.0	151.0	-.4	1,244	9.0
Trade, transportation, and utilities .....	16.4	243.5	-.4	905	4.3
Information .....	1.3	24.3	-8.2	1,463	8.0
Financial activities .....	9.8	104.0	.2	1,363	5.2
Professional and business services .....	18.8	244.0	2.0	1,092	.3
Education and health services .....	10.4	154.5	2.9	940	1.4
Leisure and hospitality .....	7.1	171.7	.1	431	4.9
Other services .....	20.7	48.4	.5	539	2.5
Government .....	1.4	132.9	-2.9	1,060	.2
San Diego, CA .....	97.7	1,238.6	.4	943	2.7
Private industry .....	96.3	1,021.5	.4	917	2.8
Natural resources and mining .....	.7	10.7	5.6	582	.7
Construction .....	6.4	55.7	-5.5	1,045	.6
Manufacturing .....	3.0	93.0	.1	1,326	7.2
Trade, transportation, and utilities .....	13.7	196.4	-.3	742	1.6
Information .....	1.2	25.0	-2.8	1,572	10.1
Financial activities .....	8.6	66.9	-1.4	1,119	4.0
Professional and business services .....	16.2	210.8	1.8	1,223	.2
Education and health services .....	8.4	145.5	2.8	907	2.4
Leisure and hospitality .....	7.0	157.4	.3	425	4.9
Other services .....	27.3	57.7	.1	540	11.6
Government .....	1.4	217.1	.2	1,069	( <sup>4</sup> )
King, WA .....	83.0	1,121.8	.1	1,234	4.7
Private industry .....	82.4	967.6	.1	1,248	4.6
Natural resources and mining .....	.4	2.9	-4.4	1,162	9.5
Construction .....	6.0	49.1	-8.8	1,134	1.1
Manufacturing .....	2.3	97.3	-2.4	1,455	10.4
Trade, transportation, and utilities .....	14.9	204.5	.4	977	6.8
Information .....	1.8	79.9	1.0	3,605	6.4
Financial activities .....	6.6	64.6	-4.4	1,297	-1.3
Professional and business services .....	14.3	177.8	3.2	1,329	4.7
Education and health services .....	7.0	130.3	.2	930	3.6
Leisure and hospitality .....	6.5	109.8	-.1	456	.2
Other services .....	22.8	51.4	8.6	572	-4.7
Government .....	.6	154.2	.1	1,142	( <sup>4</sup> )
Miami-Dade, FL .....	85.0	940.9	.3	853	1.5
Private industry .....	84.7	797.9	.7	819	1.7
Natural resources and mining .....	.5	6.8	-.2	489	.6
Construction .....	5.3	31.4	-9.3	859	-.2
Manufacturing .....	2.6	34.7	-4.3	805	5.6
Trade, transportation, and utilities .....	24.1	236.4	1.9	757	1.6
Information .....	1.5	17.1	-1.5	1,289	5.5
Financial activities .....	9.0	60.4	-1.0	1,216	5.6
Professional and business services .....	17.8	121.5	.4	993	-2.8
Education and health services .....	9.6	149.6	1.0	862	4.5
Leisure and hospitality .....	6.3	104.8	3.7	497	4.6
Other services .....	7.7	34.8	1.5	553	2.6
Government .....	.4	143.0	-1.8	1,047	1.1

<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, third quarter 2010.

State	Establishments, third quarter 2010 (thousands)	Employment		Average weekly wage <sup>1</sup>	
		September 2010 (thousands)	Percent change, September 2009-10	Third quarter 2010	Percent change, third quarter 2009-10
United States <sup>2</sup> .....	9,044.4	128,440.4	0.2	\$870	3.4
Alabama .....	116.8	1,813.9	-.1	774	4.0
Alaska .....	21.4	333.5	1.3	926	4.4
Arizona .....	147.2	2,342.3	-.9	821	2.6
Arkansas .....	85.6	1,147.0	.8	684	3.8
California .....	1,347.5	14,469.7	-.3	982	3.3
Colorado .....	173.2	2,183.8	-.2	898	2.5
Connecticut .....	111.4	1,611.9	.0	1,069	4.3
Delaware .....	28.4	404.7	.8	902	2.4
District of Columbia .....	35.0	693.8	2.0	1,471	1.2
Florida .....	595.2	7,045.3	.0	780	2.8
Georgia .....	268.2	3,749.9	-.1	823	2.7
Hawaii .....	38.9	585.6	-.1	804	2.2
Idaho .....	55.0	616.8	-1.1	667	3.1
Illinois .....	378.6	5,539.5	.0	916	4.0
Indiana .....	157.2	2,736.7	.8	742	3.9
Iowa .....	94.3	1,439.8	-.5	719	3.6
Kansas .....	87.5	1,296.1	-1.0	731	3.5
Kentucky .....	110.1	1,728.3	.8	729	3.3
Louisiana .....	131.0	1,834.8	.0	790	3.9
Maine .....	49.2	589.4	-.6	714	3.6
Maryland .....	163.8	2,469.7	.5	966	2.7
Massachusetts .....	221.1	3,169.8	.8	1,069	4.5
Michigan .....	247.6	3,825.9	.9	840	3.8
Minnesota .....	164.7	2,574.3	.4	875	4.7
Mississippi .....	69.5	1,077.4	.0	653	2.8
Missouri .....	174.5	2,596.8	-.5	764	2.7
Montana .....	42.4	428.7	.0	647	1.6
Nebraska .....	60.0	899.8	-.2	708	2.8
Nevada .....	71.2	1,106.8	-1.7	815	1.2
New Hampshire .....	48.4	608.9	.1	854	2.9
New Jersey .....	265.6	3,759.0	-.4	1,024	2.8
New Mexico .....	54.8	785.9	-1.0	745	2.9
New York .....	591.6	8,364.2	.5	1,057	4.3
North Carolina .....	251.7	3,806.2	-.3	768	3.1
North Dakota .....	26.4	366.1	3.0	726	6.8
Ohio .....	286.4	4,942.1	.3	791	3.4
Oklahoma .....	102.2	1,487.5	-.2	726	4.0
Oregon .....	131.0	1,620.5	.3	791	3.1
Pennsylvania .....	341.0	5,500.9	.9	860	4.1
Rhode Island .....	35.2	456.0	.8	826	4.2
South Carolina .....	111.4	1,763.7	.5	714	3.9
South Dakota .....	30.9	393.7	.4	660	4.3
Tennessee .....	139.6	2,578.3	.8	777	4.3
Texas .....	572.4	10,204.5	1.5	876	3.7
Utah .....	83.7	1,160.6	.5	740	2.2
Vermont .....	24.4	294.3	.5	752	2.6
Virginia .....	232.9	3,544.1	.4	930	3.8
Washington .....	237.0	2,855.7	-.3	953	4.0
West Virginia .....	48.4	699.4	1.1	702	4.3
Wisconsin .....	157.6	2,657.7	.5	752	3.6
Wyoming .....	25.2	278.9	.0	793	4.9
Puerto Rico .....	49.6	910.0	-2.7	502	1.6
Virgin Islands .....	3.6	43.5	2.3	754	4.3

<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>					
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
2007	8,971,897	135,366,106	6,018,089,108	44,458	855
2008	9,082,049	134,805,659	6,142,159,200	45,563	876
2009	9,003,197	128,607,842	5,859,232,422	45,559	876
<b>UI covered</b>					
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
2007	8,908,198	132,639,806	5,841,231,314	44,038	847
2008	9,017,717	132,043,604	5,959,055,276	45,129	868
2009	8,937,616	125,781,130	5,667,704,722	45,060	867
<b>Private industry covered</b>					
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
2007	8,681,001	114,012,221	5,057,840,759	44,362	853
2008	8,789,360	113,188,643	5,135,487,891	45,371	873
2009	8,709,115	106,947,104	4,829,211,805	45,155	868
<b>State government covered</b>					
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
2007	67,381	4,611,395	211,677,002	45,903	883
2008	67,675	4,642,650	222,754,925	47,980	923
2009	67,075	4,639,715	226,148,903	48,742	937
<b>Local government covered</b>					
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
2007	159,816	14,016,190	571,713,553	40,790	784
2008	160,683	14,212,311	600,812,461	42,274	813
2009	161,427	14,194,311	612,344,014	43,140	830
<b>Federal government covered (UCFE)</b>					
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
2007	63,699	2,726,300	176,857,794	64,871	1,248
2008	64,332	2,762,055	183,103,924	66,293	1,275
2009	65,581	2,826,713	191,527,700	67,756	1,303

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 2009**

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 .....	8,673,470	5,396,379	1,372,066	917,124	619,710	208,342	116,230	28,460	10,018	5,141
Employment, March .....	106,811,928	7,655,167	9,090,916	12,402,665	18,661,722	14,311,905	17,267,316	9,739,523	6,812,850	10,869,864
<b>Natural resources and mining</b>										
Establishments, first quarter .....	125,678	71,920	23,395	14,867	9,674	3,218	1,798	557	189	60
Employment, March .....	1,671,238	114,506	154,613	200,225	290,721	219,346	272,879	190,717	127,225	101,006
<b>Construction</b>										
Establishments, first quarter .....	841,895	593,637	117,797	69,486	42,421	12,009	5,208	1,004	254	79
Employment, March .....	5,927,257	750,065	771,369	934,164	1,265,441	817,103	768,721	335,349	170,276	114,769
<b>Manufacturing</b>										
Establishments, first quarter .....	353,643	145,720	59,845	52,049	48,545	22,752	16,627	5,187	1,972	946
Employment, March .....	12,092,961	244,232	401,010	715,491	1,510,229	1,588,920	2,528,984	1,779,448	1,333,297	1,991,350
<b>Trade, transportation, and utilities</b>										
Establishments, first quarter .....	1,894,905	1,033,036	375,292	246,643	148,518	49,772	32,487	7,193	1,500	464
Employment, March .....	24,586,392	1,677,443	2,499,579	3,315,288	4,451,666	3,466,697	4,754,309	2,475,362	986,198	959,850
<b>Information</b>										
Establishments, first quarter .....	146,483	86,433	20,709	15,824	13,049	5,437	3,310	1,046	458	217
Employment, March .....	2,855,390	116,231	137,955	215,809	401,856	374,575	498,814	363,892	311,123	435,135
<b>Financial activities</b>										
Establishments, first quarter .....	841,782	557,483	151,027	76,069	37,169	11,153	5,768	1,759	907	447
Employment, March .....	7,643,521	858,488	993,689	1,001,354	1,107,323	763,190	864,862	608,781	630,533	815,301
<b>Professional and business services</b>										
Establishments, first quarter .....	1,517,365	1,055,297	196,348	124,698	83,581	30,884	18,369	5,326	2,047	815
Employment, March .....	16,516,273	1,410,994	1,290,519	1,682,005	2,542,519	2,131,798	2,769,134	1,819,751	1,394,329	1,475,224
<b>Education and health services</b>										
Establishments, first quarter .....	858,136	417,186	184,310	120,602	78,973	28,774	20,050	4,427	1,976	1,838
Employment, March .....	18,268,572	733,986	1,225,826	1,623,193	2,380,692	2,002,526	3,016,357	1,503,953	1,376,575	4,405,464
<b>Leisure and hospitality</b>										
Establishments, first quarter .....	733,354	283,960	124,005	140,576	133,542	38,935	9,942	1,532	603	259
Employment, March .....	12,723,443	448,520	837,732	1,973,561	4,006,199	2,578,345	1,402,865	518,812	411,444	545,965
<b>Other services</b>										
Establishments, first quarter .....	1,193,934	988,947	116,718	55,617	24,052	5,381	2,663	428	112	16
Employment, March .....	4,361,271	1,168,997	762,081	732,752	699,997	367,591	389,163	143,040	71,850	25,800

<sup>1</sup> Includes establishments that reported no workers in March 2009.

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 2008 and 2009 for all covered workers<sup>1</sup> by metropolitan area**

Metropolitan area <sup>2</sup>	Average annual wages <sup>3</sup>		
	2008	2009	Percent change, 2008-09
Metropolitan areas <sup>4</sup> .....	\$47,194	\$47,127	-0.1
Abilene, TX .....	32,649	32,807	0.5
Aguadilla-Isabela-San Sebastian, PR .....	20,714	21,887	5.7
Akron, OH .....	40,376	40,447	0.2
Albany, GA .....	34,314	35,160	2.5
Albany-Schenectady-Troy, NY .....	43,912	44,859	2.2
Albuquerque, NM .....	39,342	40,301	2.4
Alexandria, LA .....	34,783	35,446	1.9
Allentown-Bethlehem-Easton, PA-NJ .....	42,500	42,577	0.2
Altoona, PA .....	32,986	33,827	2.5
Amarillo, TX .....	38,215	37,938	-0.7
Ames, IA .....	38,558	39,301	1.9
Anchorage, AK .....	46,935	48,345	3.0
Anderson, IN .....	31,326	31,363	0.1
Anderson, SC .....	32,322	32,599	0.9
Ann Arbor, MI .....	48,987	48,925	-0.1
Anniston-Oxford, AL .....	36,227	36,773	1.5
Appleton, WI .....	37,522	37,219	-0.8
Asheville, NC .....	34,070	34,259	0.6
Athens-Clarke County, GA .....	35,503	35,948	1.3
Atlanta-Sandy Springs-Marietta, GA .....	48,064	48,156	0.2
Atlantic City, NJ .....	40,337	39,810	-1.3
Auburn-Opelika, AL .....	32,651	33,367	2.2
Augusta-Richmond County, GA-SC .....	38,068	38,778	1.9
Austin-Round Rock, TX .....	47,355	47,183	-0.4
Bakersfield, CA .....	39,476	40,046	1.4
Baltimore-Towson, MD .....	48,438	49,214	1.6
Bangor, ME .....	33,829	34,620	2.3
Barnstable Town, MA .....	38,839	38,970	0.3
Baton Rouge, LA .....	41,961	42,677	1.7
Battle Creek, MI .....	42,782	43,555	1.8
Bay City, MI .....	36,489	36,940	1.2
Beaumont-Port Arthur, TX .....	43,302	43,224	-0.2
Bellingham, WA .....	35,864	36,757	2.5
Bend, OR .....	35,044	35,336	0.8
Billings, MT .....	36,155	36,660	1.4
Binghamton, NY .....	37,731	38,200	1.2
Birmingham-Hoover, AL .....	43,651	43,783	0.3
Bismarck, ND .....	35,389	36,082	2.0
Blacksburg-Christiansburg-Radford, VA .....	35,272	35,344	0.2
Bloomington, IN .....	33,220	33,828	1.8
Bloomington-Normal, IL .....	43,918	44,925	2.3
Boise City-Nampa, ID .....	37,315	37,410	0.3
Boston-Cambridge-Quincy, MA-NH .....	61,128	60,549	-0.9
Boulder, CO .....	53,455	52,433	-1.9
Bowling Green, KY .....	34,861	34,824	-0.1
Bremerton-Silverdale, WA .....	40,421	42,128	4.2
Bridgeport-Stamford-Norwalk, CT .....	80,018	77,076	-3.7
Brownsville-Harlingen, TX .....	28,342	28,855	1.8
Brunswick, GA .....	34,458	34,852	1.1
Buffalo-Niagara Falls, NY .....	38,984	39,218	0.6
Burlington, NC .....	34,283	33,094	-3.5
Burlington-South Burlington, VT .....	43,559	44,101	1.2
Canton-Massillon, OH .....	34,897	34,726	-0.5
Cape Coral-Fort Myers, FL .....	37,866	37,641	-0.6
Carson City, NV .....	43,858	44,532	1.5
Casper, WY .....	43,851	42,385	-3.3
Cedar Rapids, IA .....	42,356	41,874	-1.1
Champaign-Urbana, IL .....	37,408	38,478	2.9
Charleston, WV .....	40,442	41,436	2.5
Charleston-North Charleston, SC .....	38,035	38,766	1.9
Charlotte-Gastonia-Concord, NC-SC .....	47,332	46,291	-2.2
Charlottesville, VA .....	41,777	42,688	2.2
Chattanooga, TN-GA .....	37,258	37,839	1.6
Cheyenne, WY .....	37,452	38,378	2.5
Chicago-Naperville-Joliet, IL-IN-WI .....	51,775	51,048	-1.4
Chico, CA .....	34,310	35,179	2.5
Cincinnati-Middletown, OH-KY-IN .....	43,801	44,012	0.5
Clarksville, TN-KY .....	32,991	33,282	0.9
Cleveland, TN .....	35,010	35,029	0.1
Cleveland-Elyria-Mentor, OH .....	43,467	43,256	-0.5
Coeur d'Alene, ID .....	31,353	31,513	0.5
College Station-Bryan, TX .....	33,967	34,332	1.1
Colorado Springs, CO .....	40,973	41,885	2.2
Columbia, MO .....	34,331	35,431	3.2
Columbia, SC .....	37,514	38,314	2.1
Columbus, GA-AL .....	35,067	35,614	1.6
Columbus, IN .....	42,610	41,540	-2.5
Columbus, OH .....	43,533	43,877	0.8
Corpus Christi, TX .....	38,771	38,090	-1.8
Corvallis, OR .....	42,343	42,700	0.8

See footnotes at end of table.

**26. Continued — Average annual wages for 2008 and 2009 for all covered workers<sup>1</sup> by metropolitan area**

Metropolitan area <sup>2</sup>	Average annual wages <sup>3</sup>		
	2008	2009	Percent change, 2008-09
Cumberland, MD-WV .....	\$32,583	\$33,409	2.5
Dallas-Fort Worth-Arlington, TX .....	50,331	49,965	-0.7
Dalton, GA .....	34,403	35,024	1.8
Danville, IL .....	35,602	35,552	-0.1
Danville, VA .....	30,580	30,778	0.6
Davenport-Moline-Rock Island, IA-IL .....	40,425	40,790	0.9
Dayton, OH .....	40,824	40,972	0.4
Decatur, AL .....	36,855	37,145	0.8
Decatur, IL .....	42,012	41,741	-0.6
Deltona-Daytona Beach-Ormond Beach, FL .....	32,938	33,021	0.3
Denver-Aurora, CO .....	51,270	51,733	0.9
Des Moines, IA .....	43,918	44,073	0.4
Detroit-Warren-Livonia, MI .....	50,081	48,821	-2.5
Dothan, AL .....	32,965	33,888	2.8
Dover, DE .....	36,375	37,039	1.8
Dubuque, IA .....	35,656	35,665	0.0
Duluth, MN-WI .....	36,307	36,045	-0.7
Durham, NC .....	53,700	54,857	2.2
Eau Claire, WI .....	33,549	34,186	1.9
El Centro, CA .....	33,239	34,220	3.0
Elizabethtown, KY .....	33,728	34,970	3.7
Elkhart-Goshen, IN .....	35,858	35,823	-0.1
Elmira, NY .....	36,984	36,995	0.0
El Paso, TX .....	31,837	32,665	2.6
Erie, PA .....	35,992	35,995	0.0
Eugene-Springfield, OR .....	35,380	35,497	0.3
Evansville, IN-KY .....	38,304	38,219	-0.2
Fairbanks, AK .....	44,225	45,328	2.5
Fajardo, PR .....	22,984	23,467	2.1
Fargo, ND-MN .....	36,745	37,309	1.5
Farmington, NM .....	41,155	40,437	-1.7
Fayetteville, NC .....	34,619	35,755	3.3
Fayetteville-Springdale-Rogers, AR-MO .....	39,025	40,265	3.2
Flagstaff, AZ .....	35,353	36,050	2.0
Flint, MI .....	39,206	38,682	-1.3
Florence, SC .....	34,841	35,509	1.9
Florence-Muscle Shoals, AL .....	32,088	32,471	1.2
Fond du Lac, WI .....	36,166	35,667	-1.4
Fort Collins-Loveland, CO .....	40,154	40,251	0.2
Fort Smith, AR-OK .....	32,130	32,004	-0.4
Fort Walton Beach-Crestview-Destin, FL .....	36,454	37,823	3.8
Fort Wayne, IN .....	36,806	37,038	0.6
Fresno, CA .....	36,038	36,427	1.1
Gadsden, AL .....	31,718	32,652	2.9
Gainesville, FL .....	37,282	38,863	4.2
Gainesville, GA .....	37,929	37,924	0.0
Glens Falls, NY .....	34,531	35,215	2.0
Goldsboro, NC .....	30,607	30,941	1.1
Grand Forks, ND-MN .....	32,207	33,455	3.9
Grand Junction, CO .....	39,246	38,450	-2.0
Grand Rapids-Wyoming, MI .....	39,868	40,341	1.2
Great Falls, MT .....	31,962	32,737	2.4
Greeley, CO .....	38,700	37,656	-2.7
Green Bay, WI .....	39,247	39,387	0.4
Greensboro-High Point, NC .....	37,919	38,020	0.3
Greenville, NC .....	34,672	35,542	2.5
Greenville, SC .....	37,592	37,921	0.9
Guayama, PR .....	27,189	28,415	4.5
Gulfport-Biloxi, MS .....	35,700	36,251	1.5
Hagerstown-Martinsburg, MD-WV .....	36,472	36,459	0.0
Hanford-Corcoran, CA .....	35,374	35,402	0.1
Harrisburg-Carlisle, PA .....	42,330	43,152	1.9
Harrisonburg, VA .....	34,197	34,814	1.8
Hartford-West Hartford-East Hartford, CT .....	54,446	54,534	0.2
Hattiesburg, MS .....	31,629	32,320	2.2
Hickory-Lenoir-Morganton, NC .....	32,810	32,429	-1.2
Hinesville-Fort Stewart, GA .....	33,854	35,032	3.5
Holland-Grand Haven, MI .....	37,953	37,080	-2.3
Honolulu, HI .....	42,090	42,814	1.7
Hot Springs, AR .....	29,042	29,414	1.3
Houma-Bayou Cane-Thibodaux, LA .....	44,345	44,264	-0.2
Houston-Baytown-Sugar Land, TX .....	55,407	54,779	-1.1
Huntington-Ashland, WV-KY-OH .....	35,717	36,835	3.1
Huntsville, AL .....	47,427	49,240	3.8
Idaho Falls, ID .....	30,485	30,875	1.3
Indianapolis, IN .....	43,128	43,078	-0.1
Iowa City, IA .....	39,070	39,703	1.6
Ithaca, NY .....	41,689	42,779	2.6
Jackson, MI .....	38,672	38,635	-0.1
Jackson, MS .....	36,730	37,118	1.1

See footnotes at end of table.

**26. Continued — Average annual wages for 2008 and 2009 for all covered workers<sup>1</sup> by metropolitan area**

Metropolitan area <sup>2</sup>	Average annual wages <sup>3</sup>		
	2008	2009	Percent change, 2008-09
Jackson, TN .....	\$35,975	\$35,959	0.0
Jacksonville, FL .....	41,524	41,804	0.7
Jacksonville, NC .....	27,893	29,006	4.0
Janesville, WI .....	36,906	36,652	-0.7
Jefferson City, MO .....	33,766	34,474	2.1
Johnson City, TN .....	32,759	33,949	3.6
Johnstown, PA .....	32,464	33,238	2.4
Jonesboro, AR .....	31,532	31,793	0.8
Joplin, MO .....	32,156	32,741	1.8
Kalamazoo-Portage, MI .....	40,333	40,044	-0.7
Kankakee-Bradley, IL .....	34,451	34,539	0.3
Kansas City, MO-KS .....	44,155	44,331	0.4
Kennewick-Richland-Pasco, WA .....	41,878	43,705	4.4
Killeen-Temple-Fort Hood, TX .....	34,299	35,674	4.0
Kingsport-Bristol-Bristol, TN-VA .....	37,260	37,234	-0.1
Kingston, NY .....	35,883	36,325	1.2
Knoxville, TN .....	38,912	39,353	1.1
Kokomo, IN .....	44,117	42,248	-4.2
La Crosse, WI-MN .....	34,078	34,836	2.2
Lafayette, IN .....	37,832	38,313	1.3
Lafayette, LA .....	42,748	42,050	-1.6
Lake Charles, LA .....	39,982	39,263	-1.8
Lakeland, FL .....	35,195	35,485	0.8
Lancaster, PA .....	38,127	38,328	0.5
Lansing-East Lansing, MI .....	42,339	42,764	1.0
Laredo, TX .....	29,572	29,952	1.3
Las Cruces, NM .....	32,894	34,264	4.2
Las Vegas-Paradise, NV .....	43,120	42,674	-1.0
Lawrence, KS .....	32,313	32,863	1.7
Lawton, OK .....	32,258	33,206	2.9
Lebanon, PA .....	33,900	34,416	1.5
Lewiston, ID-WA .....	32,783	32,850	0.2
Lewiston-Auburn, ME .....	34,396	34,678	0.8
Lexington-Fayette, KY .....	40,034	40,446	1.0
Lima, OH .....	35,381	36,224	2.4
Lincoln, NE .....	35,834	36,281	1.2
Little Rock-North Little Rock, AR .....	38,902	40,331	3.7
Logan, UT-ID .....	29,392	29,608	0.7
Longview, TX .....	38,902	38,215	-1.8
Longview, WA .....	37,806	38,300	1.3
Los Angeles-Long Beach-Santa Ana, CA .....	51,520	51,344	-0.3
Louisville, KY-IN .....	40,596	41,101	1.2
Lubbock, TX .....	33,867	34,318	1.3
Lynchburg, VA .....	35,207	35,503	0.8
Macon, GA .....	34,823	35,718	2.6
Madera, CA .....	34,405	34,726	0.9
Madison, WI .....	42,623	42,861	0.6
Manchester-Nashua, NH .....	50,629	49,899	-1.4
Mansfield, OH .....	33,946	33,256	-2.0
Mayaguez, PR .....	22,394	23,634	5.5
McAllen-Edinburg-Pharr, TX .....	28,498	29,197	2.5
Medford, OR .....	33,402	34,047	1.9
Memphis, TN-MS-AR .....	43,124	43,318	0.4
Merced, CA .....	33,903	34,284	1.1
Miami-Fort Lauderdale-Miami Beach, FL .....	44,199	44,514	0.7
Michigan City-La Porte, IN .....	33,507	33,288	-0.7
Midland, TX .....	50,116	47,557	-5.1
Milwaukee-Waukesha-West Allis, WI .....	44,462	44,446	0.0
Minneapolis-St. Paul-Bloomington, MN-WI .....	51,044	50,107	-1.8
Missoula, MT .....	33,414	33,869	1.4
Mobile, AL .....	38,180	39,295	2.9
Modesto, CA .....	37,867	38,657	2.1
Monroe, LA .....	32,796	33,765	3.0
Monroe, MI .....	41,849	41,055	-1.9
Montgomery, AL .....	37,552	38,441	2.4
Morgantown, WV .....	37,082	38,637	4.2
Morristown, TN .....	32,858	32,903	0.1
Mount Vernon-Anacortes, WA .....	36,230	37,098	2.4
Muncie, IN .....	32,420	32,822	1.2
Muskegon-Norton Shores, MI .....	36,033	35,654	-1.1
Myrtle Beach-Conway-North Myrtle Beach, SC .....	28,450	28,132	-1.1
Napa, CA .....	45,061	45,174	0.3
Naples-Marco Island, FL .....	40,178	39,808	-0.9
Nashville-Davidson--Murfreesboro, TN .....	43,964	43,811	-0.3
New Haven-Milford, CT .....	48,239	48,681	0.9
New Orleans-Metairie-Kenner, LA .....	45,108	45,121	0.0
New York-Northern New Jersey-Long Island, NY-NJ-PA .....	66,548	63,773	-4.2
Niles-Benton Harbor, MI .....	38,814	39,097	0.7
Norwich-New London, CT .....	46,727	47,245	1.1
Ocala, FL .....	32,579	32,724	0.4

See footnotes at end of table.

**26. Continued — Average annual wages for 2008 and 2009 for all covered workers<sup>1</sup> by metropolitan area**

Metropolitan area <sup>2</sup>	Average annual wages <sup>3</sup>		
	2008	2009	Percent change, 2008-09
Ocean City, NJ .....	\$33,529	\$33,477	-0.2
Odessa, TX .....	44,316	42,295	-4.6
Ogden-Clearfield, UT .....	34,778	35,562	2.3
Oklahoma City, OK .....	39,363	39,525	0.4
Olympia, WA .....	40,714	41,921	3.0
Omaha-Council Bluffs, NE-IA .....	40,097	40,555	1.1
Orlando, FL .....	39,322	39,225	-0.2
Oshkosh-Neenah, WI .....	41,781	41,300	-1.2
Owensboro, KY .....	34,956	35,264	0.9
Oxnard-Thousand Oaks-Ventura, CA .....	46,490	47,066	1.2
Palm Bay-Melbourne-Titusville, FL .....	42,089	43,111	2.4
Panama City-Lynn Haven, FL .....	34,361	34,857	1.4
Parkersburg-Marietta, WV-OH .....	35,102	35,650	1.6
Pascagoula, MS .....	42,734	43,509	1.8
Pensacola-Ferry Pass-Brent, FL .....	34,629	35,683	2.5
Peoria, IL .....	44,562	44,747	0.4
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD .....	51,814	52,237	0.8
Phoenix-Mesa-Scottsdale, AZ .....	44,482	44,838	0.8
Pine Bluff, AR .....	34,106	34,588	1.4
Pittsburgh, PA .....	44,124	44,234	0.2
Pittsfield, MA .....	38,957	38,690	-0.7
Pocatello, ID .....	30,608	30,690	0.3
Ponce, PR .....	21,818	22,556	3.4
Portland-South Portland-Biddeford, ME .....	39,711	40,012	0.8
Portland-Vancouver-Beaverton, OR-WA .....	45,326	45,544	0.5
Port St. Lucie-Fort Pierce, FL .....	36,174	36,130	-0.1
Poughkeepsie-Newburgh-Middletown, NY .....	42,148	43,054	2.1
Prescott, AZ .....	33,004	32,927	-0.2
Providence-New Bedford-Fall River, RI-MA .....	42,141	42,428	0.7
Provo-Orem, UT .....	35,516	35,695	0.5
Pueblo, CO .....	34,055	34,889	2.4
Punta Gorda, FL .....	32,927	32,563	-1.1
Racine, WI .....	41,232	40,623	-1.5
Raleigh-Cary, NC .....	43,912	44,016	0.2
Rapid City, SD .....	32,227	32,821	1.8
Reading, PA .....	40,691	41,083	1.0
Redding, CA .....	35,655	35,912	0.7
Reno-Sparks, NV .....	42,167	42,232	0.2
Richmond, VA .....	45,244	44,960	-0.6
Riverside-San Bernardino-Ontario, CA .....	38,617	38,729	0.3
Roanoke, VA .....	36,475	37,153	1.9
Rochester, MN .....	46,196	46,999	1.7
Rochester, NY .....	41,728	41,761	0.1
Rockford, IL .....	39,210	38,843	-0.9
Rocky Mount, NC .....	33,110	33,613	1.5
Rome, GA .....	35,229	35,913	1.9
Sacramento--Arden-Arcade--Roseville, CA .....	47,924	48,204	0.6
Saginaw-Saginaw Township North, MI .....	37,549	38,009	1.2
St. Cloud, MN .....	35,069	35,883	2.3
St. George, UT .....	29,291	29,608	1.1
St. Joseph, MO-KS .....	32,651	33,555	2.8
St. Louis, MO-IL .....	45,419	44,080	-2.9
Salem, OR .....	34,891	35,691	2.3
Salinas, CA .....	40,235	40,258	0.1
Salisbury, MD .....	35,901	36,396	1.4
Salt Lake City, UT .....	41,628	42,613	2.4
San Angelo, TX .....	32,852	33,043	0.6
San Antonio, TX .....	38,876	39,596	1.9
San Diego-Carlsbad-San Marcos, CA .....	49,079	49,240	0.3
Sandusky, OH .....	33,760	33,117	-1.9
San Francisco-Oakland-Fremont, CA .....	65,100	65,367	0.4
San German-Cabo Rojo, PR .....	19,875	20,452	2.9
San Jose-Sunnyvale-Santa Clara, CA .....	80,063	79,609	-0.6
San Juan-Caguas-Guaynabo, PR .....	26,839	27,620	2.9
San Luis Obispo-Paso Robles, CA .....	38,134	38,913	2.0
Santa Barbara-Santa Maria-Goleta, CA .....	42,617	43,257	1.5
Santa Cruz-Watsonville, CA .....	41,471	40,880	-1.4
Santa Fe, NM .....	38,646	39,536	2.3
Santa Rosa-Petaluma, CA .....	43,757	43,274	-1.1
Sarasota-Bradenton-Venice, FL .....	36,781	36,856	0.2
Savannah, GA .....	37,846	38,343	1.3
Scranton--Wilkes-Barre, PA .....	34,902	35,404	1.4
Seattle-Tacoma-Bellevue, WA .....	53,667	54,650	1.8
Sheboygan, WI .....	37,834	38,114	0.7
Sherman-Denison, TX .....	36,081	36,151	0.2
Shreveport-Bossier City, LA .....	36,308	36,706	1.1
Sioux City, IA-NE-SD .....	34,326	34,087	-0.7
Sioux Falls, SD .....	36,982	37,562	1.6
South Bend-Mishawaka, IN-MI .....	37,654	37,811	0.4
Spartanburg, SC .....	39,313	39,104	-0.5

See footnotes at end of table.

**26. Continued — Average annual wages for 2008 and 2009 for all covered workers<sup>1</sup> by metropolitan area**

Metropolitan area <sup>2</sup>	Average annual wages <sup>3</sup>		
	2008	2009	Percent change, 2008-09
Spokane, WA .....	\$36,792	\$38,112	3.6
Springfield, IL .....	44,416	45,602	2.7
Springfield, MA .....	40,969	41,248	0.7
Springfield, MO .....	32,971	33,615	2.0
Springfield, OH .....	33,158	33,725	1.7
State College, PA .....	38,050	38,658	1.6
Stockton, CA .....	39,075	39,274	0.5
Sumter, SC .....	30,842	31,074	0.8
Syracuse, NY .....	40,554	41,141	1.4
Tallahassee, FL .....	37,433	38,083	1.7
Tampa-St. Petersburg-Clearwater, FL .....	40,521	41,480	2.4
Terre Haute, IN .....	33,562	33,470	-0.3
Texarkana, TX-Texarkana, AR .....	35,002	35,288	0.8
Toledo, OH .....	39,686	39,098	-1.5
Topeka, KS .....	36,714	37,651	2.6
Trenton-Ewing, NJ .....	60,135	59,313	-1.4
Tucson, AZ .....	39,973	40,071	0.2
Tulsa, OK .....	40,205	40,108	-0.2
Tuscaloosa, AL .....	37,949	38,309	0.9
Tyler, TX .....	38,817	38,845	0.1
Utica-Rome, NY .....	34,936	35,492	1.6
Valdosta, GA .....	29,288	29,661	1.3
Vallejo-Fairfield, CA .....	45,264	47,287	4.5
Vero Beach, FL .....	36,557	35,937	-1.7
Victoria, TX .....	39,888	38,608	-3.2
Vineland-Millville-Bridgeton, NJ .....	40,709	41,145	1.1
Virginia Beach-Norfolk-Newport News, VA-NC .....	38,696	39,614	2.4
Visalia-Porterville, CA .....	32,018	32,125	0.3
Waco, TX .....	35,698	36,731	2.9
Warner Robins, GA .....	40,457	41,820	3.4
Washington-Arlington-Alexandria, DC-VA-MD-WV .....	62,653	64,032	2.2
Waterloo-Cedar Falls, IA .....	37,363	37,919	1.5
Wausau, WI .....	36,477	36,344	-0.4
Weirton-Steubenville, WV-OH .....	35,356	34,113	-3.5
Wenatchee, WA .....	30,750	31,200	1.5
Wheeling, WV-OH .....	32,915	33,583	2.0
Wichita, KS .....	40,423	40,138	-0.7
Wichita Falls, TX .....	34,185	33,698	-1.4
Williamsport, PA .....	33,340	34,188	2.5
Wilmington, NC .....	35,278	36,204	2.6
Winchester, VA-WV .....	37,035	38,127	2.9
Winston-Salem, NC .....	39,770	39,874	0.3
Worcester, MA .....	45,955	45,743	-0.5
Yakima, WA .....	30,821	31,366	1.8
Yauco, PR .....	19,821	20,619	4.0
York-Hanover, PA .....	39,379	39,798	1.1
Youngstown-Warren-Boardman, OH-PA .....	34,403	33,704	-2.0
Yuba City, CA .....	36,538	37,289	2.1
Yuma, AZ .....	31,351	32,474	3.6

<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	2000 <sup>1</sup>	2001 <sup>1</sup>	2002 <sup>1</sup>	2003	2004	2005	2006	2007	2008	2009	2010
Civilian noninstitutional population.....	212,577	215,092	217,570	221,168	223,357	226,082	228,815	231,867	233,788	235,801	237,830
Civilian labor force.....	142,583	143,734	144,863	146,510	147,401	149,320	151,428	153,124	154,287	154,142	153,889
Labor force participation rate.....	67.1	66.8	66.6	66.2	66.0	66.0	66.2	66.0	66.0	65.4	64.7
Employed.....	136,891	136,933	136,485	137,736	139,252	141,730	144,427	146,047	145,362	139,877	139,064
Employment-population ratio.....	64.4	63.7	62.7	62.3	62.3	62.7	63.1	63.0	62.2	59.3	58.5
Unemployed.....	5,692	6,801	8,378	8,774	8,149	7,591	7,001	7,078	8,924	14,265	14,825
Unemployment rate.....	4.0	4.7	5.8	6.0	5.5	5.1	4.6	4.6	5.8	9.3	9.6
Not in the labor force.....	69,994	71,359	72,707	74,658	75,956	76,762	77,387	78,743	79,501	81,659	83,941

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

## 28. Annual data: Employment levels by industry

[In thousands]

Industry	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total private employment.....	110,995	110,708	108,828	108,416	109,814	111,899	114,113	115,380	114,281	108,252	107,337
Total nonfarm employment.....	131,785	131,826	130,341	129,999	131,435	133,703	136,086	137,598	136,790	130,807	129,818
Goods-producing.....	24,649	23,873	22,557	21,816	21,882	22,190	22,531	22,233	21,334	18,557	17,755
Natural resources and mining.....	599	606	583	572	591	628	684	724	767	694	705
Construction.....	6,787	6,826	6,716	6,735	6,976	7,336	7,691	7,630	7,162	6,016	5,526
Manufacturing.....	17,263	16,441	15,259	14,510	14,315	14,226	14,155	13,879	13,406	11,847	11,524
Private service-providing.....	86,346	86,834	86,271	86,600	87,932	89,709	91,582	93,147	92,947	89,695	89,582
Trade, transportation, and utilities.....	26,225	25,983	25,497	25,287	25,533	25,959	26,276	26,630	26,293	24,906	24,605
Wholesale trade.....	5,933	5,773	5,652	5,608	5,663	5,764	5,905	6,015	5,943	5,587	5,456
Retail trade.....	15,280	15,239	15,025	14,917	15,058	15,280	15,353	15,520	15,283	14,522	14,414
Transportation and warehousing.....	4,410	4,372	4,224	4,185	4,249	4,361	4,470	4,541	4,508	4,236	4,184
Utilities.....	601	599	596	577	564	554	549	553	559	560	552
Information.....	3,630	3,629	3,395	3,188	3,118	3,061	3,038	3,032	2,984	2,804	2,711
Financial activities.....	7,687	7,808	7,847	7,977	8,031	8,153	8,328	8,301	8,145	7,769	7,630
Professional and business services.....	16,666	16,476	15,976	15,987	16,394	16,954	17,566	17,942	17,735	16,579	16,688
Education and health services.....	15,109	15,645	16,199	16,588	16,953	17,372	17,826	18,322	18,838	19,193	19,564
Leisure and hospitality.....	11,862	12,036	11,986	12,173	12,493	12,816	13,110	13,427	13,436	13,077	13,020
Other services.....	5,168	5,258	5,372	5,401	5,409	5,395	5,438	5,494	5,515	5,367	5,364
Government.....	20,790	21,118	21,513	21,583	21,621	21,804	21,974	22,218	22,509	22,555	22,482



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

Industry	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Private sector:</b>											
Average weekly hours.....	34.3	34.0	33.9	33.7	33.7	33.8	33.9	33.9	33.6	33.1	33.4
Average hourly earnings (in dollars).....	14.02	14.54	14.97	15.37	15.69	16.13	16.76	17.43	18.08	18.63	19.07
Average weekly earnings (in dollars).....	481.01	493.79	506.75	518.06	529.09	544.33	567.87	590.04	607.95	617.18	636.91
<b>Goods-producing:</b>											
Average weekly hours.....	40.7	39.9	39.9	39.8	40.0	40.1	40.5	40.6	40.2	39.2	40.4
Average hourly earnings (in dollars).....	15.27	15.78	16.33	16.80	17.19	17.60	18.02	18.67	19.33	19.90	20.28
Average weekly earnings (in dollars).....	621.86	630.01	651.61	669.13	688.13	705.31	730.16	757.34	776.66	779.68	819.18
<b>Natural resources and mining</b>											
Average weekly hours.....	44.4	44.6	43.2	43.6	44.5	45.6	45.6	45.9	45.1	43.2	44.6
Average hourly earnings (in dollars).....	16.55	17.00	17.19	17.56	18.07	18.72	19.90	20.97	22.50	23.29	23.83
Average weekly earnings (in dollars).....	734.92	757.92	741.97	765.94	803.82	853.71	907.95	962.64	1,014.69	1,006.67	1,063.28
<b>Construction:</b>											
Average weekly hours.....	39.2	38.7	38.4	38.4	38.3	38.6	39.0	39.0	38.5	37.6	38.4
Average hourly earnings (in dollars).....	17.48	18.00	18.52	18.95	19.23	19.46	20.02	20.95	21.87	22.66	23.22
Average weekly earnings (in dollars).....	685.78	695.89	711.82	726.83	735.55	750.22	781.21	816.66	842.61	851.76	891.85
<b>Manufacturing:</b>											
Average weekly hours.....	41.3	40.3	40.5	40.4	40.8	40.7	41.1	41.2	40.8	39.8	41.1
Average hourly earnings (in dollars).....	14.32	14.76	15.29	15.74	16.14	16.56	16.81	17.26	17.75	18.24	18.61
Average weekly earnings (in dollars).....	590.77	595.19	618.75	635.99	658.49	673.30	691.02	711.56	724.46	726.12	765.08
<b>Private service-providing:</b>											
Average weekly hours.....	32.7	32.5	32.5	32.3	32.3	32.4	32.5	32.4	32.3	32.1	32.2
Average hourly earnings (in dollars).....	13.62	14.18	14.59	14.99	15.29	15.74	16.42	17.11	17.77	18.35	18.81
Average weekly earnings (in dollars).....	445.74	461.08	473.80	484.68	494.22	509.58	532.78	554.89	574.35	588.20	606.11
<b>Trade, transportation, and utilities:</b>											
Average weekly hours.....	33.8	33.5	33.6	33.6	33.5	33.4	33.4	33.3	33.2	32.9	33.3
Average hourly earnings (in dollars).....	13.31	13.70	14.02	14.34	14.58	14.92	15.39	15.78	16.16	16.48	16.83
Average weekly earnings (in dollars).....	449.88	459.53	471.27	481.14	488.42	498.43	514.34	526.07	536.06	541.88	559.62
<b>Wholesale trade:</b>											
Average weekly hours.....	38.8	38.4	38.0	37.9	37.8	37.7	38.0	38.2	38.2	37.6	37.9
Average hourly earnings (in dollars).....	16.28	16.77	16.98	17.36	17.65	18.16	18.91	19.59	20.13	20.84	21.53
Average weekly earnings (in dollars).....	631.40	643.45	644.38	657.29	667.09	685.00	718.63	748.94	769.62	784.49	816.15
<b>Retail trade:</b>											
Average weekly hours.....	30.7	30.7	30.9	30.9	30.7	30.6	30.5	30.2	30.0	29.9	30.2
Average hourly earnings (in dollars).....	10.86	11.29	11.67	11.90	12.08	12.36	12.57	12.75	12.87	13.01	13.24
Average weekly earnings (in dollars).....	631.40	643.45	644.38	657.29	667.09	685.00	718.63	748.94	769.62	784.49	816.15
<b>Transportation and warehousing:</b>											
Average weekly hours.....	37.4	36.7	36.8	36.8	37.2	37.0	36.9	37.0	36.4	36.0	37.1
Average hourly earnings (in dollars).....	15.05	15.33	15.76	16.25	16.52	16.70	17.28	17.72	18.41	18.81	19.17
Average weekly earnings (in dollars).....	562.31	562.70	579.88	598.41	614.96	618.58	636.97	654.95	670.37	677.56	710.63
<b>Utilities:</b>											
Average weekly hours.....	42.0	41.4	40.9	41.1	40.9	41.1	41.4	42.4	42.7	42.0	42.1
Average hourly earnings (in dollars).....	22.75	23.58	23.96	24.77	25.61	26.68	27.40	27.88	28.83	29.48	30.04
Average weekly earnings (in dollars).....	955.66	977.18	979.09	1,017.27	1,048.44	1,095.90	1,135.34	1,182.65	1,230.69	1,239.37	1,263.33
<b>Information:</b>											
Average weekly hours.....	36.8	36.9	36.5	36.2	36.3	36.5	36.6	36.5	36.7	36.6	36.3
Average hourly earnings (in dollars).....	19.07	19.80	20.20	21.01	21.40	22.06	23.23	23.96	24.78	25.45	25.86
Average weekly earnings (in dollars).....	700.86	730.88	737.77	760.45	777.25	805.08	850.42	874.65	908.99	931.08	938.89
<b>Financial activities:</b>											
Average weekly hours.....	35.9	35.8	35.6	35.5	35.5	35.9	35.7	35.9	35.8	36.1	36.1
Average hourly earnings (in dollars).....	14.98	15.59	16.17	17.14	17.52	17.95	18.80	19.64	20.28	20.85	21.49
Average weekly earnings (in dollars).....	537.37	557.92	575.54	609.08	622.87	644.99	672.21	705.13	727.07	752.03	776.82
<b>Professional and business services:</b>											
Average weekly hours.....	34.5	34.2	34.2	34.1	34.2	34.2	34.6	34.8	34.8	34.7	35.1
Average hourly earnings (in dollars).....	15.52	16.33	16.81	17.21	17.48	18.08	19.13	20.15	21.18	22.35	22.78
Average weekly earnings (in dollars).....	535.07	557.84	574.66	587.02	597.56	618.87	662.27	700.82	737.70	775.81	798.59
<b>Education and health services:</b>											
Average weekly hours.....	32.2	32.3	32.4	32.3	32.4	32.6	32.5	32.6	32.5	32.2	32.1
Average hourly earnings (in dollars).....	13.95	14.64	15.21	15.64	16.15	16.71	17.38	18.11	18.87	19.49	20.12
Average weekly earnings (in dollars).....	449.29	473.39	492.74	505.69	523.78	544.59	564.94	590.09	613.73	628.45	646.52
<b>Leisure and hospitality:</b>											
Average weekly hours.....	26.1	25.8	25.8	25.6	25.7	25.7	25.7	25.5	25.2	24.8	24.8
Average hourly earnings (in dollars).....	8.32	8.57	8.81	9.00	9.15	9.38	9.75	10.41	10.84	11.12	11.31
Average weekly earnings (in dollars).....	217.20	220.73	227.17	230.42	234.86	241.36	250.34	265.52	273.39	275.95	280.87
<b>Other services:</b>											
Average weekly hours.....	32.5	32.3	32.0	31.4	31.0	30.9	30.9	30.9	30.8	30.5	30.7
Average hourly earnings (in dollars).....	12.73	13.27	13.72	13.84	13.98	14.34	14.77	15.42	16.09	16.59	17.08
Average weekly earnings (in dollars).....	413.41	428.64	439.76	434.41	433.04	443.37	456.50	477.06	495.57	506.26	524.01

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	2009				2010				2011	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
	Mar. 2011										
<b>Civilian workers<sup>2</sup></b>	109.9	110.2	110.8	111.0	111.8	112.3	112.9	113.2	114.0	0.7	2.0
Workers by occupational group											
Management, professional, and related.....	110.9	111.0	111.5	111.6	112.4	112.8	113.4	113.7	114.7	.9	2.0
Management, business, and financial.....	110.0	110.1	110.2	110.4	111.6	112.1	112.3	112.7	113.9	1.1	2.1
Professional and related.....	111.3	111.6	112.2	112.3	112.9	113.2	114.1	114.3	115.1	.7	1.9
Sales and office.....	108.4	108.7	109.3	109.7	110.3	111.2	111.6	112.1	112.6	.4	2.1
Sales and related.....	104.3	104.5	105.4	105.8	105.9	107.5	107.4	108.1	107.9	-.2	1.9
Office and administrative support.....	110.8	111.3	111.8	112.1	113.0	113.4	114.1	114.4	115.4	.9	2.1
Natural resources, construction, and maintenance.....	110.1	110.6	111.2	111.5	112.5	112.9	113.4	113.6	114.2	.5	1.5
Construction and extraction.....	111.0	111.6	112.2	112.5	113.1	113.7	114.4	114.5	114.9	.3	1.6
Installation, maintenance, and repair.....	109.1	109.5	110.0	110.4	111.6	112.0	112.2	112.6	113.3	.6	1.5
Production, transportation, and material moving.....	108.0	108.4	109.0	109.2	110.2	110.8	111.7	111.9	112.7	.7	2.3
Production.....	107.2	107.6	108.1	108.3	109.6	110.0	110.8	110.9	111.8	.8	2.0
Transportation and material moving.....	108.9	109.4	110.2	110.4	111.1	111.9	112.9	113.3	113.8	.4	2.4
Service occupations.....	111.5	111.8	112.6	112.9	113.4	113.7	114.6	114.9	115.7	.7	2.0
Workers by industry											
Goods-producing.....	108.0	108.2	108.4	108.6	109.8	110.3	111.0	111.1	112.1	.9	2.1
Manufacturing.....	106.5	106.7	106.8	107.0	108.4	109.1	109.9	110.0	111.4	1.3	2.8
Service-providing.....	110.3	110.6	111.2	111.5	112.1	112.6	113.3	113.6	114.3	.6	2.0
Education and health services.....	111.7	112.1	113.1	113.4	113.7	113.9	114.8	115.2	115.5	.3	1.6
Health care and social assistance.....	111.7	112.2	112.8	113.1	113.7	114.1	114.6	115.0	115.5	.4	1.6
Hospitals.....	111.7	112.2	112.9	113.4	114.1	114.7	115.2	115.9	116.5	.5	2.1
Nursing and residential care facilities.....	110.3	110.7	111.2	111.4	111.9	112.2	112.7	112.7	113.4	.6	1.3
Education services.....	111.8	112.1	113.5	113.6	113.7	113.8	115.1	115.3	115.5	.2	1.6
Elementary and secondary schools.....	111.9	112.1	114.0	114.1	114.1	114.2	115.5	115.5	115.7	.2	1.4
Public administration <sup>3</sup> .....	113.0	113.4	114.2	114.6	115.1	115.4	116.6	116.8	117.5	.6	2.1
<b>Private industry workers.....</b>	<b>109.3</b>	<b>109.6</b>	<b>110.0</b>	<b>110.2</b>	<b>111.1</b>	<b>111.7</b>	<b>112.2</b>	<b>112.5</b>	<b>113.3</b>	<b>.7</b>	<b>2.0</b>
Workers by occupational group											
Management, professional, and related.....	110.4	110.5	110.6	110.7	111.8	112.2	112.7	113.0	114.1	1.0	2.1
Management, business, and financial.....	109.6	109.7	109.7	109.9	111.3	111.7	112.0	112.3	113.6	1.2	2.1
Professional and related.....	111.0	111.1	111.4	111.4	112.2	112.6	113.3	113.5	114.6	1.0	2.1
Sales and office.....	107.9	108.3	108.8	109.2	109.8	110.8	111.1	111.6	112.1	.4	2.1
Sales and related.....	104.3	104.5	105.3	105.8	105.8	107.5	107.4	108.1	107.8	-.3	1.9
Office and administrative support.....	110.5	110.9	111.3	111.6	112.6	113.1	113.7	114.0	115.1	1.0	2.2
Natural resources, construction, and maintenance.....	109.9	110.3	110.8	111.2	112.2	112.7	113.1	113.3	113.8	.4	1.4
Construction and extraction.....	110.9	111.5	112.0	112.4	113.1	113.6	114.3	114.4	114.8	.3	1.5
Installation, maintenance, and repair.....	108.6	108.9	109.4	109.8	111.1	111.5	111.6	111.9	112.6	.6	1.4
Production, transportation, and material moving.....	107.7	108.1	108.6	108.9	109.9	110.5	111.3	111.5	112.2	.6	2.1
Production.....	107.1	107.6	108.0	108.2	109.5	110.0	110.7	110.8	111.7	.8	2.0
Transportation and material moving.....	108.4	108.9	109.6	109.7	110.4	111.2	112.2	112.5	113.0	.4	2.4
Service occupations.....	110.7	110.9	111.7	111.8	112.4	112.7	113.3	113.5	114.5	.9	1.9
Workers by industry and occupational group											
Goods-producing industries.....	107.9	108.2	108.4	108.6	109.7	110.3	111.0	111.1	112.0	.8	2.1
Management, professional, and related.....	106.8	106.7	106.5	106.4	108.0	108.6	109.2	109.1	110.8	1.6	2.6
Sales and office.....	107.3	107.4	107.5	107.8	108.2	108.8	109.7	110.2	110.4	.2	2.0
Natural resources, construction, and maintenance.....	110.4	110.9	111.3	111.7	112.6	113.0	113.6	113.7	114.2	.4	1.4
Production, transportation, and material moving.....	107.0	107.5	107.8	108.0	109.3	109.8	110.6	110.8	111.6	.7	2.1
Construction.....	110.9	111.2	111.5	111.7	112.1	112.3	112.8	112.7	112.8	.1	.6
Manufacturing.....	106.5	106.7	106.8	107.0	108.4	109.1	109.9	110.0	111.4	1.3	2.8
Management, professional, and related.....	105.7	105.7	105.4	105.5	107.2	108.0	108.8	108.8	110.9	1.9	3.5
Sales and office.....	107.3	107.0	107.2	107.5	108.1	109.0	110.3	110.8	112.2	1.3	3.8
Natural resources, construction, and maintenance.....	106.6	107.1	107.4	107.7	109.5	110.1	110.9	110.9	112.0	1.0	2.3
Production, transportation, and material moving.....	106.7	107.2	107.5	107.7	109.1	109.6	110.3	110.5	111.4	.8	2.1
Service-providing industries.....	109.8	110.1	110.5	110.8	111.6	112.1	112.6	113.0	113.8	.7	2.0
Management, professional, and related.....	111.1	111.2	111.4	111.6	112.5	112.9	113.4	113.7	114.8	1.0	2.0
Sales and office.....	108.0	108.4	109.0	109.4	110.0	111.0	111.3	111.8	112.3	.4	2.1
Natural resources, construction, and maintenance.....	109.0	109.5	110.1	110.4	111.7	112.2	112.2	112.6	113.2	.5	1.3
Production, transportation, and material moving.....	108.5	109.0	109.7	109.9	110.6	111.3	112.3	112.5	113.1	.5	2.3
Service occupations.....	110.7	111.0	111.7	111.9	112.4	112.7	113.3	113.5	114.5	.9	1.9
Trade, transportation, and utilities.....	107.8	108.1	108.6	108.8	109.9	110.9	111.1	111.4	112.0	.5	1.9

See footnotes at end of table.

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

[December 2005 = 100]

Series	2009				2010				2011	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
	Mar. 2011										
Wholesale trade.....	107.1	106.9	106.8	107.0	108.0	108.9	108.7	109.5	109.9	0.4	1.8
Retail trade.....	108.3	108.8	109.7	110.0	110.9	111.9	112.0	112.0	112.4	.4	1.4
Transportation and warehousing.....	107.4	107.9	108.3	108.2	109.0	110.0	110.9	111.3	112.5	1.1	3.2
Utilities.....	109.6	110.9	111.2	112.0	115.3	117.0	117.8	117.5	119.3	1.5	3.5
Information.....	107.7	107.5	108.0	108.3	109.0	109.8	110.2	110.0	111.6	1.5	2.4
Financial activities.....	106.8	107.9	108.3	108.6	109.8	110.5	110.6	111.4	112.9	1.3	2.8
Finance and insurance.....	106.9	108.1	108.6	108.8	110.0	111.0	111.0	111.8	113.3	1.3	3.0
Real estate and rental and leasing.....	106.6	106.9	107.4	107.7	109.0	108.4	108.8	109.4	110.8	1.3	1.7
Professional and business services.....	111.9	111.9	112.0	112.4	113.0	113.4	114.0	114.6	115.5	.8	2.2
Education and health services.....	111.5	111.9	112.6	112.8	113.3	113.7	114.3	114.7	115.1	.3	1.6
Education services.....	111.9	112.0	113.2	113.2	113.2	113.3	114.7	115.0	115.2	.2	1.8
Health care and social assistance.....	111.5	111.9	112.5	112.8	113.3	113.7	114.2	114.6	115.0	.3	1.5
Hospitals.....	111.5	112.0	112.6	113.2	113.9	114.5	115.0	115.6	116.2	.5	2.0
Leisure and hospitality.....	112.2	112.0	112.7	112.7	113.4	113.4	113.9	114.1	114.5	.4	1.0
Accommodation and food services.....	113.0	112.6	113.4	113.5	114.0	114.1	114.6	114.8	115.4	.5	1.2
Other services, except public administration.....	110.8	110.8	111.8	111.5	112.1	112.7	113.3	113.2	114.4	1.1	2.1
<b>State and local government workers.....</b>	<b>112.3</b>	<b>112.8</b>	<b>113.9</b>	<b>114.2</b>	<b>114.5</b>	<b>114.7</b>	<b>115.9</b>	<b>116.2</b>	<b>116.6</b>	<b>.3</b>	<b>1.8</b>
Workers by occupational group											
Management, professional, and related.....	112.0	112.5	113.6	113.8	114.0	114.2	115.3	115.5	115.9	.3	1.7
Professional and related.....	111.9	112.4	113.6	113.9	114.0	114.2	115.3	115.5	115.9	.3	1.7
Sales and office.....	112.4	112.8	114.1	114.4	115.0	115.2	116.4	116.6	117.1	.4	1.8
Office and administrative support.....	112.8	113.1	114.4	114.7	115.3	115.6	116.8	116.9	117.5	.5	1.9
Service occupations.....	113.4	113.8	114.7	115.3	115.8	116.2	117.6	118.0	118.5	.4	2.3
Workers by industry											
Education and health services.....	111.9	112.4	113.7	113.9	114.0	114.2	115.4	115.6	115.9	.3	1.7
Education services.....	111.8	112.1	113.5	113.7	113.8	113.9	115.1	115.3	115.5	.2	1.5
Schools.....	111.8	112.1	113.5	113.7	113.8	113.9	115.1	115.3	115.5	.2	1.5
Elementary and secondary schools.....	112.0	112.2	114.0	114.1	114.1	114.3	115.6	115.6	115.8	.2	1.5
Health care and social assistance.....	113.3	114.6	115.1	115.4	115.9	116.3	117.2	117.9	119.0	.9	2.7
Hospitals.....	112.4	113.4	113.9	114.3	115.1	115.6	116.1	117.0	118.2	1.0	2.7
Public administration <sup>3</sup> .....	113.0	113.4	114.2	114.6	115.1	115.4	116.6	116.8	117.5	.6	2.1

<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	2009				2010				2011	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
	Mar. 2011										
<b>Civilian workers<sup>1</sup></b> .....	110.0	110.3	110.9	111.2	111.6	112.1	112.6	113.0	113.4	0.4	1.6
Workers by occupational group											
Management, professional, and related.....	111.0	111.1	111.5	111.7	112.4	112.8	113.4	113.7	114.2	.4	1.6
Management, business, and financial.....	110.4	110.5	110.6	110.9	112.1	112.6	112.8	113.2	113.9	.6	1.6
Professional and related.....	111.2	111.5	112.1	112.2	112.7	112.9	113.7	113.9	114.4	.4	1.5
Sales and office.....	108.1	108.6	109.2	109.6	109.9	110.8	111.1	111.7	111.7	.0	1.6
Sales and related.....	104.3	104.7	105.7	106.2	106.2	108.0	107.7	108.6	107.8	-.7	1.5
Office and administrative support.....	110.6	111.1	111.5	111.9	112.3	112.7	113.3	113.6	114.3	.6	1.8
Natural resources, construction, and maintenance.....	110.7	111.2	111.7	112.1	112.6	112.9	113.2	113.4	113.8	.4	1.1
Construction and extraction.....	111.4	111.7	112.3	112.7	112.8	113.2	113.8	113.9	114.4	.4	1.4
Installation, maintenance, and repair.....	110.0	110.5	111.1	111.5	112.3	112.4	112.5	112.8	113.1	.3	.7
Production, transportation, and material moving.....	108.5	109.0	109.6	109.8	110.1	110.5	111.3	111.5	111.8	.3	1.5
Production.....	108.2	108.6	109.1	109.3	109.7	110.1	110.6	110.6	111.2	.5	1.4
Transportation and material moving.....	108.8	109.4	110.2	110.4	110.6	111.1	112.1	112.5	112.6	.1	1.8
Service occupations.....	111.2	111.5	112.4	112.6	112.9	113.1	113.7	113.9	114.5	.5	1.4
Workers by industry											
Goods-producing.....	109.2	109.5	109.8	110.1	110.5	110.9	111.5	111.6	112.2	.5	1.5
Manufacturing.....	108.1	108.4	108.6	108.9	109.4	110.0	110.6	110.7	111.5	.7	1.9
Service-providing.....	110.2	110.5	111.1	111.4	111.9	112.4	112.9	113.2	113.6	.4	1.5
Education and health services.....	111.0	111.4	112.3	112.5	112.8	113.0	113.7	114.0	114.2	.2	1.2
Health care and social assistance.....	111.7	112.2	112.8	113.1	113.6	113.9	114.3	114.7	114.9	.2	1.1
Hospitals.....	112.0	112.6	113.2	113.6	114.0	114.5	114.9	115.4	115.8	.3	1.6
Nursing and residential care facilities.....	110.3	110.8	111.3	111.6	111.9	112.2	112.6	112.6	113.0	.4	1.0
Education services.....	110.5	110.7	111.8	112.0	112.2	112.3	113.2	113.4	113.6	.2	1.2
Elementary and secondary schools.....	110.4	110.5	112.0	112.1	112.3	112.5	113.4	113.4	113.6	.2	1.2
Public administration <sup>2</sup> .....	111.3	111.9	112.5	112.8	113.2	113.4	113.8	114.0	114.4	.4	1.1
<b>Private industry workers</b> .....	109.8	110.1	110.6	110.8	111.4	111.9	112.4	112.8	113.2	.4	1.6
Workers by occupational group											
Management, professional, and related.....	111.1	111.1	111.3	111.5	112.5	112.9	113.4	113.7	114.4	.6	1.7
Management, business, and financial.....	110.3	110.3	110.4	110.8	112.0	112.6	112.8	113.2	113.9	.6	1.7
Professional and related.....	111.6	111.8	112.1	112.1	112.8	113.2	113.9	114.1	114.8	.6	1.8
Sales and office.....	107.9	108.3	109.0	109.4	109.6	110.7	110.9	111.5	111.6	.1	1.8
Sales and related.....	104.3	104.7	105.7	106.2	106.2	108.0	107.8	108.7	107.8	-.8	1.5
Office and administrative support.....	110.6	111.1	111.4	111.8	112.2	112.6	113.3	113.6	114.4	.7	2.0
Natural resources, construction, and maintenance.....	110.6	111.0	111.6	112.0	112.5	112.8	113.1	113.3	113.7	.4	1.1
Construction and extraction.....	111.4	111.7	112.3	112.7	112.9	113.3	113.9	114.0	114.5	.4	1.4
Installation, maintenance, and repair.....	109.7	110.2	110.7	111.2	112.1	112.1	112.1	112.5	112.7	.2	.5
Production, transportation, and material moving.....	108.3	108.8	109.4	109.6	109.8	110.3	111.1	111.3	111.6	.3	1.6
Production.....	108.1	108.5	109.0	109.3	109.6	110.0	110.5	110.5	111.1	.5	1.4
Transportation and material moving.....	108.5	109.2	109.9	110.1	110.2	110.8	111.8	112.2	112.2	.0	1.8
Service occupations.....	111.0	111.2	112.1	112.3	112.6	112.7	113.3	113.5	114.2	.6	1.4
Workers by industry and occupational group											
Goods-producing industries.....	109.2	109.5	109.8	110.0	110.5	110.9	111.5	111.6	112.2	.5	1.5
Management, professional, and related.....	109.3	109.3	109.4	109.4	110.5	111.0	111.6	111.4	112.5	1.0	1.8
Sales and office.....	108.1	108.3	108.4	108.7	108.4	108.9	109.9	110.5	110.0	-.5	1.5
Natural resources, construction, and maintenance.....	111.1	111.4	111.9	112.3	112.6	112.9	113.5	113.5	114.0	.4	1.2
Production, transportation, and material moving.....	108.0	108.5	108.9	109.1	109.4	109.9	110.4	110.5	111.1	.5	1.6
Construction.....	111.2	111.4	111.7	111.9	112.1	112.2	112.8	112.7	112.7	.0	.5
Manufacturing.....	108.1	108.4	108.6	108.9	109.4	110.0	110.6	110.7	111.5	.7	1.9
Management, professional, and related.....	108.4	108.5	108.6	108.7	110.0	110.7	111.2	111.2	112.3	1.0	2.1
Sales and office.....	108.2	108.2	108.2	108.6	108.3	109.0	110.4	111.1	111.9	.7	3.3
Natural resources, construction, and maintenance.....	108.8	109.2	109.7	109.9	110.4	110.9	111.4	111.4	112.2	.7	1.6
Production, transportation, and material moving.....	107.7	108.2	108.6	108.9	109.2	109.6	110.1	110.2	110.8	.5	1.5
Service-providing industries.....	110.0	110.3	110.8	111.1	111.7	112.3	112.7	113.1	113.5	.4	1.6
Management, professional, and related.....	111.4	111.5	111.7	111.9	112.8	113.2	113.7	114.1	114.8	.6	1.8
Sales and office.....	107.9	108.3	109.0	109.5	109.8	110.9	111.0	111.6	111.7	.1	1.7
Natural resources, construction, and maintenance.....	109.9	110.5	111.2	111.6	112.5	112.7	112.6	113.0	113.2	.2	.6
Production, transportation, and material moving.....	108.6	109.3	110.0	110.2	110.4	110.9	111.9	112.2	112.2	.0	1.6
Service occupations.....	111.0	111.3	112.2	112.3	112.6	112.8	113.3	113.5	114.2	.6	1.4
Trade, transportation, and utilities.....	107.8	108.2	108.7	108.9	109.5	110.5	110.6	111.0	110.9	-.1	1.3

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

[December 2005 = 100]

Series	2009				2010				2011	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
	Mar. 2011										
Wholesale trade.....	106.8	106.5	106.2	106.4	107.1	108.1	107.7	108.5	107.8	-0.6	0.7
Retail trade.....	108.3	108.9	110.0	110.4	111.0	112.0	112.0	112.0	112.2	.2	1.1
Transportation and warehousing.....	107.2	107.9	108.3	108.3	108.7	109.5	110.6	111.0	111.2	.2	2.3
Utilities.....	111.0	112.0	112.2	113.3	113.9	114.7	115.4	115.6	116.9	1.1	2.6
Information.....	107.8	108.1	108.7	109.1	109.6	110.3	110.8	110.5	112.0	1.4	2.2
Financial activities.....	106.8	107.9	108.5	108.9	109.8	111.0	111.1	112.0	112.9	.8	2.8
Finance and insurance.....	107.1	108.5	109.0	109.4	110.2	111.9	112.0	113.0	113.9	.8	3.4
Real estate and rental and leasing.....	105.6	105.8	106.3	106.8	108.0	107.2	107.5	108.1	109.2	1.0	1.1
Professional and business services.....	112.3	112.2	112.3	112.7	113.3	113.6	114.3	115.0	115.6	.5	2.0
Education and health services.....	111.4	111.8	112.5	112.8	113.2	113.5	114.1	114.5	114.6	.1	1.2
Education services.....	111.1	111.2	112.2	112.6	112.5	112.6	114.2	114.5	114.7	.2	2.0
Health care and social assistance.....	111.5	111.9	112.5	112.8	113.3	113.7	114.1	114.4	114.6	.2	1.1
Hospitals.....	111.8	112.3	112.9	113.4	113.7	114.3	114.7	115.2	115.6	.3	1.7
Leisure and hospitality.....	113.1	112.8	113.7	113.8	114.5	114.3	114.8	115.0	115.2	.2	.6
Accommodation and food services.....	113.7	113.2	114.2	114.3	114.7	114.6	115.1	115.3	115.7	.3	.9
Other services, except public administration.....	111.4	111.4	112.5	112.1	112.3	112.7	113.4	113.2	114.2	.9	1.7
<b>State and local government workers.....</b>	<b>110.9</b>	<b>111.4</b>	<b>112.2</b>	<b>112.5</b>	<b>112.7</b>	<b>112.9</b>	<b>113.6</b>	<b>113.8</b>	<b>114.1</b>	<b>.3</b>	<b>1.2</b>
Workers by occupational group											
Management, professional, and related.....	110.7	111.1	112.0	112.2	112.4	112.6	113.3	113.5	113.8	.3	1.2
Professional and related.....	110.6	111.0	112.0	112.3	112.4	112.6	113.3	113.6	113.8	.2	1.2
Sales and office.....	110.5	111.0	111.9	112.1	112.5	112.5	113.1	113.2	113.5	.3	.9
Office and administrative support.....	111.0	111.4	112.3	112.5	113.0	113.0	113.5	113.6	113.9	.3	.8
Service occupations.....	112.0	112.4	113.1	113.5	114.0	114.2	114.9	115.1	115.4	.3	1.2
Workers by industry											
Education and health services.....	110.7	111.1	112.0	112.3	112.5	112.6	113.4	113.6	113.8	.2	1.2
Education services.....	110.4	110.7	111.7	111.9	112.1	112.2	113.0	113.2	113.4	.2	1.2
Schools.....	110.4	110.7	111.7	111.9	112.1	112.2	113.0	113.2	113.4	.2	1.2
Elementary and secondary schools.....	110.3	110.5	112.0	112.1	112.3	112.5	113.4	113.5	113.6	.1	1.2
Health care and social assistance.....	113.1	114.6	115.0	115.2	115.5	115.8	116.2	116.8	117.3	.4	1.6
Hospitals.....	112.8	113.9	114.2	114.7	115.2	115.5	115.7	116.3	117.0	.6	1.6
Public administration <sup>2</sup> .....	111.3	111.9	112.5	112.8	113.2	113.4	113.8	114.0	114.4	.4	1.1

<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	2009				2010				2011	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
	Mar. 2011										
<b>Civilian workers</b> .....	109.7	110.0	110.5	110.7	112.1	112.7	113.6	113.9	115.5	1.4	3.0
<b>Private industry workers</b> .....	108.2	108.4	108.7	108.7	110.4	111.0	111.7	111.9	113.7	1.6	3.0
Workers by occupational group											
Management, professional, and related.....	108.8	108.8	108.9	108.8	110.2	110.5	111.0	111.2	113.4	2.0	2.9
Sales and office.....	108.0	108.1	108.5	108.7	110.2	111.1	111.6	111.8	113.4	1.4	2.9
Natural resources, construction, and maintenance.....	108.2	108.8	109.2	109.5	111.5	112.4	113.0	113.2	114.1	.8	2.3
Production, transportation, and material moving.....	106.4	106.8	107.1	107.4	110.0	110.8	111.8	112.0	113.5	1.3	3.2
Service occupations.....	109.7	110.0	110.4	110.5	111.7	112.5	113.2	113.5	115.5	1.8	3.4
Workers by industry											
Goods-producing.....	105.4	105.7	105.7	105.8	108.4	109.0	110.0	110.1	111.7	1.5	3.0
Manufacturing.....	103.5	103.6	103.4	103.6	106.6	107.4	108.7	108.8	111.1	2.1	4.2
Service-providing.....	109.3	109.5	109.9	109.9	111.3	111.9	112.3	112.6	114.5	1.7	2.9
<b>State and local government workers</b> .....	115.2	115.7	117.4	117.7	118.1	118.6	120.7	121.1	122.0	.7	3.3

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	2009				2010				2011	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
	Mar. 2011										
<b>COMPENSATION</b>											
<b>Workers by bargaining status<sup>1</sup></b>											
Union.....	109.1	109.8	110.5	111.1	112.8	113.7	114.6	114.8	115.6	0.7	2.5
Goods-producing.....	108.0	108.9	109.5	110.0	111.9	112.6	113.8	113.9	114.3	.4	2.1
Manufacturing.....	104.4	104.8	105.3	105.8	108.6	109.1	110.5	110.5	110.9	.4	2.1
Service-providing.....	109.9	110.6	111.3	111.9	113.4	114.5	115.2	115.5	116.8	1.1	3.0
Nonunion.....	109.4	109.6	109.9	110.1	110.9	111.4	111.8	112.1	113.0	.8	1.9
Goods-producing.....	107.9	108.0	108.0	108.2	109.1	109.5	110.1	110.2	111.3	1.0	2.0
Manufacturing.....	107.1	107.3	107.3	107.5	108.5	109.2	109.9	110.0	111.6	1.5	2.9
Service-providing.....	109.8	110.0	110.4	110.6	111.3	111.9	112.3	112.7	113.5	.7	2.0
<b>Workers by region<sup>1</sup></b>											
Northeast.....	109.8	110.2	110.7	111.0	111.8	112.7	113.1	113.6	114.4	.7	2.3
South.....	109.8	110.1	110.6	110.7	111.5	112.0	112.5	112.8	113.4	.5	1.7
Midwest.....	107.9	108.1	108.4	108.6	109.9	110.4	111.0	111.3	112.2	.8	2.1
West.....	109.9	110.0	110.3	110.6	111.3	111.7	112.3	112.5	113.5	.9	2.0
<b>WAGES AND SALARIES</b>											
<b>Workers by bargaining status<sup>1</sup></b>											
Union.....	108.8	109.6	110.2	110.9	111.5	112.1	112.7	112.9	113.6	.6	1.9
Goods-producing.....	108.2	108.8	109.5	109.8	110.2	110.7	111.1	111.2	111.7	.4	1.4
Manufacturing.....	106.0	106.4	107.0	107.3	107.8	108.2	108.6	108.7	109.4	.6	1.5
Service-providing.....	109.2	110.1	110.8	111.6	112.4	113.1	113.8	114.2	115.0	.7	2.3
Nonunion.....	110.0	110.2	110.6	110.9	111.4	111.9	112.4	112.7	113.2	.4	1.6
Goods-producing.....	109.5	109.7	109.9	110.1	110.6	111.0	111.6	111.7	112.3	.5	1.5
Manufacturing.....	108.6	108.9	109.1	109.3	109.8	110.5	111.1	111.2	112.1	.8	2.1
Service-providing.....	110.1	110.3	110.8	111.0	111.6	112.2	112.6	113.0	113.4	.4	1.6
<b>Workers by region<sup>1</sup></b>											
Northeast.....	109.9	110.3	110.8	111.1	111.7	112.6	112.9	113.4	113.7	.3	1.8
South.....	110.4	110.7	111.3	111.5	111.9	112.4	112.9	113.4	113.7	.3	1.6
Midwest.....	108.4	108.6	108.9	109.2	109.9	110.4	110.9	111.2	111.8	.5	1.7
West.....	110.5	110.8	111.2	111.6	112.0	112.4	112.9	113.0	113.6	.5	1.4

<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>					
Single coverage					
Employer share.....	82	82	82	82	81
Employee share.....	18	18	18	18	19
Family coverage					
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		2010									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. <sup>P</sup>
Number of stoppages:															
Beginning in period.....	5	11	3	1	2	1	0	1	1	0	1	0	0	4	1
In effect during period.....	5	11	4	1	3	1	0	1	1	0	1	0	0	4	2
Workers involved:															
Beginning in period (in thousands).....	12.5	44.5	5.4	1.7	13.8	15.0	0.0	4.5	1.5	0.0	1.1	0.0	0.0	5.3	1.5
In effect during period (in thousands).....	16.9	47.7	6.9	1.7	15.5	15.0	0.0	4.5	1.5	0.0	1.1	0.0	0.0	5.3	3.4
Days idle:															
Number (in thousands).....	124.1	302.3	44.5	23.8	36.8	180.0	0.0	9.0	4.5	0.0	2.2	0.0	0.0	33.5	56.4
Percent of estimated working time <sup>1</sup> .....	0	0	0	0	0	0.01	0	0	0	0	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		2011										2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
<b>CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS</b>																
All items.....	214.537	218.056	218.009	218.178	217.965	218.011	218.312	218.439	218.711	218.803	219.179	220.223	221.309	223.467	224.906	
All items (1967 = 100).....	642.658	653.198	653.059	653.564	652.926	653.066	653.966	654.346	655.162	655.438	656.563	659.692	662.943	669.409	673.717	
Food and beverages.....	218.249	219.984	219.536	219.693	219.562	219.539	219.877	220.586	221.005	220.991	221.278	223.160	224.039	225.479	226.248	
Food.....	217.955	219.625	219.218	219.374	219.218	219.121	219.491	220.216	220.616	220.617	220.946	222.912	223.799	225.350	226.150	
Food at home.....	215.124	215.836	215.737	215.793	215.361	215.256	215.382	216.161	216.698	216.538	216.955	220.016	221.241	223.430	224.233	
Cereals and bakery products.....	252.567	250.449	250.425	251.269	250.260	250.172	249.736	250.085	249.890	249.944	250.592	253.349	254.238	255.482	255.956	
Meats, poultry, fish, and eggs.....	203.805	207.694	205.178	205.679	208.171	208.989	208.854	211.280	212.170	212.957	212.019	214.344	216.175	218.808	220.747	
Dairy and related products <sup>1</sup> .....	197.013	199.245	197.308	197.749	204.874	197.947	198.991	198.712	199.042	201.291	201.277	202.056	202.349	203.510	206.161	
Fruits and vegetables.....	272.945	273.458	279.272	277.887	271.907	265.967	265.914	268.832	270.200	269.917	277.089	285.619	286.766	290.279	286.501	
Nonalcoholic beverages and beverage materials.....	163.034	161.602	162.128	160.982	160.361	161.121	161.764	161.771	161.313	161.427	159.229	164.019	163.734	165.038	166.086	
Other foods at home.....	191.220	191.124	191.017	191.461	191.001	191.529	192.026	191.289	191.311	190.152	190.147	191.468	193.055	194.747	195.239	
Sugar and sweets.....	196.933	201.242	200.775	202.123	199.737	201.180	200.335	202.469	202.962	200.586	203.098	202.648	204.168	205.505	203.783	
Fats and oils.....	201.224	200.587	197.749	199.510	199.375	200.506	201.764	201.971	203.614	202.375	200.476	207.813	210.508	214.352	213.818	
Other foods.....	205.497	204.553	204.947	205.036	204.874	205.166	205.857	204.322	203.990	202.988	202.776	203.610	205.174	206.743	207.892	
Other miscellaneous foods <sup>1,2</sup> .....	122.393	121.683	122.298	120.607	121.551	122.052	121.787	122.106	121.698	120.623	122.419	120.930	121.438	122.665	123.769	
Food away from home <sup>1</sup> .....	223.272	226.114	225.276	225.573	225.797	225.710	226.422	227.075	227.287	227.512	227.722	228.181	228.606	229.282	230.082	
Other food away from home <sup>1,2</sup> .....	155.852	159.276	158.738	158.529	159.271	159.338	159.517	160.072	160.036	160.392	160.681	160.643	161.836	161.886	162.218	
Alcoholic beverages.....	220.751	223.291	222.299	222.463	222.680	223.639	223.536	224.043	224.705	224.490	224.215	224.975	225.749	225.693	226.053	
Housing.....	217.057	216.256	215.798	215.981	216.778	217.076	216.976	216.602	216.100	215.830	216.142	216.739	217.259	217.707	219.901	
Shelter.....	249.354	248.396	248.031	248.100	248.470	248.677	248.595	248.522	248.646	248.738	248.972	249.462	249.886	250.310	250.447	
Rent of primary residence.....	248.812	249.385	249.012	248.925	248.999	249.126	249.024	249.368	249.618	250.317	250.986	251.555	251.829	252.145	252.221	
Lodging away from home.....	134.243	133.656	134.331	136.121	140.476	143.358	139.999	135.800	133.580	126.704	125.665	128.630	131.572	136.486	136.597	
Owners' equivalent rent of primary residence <sup>3</sup> .....	256.610	256.584	256.170	256.163	256.352	256.395	256.509	256.590	256.823	257.202	257.452	257.775	258.073	258.263	258.400	
Tenants' and household insurance <sup>1,2</sup> .....	121.487	125.682	124.879	125.036	125.289	125.865	126.463	126.627	127.111	127.501	126.194	126.192	126.529	125.863	126.574	
Fuels and utilities.....	210.696	214.187	211.726	211.773	217.820	219.614	219.602	217.695	213.031	210.978	212.505	214.045	215.587	216.672	217.254	
Fuels.....	188.113	189.286	187.054	188.017	193.678	195.268	194.865	192.635	187.271	184.764	186.338	187.704	189.006	190.071	190.622	
Fuel oil and other fuels.....	239.778	275.132	278.080	272.606	265.521	261.257	263.196	265.812	276.551	286.367	298.037	314.130	326.919	341.884	348.657	
Gas (piped) and electricity.....	193.563	192.886	190.284	191.628	198.207	200.177	199.632	197.049	190.603	187.335	188.443	189.088	189.837	190.213	190.459	
Household furnishings and operations.....	128.701	125.490	125.997	126.029	125.589	125.239	125.005	124.535	124.524	124.121	123.931	124.342	124.576	124.735	124.893	
Apparel.....	120.078	119.503	122.143	121.006	118.319	115.248	116.667	121.011	122.454	121.498	118.071	116.664	118.369	121.286	122.226	
Men's and boys' apparel.....	113.628	111.914	113.692	113.885	112.446	109.670	110.229	112.201	114.090	112.824	109.711	109.985	110.962	112.337	113.487	
Women's and girls' apparel.....	108.091	107.081	110.816	108.686	104.746	100.659	102.702	109.217	110.723	109.778	105.739	102.438	105.766	109.544	110.144	
Infants' and toddlers' apparel <sup>1</sup> .....	114.489	114.180	116.469	114.412	112.930	112.882	113.245	114.413	114.663	115.106	112.558	110.096	110.101	111.547	112.323	
Footwear.....	126.854	127.988	129.432	128.738	127.196	125.212	125.656	129.303	130.896	129.368	126.585	126.286	126.830	128.518	128.581	
Transportation.....	179.252	193.396	193.994	194.761	192.651	193.038	193.454	192.412	194.283	195.659	198.280	200.835	203.037	211.014	216.867	
Private transportation.....	174.762	188.747	189.503	190.071	187.593	188.028	188.616	187.646	189.674	190.915	193.545	196.087	198.073	206.165	212.210	
New and used motor vehicles <sup>2</sup> .....	93.486	97.149	96.815	96.890	97.176	97.620	97.891	97.502	97.203	96.936	97.046	97.128	97.633	98.275	98.972	
New vehicles.....	135.623	138.005	138.174	137.750	135.503	137.323	137.119	137.365	137.849	138.222	138.567	138.925	140.158	140.860	141.462	
Used cars and trucks <sup>1</sup> .....	126.973	143.128	141.315	142.537	144.399	146.379	147.909	146.065	144.040	142.250	142.454	142.555	142.937	144.072	145.968	
Motor fuel.....	201.978	239.178	244.801	246.671	234.868	234.642	235.690	232.518	240.303	245.165	256.025	265.703	271.843	303.565	326.024	
Gasoline (all types).....	201.555	238.594	244.347	246.080	234.214	234.091	235.110	231.819	239.527	244.345	255.319	264.979	270.822	302.574	325.282	
Motor vehicle parts and equipment.....	134.050	136.995	135.701	136.135	136.686	137.236	137.646	137.802	138.289	138.768	139.223	140.487	140.912	140.686	141.590	
Motor vehicle maintenance and repair.....	243.337	247.954	247.355	247.311	247.635	247.536	248.390	249.231	249.824	249.872	250.134	250.726	250.851	250.820	251.458	
Public transportation.....	236.348	251.351	249.135	253.275	257.825	257.337	254.717	252.525	251.435	254.995	257.172	259.634	265.567	270.366	272.187	
Medical care.....	375.613	388.436	387.703	387.762	388.199	387.898	388.467	390.616	391.240	391.660	391.946	393.858	397.065	397.726	398.813	
Medical care commodities.....	305.108	314.717	314.535	314.923	314.888	314.113	314.881	315.804	316.082	316.794	317.199	318.929	321.186	322.691	324.241	
Medical care services.....	397.299	411.208	410.256	410.173	410.802	410.710	411.182	413.807	414.564	414.850	415.079	417.025	420.567	420.852	421.716	
Professional services.....	319.372	328.186	327.015	327.121	327.938	328.899	329.318	330.149	330.057	330.508	330.651	331.921	334.296	334.671	334.978	
Hospital and related services.....	567.879	607.679	604.756	605.313	606.378	604.291	605.859	614.667	618.936	619.747	621.176	625.897	633.413	634.387	637.188	
Recreation <sup>2</sup> .....	114.272	113.313	113.781	113.684	113.802	113.689	113.521	113.120	112.984	112.839	112.345	112.638	113.183	113.261	113.368	
Video and audio <sup>1,2</sup> .....	101.276	99.122	100.074	99.572	99.814	99.244	98.852	98.638	98.503	98.214	97.167	97.325	98.268	98.719	98.918	
Education and communication <sup>2</sup> .....	127.393	129.919	129.344	129.270	129.263	129.586	130.599	131.154	130.959	130.894	130.548	130.665	130.692	130.682	130.643	
Education <sup>2</sup> .....	190.857	199.337	196.798	196.917	197.284	198.206	201.476	203.353	203.071	203.139	203.343	204.057	204.153	204.251	204.316	
Educational books and supplies.....	482.072	505.569	501.170	502.345	504.870	504.856	504.635	508.892	510.335	510.185	513.904	522.026	520.778	522.903	522.440	
Tuition, other school fees, and child care.....	548.971	573.174	565.709	565.983	566.910	569.750	579.833	585.271	584.286	584.509	584.840	586.386	586.782	586.914	587.151	
Communication <sup>1,2</sup> .....	84.954	84.681	84.947	84.809	84.657	84.703	84.699									



**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		2010									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Miscellaneous personal services.....	344.469	354.052	352.779	353.522	353.941	354.533	355.429	355.964	356.508	357.061	356.475	357.576	358.521	359.096	361.062
Commodity and service group:															
Commodities.....	169.698	174.566	175.333	175.333	173.899	173.503	173.925	174.282	175.225	175.415	176.015	177.480	178.874	182.728	185.311
Food and beverages.....	218.249	219.984	219.536	219.693	219.562	219.539	219.877	220.586	221.005	220.991	221.278	223.160	224.039	225.479	226.248
Commodities less food and beverages.....	144.395	150.392	151.621	151.559	149.648	149.116	149.558	149.761	150.882	151.148	151.854	153.102	154.657	159.351	162.578
Nondurables less food and beverages.....	178.959	189.916	192.335	192.201	188.237	187.006	187.890	188.770	191.332	192.320	193.856	196.248	198.885	208.134	214.256
Apparel .....	120.078	119.503	122.143	121.006	118.319	115.248	116.667	121.011	122.454	121.498	118.071	116.664	118.369	121.286	122.226
Non durables less food, beverages, and apparel.....	219.592	238.053	240.381	240.876	236.028	235.935	236.498	235.211	238.530	240.762	245.458	250.293	253.570	266.993	276.504
Durables.....	109.859	111.324	111.450	111.454	111.443	111.555	111.587	111.174	110.966	110.573	110.512	110.696	111.237	111.707	112.242
Services.....	259.154	261.274	260.420	260.756	261.756	262.241	262.421	262.320	261.927	261.921	262.074	262.701	263.480	263.956	264.256
Rent of shelter <sup>3</sup> .....	259.924	258.823	258.457	258.525	258.910	259.115	259.015	258.934	259.054	259.142	259.418	259.934	260.373	260.834	260.963
Transportation services.....	251.031	259.823	258.384	259.325	260.525	261.054	260.944	260.577	261.625	263.265	263.264	263.984	265.354	266.754	267.587
Other services.....	303.992	309.602	308.493	308.870	309.349	310.033	311.443	311.802	311.375	311.499	310.824	311.299	311.975	312.310	312.593
Special indexes:															
All items less food.....	214.008	217.828	217.839	218.010	217.788	217.857	218.147	218.179	218.431	218.538	218.921	219.820	220.937	223.192	224.731
All items less shelter.....	203.301	208.643	208.722	208.932	208.486	208.469	208.925	209.133	209.467	209.560	209.996	211.273	212.633	215.505	217.475
All items less medical care.....	206.555	209.689	209.669	209.841	209.605	209.664	209.952	210.001	210.257	210.336	210.712	211.714	212.709	214.907	216.346
Commodities less food.....	147.071	152.990	154.163	154.106	152.247	151.754	152.182	152.395	153.508	153.761	154.443	155.682	157.221	161.804	164.964
Nondurables less food.....	181.453	191.927	194.159	194.041	190.306	189.196	190.025	190.885	193.344	194.266	195.703	198.007	200.543	209.282	215.990
Nondurables less food and apparel.....	218.687	235.601	237.626	238.090	233.711	233.710	234.212	233.089	236.158	238.165	242.401	246.854	249.895	262.068	270.729
Nondurables.....	198.548	205.271	206.393	206.391	204.157	203.471	204.111	204.920	206.518	207.053	208.028	210.205	212.056	217.791	221.504
Services less rent of shelter <sup>3</sup> .....	278.064	284.368	282.851	283.541	285.371	286.238	286.775	286.640	285.588	285.467	285.481	286.292	287.547	288.077	288.612
Services less medical care services.....	248.122	249.569	248.733	249.087	250.094	250.605	250.766	250.516	250.066	250.044	250.191	250.737	251.354	251.834	252.100
Energy.....	193.126	211.449	212.977	214.363	211.660	212.372	212.663	210.003	210.947	211.970	217.953	223.266	226.860	242.516	253.495
All items less energy.....	218.433	220.458	220.252	220.298	220.336	220.316	220.619	221.030	221.236	221.235	221.045	221.666	222.506	223.315	223.798
All items less food and energy.....	129.235	143.588	144.169	143.888	143.376	142.864	143.206	143.866	144.028	143.594	142.830	142.845	143.712	144.632	145.214
Commodities less food and energy.....	142.041	143.588	144.169	143.888	143.376	142.864	143.206	143.866	144.028	143.594	142.830	142.845	143.712	144.632	145.214
Energy commodities.....	205.281	242.636	248.165	249.680	238.032	237.602	238.702	235.797	243.784	248.928	259.903	269.970	276.485	307.589	329.419
Services less energy.....	265.875	268.278	267.587	267.829	268.308	268.655	268.903	269.034	269.208	269.509	269.572	270.199	270.982	271.468	271.775
<b>CONSUMER PRICE INDEX FOR URBAN</b>															
<b>WAGE EARNERS AND CLERICAL WORKERS</b>															
All items.....	209.630	213.967	213.958	214.124	213.839	213.898	214.205	214.306	214.623	214.750	215.262	216.400	217.535	220.024	221.743
All items (1967 = 100).....	624.423	637.342	637.316	637.809	636.962	637.138	638.052	638.353	639.296	639.673	641.200	644.591	647.969	655.385	660.503
Food and beverages.....	217.480	219.182	218.730	218.844	218.730	218.784	219.175	219.817	220.199	220.245	220.508	222.385	223.273	224.825	225.667
Food.....	217.118	218.730	218.319	218.427	218.291	218.276	218.696	219.376	219.736	219.768	220.062	222.039	222.942	224.577	225.439
Food at home.....	213.908	214.638	214.498	214.501	214.143	214.212	214.392	215.058	215.511	215.414	215.748	218.804	220.110	222.391	223.245
Cereals and bakery products.....	253.214	251.024	251.031	251.920	250.742	250.670	250.327	250.654	250.429	250.648	251.419	253.991	254.963	256.227	256.912
Meats, poultry, fish, and eggs.....	203.394	207.431	204.878	205.228	207.883	208.784	208.676	211.109	211.978	212.693	211.858	214.127	216.062	218.848	220.753
Dairy and related products <sup>1</sup> .....	195.679	197.992	195.958	196.490	197.663	197.782	197.651	197.812	199.890	200.084	200.958	201.170	202.335	205.163	208.951
Fruits and vegetables.....	270.562	270.713	276.727	275.080	269.040	263.715	263.946	266.461	267.466	266.802	273.977	282.396	284.132	288.168	284.147
Nonalcoholic beverages and beverage materials.....	162.598	161.214	161.721	160.694	159.938	160.862	161.353	161.210	160.678	160.999	158.654	163.586	163.262	164.583	165.553
Other foods at home.....	190.519	190.294	190.299	190.643	190.164	190.675	191.226	190.318	190.351	189.265	189.176	190.656	192.187	193.787	194.281
Sugar and sweets.....	195.702	200.035	199.665	200.979	198.560	199.857	198.872	200.971	201.469	199.542	202.206	201.824	203.373	204.408	202.613
Fats and oils.....	202.003	200.909	198.454	200.054	199.676	200.656	201.786	202.118	203.670	202.668	200.925	208.026	210.741	214.457	214.363
Other foods.....	205.573	204.577	205.048	205.031	204.877	205.206	206.021	204.234	203.935	202.901	202.520	203.614	205.098	206.624	207.711
Other miscellaneous foods <sup>1,2</sup> .....	122.753	121.872	122.712	120.869	121.830	122.217	121.804	122.164	121.806	120.723	122.267	121.161	121.605	122.850	123.797
Food away from home <sup>1</sup> .....	223.383	226.204	225.395	225.657	225.846	225.707	226.481	227.188	227.412	227.634	227.871	228.279	228.596	229.293	230.174
Other food away from home <sup>1,2</sup> .....	155.607	159.794	159.088	158.901	159.601	159.725	159.866	160.755	160.988	161.428	161.657	161.635	162.728	162.850	163.275
Alcoholic beverages.....	221.325	224.368	223.305	223.515	223.718	224.772	224.749	224.828	225.531	225.771	225.592	225.994	226.675	227.022	227.552
Housing.....	213.144	212.880	212.368	212.518	213.469	213.743	213.603	213.294	212.681	212.490	212.861	213.442	213.931	214.323	214.523
Shelter.....	242.637	242.309	241.987	241.964	242.253	242.396	242.295	242.338	242.513	242.806	243.120	243.569	243.961	244.270	244.420
Rent of primary residence.....	247.401	247.725	247.474	247.352	247.389	247.442	247.250	247.589	247.823	248.553	249.246	249.848	250.128	250.445	250.579
Lodging away from home <sup>2</sup> .....	135.163	135.119	135.793	137.067	142.529	145.768	140.967	136.488	134.787	128.305	127.369	130.091	133.181	138.131	138.699
Owners' equivalent rent of primary residence <sup>3</sup> .....	232.499	232.461	232.108	232.068	232.235	232.271	232.373	232.472	232.680	233.407	233.278	233.565	233.872	234.018	234.133
Tenants' and household insurance <sup>1,2</sup> .....	121.935	126.739	125.872	126.051	126.345	126.950	127.526	127.718	128.130	128.556	127.674	127.690	128.035	126.914	127.654
Fuels and utilities.....	209.595	212.885	210.326	211.426	217.007	218.770	218.703	216.787	211.649	209.449	210.860	212.409	213.775	214.774	215.338
Fuels.....	186.229	187.272	184.918	185.946	192.105	193.671	193.259	191.066	185.262	182.634	184.079	185.643	186.578	187.561	188.078
Fuel oil and other fuels.....	243.003	277.433	280.770	274.630	267.671	263.269	264.904	267.283	278.516	287.994	299.558	315.348	326.950	341.440	347.371
Gas (piped)															

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

[1982–84 = 100, unless otherwise indicated]

Series	2010										2011			
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
New vehicles.....	139.192	138.794	138.639	138.387	138.152	138.353	138.806	139.224	139.567	139.871	141.114	141.899	142.475	
Used cars and trucks <sup>1</sup> .....	142.173	143.396	145.257	147.247	148.782	146.959	144.952	143.176	143.377	143.479	143.868	145.014	146.907	
Motor fuel.....	245.949	247.688	235.670	235.399	236.436	233.370	241.218	245.957	257.025	266.820	273.013	305.066	327.663	
Gasoline (all types).....	245.626	247.224	235.124	234.959	235.966	232.783	240.558	245.250	256.443	266.224	272.117	304.224	327.095	
Motor vehicle parts and equipment.....	135.914	136.182	136.719	137.218	137.612	137.728	138.153	138.654	139.150	140.289	140.763	140.693	141.505	
Motor vehicle maintenance and repair.....	249.873	249.841	250.142	250.143	251.084	251.938	252.546	252.610	252.759	253.310	253.524	253.391	253.990	
Public transportation.....	246.535	250.119	254.023	253.625	251.634	249.816	249.169	252.230	254.312	256.604	262.444	266.726	268.501	
Medical care.....	389.050	389.029	389.513	389.335	389.905	392.028	392.749	393.277	393.616	395.536	398.908	399.516	400.683	
Medical care commodities.....	306.117	306.458	306.440	305.764	306.541	307.322	307.539	308.332	308.823	310.488	312.764	314.190	315.798	
Medical care services.....	413.325	413.145	413.834	413.883	414.344	416.993	417.913	418.307	418.568	420.540	424.289	424.516	425.450	
Professional services.....	330.228	330.396	331.323	332.219	332.656	333.547	333.450	333.868	334.032	335.368	337.901	338.225	338.558	
Hospital and related services.....	605.497	605.593	606.700	605.634	607.181	615.785	620.670	622.116	623.692	628.321	636.256	637.216	640.223	
Recreation <sup>2</sup> .....	110.342	110.195	110.339	110.076	109.967	109.626	109.449	109.082	108.561	109.039	109.693	109.848	109.933	
Video and audio <sup>1,2</sup> .....	100.568	99.977	100.239	99.660	99.385	99.199	99.054	98.774	97.753	97.925	98.897	99.398	99.523	
Education and communication <sup>2</sup> .....	124.559	124.459	124.430	124.687	125.425	125.818	125.617	125.526	125.089	125.065	125.069	125.047	124.993	
Education <sup>2</sup> .....	194.275	194.332	194.746	195.550	198.537	200.329	200.129	200.228	200.496	201.353	201.500	201.588	201.611	
Educational books and supplies.....	504.436	504.925	507.168	506.799	508.150	512.303	512.956	513.546	515.937	526.152	526.197	527.623	526.990	
Tuition, other school fees, and child care.....	546.192	546.319	547.366	549.874	558.909	563.998	563.319	563.563	564.149	565.760	566.205	566.335	566.469	
Communication <sup>1,2</sup> .....	87.581	87.453	87.306	87.376	87.391	87.343	87.170	87.040	86.472	86.209	86.174	86.124	86.057	
Information and information processing <sup>1,2</sup> .....	85.394	85.263	85.115	85.186	85.201	85.154	84.978	84.846	84.271	83.881	83.844	83.793	83.719	
Telephone services <sup>1,2</sup> .....	102.132	102.101	102.021	102.185	102.239	102.325	102.135	101.975	101.327	100.882	100.768	100.701	100.643	
Information and information processing other than telephone services <sup>1,4</sup> .....	10.087	10.028	9.976	9.957	9.947	9.891	9.864	9.849	9.767	9.713	9.734	9.729	9.710	
Personal computers and peripheral equipment <sup>1,2</sup> .....	78.420	76.736	75.631	75.929	75.848	75.356	74.970	74.615	73.078	72.433	72.138	71.404	71.220	
Other goods and services.....	405.786	406.973	408.610	411.793	412.453	412.690	411.655	412.383	414.002	414.263	415.088	415.318	415.578	
Tobacco and smoking products.....	793.243	803.019	811.325	824.198	827.609	828.794	826.468	825.644	832.741	832.904	834.343	835.368	832.003	
Personal care <sup>1</sup> .....	204.294	203.828	203.922	204.575	204.604	204.620	204.142	204.830	205.084	205.264	205.705	205.738	206.422	
Personal care products <sup>1</sup> .....	161.604	160.289	159.900	161.416	161.376	161.132	160.174	160.801	161.217	161.462	161.974	161.667	162.088	
Personal care services <sup>1</sup> .....	229.857	230.263	230.472	230.769	230.625	230.624	229.635	229.855	230.332	230.140	230.418	230.252	230.597	
Miscellaneous personal services.....	354.593	354.725	355.101	355.667	356.582	357.423	357.784	358.407	358.380	359.587	360.528	360.881	362.774	
Commodity and service group:														
Commodities.....	178.269	178.359	176.848	176.554	177.003	177.267	178.283	178.504	179.331	180.958	182.442	186.832	189.816	
Food and beverages.....	218.730	218.844	218.730	218.784	219.175	219.817	220.199	220.245	220.508	222.385	223.273	224.825	225.667	
Commodities less food and beverages.....	156.268	156.345	154.282	153.847	154.309	154.406	155.663	155.953	156.997	158.473	160.171	165.647	169.461	
Nondurables less food and beverages.....	201.091	201.141	196.614	195.484	196.297	197.015	199.991	201.110	203.292	206.142	209.079	219.775	226.985	
Apparel.....	121.293	120.267	117.630	114.464	115.600	119.942	121.587	120.628	117.127	115.649	117.507	120.091	121.140	
Nondurables less food, beverages, and apparel.....	255.140	255.839	250.039	250.103	250.745	249.301	253.167	255.572	261.243	266.785	270.459	286.361	297.497	
Durables.....	112.432	112.533	112.781	112.995	113.125	112.646	112.294	111.813	111.789	111.973	112.498	113.063	113.678	
Services.....	255.796	256.048	257.138	257.595	257.745	257.663	257.198	257.219	257.382	257.982	258.732	259.108	259.419	
Rent of shelter <sup>3</sup> .....	233.210	233.184	233.460	233.588	233.478	233.516	233.679	233.956	234.278	234.715	235.090	235.413	235.544	
Transportation services.....	258.501	259.113	260.032	260.674	260.904	260.813	262.219	263.804	263.648	264.313	265.521	266.383	267.258	
Other services.....	295.327	295.551	296.070	296.475	297.576	297.815	297.397	297.313	296.508	296.924	297.671	298.010	298.262	
Special indexes:														
All items less food.....	213.000	213.175	212.865	212.937	213.224	213.223	213.532	213.675	214.225	215.215	216.389	219.027	220.894	
All items less shelter.....	206.048	206.283	205.788	205.817	206.276	206.399	206.770	206.838	207.428	208.828	210.242	213.549	215.853	
All items less medical care.....	206.841	207.010	206.706	206.771	207.068	207.107	207.409	207.523	208.036	209.141	210.198	212.722	214.442	
Commodities less food.....	158.569	158.650	156.641	156.245	156.695	156.792	158.038	158.328	159.342	160.795	162.470	167.826	171.564	
Nondurables less food.....	202.529	202.587	198.309	197.295	198.064	198.749	201.606	202.679	204.737	207.458	210.278	220.431	227.290	
Nondurables less food and apparel.....	251.298	251.953	246.685	246.832	247.415	246.106	249.688	251.899	257.051	262.134	265.539	280.056	290.247	
Nondurables.....	210.526	210.607	208.127	207.547	208.167	208.853	210.627	211.249	212.541	214.950	216.941	223.402	227.661	
Services less rent of shelter <sup>3</sup> .....	249.847	250.398	252.319	253.109	253.551	253.335	252.181	251.894	251.847	252.563	253.664	254.057	254.540	
Services less medical care services.....	244.719	244.987	246.079	246.547	246.681	246.476	245.955	245.958	246.115	246.643	247.244	247.622	247.899	
Energy.....	213.728	215.104	212.049	212.674	212.996	210.386	211.514	212.622	218.896	224.500	228.160	244.773	256.540	
All items less energy.....	214.945	214.964	215.015	215.005	215.312	215.742	215.961	215.970	215.786	216.389	217.222	218.011	218.537	
All items less food and energy.....	214.643	214.645	214.733	214.724	215.009	215.388	215.580	215.584	215.303	215.627	216.448	217.067	217.525	
Commodities less food and energy.....	146.094	145.941	145.603	145.205	145.557	146.170	146.268	145.757	145.037	145.024	145.909	146.835	147.472	
Energy commodities.....	248.594	250.038	238.151	237.720	238.785	235.913	243.933	248.880	260.026	270.105	276.539	308.083	330.157	
Services less energy.....	263.097	263.218	263.631	263.922	264.149	264.342	264.603	265.001	265.062	265.639	266.394	266.766	267.077	

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

<sup>2</sup> Indexes on a December 1997 = 100 base.

<sup>3</sup> Indexes on a December 1982 = 100 base.

<sup>4</sup> Indexes on a December 1988 = 100 base.

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

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

[1982-84 = 100, unless otherwise indicated]

	Pricing schedule <sup>1</sup>	All Urban Consumers						Urban Wage Earners					
		2010		2011				2010		2011			
		Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
U.S. city average.....	M	218.803	219.179	220.223	221.309	223.467	224.906	214.750	215.262	216.400	217.535	220.024	221.743
<b>Region and area size<sup>2</sup></b>													
Northeast urban.....	M	235.094	235.141	235.969	237.110	239.074	240.267	232.962	233.082	233.914	235.109	237.377	238.756
Size A—More than 1,500,000.....	M	236.806	236.828	237.564	238.798	240.599	241.626	233.031	233.092	233.851	235.230	237.239	238.390
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	140.282	140.351	141.001	141.547	143.001	143.987	141.452	141.598	142.196	142.691	144.395	145.520
Midwest urban <sup>4</sup> .....	M	208.816	209.270	210.388	211.090	212.954	214.535	204.468	205.024	206.258	206.981	209.094	210.991
Size A—More than 1,500,000.....	M	209.344	209.936	210.928	211.503	213.449	214.878	204.064	204.731	205.878	206.516	208.740	210.508
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	134.058	134.267	135.061	135.665	136.834	138.005	134.112	134.454	135.277	135.841	137.189	138.552
Size D—Nonmetropolitan (less than 50,000).....	M	206.014	206.136	207.551	208.156	209.713	211.314	203.937	204.132	205.648	206.306	208.108	209.987
South urban.....	M	211.996	212.488	213.589	214.735	217.214	218.820	209.352	209.994	211.216	212.416	215.272	217.234
Size A—More than 1,500,000.....	M	213.424	213.850	215.127	216.145	218.391	219.944	211.222	211.712	213.058	214.129	216.680	218.615
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	134.892	135.240	135.925	136.625	138.211	139.177	133.927	134.405	135.207	135.919	137.789	138.962
Size D—Nonmetropolitan (less than 50,000).....	M	215.736	216.189	216.750	218.772	222.275	224.716	215.822	216.477	217.200	219.352	223.059	225.869
West urban.....	M	221.671	222.081	223.149	224.431	226.558	227.837	216.267	216.847	217.995	219.368	221.830	223.268
Size A—More than 1,500,000.....	M	225.847	226.112	227.281	228.444	230.707	231.808	218.817	219.273	220.564	221.848	224.576	225.833
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	133.930	134.328	134.917	135.826	137.200	138.174	133.777	134.306	134.900	135.845	137.331	138.362
<b>Size classes:</b>													
A <sup>5</sup> .....	M	199.844	200.123	201.059	201.974	203.833	204.963	198.598	198.979	200.022	201.033	203.220	204.607
B/C <sup>3</sup> .....	M	135.289	135.579	136.260	136.960	138.404	139.413	134.969	135.379	136.112	136.808	138.471	139.645
D.....	M	212.124	212.541	213.417	214.862	216.988	218.920	210.529	210.959	212.005	213.495	215.928	218.220
<b>Selected local areas<sup>6</sup></b>													
Chicago—Gary—Kenosha, IL—IN—WI.....	M	213.066	213.778	215.155	216.192	217.880	218.762	206.632	207.479	209.016	210.106	212.256	213.633
Los Angeles—Riverside—Orange County, CA.....	M	225.941	226.639	228.652	229.729	232.241	233.319	218.694	219.619	221.540	222.814	225.770	227.051
New York, NY—Northern NJ—Long Island, NY—NJ—CT—PA..	M	241.960	241.874	242.639	243.832	245.617	246.489	237.606	237.575	238.396	239.750	241.667	242.697
Boston—Brockton—Nashua, MA—NH—ME—CT.....	1	238.103	—	239.814	—	242.787	—	238.891	—	240.540	—	244.324	—
Cleveland—Akron, OH.....	1	206.168	—	207.587	—	209.372	—	197.530	—	199.568	—	201.146	—
Dallas—Ft. Worth, TX.....	1	201.168	—	203.199	—	206.967	—	204.918	—	206.954	—	211.227	—
Washington—Baltimore, DC—MD—VA—WV <sup>7</sup> .....	1	142.915	—	144.327	—	146.044	—	142.938	—	144.556	—	146.572	—
Atlanta, GA.....	2	—	202.519	—	205.744	—	209.215	—	201.390	—	204.611	—	208.356
Detroit—Ann Arbor—Flint, MI.....	2	—	206.384	—	206.816	—	211.673	—	202.280	—	202.849	—	208.217
Houston—Galveston—Brazoria, TX.....	2	—	194.479	—	197.224	—	201.624	—	192.863	—	195.677	—	200.997
Miami—Ft. Lauderdale, FL.....	2	—	224.907	—	227.451	—	231.503	—	222.510	—	225.346	—	229.675
Philadelphia—Wilmington—Atlantic City, PA—NJ—DE—MD.....	2	—	228.017	—	230.878	—	233.143	—	228.072	—	231.306	—	233.441
San Francisco—Oakland—San Jose, CA.....	2	—	227.658	—	229.981	—	234.121	—	224.152	—	226.638	—	231.600
Seattle—Tacoma—Bremerton, WA.....	2	—	226.862	—	229.482	—	231.314	—	222.853	—	225.790	—	228.313

<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.

<sup>2</sup> 1—January, March, May, July, September, and November. 2—February, April, June, August, October, and December.

<sup>3</sup> Regions defined as the four Census regions.

<sup>4</sup> Indexes on a December 1996 = 100 base.

<sup>5</sup> The "North Central" region has been renamed the "Midwest" region by the Census Bureau. It is composed of the same geographic entities.

<sup>6</sup> Indexes on a December 1986 = 100 base.

<sup>7</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	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Consumer Price Index for All Urban Consumers:											
All items:											
Index.....	172.2	177.1	179.9	184.0	188.9	195.3	201.6	207.342	215.303	214.537	218.056
Percent change.....	3.4	2.8	1.6	2.3	2.7	3.4	3.2	2.8	3.8	-0.4	1.6
Food and beverages:											
Index.....	168.4	173.6	176.8	180.5	186.6	191.2	195.7	203.300	214.225	218.249	219.984
Percent change.....	2.3	3.1	1.8	2.1	3.3	2.5	2.4	3.9	5.4	1.9	0.8
Housing:											
Index.....	169.6	176.4	180.3	184.8	189.5	195.7	203.2	209.586	216.264	217.057	216.256
Percent change.....	3.5	4.0	2.2	2.5	2.5	3.3	3.8	3.1	3.2	0.4	-0.4
Apparel:											
Index.....	129.6	127.3	124.0	120.9	120.4	119.5	119.5	118.998	118.907	120.078	119.503
Percent change.....	-1.3	-1.8	-2.6	-2.5	-4	-7	.0	-0.4	-0.1	1.0	-0.5
Transportation:											
Index.....	153.3	154.3	152.9	157.6	163.1	173.9	180.9	184.682	195.549	179.252	193.396
Percent change.....	6.2	0.7	-9	3.1	3.5	6.6	4.0	2.1	5.9	-8.3	7.9
Medical care:											
Index.....	260.8	272.8	285.6	297.1	310.1	323.2	336.2	351.054	364.065	375.613	388.436
Percent change.....	4.1	4.6	4.7	4.0	4.4	4.2	4.0	4.4	3.7	3.2	
Other goods and services:											
Index.....	271.1	282.6	293.2	298.7	304.7	313.4	321.7	333.328	345.381	368.586	381.291
Percent change.....	5.0	4.2	3.8	1.9	2.0	2.9	2.6	3.6	3.6	6.7	3.4
Consumer Price Index for Urban Wage Earners and Clerical Workers:											
All items:											
Index.....	168.9	173.5	175.9	179.8	184.5	191.0	197.1	202.767	211.053	209.630	213.967
Percent change.....	3.5	2.7	1.4	2.2	5.1	1.1	3.2	2.9	4.1	-0.7	2.1

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

[1982 = 100]

Grouping	Annual average		2010									2011			
	2009	2010	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. <sup>P</sup>	Feb. <sup>P</sup>	Mar. <sup>P</sup>	Apr. <sup>P</sup>
<b>Finished goods.....</b>	172.5	179.8	179.5	179.8	179.0	179.5	179.9	180.0	181.2	181.6	182.6	184.4	186.9	189.4	191.7
Finished consumer goods.....	179.1	189.1	188.8	189.2	188.2	188.9	189.4	189.5	190.8	191.4	192.9	195.2	198.6	202.1	205.2
Finished consumer goods.....	175.5	182.4	184.2	184.1	179.5	180.5	180.1	181.9	182.1	183.9	186.0	186.9	194.1	193.8	193.6
Finished consumer goods excluding foods.....	179.4	190.4	189.4	190.0	190.1	190.8	191.6	191.1	192.7	193.0	194.2	197.0	199.1	203.9	208.1
Nondurable goods less food.....	194.1	210.1	208.7	209.6	210.1	211.2	212.3	211.5	213.2	213.7	215.7	219.7	222.6	229.7	235.8
Durable goods.....	144.3	144.9	144.8	145.0	144.3	144.2	144.3	144.2	145.8	145.6	145.3	145.7	146.1	146.4	146.6
Capital equipment.....	156.7	157.3	157.1	157.2	157.0	156.9	157.1	157.0	158.0	157.8	157.8	158.4	158.6	158.7	159.1
<b>Intermediate materials, supplies, and components.....</b>	172.5	183.4	183.2	184.3	183.3	183.1	183.9	184.1	185.3	186.4	187.8	190.6	193.2	197.3	200.5
Materials and components for manufacturing.....	162.7	174.0	175.0	175.4	173.6	172.6	173.1	174.0	175.5	177.0	178.4	181.5	184.2	187.0	189.9
Materials for food manufacturing.....	165.1	174.4	172.7	175.1	173.2	172.9	174.5	177.6	178.3	180.3	179.3	180.4	186.7	190.7	193.7
Materials for nondurable manufacturing.....	191.6	215.4	217.7	216.9	212.7	211.4	212.9	214.4	217.7	221.4	225.4	231.9	236.2	242.1	248.2
Materials for durable manufacturing.....	168.9	186.6	189.3	190.8	188.3	185.2	184.7	186.1	188.7	190.5	191.8	196.0	200.3	203.8	207.4
Components for manufacturing.....	141.0	142.2	142.2	142.4	142.5	142.4	142.6	142.6	142.6	142.6	142.8	143.8	144.1	144.5	145.3
Materials and components for construction.....	202.9	205.7	206.1	207.4	206.6	206.3	206.2	205.9	205.9	206.3	207.0	208.3	209.1	210.8	211.9
Processed fuels and lubricants.....	161.9	185.2	183.1	185.9	185.2	186.3	188.4	187.5	188.9	189.5	192.2	196.2	201.1	212.4	218.9
Containers.....	195.8	201.2	200.1	201.6	204.1	204.4	205.0	202.3	202.4	202.5	202.7	203.4	203.7	204.2	204.8
Supplies.....	172.2	175.0	173.8	174.7	174.5	174.8	175.1	175.5	176.4	177.5	178.1	179.6	180.7	182.1	183.6
<b>Crude materials for further processing.....</b>	175.2	212.2	211.0	208.3	203.7	208.7	211.8	209.2	215.3	217.2	227.0	235.9	241.6	247.6	261.0
Foodstuffs and feedstuffs.....	134.5	152.4	148.6	153.0	146.3	150.7	152.5	158.6	160.8	162.3	164.6	171.6	183.6	185.5	193.3
Crude nonfood materials.....	197.5	249.3	250.7	241.5	239.3	244.4	248.5	237.7	247.0	249.1	265.2	274.9	274.1	283.5	301.0
<b>Special groupings:</b>															
Finished goods, excluding foods.....	171.1	178.3	177.6	178.1	178.1	178.5	179.1	178.7	180.1	180.2	181.0	183.0	184.4	187.5	190.3
Finished energy goods.....	146.9	166.9	165.9	166.7	166.8	168.0	169.6	168.1	170.0	170.5	172.9	177.4	181.4	192.0	200.9
Finished goods less energy.....	172.3	175.5	175.5	175.7	174.6	174.9	174.9	175.4	176.3	176.7	177.3	178.2	180.2	180.2	180.5
Finished consumer goods less energy.....	179.2	183.9	184.0	184.2	182.6	183.1	183.1	183.9	184.8	185.4	186.4	187.5	190.4	190.5	190.7
Finished goods less food and energy.....	171.5	173.6	173.0	173.3	173.2	173.3	173.5	173.5	174.7	174.7	174.8	175.8	176.2	176.3	176.7
Finished consumer goods less food and energy.....	181.6	185.1	184.2	184.6	184.7	184.9	185.1	185.3	186.6	186.6	186.9	188.2	188.8	189.0	189.4
Consumer nondurable goods less food and energy.....	214.3	220.8	219.1	219.7	220.7	221.4	221.4	222.0	222.9	223.3	224.2	226.6	227.2	227.2	227.9
Intermediate materials less foods and feeds.....	173.0	184.4	184.4	185.4	184.4	184.2	184.9	184.9	186.1	187.0	188.6	191.4	193.8	197.9	201.1
Intermediate foods and feeds.....	166.0	171.7	168.5	170.8	169.7	170.0	171.2	173.5	175.5	178.3	178.3	180.2	185.1	189.3	192.6
Intermediate energy goods.....	162.5	187.8	185.8	188.5	187.3	188.4	190.8	189.8	191.5	192.4	195.7	199.5	205.0	216.9	223.9
Intermediate goods less energy.....	172.8	180.0	180.3	181.0	180.0	179.4	179.7	180.3	181.4	182.6	183.5	185.9	187.8	189.7	191.9
Intermediate materials less foods and energy.....	173.4	180.8	181.5	181.9	181.0	180.4	180.5	180.9	181.9	182.9	183.9	186.4	187.9	189.6	191.6
Crude energy materials.....	176.8	216.7	216.0	205.9	207.7	216.1	217.7	199.0	207.9	207.3	225.1	232.0	226.8	240.7	260.4
Crude materials less energy.....	164.8	197.0	195.2	197.6	189.4	192.1	196.0	203.2	207.1	210.2	214.6	224.1	236.5	236.7	245.4
Crude nonfood materials less energy.....	248.4	329.1	335.3	330.0	317.1	313.2	324.1	334.5	344.0	352.5	364.0	381.1	392.7	386.7	396.8

p = preliminary.

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

[December 2003 = 100, unless otherwise indicated]

NAICS	Industry	2010										2011			
		Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. <sup>P</sup>	Feb. <sup>P</sup>	Mar. <sup>P</sup>	Apr. <sup>P</sup>	
	<b>Total mining industries (December 1984=100)</b> .....	213.4	204.9	204.8	209.0	211.6	202.5	212.2	214.1	227.3	232.7	232.5	244.2	258.9	
211	Oil and gas extraction (December 1985=100).....	240.0	226.8	226.7	232.7	235.5	219.6	233.4	235.6	256.4	261.7	261.0	279.5	302.8	
212	Mining, except oil and gas.....	201.3	200.1	199.0	200.1	203.9	206.1	211.0	213.3	214.3	221.8	223.2	224.8	226.2	
213	Mining support activities.....	100.6	100.7	101.1	102.7	102.3	103.4	104.2	103.8	105.4	106.6	106.8	106.6	107.1	
	<b>Total manufacturing industries (December 1984=100)</b> .....	175.2	176.1	174.8	174.7	175.3	175.5	177.3	178.2	179.1	181.1	183.3	187.3	190.1	
311	Food manufacturing (December 1984=100).....	173.6	175.8	174.6	174.6	175.3	177.3	178.2	179.4	179.8	181.1	184.6	188.3	191.4	
312	Beverage and tobacco manufacturing.....	122.1	123.5	123.9	123.6	123.4	123.2	124.7	124.8	125.7	126.3	126.8	127.6	125.7	
313	Textile mills.....	114.6	115.3	115.7	116.0	116.2	116.7	117.4	118.6	120.0	123.1	125.7	125.9	128.2	
315	Apparel manufacturing.....	103.6	103.5	103.5	103.5	103.6	103.2	103.2	103.4	103.5	103.7	104.5	104.7	104.8	
316	Leather and allied product manufacturing (December 1984=100).....	155.3	155.8	155.9	156.4	156.9	157.0	158.7	158.8	159.2	160.5	162.0	162.0	162.8	
321	Wood products manufacturing.....	110.0	112.5	109.3	108.8	107.6	107.1	106.7	106.7	107.3	108.0	107.9	108.6	108.6	
322	Paper manufacturing.....	125.1	126.7	128.0	128.7	128.8	129.9	129.9	130.1	130.2	130.3	130.6	130.8	131.1	
323	Printing and related support activities.....	109.5	109.5	109.8	110.0	109.9	109.9	110.2	110.7	110.7	110.7	110.9	111.0	111.3	
324	Petroleum and coal products manufacturing (December 1984=100).....	287.8	292.0	280.4	278.8	284.4	282.4	295.3	302.8	310.4	321.1	336.0	371.9	393.5	
325	Chemical manufacturing (December 1984=100).....	234.1	233.4	232.6	233.5	233.7	234.6	236.3	236.8	237.6	242.6	244.4	246.9	249.3	
326	Plastics and rubber products manufacturing (December 1984=100).....	165.6	166.2	167.1	166.8	166.9	167.0	167.2	167.8	168.6	170.6	171.0	172.3	174.1	
331	Primary metal manufacturing (December 1984=100).....	198.7	200.5	198.8	194.3	193.6	195.8	199.6	202.0	203.4	208.0	213.5	217.8	222.5	
332	Fabricated metal product manufacturing (December 1984=100).....	176.3	177.0	177.1	177.2	177.7	176.8	176.9	177.0	177.5	178.7	179.4	180.4	181.6	
333	Machinery manufacturing.....	120.4	120.4	120.3	120.5	120.6	120.8	120.8	120.9	121.1	121.7	122.3	122.3	122.8	
334	Computer and electronic products manufacturing.....	91.4	91.3	91.1	91.1	90.9	90.7	90.5	90.2	90.1	90.3	90.4	90.4	90.3	
335	Electrical equipment, appliance, and components manufacturing.....	131.7	131.9	131.8	131.6	131.8	132.1	132.5	133.1	133.6	134.3	134.6	135.4	135.8	
336	Transportation equipment manufacturing.....	110.3	110.3	109.9	109.7	109.9	109.9	111.1	110.9	110.8	111.2	111.3	111.2	111.6	
337	Furniture and related product manufacturing (December 1984=100).....	176.9	176.7	177.3	177.6	177.6	177.7	177.8	177.9	177.7	178.2	178.6	180.1	180.3	
339	Miscellaneous manufacturing.....	112.6	112.6	112.7	113.2	113.3	113.3	113.8	113.9	113.9	114.4	114.8	115.3	115.4	
	<b>Retail trade</b>														
441	Motor vehicle and parts dealers.....	124.4	123.9	123.9	124.6	125.1	125.0	124.6	124.5	124.6	127.9	124.8	127.7	127.9	
442	Furniture and home furnishings stores.....	121.7	121.7	120.5	119.8	121.0	120.9	121.3	122.1	122.4	122.1	122.0	123.3	121.3	
443	Electronics and appliance stores.....	105.4	104.1	105.3	105.8	104.2	101.4	102.6	97.6	87.8	87.7	85.3	80.8	85.0	
446	Health and personal care stores.....	142.1	142.5	143.1	136.1	128.8	129.2	144.7	133.5	133.0	133.7	138.7	130.8	132.5	
447	Gasoline stations (June 2001=100).....	74.1	82.8	67.6	71.6	73.7	69.8	69.9	70.5	68.2	68.6	69.5	72.7	70.8	
454	Nonstore retailers.....	142.8	142.7	138.7	141.3	137.2	136.1	132.2	137.3	140.5	137.8	144.7	143.9	142.8	
	<b>Transportation and warehousing</b>														
481	Air transportation (December 1992=100).....	205.8	202.9	208.0	209.1	205.2	196.0	201.0	202.5	202.6	208.0	209.5	221.5	221.0	
483	Water transportation.....	121.0	123.1	124.1	129.3	130.0	129.9	129.9	128.8	129.1	130.4	133.0	134.5	134.9	
491	Postal service (June 1989=100).....	187.7	187.7	187.7	187.7	187.7	187.7	187.7	187.7	187.7	188.5	188.5	188.5	188.5	
	<b>Utilities</b>														
221	Utilities.....	131.0	131.3	134.5	137.1	138.8	136.0	131.8	130.5	132.4	134.4	133.9	132.7	133.0	
	<b>Health care and social assistance</b>														
6211	Office of physicians (December 1996=100).....	129.0	129.0	129.7	129.9	130.2	130.3	130.6	130.6	130.6	130.6	130.9	131.2	131.1	
6215	Medical and diagnostic laboratories.....	108.2	108.2	108.3	108.4	108.5	108.6	108.6	108.5	108.2	107.9	107.9	107.9	108.0	
6216	Home health care services (December 1996=100).....	129.3	129.3	129.3	129.3	129.3	129.6	129.9	129.8	129.9	129.8	129.5	129.7	129.7	
622	Hospitals (December 1992=100).....	173.0	172.8	172.9	173.1	173.2	173.4	174.5	174.4	174.4	175.2	175.1	175.3	175.6	
6231	Nursing care facilities.....	125.4	125.4	125.0	125.3	125.1	125.3	126.8	127.0	127.2	128.3	128.2	128.4	128.6	
62321	Residential mental retardation facilities.....	128.7	128.7	129.5	130.0	130.1	133.8	133.8	134.2	134.5	134.7	134.6	134.7	135.0	
	<b>Other services industries</b>														
511	Publishing industries, except Internet.....	110.3	110.4	110.2	110.3	110.4	110.3	110.3	110.4	110.5	110.9	110.8	110.7	110.9	
515	Broadcasting, except Internet.....	108.7	109.5	113.5	109.2	108.3	109.3	113.7	116.1	112.9	109.8	109.0	110.2	112.4	
517	Telecommunications.....	100.2	100.8	100.9	101.0	101.3	101.4	101.5	101.5	101.4	101.4	100.8	101.0	101.0	
5182	Data processing and related services.....	100.8	100.8	100.8	100.8	100.8	101.7	101.7	101.7	101.7	101.7	101.7	101.7	101.8	
523	Security, commodity contracts, and like activity.....	117.6	121.2	119.7	118.5	119.5	120.2	122.6	123.0	123.0	125.1	125.7	127.5	126.0	
53112	Lessors or nonresidential buildings (except miniwarehouse).....	108.7	109.6	109.5	109.7	109.8	110.3	109.7	109.0	109.0	108.9	109.0	108.4	108.8	
5312	Offices of real estate agents and brokers.....	100.6	100.3	100.1	99.8	99.5	99.9	100.0	99.4	99.1	99.0	98.8	98.4	97.8	
5313	Real estate support activities.....	107.4	106.9	106.9	106.4	106.5	106.5	107.1	106.9	106.9	107.3	107.2	106.9	106.7	
5321	Automotive equipment rental and leasing (June 2001=100).....	133.1	128.9	134.2	144.4	136.6	131.0	134.9	133.3	129.4	129.4	131.2	137.1	129.0	
5411	Legal services (December 1996=100).....	171.5	171.5	171.5	171.9	173.1	173.3	173.3	173.3	173.4	176.6	176.5	177.6	178.1	
541211	Offices of certified public accountants.....	113.7	112.9	112.7	112.9	113.4	113.7	113.5	113.1	113.6	113.3	112.8	111.5	111.5	
5413	Architectural, engineering, and related services (December 1996=100).....	143.1	143.2	143.6	143.8	143.7	143.7	143.9	144.0	144.0	144.3	144.7	144.8	144.9	
54181	Advertising agencies.....	104.8	104.8	104.8	105.4	105.4	105.3	105.2	105.4	105.4	105.4	105.6	105.8	105.8	
5613	Employment services (December 1996=100).....	124.5	124.9	125.2	125.7	125.8	125.6	125.4	125.3	125.3	125.5	125.7	125.9	125.2	
56151	Travel agencies.....	100.4	100.4	100.6	100.6	100.5	100.4	100.5	100.4	100.4	100.4	100.5	100.3	100.4	
56172	Janitorial services.....	110.5	110.6	110.6	110.8	110.8	111.0	110.9	111.3	111.3	111.6	111.6	111.4	111.5	
5621	Waste collection.....	117.9	118.7	118.6	118.2	118.7	119.0	119.1	118.9	118.3	118.9	119.2	120.9	120.9	
721	Accommodation (December 1996=100).....	140.5	140.8	141.2	141.8	141.2	140.5	141.3	141.0	138.3	140.0	140.7	143.9	141.9	

p = preliminary.

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

[1982 = 100]

Index	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Finished goods</b>											
Total.....	138.0	140.7	138.9	143.3	148.5	155.7	160.4	166.6	177.1	172.5	179.9
Foods.....	137.2	141.3	140.1	145.9	152.7	155.7	156.7	167.0	178.3	175.5	182.5
Energy.....	94.1	96.7	88.8	102.0	113.0	132.6	145.9	156.3	178.7	146.9	167.3
Other.....	148.0	150.0	150.2	150.5	152.7	156.4	158.7	161.7	167.2	171.5	173.5
<b>Intermediate materials, supplies, and components</b>											
Total.....	129.2	129.7	127.8	133.7	142.6	154.0	164.0	170.7	188.3	172.5	183.6
Foods.....	119.2	124.3	123.2	134.4	145.0	146.0	146.2	161.4	180.4	165.1	174.5
Energy.....	101.7	104.1	95.9	111.9	123.2	149.2	162.8	174.6	208.1	162.5	188.4
Other.....	136.6	136.4	135.8	138.5	146.5	154.6	163.8	168.4	180.9	173.4	180.8
<b>Crude materials for further processing</b>											
Total.....	120.6	121.0	108.1	135.3	159.0	182.2	184.8	207.1	251.8	175.2	212.0
Foods.....	100.2	106.1	99.5	113.5	127.0	122.7	119.3	146.7	163.4	134.5	152.3
Energy.....	122.1	122.3	102.0	147.2	174.6	234.0	226.9	232.8	309.4	176.8	216.4
Other.....	118.0	101.5	101.0	116.9	149.2	176.7	210.0	238.7	308.5	211.1	280.7

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

[2000 = 100]

Category	2010										2011			
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
<b>ALL COMMODITIES.....</b>	122.5	123.1	122.2	122.0	123.0	123.7	124.7	126.6	127.5	129.1	130.8	132.7	133.9	
Foods, feeds, and beverages.....	162.6	165.1	164.5	164.0	171.1	174.6	178.8	189.4	191.1	197.5	203.5	206.9	208.2	
Agricultural foods, feeds, and beverages.....	164.6	167.4	166.7	166.1	173.9	177.6	181.9	193.4	194.6	201.1	208.6	212.1	213.2	
Nonagricultural (fish, beverages) food products.....	147.8	147.3	147.2	147.7	147.2	149.4	152.8	153.3	161.1	166.8	155.9	158.1	161.0	
Industrial supplies and materials.....	160.0	162.2	159.8	158.8	161.2	162.6	165.3	169.5	172.6	177.2	182.2	188.2	191.9	
Agricultural industrial supplies and materials.....	157.1	159.1	162.5	163.9	166.6	173.2	181.5	206.3	223.0	228.0	247.6	259.0	258.1	
Fuels and lubricants.....	209.2	215.2	208.0	203.7	214.7	213.1	219.6	227.4	233.9	245.0	253.5	276.3	286.7	
Nonagricultural supplies and materials, excluding fuel and building materials.....	156.2	157.8	155.8	155.2	156.2	158.0	159.9	162.5	164.4	167.8	171.5	173.7	176.4	
Selected building materials.....	117.8	118.2	118.7	117.9	117.3	117.1	116.9	117.2	116.2	116.3	116.2	116.3	117.0	
Capital goods.....	103.9	103.8	103.5	103.4	103.4	103.5	103.4	103.7	103.9	104.0	104.0	104.0	104.2	
Electric and electrical generating equipment.....	108.8	109.1	109.3	108.5	108.6	108.7	109.3	109.8	109.8	110.3	110.6	111.2	111.7	
Nonelectrical machinery.....	95.0	94.7	94.3	94.2	94.2	94.3	94.1	94.3	94.4	94.2	94.0	93.9	94.0	
Automotive vehicles, parts, and engines.....	108.5	108.5	108.5	108.5	108.6	108.7	108.9	109.1	109.1	109.2	109.2	109.7	109.8	
Consumer goods, excluding automotive.....	110.9	110.8	110.4	110.8	110.7	111.8	112.5	112.9	112.7	112.4	113.2	114.0	114.5	
Nondurables, manufactured.....	112.3	112.2	111.5	111.6	112.2	112.9	113.4	114.2	114.0	112.9	113.1	113.5	114.2	
Durables, manufactured.....	108.1	108.0	108.2	109.1	108.2	109.9	111.0	111.1	110.9	111.0	111.9	113.0	112.5	
Agricultural commodities.....	162.7	165.3	165.3	165.0	172.0	176.1	181.0	194.7	198.5	204.7	214.1	218.8	219.6	
Nonagricultural commodities.....	119.6	120.0	119.1	118.9	119.5	120.0	120.7	121.7	122.4	123.6	124.8	126.5	127.7	



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

[2000 = 100]

Category	2010									2011			
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
<b>ALL COMMODITIES</b> .....	127.7	126.7	125.2	125.2	125.7	125.7	127.1	129.2	131.0	133.0	135.3	139.3	142.2
Foods, feeds, and beverages.....	149.0	151.1	148.7	149.2	152.4	153.3	156.5	160.6	162.7	166.7	167.7	174.9	178.4
Agricultural foods, feeds, and beverages.....	167.4	169.8	166.1	166.3	170.3	171.1	174.9	180.3	182.6	187.5	189.0	198.8	202.9
Nonagricultural (fish, beverages) food products.....	107.3	108.7	109.2	110.6	111.9	113.0	115.0	116.0	117.4	119.7	119.5	120.7	122.8
Industrial supplies and materials.....	210.7	205.6	199.5	199.7	201.0	200.1	206.6	214.5	222.6	230.1	239.4	256.2	268.0
Fuels and lubricants.....	269.3	255.6	245.8	248.2	250.8	247.1	257.7	270.1	285.2	296.9	313.4	343.7	364.7
Petroleum and petroleum products.....	294.5	278.9	267.4	269.6	273.4	269.8	282.4	296.6	313.0	324.7	342.5	380.1	405.0
Paper and paper base stocks.....	109.5	112.7	115.5	116.5	116.2	117.5	116.9	117.5	117.5	117.7	115.5	116.3	118.9
Materials associated with nondurable supplies and materials.....	147.8	148.4	146.2	146.0	146.5	147.7	150.5	154.1	157.0	160.6	163.2	165.8	168.7
Selected building materials.....	130.1	133.7	131.9	126.3	125.0	124.6	125.3	126.6	127.0	129.5	129.8	131.4	131.9
Unfinished metals associated with durable goods.....	246.5	253.8	244.6	238.8	239.2	244.2	251.4	262.8	266.0	274.3	279.4	290.0	295.2
Nonmetals associated with durable goods.....	107.4	107.5	107.2	107.5	107.6	107.7	107.9	108.5	108.7	110.4	111.4	112.1	113.1
Capital goods.....	91.5	91.6	91.5	91.4	91.6	91.8	91.9	91.9	92.0	92.0	92.4	92.6	92.7
Electric and electrical generating equipment.....	111.4	111.2	111.4	111.6	112.2	112.7	112.8	113.6	113.7	114.5	114.9	115.6	116.7
Nonelectrical machinery.....	85.9	86.1	86.0	85.8	86.0	86.1	86.3	86.2	86.2	86.2	86.4	86.5	86.4
Automotive vehicles, parts, and engines.....	108.5	108.5	108.5	108.9	109.1	109.3	109.4	109.6	109.4	109.6	109.8	110.3	110.5
Consumer goods, excluding automotive.....	104.5	104.6	104.4	104.2	104.1	104.2	103.7	104.1	104.2	104.5	104.9	104.7	105.2
Nondurables, manufactured.....	109.1	109.2	109.3	109.7	109.9	110.0	109.5	110.0	110.4	110.5	110.9	110.2	110.8
Durables, manufactured.....	100.2	100.3	99.8	99.1	98.6	98.7	98.1	98.5	98.2	98.7	98.9	99.2	99.5
Nonmanufactured consumer goods.....	102.0	103.0	102.4	101.9	103.1	103.0	103.6	103.6	103.7	106.0	107.3	107.8	109.5

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

[2000 = 100, unless indicated otherwise]

Category	2009				2010				2011
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.
Import air freight.....	132.9	132.8	134.8	163.9	158.3	162.5	163.2	170.1	172.8
Export air freight.....	124.1	117.4	121.6	122.9	124.0	126.3	125.7	128.1	138.9
Import air passenger fares (Dec. 2006 = 100).....	134.9	147.3	137.9	152.3	149.8	175.3	160.9	169.9	161.2
Export air passenger fares (Dec. 2006 = 100).....	141.7	138.2	141.3	156.1	157.7	176.3	172.2	169.0	172.8

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

[2005 = 100]

Item	2008				2009				2010				2011
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I
<b>Business</b>													
Output per hour of all persons.....	103.6	103.9	103.5	103.5	104.4	106.7	108.4	110.2	111.4	110.9	111.6	112.4	112.6
Compensation per hour.....	111.0	111.0	111.9	112.1	111.2	113.8	114.7	115.3	115.2	116.1	116.8	116.8	117.5
Real compensation per hour.....	101.8	100.6	99.8	102.4	102.2	104.1	104.0	103.8	103.4	104.3	104.6	103.9	103.2
Unit labor costs.....	107.1	106.9	108.1	108.4	106.5	106.7	105.8	104.6	103.4	104.6	104.7	104.0	104.3
Unit nonlabor payments.....	105.0	108.1	109.6	107.4	110.8	110.0	112.0	113.4	116.0	115.9	117.3	118.2	119.0
Implicit price deflator.....	106.3	107.3	108.7	108.0	108.2	108.0	108.2	108.1	108.4	109.1	109.7	109.6	110.2
<b>Nonfarm business</b>													
Output per hour of all persons.....	103.5	103.9	103.4	103.4	104.4	106.7	108.4	110.1	111.4	110.9	111.5	112.3	112.8
Compensation per hour.....	110.9	110.9	111.8	112.1	111.2	113.8	114.6	115.3	115.2	116.1	116.8	116.8	117.6
Real compensation per hour.....	101.8	100.5	99.7	102.5	102.2	104.1	103.9	103.8	103.4	104.3	104.6	103.9	103.2
Unit labor costs.....	107.2	106.8	108.1	108.4	106.5	106.7	105.8	104.7	103.5	104.7	104.7	104.0	104.2
Unit nonlabor payments.....	104.2	107.5	109.1	107.3	111.2	110.4	112.6	113.5	116.2	116.0	117.3	117.8	118.4
Implicit price deflator.....	106.0	107.1	108.5	108.0	108.4	108.2	108.5	108.2	108.5	109.2	109.7	109.4	109.8
<b>Nonfinancial corporations</b>													
Output per hour of all employees.....	101.8	101.5	102.4	102.7	101.7	103.0	104.3	107.8	110.3	110.4	109.5	109.9	111.0
Compensation per hour.....	108.9	109.5	110.5	111.4	110.5	112.6	113.6	114.3	114.3	114.9	115.8	115.9	116.6
Real compensation per hour.....	99.9	99.2	98.6	101.8	101.6	103.0	103.0	102.9	102.6	103.3	103.7	103.1	102.4
Total unit costs.....	108.6	109.9	110.3	111.4	112.2	112.4	111.4	108.6	106.2	106.3	107.6	107.5	107.0
Unit labor costs.....	107.0	107.9	108.0	108.5	108.7	109.3	108.9	106.0	103.6	104.1	105.8	105.4	105.0
Unit nonlabor costs.....	112.8	115.1	116.2	119.2	121.4	120.4	117.8	115.3	112.7	111.8	112.5	112.7	111.9
Unit profits.....	84.1	82.8	97.2	86.6	85.5	80.3	84.2	91.2	103.3	108.0	108.3	106.2	110.0
Unit nonlabor payments.....	103.0	104.1	109.7	108.0	109.1	106.6	106.3	107.0	109.5	110.5	111.1	110.5	111.3
Implicit price deflator.....	105.5	106.5	108.6	108.3	108.8	108.4	107.9	106.4	105.8	106.5	107.7	107.3	107.3
<b>Manufacturing</b>													
Output per hour of all persons.....	107.1	105.3	103.8	102.0	101.2	102.6	105.6	107.4	108.6	110.0	110.6	111.9	113.1
Compensation per hour.....	107.6	108.5	110.0	111.8	113.2	115.5	116.4	117.6	116.3	117.7	118.5	119.4	120.2
Real compensation per hour.....	98.7	98.3	98.1	102.2	104.0	105.6	105.5	105.9	104.4	105.8	106.1	106.2	105.6
Unit labor costs.....	100.5	103.0	106.0	109.7	111.8	112.6	110.2	109.6	107.1	107.0	107.1	106.7	106.3

NOTE: Dash indicates data not available.

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

[2005 = 100, unless otherwise indicated]

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Private business</b>													
Productivity:													
Output per hour of all persons.....	79.6	82.4	85.3	88.0	92.1	95.6	98.4	100.0	101.0	102.6	103.8	107.6	111.4
Output per unit of capital services.....	105.2	104.2	102.5	98.8	97.5	98.0	99.6	100.0	100.2	99.4	95.8	91.5	94.2
Multifactor productivity.....	88.0	89.6	91.2	91.8	94.0	96.5	98.9	100.0	100.5	100.9	99.9	100.2	103.3
Output.....	79.2	83.6	87.4	88.2	90.0	92.8	96.7	100.0	103.1	105.3	104.3	100.6	104.3
Inputs:													
Labor input.....	97.6	99.9	101.1	99.3	97.4	97.0	98.1	100.0	102.4	103.6	102.1	95.6	96.1
Capital services.....	75.2	80.2	85.3	89.3	92.2	94.7	97.1	100.0	102.9	106.0	108.8	109.9	110.6
Combined units of labor and capital input.....	90.0	93.3	95.9	96.1	95.7	96.2	97.7	100.0	102.6	104.4	104.4	100.4	101.0
Capital per hour of all persons.....	75.6	79.0	83.2	89.1	94.4	97.6	98.8	100.0	100.8	103.3	108.3	117.6	118.2
<b>Private nonfarm business</b>													
Productivity:													
Output per hour of all persons.....	80.1	82.7	85.5	88.2	92.3	95.7	98.4	100.0	100.9	102.6	103.8	107.6	111.4
Output per unit of capital services.....	106.1	104.9	102.9	99.1	97.7	98.0	99.6	100.0	100.0	99.2	95.4	90.9	93.7
Multifactor productivity.....	88.5	89.9	91.4	92.0	94.2	96.5	98.9	100.0	100.4	100.8	99.8	99.9	103.0
Output.....	79.3	83.7	87.5	88.4	90.1	92.8	96.7	100.0	103.2	105.5	104.3	100.5	104.2
Inputs:													
Labor input.....	97.1	99.6	100.8	99.2	97.2	96.9	98.1	100.0	102.5	103.8	102.2	95.8	96.3
Capital services.....	74.7	79.8	85.0	89.2	92.2	94.7	97.1	100.0	103.2	106.3	109.3	110.5	111.1
Combined units of labor and capital input.....	89.6	93.1	95.7	96.0	95.6	96.2	97.7	100.0	102.8	104.6	104.6	100.6	101.1
Capital per hour of all persons.....	75.5	78.9	83.2	89.0	94.5	97.7	98.8	100.0	101.0	103.4	108.7	118.3	118.8
<b>Manufacturing [1996 = 100]</b>													
Productivity:													
Output per hour of all persons.....	73.3	77.0	80.4	81.9	87.9	93.4	95.5	100.0	100.8	105.0	104.7	—	—
Output per unit of capital services.....	101.7	102.1	102.3	95.9	94.6	95.3	97.2	100.0	100.6	101.9	96.4	—	—
Multifactor productivity.....	107.3	110.5	110.0	105.9	102.3	99.8	97.9	100.0	99.3	96.8	93.2	—	—
Output.....	92.1	95.9	98.9	94.2	93.9	94.9	96.6	100.0	101.5	104.0	99.4	—	—
Inputs:													
Hours of all persons.....	125.5	124.7	123.1	115.0	106.9	101.6	101.1	100.0	100.7	99.0	95.0	—	—
Capital services.....	90.5	93.9	96.7	98.3	99.2	99.6	99.3	100.0	100.9	102.1	103.2	—	—
Energy.....	72.1	75.4	78.6	85.4	92.9	98.0	98.3	100.0	100.2	103.1	108.6	—	—
Nonenergy materials.....	95.4	117.7	128.4	140.3	108.6	97.0	90.8	100.0	92.2	97.7	95.2	—	—
Purchased business services.....	102.3	108.7	106.7	100.0	101.0	99.3	98.5	100.0	98.3	91.3	86.4	—	—
Combined units of all factor inputs.....	104.1	105.1	103.7	102.0	98.7	98.1	91.8	100.0	98.4	97.6	92.3	—	—

NOTE: Dash indicates data not available.

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

[2005 = 100]

Item	1965	1975	1985	1995	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Business</b>													
Output per hour of all persons.....	43.1	54.8	63.8	74.1	92.1	95.6	98.4	100.0	100.9	102.5	103.6	107.4	111.6
Compensation per hour.....	10.3	21.4	44.1	64.7	88.8	93.0	96.2	100.0	103.8	108.1	111.5	113.7	116.4
Real compensation per hour.....	58.2	70.8	76.3	82.3	96.3	98.7	99.5	100.0	100.5	101.8	101.1	103.5	104.2
Unit labor costs.....	23.9	39.0	69.1	87.4	96.4	97.3	97.8	100.0	102.8	105.4	107.6	105.9	104.3
Unit nonlabor payments.....	21.4	34.9	62.4	81.6	88.0	90.0	95.4	100.0	103.1	106.0	107.5	111.5	116.7
Implicit price deflator.....	22.9	37.4	66.4	85.1	93.1	94.4	96.9	100.0	102.9	105.7	107.6	108.1	109.2
<b>Nonfarm business</b>													
Output per hour of all persons.....	45.3	56.3	64.5	75.0	92.4	95.7	98.4	100.0	100.9	102.5	103.6	107.4	111.5
Compensation per hour.....	10.6	21.6	44.5	65.2	88.9	93.1	96.2	100.0	103.8	107.9	111.4	113.7	116.4
Real compensation per hour.....	59.7	71.6	76.9	82.9	96.5	98.8	99.4	100.0	100.5	101.6	101.0	103.5	104.2
Unit labor costs.....	23.3	38.4	68.9	87.0	96.2	97.2	97.8	100.0	102.8	105.3	107.6	105.9	104.4
Unit nonlabor payments.....	20.9	33.4	61.3	81.3	88.4	89.9	94.8	100.0	103.3	105.8	107.0	111.9	116.6
Implicit price deflator.....	22.4	36.4	65.9	84.8	93.1	94.3	96.6	100.0	103.0	105.5	107.4	108.3	109.2
<b>Nonfinancial corporations</b>													
Output per hour of all employees.....	46.0	54.5	64.2	74.2	91.7	95.3	98.3	100.0	101.5	101.8	102.1	104.2	110.1
Compensation per hour.....	12.1	24.0	48.2	67.8	90.7	94.7	96.9	100.0	102.8	106.4	110.1	112.7	115.4
Real compensation per hour.....	68.3	79.4	83.3	86.3	98.4	100.6	100.2	100.0	99.6	100.2	99.8	102.6	103.3
Total unit costs.....	24.6	43.0	74.1	89.9	98.4	98.7	97.8	100.0	101.8	105.7	110.0	111.1	106.9
Unit labor costs.....	26.2	44.1	75.0	91.5	98.9	99.5	98.6	100.0	101.3	104.5	107.8	108.2	104.8
Unit nonlabor costs.....	20.3	40.3	71.5	85.8	97.0	96.8	95.7	100.0	103.0	109.0	115.8	118.7	112.4
Unit profits.....	38.7	37.8	62.4	85.4	59.4	66.0	88.0	100.0	111.6	99.8	87.7	85.3	106.4
Unit nonlabor payments.....	26.6	39.4	68.4	85.7	84.1	86.2	93.1	100.0	105.9	105.9	106.2	107.3	110.3
Implicit price deflator.....	26.4	42.4	72.6	89.3	93.5	94.6	96.6	100.0	103.0	105.0	107.2	107.9	106.8
<b>Manufacturing</b>													
Output per hour of all persons.....	—	—	—	63.6	87.8	93.4	95.5	100.0	100.8	105.0	104.6	104.2	110.3
Compensation per hour.....	—	—	—	65.2	88.9	96.0	96.8	100.0	102.0	105.3	109.4	115.6	117.9
Real compensation per hour.....	—	—	—	83.0	96.5	101.9	100.0	100.0	98.8	99.2	99.2	105.3	105.6
Unit labor costs.....	—	—	—	102.6	101.2	102.8	101.4	100.0	101.2	100.3	104.6	111.0	106.9
Unit nonlabor payments.....	—	—	—	87.3	83.4	84.9	91.3	100.0	104.4	107.6	116.0	—	—
Implicit price deflator.....	—	—	—	91.5	88.2	89.8	94.1	100.0	103.6	105.6	112.9	—	—

Dash indicates data not available.

**0. Annual indexes of output per hour for selected NAICS industries**

2002=100]

NAICS	Industry	1987	1997	2000	2001	2002	2003	2004	200	2006	2007	2008	2009
<b>Mining</b>													
21	Mining.....	75.0	88.3	97.8	94.9	100.0	102.8	94.0	85.0	77.1	71.2	69.1	78.9
211	Oil and gas extraction.....	64.9	81.0	96.7	96.6	100.0	105.9	90.0	86.6	80.9	78.7	71.4	75.9
2111	Oil and gas extraction.....	64.9	81.0	96.7	96.6	100.0	105.9	90.0	86.6	80.9	78.7	71.4	75.9
212	Mining, except oil and gas.....	62.3	90.2	95.3	98.5	100.0	102.8	104.9	104.4	101.2	94.5	95.0	92.7
2121	Coal mining.....	51.7	89.7	103.9	102.5	100.0	101.7	101.6	96.7	89.5	90.6	85.4	80.1
2122	Metal ore mining.....	50.5	72.1	85.7	93.8	100.0	103.3	101.5	97.2	90.8	77.0	77.1	85.6
2123	Nonmetallic mineral mining and quarrying.....	84.3	96.0	92.1	96.5	100.0	104.3	109.4	115.4	117.0	104.1	105.3	98.1
213	Support activities for mining.....	76.1	97.0	99.6	104.5	100.0	122.1	141.6	103.8	86.7	117.7	143.8	134.9
2131	Support activities for mining.....	76.1	97.0	99.6	104.5	100.0	122.1	141.6	103.8	86.7	117.7	143.8	134.9
<b>Utilities</b>													
2211	Power generation and supply.....	63.7	97.2	103.9	103.4	100.0	102.1	104.4	111.1	112.1	110.1	105.7	103.1
2212	Natural gas distribution.....	58.7	86.6	98.1	95.4	100.0	98.9	102.5	105.9	103.2	103.8	104.9	100.9
<b>Manufacturing</b>													
311	Food.....	81.0	86.9	93.5	95.4	100.0	101.5	100.9	106.2	104.0	101.7	101.3	104.8
3111	Animal food.....	58.6	70.4	77.0	92.0	100.0	117.7	104.6	119.5	108.2	110.3	104.9	111.1
3112	Grain and oilseed milling.....	66.0	80.8	91.7	97.3	100.0	100.5	104.9	106.6	102.3	106.0	101.5	110.0
3113	Sugar and confectionery products.....	80.4	92.5	102.3	100.3	100.0	99.9	106.2	118.6	111.1	100.7	92.6	95.4
3114	Fruit and vegetable preserving and specialty.....	73.1	78.7	88.7	95.7	100.0	97.2	99.5	103.3	98.0	105.1	103.3	97.7
3115	Dairy products.....	77.4	94.4	89.6	92.2	100.0	104.0	101.8	101.8	100.7	100.4	108.1	114.8
3116	Animal slaughtering and processing.....	90.1	93.0	95.7	96.0	100.0	99.9	100.4	109.7	109.4	106.6	109.0	112.4
3117	Seafood product preparation and packaging.....	72.5	58.9	82.7	89.8	100.0	101.8	96.5	110.5	122.0	101.4	86.7	102.6
3118	Bakeries and tortilla manufacturing.....	85.5	87.5	96.6	98.4	100.0	97.9	100.1	104.3	103.8	101.4	94.2	95.8
3119	Other food products.....	87.5	89.7	100.8	94.5	100.0	104.8	106.1	102.9	102.8	94.9	95.9	100.3
312	Beverages and tobacco products.....	94.3	121.1	106.7	108.3	100.0	111.4	114.7	120.8	113.1	110.0	107.1	111.1
3121	Beverages.....	77.2	100.5	91.1	93.1	100.0	110.8	115.4	120.9	112.6	113.3	113.2	123.4
3122	Tobacco and tobacco products.....	107.2	149.3	143.0	146.6	100.0	116.7	121.5	136.5	138.1	137.5	119.7	117.4
313	Textile mills.....	59.8	81.3	86.3	89.4	100.0	111.1	113.0	122.9	122.2	125.9	125.0	124.8
3131	Fiber, yarn, and thread mills.....	50.0	75.2	75.6	82.5	100.0	112.1	116.7	108.8	105.5	113.7	114.8	106.6
3132	Fabric mills.....	56.0	82.5	90.2	91.4	100.0	114.0	115.3	133.0	140.7	144.6	154.9	160.5
3133	Textile and fabric finishing mills.....	76.5	83.6	87.2	91.0	100.0	104.1	104.5	113.3	102.4	101.0	87.0	84.0
314	Textile product mills.....	78.8	91.3	101.2	97.7	100.0	102.8	115.1	121.3	111.2	99.6	98.5	87.1
3141	Textile furnishings mills.....	85.7	94.1	100.2	97.9	100.0	105.7	115.3	119.1	108.4	100.9	101.9	87.0
3149	Other textile product mills.....	72.4	93.2	105.9	99.0	100.0	98.1	116.4	128.3	120.9	104.7	104.6	98.5
315	Apparel.....	73.3	99.9	116.6	116.9	100.0	106.6	94.2	94.4	86.0	55.5	52.5	43.6
3151	Apparel knitting mills.....	71.3	92.8	100.4	97.3	100.0	93.2	83.7	97.8	97.7	64.6	62.6	62.4
3152	Cut and sew apparel.....	70.6	99.0	118.8	119.3	100.0	109.5	96.4	92.0	82.4	52.1	48.7	37.9
3159	Accessories and other apparel.....	129.9	132.2	129.8	137.4	100.0	105.8	95.8	109.8	96.3	70.7	69.7	69.7
316	Leather and allied products.....	83.9	119.1	133.8	138.5	100.0	104.9	128.4	129.4	133.7	125.3	129.2	114.5
3161	Leather and hide tanning and finishing.....	138.4	153.7	135.8	140.1	100.0	103.1	135.7	142.4	127.8	156.1	144.4	120.0
3162	Footwear.....	77.3	99.3	123.8	132.9	100.0	105.9	110.0	115.9	122.4	109.2	129.5	122.4
3169	Other leather products.....	116.7	134.7	142.6	140.2	100.0	109.2	163.7	160.8	182.3	163.4	156.2	132.4
321	Wood products.....	83.1	87.5	90.2	91.7	100.0	101.6	102.2	107.6	110.9	111.5	109.3	106.6
3211	Sawmills and wood preservation.....	67.3	86.9	90.9	90.6	100.0	108.3	103.9	108.3	113.4	108.4	112.0	120.2
3212	Plywood and engineered wood products.....	90.3	90.4	89.6	95.1	100.0	96.7	92.3	99.6	105.5	108.7	104.7	102.4
3219	Other wood products.....	89.9	87.3	90.4	90.9	100.0	100.7	106.5	111.5	113.2	115.9	112.2	105.1
322	Paper and paper products.....	75.5	87.9	93.5	93.8	100.0	104.4	108.1	108.6	109.9	114.4	113.7	114.5
3221	Pulp, paper, and paperboard mills.....	61.9	75.6	88.2	90.4	100.0	106.2	110.4	110.2	110.9	114.6	115.5	113.8
3222	Converted paper products.....	84.4	94.8	96.0	95.3	100.0	104.0	107.5	108.8	110.5	115.9	114.4	116.3
323	Printing and related support activities.....	87.6	88.8	94.8	95.1	100.0	100.3	103.7	109.1	111.7	117.0	118.5	113.7
3231	Printing and related support activities.....	87.6	88.8	94.8	95.1	100.0	100.3	103.7	109.1	111.7	117.0	118.5	113.7
324	Petroleum and coal products.....	60.8	85.6	96.8	94.9	100.0	102.0	105.9	106.2	104.3	106.4	103.2	106.1
3241	Petroleum and coal products.....	60.8	85.6	96.8	94.9	100.0	102.0	105.9	106.2	104.3	106.4	103.2	106.1
325	Chemicals.....	75.0	87.4	92.9	91.9	100.0	101.3	105.3	109.4	109.1	116.0	108.1	102.3
3251	Basic chemicals.....	76.1	80.2	94.6	87.6	100.0	108.5	121.8	129.6	134.1	155.0	132.2	116.2
3252	Resin, rubber, and artificial fibers.....	62.9	81.2	89.0	86.3	100.0	97.7	97.3	103.4	105.5	108.0	98.8	91.6
3253	Agricultural chemicals.....	80.8	100.6	92.8	89.9	100.0	110.4	121.0	139.2	134.7	138.3	132.8	151.4
3254	Pharmaceuticals and medicines.....	89.6	102.8	98.3	101.8	100.0	103.0	103.6	107.0	107.5	103.8	102.0	97.3
3255	Paints, coatings, and adhesives.....	81.6	91.4	90.5	97.3	100.0	106.1	109.7	111.2	106.7	106.2	101.0	94.6
3256	Soap, cleaning compounds, and toiletries.....	68.2	80.4	82.3	84.6	100.0	92.8	102.6	110.2	111.5	134.9	127.5	126.9
3259	Other chemical products and preparations.....	62.3	82.6	98.1	90.9	100.0	98.6	96.2	96.0	91.5	103.5	104.3	99.3
326	Plastics and rubber products.....	67.3	82.7	91.1	92.8	100.0	103.8	105.9	108.7	108.6	107.3	102.6	101.7
3261	Plastics products.....	67.3	80.8	90.7	92.4	100.0	103.9	105.8	108.5	106.8	104.5	100.2	99.1
3262	Rubber products.....	71.3	93.2	94.8	95.5	100.0	103.5	106.4	109.4	114.2	118.0	111.8	111.3
327	Nonmetallic mineral products.....	83.6	95.1	98.6	95.6	100.0	107.1	105.3	111.6	110.7	112.7	107.6	100.2
3271	Clay products and refractories.....	90.6	102.7	108.5	99.1	100.0	109.5	116.0	122.0	122.2	122.4	118.1	100.9

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

2002=100]

NAICS	Industry	1987	1997	2000	2001	2002	2003	2004	200	2006	2007	2008	2009
3272	Glass and glass products.....	75.6	91.1	100.2	94.1	100.0	106.7	105.7	111.8	119.2	119.2	115.5	119.1
3273	Cement and concrete products.....	90.5	97.0	99.3	95.5	100.0	106.3	101.0	104.6	101.6	106.6	98.9	88.6
3274	Lime and gypsum products.....	89.3	101.2	99.8	103.1	100.0	109.3	107.2	121.9	119.3	112.4	111.3	103.4
3279	Other nonmetallic mineral products.....	79.4	94.9	90.3	95.2	100.0	105.7	106.8	118.5	112.8	111.0	112.6	106.2
331	Primary metals.....	70.4	86.9	88.0	87.6	100.0	101.5	113.3	114.2	112.5	115.9	121.5	105.5
3311	Iron and steel mills and ferroalloy production.....	51.9	80.1	84.6	83.6	100.0	106.1	136.5	134.1	138.0	139.4	151.6	117.7
3312	Steel products from purchased steel.....	81.9	102.9	99.1	101.3	100.0	91.2	81.5	76.1	68.0	71.7	67.5	57.0
3313	Alumina and aluminum production.....	72.7	80.3	77.5	77.2	100.0	101.8	110.4	125.2	123.1	124.3	121.7	115.4
3314	Other nonferrous metal production.....	90.8	93.7	96.2	93.4	100.0	108.8	109.4	105.7	94.9	117.6	122.7	105.0
3315	Foundries.....	69.4	85.5	88.7	91.2	100.0	100.4	106.8	111.4	114.1	111.5	103.7	105.6
332	Fabricated metal products.....	78.3	90.0	94.7	94.6	100.0	102.7	101.4	104.3	106.2	108.6	110.5	101.3
3321	Forging and stamping.....	68.8	80.4	97.8	97.3	100.0	106.6	112.3	116.2	118.1	125.7	126.1	117.5
3322	Cutlery and handtools.....	76.1	88.1	93.4	97.3	100.0	99.2	90.9	95.4	97.2	105.6	101.9	89.8
3323	Architectural and structural metals.....	83.5	94.0	95.6	95.5	100.0	103.4	98.7	103.5	106.5	107.7	106.3	96.6
3324	Boilers, tanks, and shipping containers.....	86.7	100.6	95.2	95.0	100.0	103.7	96.0	99.3	101.0	106.2	104.2	99.7
3325	Hardware.....	77.0	86.8	99.4	98.4	100.0	105.7	104.4	106.7	107.1	92.8	96.8	84.0
3326	Spring and wire products.....	65.4	79.6	89.7	89.0	100.0	106.0	104.4	111.0	110.7	108.9	115.0	110.0
3327	Machine shops and threaded products.....	65.2	87.2	94.9	95.3	100.0	100.4	101.6	100.9	102.0	105.0	108.6	96.0
3328	Coating, engraving, and heat treating metals.....	64.1	85.7	89.4	92.5	100.0	100.2	105.9	117.6	115.2	117.0	118.6	111.3
3329	Other fabricated metal products.....	85.2	93.6	93.8	90.8	100.0	104.5	104.8	106.5	111.1	114.2	121.5	112.7
333	Machinery.....	70.0	85.7	95.7	93.7	100.0	107.7	108.7	114.7	117.9	119.6	117.5	110.4
3331	Agriculture, construction, and mining machinery.....	69.1	96.1	96.1	95.3	100.0	112.3	120.8	124.0	125.1	125.9	127.4	113.2
3332	Industrial machinery.....	63.4	84.8	109.9	89.6	100.0	98.9	107.3	105.3	116.3	115.2	102.4	93.7
3333	Commercial and service industry machinery.....	88.9	102.1	102.9	97.1	100.0	107.5	109.6	118.4	127.4	116.0	121.4	117.7
3334	HVAC and commercial refrigeration equipment.....	70.6	84.1	90.8	93.3	100.0	109.6	112.0	116.1	113.1	110.3	109.5	110.6
3335	Metalworking machinery.....	75.8	89.6	96.2	94.2	100.0	103.9	102.9	110.9	111.8	117.9	117.6	107.5
3336	Turbine and power transmission equipment.....	61.1	76.5	87.9	97.5	100.0	110.4	96.9	101.2	96.9	95.1	92.2	80.2
3339	Other general purpose machinery.....	70.5	84.7	96.1	93.5	100.0	108.2	107.6	117.7	122.2	127.8	123.6	119.4
334	Computer and electronic products.....	15.2	53.5	96.3	96.6	100.0	114.1	127.2	134.1	145.0	156.9	161.2	157.7
3341	Computer and peripheral equipment.....	3.7	33.3	78.2	84.6	100.0	121.7	134.2	173.5	233.4	288.4	369.3	368.1
3342	Communications equipment.....	31.2	78.2	128.4	120.1	100.0	113.4	122.0	118.5	146.3	145.1	117.2	99.1
3343	Audio and video equipment.....	41.6	67.0	84.9	86.7	100.0	112.6	155.8	149.2	147.1	111.4	92.7	61.8
3344	Semiconductors and electronic components.....	6.4	37.8	87.6	87.7	100.0	121.7	133.8	141.1	138.1	161.9	171.1	164.3
3345	Electronic instruments.....	59.4	85.1	98.4	100.3	100.0	105.8	121.9	124.4	129.2	135.4	135.3	136.7
3346	Magnetic media manufacturing and reproduction.....	97.4	113.5	93.9	89.0	100.0	114.5	128.9	129.8	125.0	133.1	148.8	164.6
335	Electrical equipment and appliances.....	66.0	88.1	98.2	98.0	100.0	103.6	109.4	114.6	115.0	117.7	113.4	108.1
3351	Electric lighting equipment.....	80.6	88.6	90.2	94.3	100.0	98.4	107.9	112.5	121.5	121.4	125.3	124.2
3352	Household appliances.....	53.5	76.0	89.3	94.9	100.0	111.6	121.2	124.6	129.7	124.5	118.5	120.0
3353	Electrical equipment.....	67.3	97.9	97.2	98.5	100.0	102.1	110.6	118.1	119.7	125.5	118.7	111.2
3359	Other electrical equipment and components.....	68.7	87.3	104.7	99.0	100.0	102.0	101.8	106.4	101.5	107.0	103.7	96.4
336	Transportation equipment.....	65.4	78.7	86.8	89.2	100.0	109.0	107.9	113.3	114.9	126.2	120.4	117.3
3361	Motor vehicles.....	60.4	79.5	87.1	87.3	100.0	112.0	113.2	118.5	130.6	134.7	120.7	115.5
3362	Motor vehicle bodies and trailers.....	81.0	95.2	93.7	84.2	100.0	103.8	104.8	107.8	103.4	111.9	103.9	96.5
3363	Motor vehicle parts.....	60.3	76.9	86.1	88.1	100.0	104.8	105.6	109.9	108.6	114.8	109.6	109.0
3364	Aerospace products and parts.....	73.1	84.1	92.2	97.3	100.0	99.3	93.9	102.8	97.1	115.1	110.3	113.6
3365	Railroad rolling stock.....	38.0	68.5	81.1	86.3	100.0	94.1	87.2	88.4	95.2	94.0	109.8	112.1
3366	Ship and boat building.....	73.5	76.5	94.4	93.3	100.0	103.7	106.9	102.3	97.8	103.4	115.6	121.5
3369	Other transportation equipment.....	48.7	65.5	83.3	83.4	100.0	110.0	110.4	112.8	122.9	195.0	217.1	183.8
337	Furniture and related products.....	75.6	88.7	91.3	92.0	100.0	102.0	103.2	107.4	108.7	107.8	111.8	101.1
3371	Household and institutional furniture.....	76.8	89.3	92.7	94.7	100.0	101.1	100.8	105.9	109.7	107.5	112.1	100.7
3372	Office furniture and fixtures.....	74.0	86.3	86.9	84.7	100.0	106.2	110.3	112.2	106.7	106.0	107.6	93.6
3379	Other furniture related products.....	77.4	89.6	90.2	94.8	100.0	99.4	109.4	115.5	120.5	120.3	122.6	119.1
339	Miscellaneous manufacturing.....	64.5	79.3	92.6	94.0	100.0	106.8	106.3	114.7	118.3	117.8	119.7	120.1
3391	Medical equipment and supplies.....	57.7	76.6	90.3	93.8	100.0	107.5	108.4	116.0	117.7	119.2	122.0	121.2
3399	Other miscellaneous manufacturing.....	71.8	83.1	96.0	94.7	100.0	105.8	104.6	113.0	117.8	114.5	114.4	113.6
<b>Wholesale trade</b>													
42	Wholesale trade.....	59.2	80.9	94.4	95.4	100.0	103.9	109.2	110.0	111.5	111.0	108.5	104.9
423	Durable goods.....	44.1	70.8	88.8	91.8	100.0	105.2	116.4	120.7	124.7	124.1	121.5	113.5
4231	Motor vehicles and parts.....	55.9	75.0	87.5	90.0	100.0	103.0	107.2	109.3	116.9	112.4	98.9	84.4
4232	Furniture and furnishings.....	69.5	86.3	97.0	95.5	100.0	109.6	117.5	117.2	123.1	117.6	99.5	102.4
4233	Lumber and construction supplies.....	88.0	80.6	86.9	94.1	100.0	108.7	115.1	117.4	115.0	112.3	110.2	100.9
4234	Commercial equipment.....	10.0	35.9	67.1	81.4	100.0	113.3	133.7	150.7	164.2	176.7	193.0	196.5
4235	Metals and minerals.....	105.4	103.7	97.3	97.7	100.0	102.3	112.2	110.0	106.1	98.7	89.8	79.9
4236	Electric goods.....	26.8	62.6	95.7	92.5	100.0	105.1	124.5	131.8	142.6	151.5	151.5	155.0
4237	Hardware and plumbing.....	80.2	97.6	101.1	98.0	100.0	105.3	112.3	114.2	119.3	119.0	112.3	102.3
4238	Machinery and supplies.....	73.9	99.8	105.2	102.6	100.0	102.9	111.8	119.5	122.0	116.0	120.3	103.7

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

2002=100]

NAICS	Industry	1987	1997	2000	2001	2002	2003	2004	200	2006	2007	2008	2009
4239	Miscellaneous durable goods.....	72.2	80.5	91.9	93.1	100.0	97.2	110.7	105.4	97.6	93.6	92.6	89.2
424	Nondurable goods.....	85.7	94.1	99.4	99.3	100.0	104.9	108.3	109.3	107.2	106.7	104.8	105.5
4241	Paper and paper products.....	73.6	85.9	86.5	89.7	100.0	101.9	110.7	117.2	112.5	121.0	107.5	106.1
4242	Druggists' goods.....	78.7	111.3	95.7	94.6	100.0	112.0	118.7	126.6	125.4	117.3	120.5	131.1
4243	Apparel and piece goods.....	70.3	81.5	88.7	93.9	100.0	104.4	110.7	121.2	124.1	126.3	125.3	130.9
4244	Grocery and related products.....	89.3	101.6	103.9	103.4	100.0	106.7	106.4	106.3	106.4	108.6	105.1	105.2
4245	Farm product raw materials.....	82.3	100.8	106.7	104.3	100.0	96.4	103.4	100.0	102.3	100.8	103.5	112.0
4246	Chemicals.....	92.9	102.7	95.5	94.1	100.0	104.6	104.6	99.1	93.4	99.4	99.7	89.1
4247	Petroleum.....	55.7	66.0	92.0	92.0	100.0	101.9	113.4	109.5	104.8	99.6	97.9	92.5
4248	Alcoholic beverages.....	92.9	93.6	101.5	99.6	100.0	101.2	97.1	98.1	101.1	102.2	96.3	98.4
4249	Miscellaneous nondurable goods.....	105.2	94.6	108.7	105.5	100.0	102.0	110.9	113.1	110.4	103.8	100.0	105.5
425	Electronic markets and agents and brokers.....	60.2	93.7	110.5	101.9	100.0	95.4	81.4	71.6	76.4	77.4	73.1	68.2
4251	Electronic markets and agents and brokers.....	60.2	93.7	110.5	101.9	100.0	95.4	81.4	71.6	76.4	77.4	73.1	68.2
	<b>Retail trade</b>												
44-45	Retail trade.....	63.1	79.6	92.5	95.6	100.0	104.9	110.1	112.7	116.8	120.0	117.6	119.3
441	Motor vehicle and parts dealers.....	65.4	83.4	95.3	96.7	100.0	103.8	106.6	106.1	108.1	109.5	99.3	97.6
4411	Automobile dealers.....	67.6	85.3	97.0	98.5	100.0	102.2	107.0	106.3	108.1	110.5	100.7	99.7
4412	Other motor vehicle dealers.....	55.4	74.8	86.2	93.2	100.0	99.6	105.8	98.7	103.7	103.2	97.3	111.0
4413	Auto parts, accessories, and tire stores.....	66.7	92.9	100.7	94.1	100.0	106.8	102.0	106.1	105.4	103.2	99.1	96.6
442	Furniture and home furnishings stores.....	58.1	77.4	89.7	94.7	100.0	103.5	112.1	113.8	117.2	123.1	125.0	132.8
4421	Furniture stores.....	61.8	79.9	89.5	95.6	100.0	102.4	110.0	111.5	116.8	119.5	118.7	123.6
4422	Home furnishings stores.....	53.0	74.1	89.7	93.5	100.0	105.0	114.5	116.4	118.1	127.4	132.4	143.8
443	Electronics and appliance stores.....	16.3	42.8	74.4	84.2	100.0	125.5	143.3	158.4	177.0	199.7	232.5	264.5
4431	Electronics and appliance stores.....	16.3	42.8	74.4	84.2	100.0	125.5	143.3	158.4	177.0	199.7	232.5	264.5
444	Building material and garden supply stores.....	62.8	82.8	93.7	96.7	100.0	105.1	110.9	110.0	111.0	112.2	112.0	107.3
4441	Building material and supplies dealers.....	64.0	82.5	94.9	96.2	100.0	105.1	110.4	110.6	111.5	111.0	108.8	102.9
4442	Lawn and garden equipment and supplies stores.....	56.6	84.6	87.2	100.1	100.0	104.7	114.7	105.5	106.8	121.8	138.6	142.5
445	Food and beverage stores.....	105.9	95.5	96.5	99.1	100.0	101.9	106.9	111.1	113.3	115.6	112.7	114.8
4451	Grocery stores.....	106.1	95.5	96.5	98.6	100.0	101.5	106.2	110.1	111.1	112.8	110.0	111.6
4452	Specialty food stores.....	131.5	95.0	93.6	102.8	100.0	105.1	111.3	113.8	123.9	130.9	127.9	145.7
4453	Beer, wine, and liquor stores.....	85.0	90.8	96.0	97.2	100.0	106.1	115.7	126.5	131.2	139.1	130.7	131.0
446	Health and personal care stores.....	68.4	81.3	91.3	94.6	100.0	105.5	109.7	109.2	112.7	112.5	112.8	116.5
4461	Health and personal care stores.....	68.4	81.3	91.3	94.6	100.0	105.5	109.7	109.2	112.7	112.5	112.8	116.5
447	Gasoline stations.....	67.1	79.9	86.1	90.2	100.0	96.4	98.4	99.8	99.4	102.4	101.4	101.0
4471	Gasoline stations.....	67.1	79.9	86.1	90.2	100.0	96.4	98.4	99.8	99.4	102.4	101.4	101.0
448	Clothing and clothing accessories stores.....	50.5	76.2	94.1	96.3	100.0	105.9	106.1	112.5	122.8	132.3	138.0	137.7
4481	Clothing stores.....	49.4	73.6	91.9	95.8	100.0	104.3	103.6	112.3	123.0	134.1	144.7	145.9
4482	Shoe stores.....	52.2	79.9	87.9	89.0	100.0	105.7	99.5	105.4	116.2	114.5	115.5	107.9
4483	Jewelry, luggage, and leather goods stores.....	54.4	84.3	110.0	104.4	100.0	112.3	122.4	118.2	125.9	137.3	126.3	127.2
451	Sporting goods, hobby, book, and music stores.....	58.7	78.4	94.9	99.6	100.0	103.0	118.0	127.3	131.7	128.1	127.6	141.0
4511	Sporting goods and musical instrument stores.....	53.8	73.5	95.1	98.9	100.0	103.5	121.5	132.0	140.4	136.5	134.4	149.8
4512	Book, periodical, and music stores.....	70.7	89.6	94.7	101.2	100.0	101.9	110.4	117.1	113.1	109.5	112.3	121.4
452	General merchandise stores.....	57.0	77.4	93.2	96.7	100.0	106.3	109.7	113.5	117.3	118.4	117.4	120.4
4521	Department stores.....	86.0	97.9	104.0	101.6	100.0	104.3	107.8	109.2	111.8	105.2	101.9	100.5
4529	Other general merchandise stores.....	30.5	55.8	82.4	92.2	100.0	106.4	108.0	112.4	115.5	122.4	121.3	126.1
453	Miscellaneous store retailers.....	54.7	84.0	95.8	94.6	100.0	105.4	108.8	115.0	126.2	130.1	130.0	129.4
4531	Florists.....	68.2	87.9	101.3	90.3	100.0	99.7	97.3	112.6	126.1	113.6	130.9	151.8
4532	Office supplies, stationery and gift stores.....	43.4	70.7	89.9	93.5	100.0	108.7	121.9	129.0	143.7	152.1	153.3	169.8
4533	Used merchandise stores.....	45.4	70.4	82.0	85.8	100.0	103.9	104.5	105.9	111.6	123.0	135.4	128.7
4539	Other miscellaneous store retailers.....	72.4	106.0	110.6	102.7	100.0	104.4	100.5	104.3	115.6	118.2	109.3	100.1
454	Nonstore retailers.....	27.9	54.9	83.6	89.9	100.0	108.6	121.1	126.2	148.8	163.3	167.7	179.6
4541	Electronic shopping and mail-order houses.....	18.5	47.0	75.3	84.4	100.0	116.9	133.4	145.2	175.5	196.1	187.4	197.2
4542	Vending machine operators.....	104.6	109.6	121.7	104.9	100.0	118.2	121.0	118.1	122.7	115.8	136.5	123.9
4543	Direct selling establishments.....	52.4	74.0	90.7	94.7	100.0	93.0	95.1	87.7	94.3	97.9	102.9	113.6
	<b>Transportation and warehousing</b>												
481	Air transportation.....	76.7	98.3	96.0	91.0	100.0	110.2	124.2	133.6	140.5	142.2	140.6	140.7
482111	Line-haul railroads.....	43.8	74.4	85.0	90.6	100.0	105.0	107.2	103.3	109.3	103.3	107.9	103.7
484	Truck transportation.....	-	97.7	99.2	99.1	100.0	102.6	101.4	103.0	104.3	105.1	103.6	99.0
4841	General freight trucking.....	-	89.9	95.7	97.3	100.0	103.2	101.8	103.6	104.5	104.9	104.3	99.0
48411	General freight trucking, local.....	-	74.7	96.2	99.4	100.0	105.6	100.3	103.1	109.5	105.8	102.9	98.3
48412	General freight trucking, long-distance.....	80.1	93.5	95.3	96.4	100.0	102.8	102.0	103.6	102.8	104.3	103.8	98.4
48421	Used household and office goods moving.....	130.9	122.6	116.2	102.9	100.0	105.0	107.3	106.6	106.7	110.2	116.7	116.4
491	U.S. Postal service.....	85.4	94.0	99.1	99.8	100.0	101.3	103.4	104.5	104.5	105.3	103.8	105.2
4911	U.S. Postal service.....	85.4	94.0	99.1	99.8	100.0	101.3	103.4	104.5	104.5	105.3	103.8	105.2
492	Couriers and messengers.....	103.6	69.8	90.0	92.6	100.0	104.7	101.3	94.7	99.4	96.5	100.8	95.8
493	Warehousing and storage.....	-	81.9	89.5	94.4	100.0	103.9	103.8	99.3	96.9	95.5	94.8	96.1
4931	Warehousing and storage.....	-	81.9	89.5	94.4	100.0	103.9	103.8	99.3	96.9	95.5	94.8	96.1



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

2002=100]

NAICS	Industry	1987	1997	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
49311	General warehousing and storage.....	-	73.5	85.1	92.8	100.0	105.3	102.8	102.4	102.8	101.4	100.7	102.9
49312	Refrigerated warehousing and storage.....	-	115.3	110.1	98.2	100.0	108.5	119.5	102.7	95.8	103.3	105.7	96.9
<b>Information</b>													
511	Publishing industries, except internet.....	54.7	85.3	99.9	99.5	100.0	108.0	110.0	110.9	116.1	119.7	121.1	122.7
5111	Newspaper, book, and directory publishers.....	100.3	95.6	102.9	101.1	100.0	105.0	99.6	97.3	100.8	102.0	99.5	97.9
5112	Software publishers.....	8.3	81.9	97.7	96.2	100.0	113.1	131.5	136.7	139.0	141.7	146.6	145.4
51213	Motion picture and video exhibition.....	90.9	100.2	106.7	101.8	100.0	100.8	104.0	111.0	118.6	124.8	120.1	128.0
515	Broadcasting, except internet.....	95.7	96.2	99.6	95.5	100.0	102.9	107.1	113.1	120.6	130.5	133.4	135.7
5151	Radio and television broadcasting.....	103.2	105.2	96.9	94.2	100.0	99.5	101.7	104.1	111.8	114.8	114.2	114.1
5152	Cable and other subscription programming.....	81.4	77.0	108.8	98.7	100.0	109.6	118.4	129.3	135.9	158.3	169.0	173.5
5171	Wired telecommunications carriers.....	51.8	84.5	94.9	92.0	100.0	106.5	112.0	115.9	119.8	121.5	123.8	125.9
5172	Wireless telecommunications carriers.....	34.7	45.9	70.1	88.0	100.0	111.6	134.8	176.0	189.2	200.2	237.6	295.4
<b>Finance and insurance</b>													
52211	Commercial banking.....	52.4	89.2	94.3	95.5	100.0	103.3	106.3	109.2	111.6	114.2	112.7	115.3
<b>Real estate and rental and leasing</b>													
532111	Passenger car rental.....	80.9	87.3	98.0	97.0	100.0	106.5	104.6	98.0	100.4	118.0	123.7	118.6
53212	Truck, trailer, and RV rental and leasing.....	52.9	87.7	106.8	99.6	100.0	97.8	111.6	114.1	123.3	120.0	114.8	99.5
53223	Video tape and disc rental.....	59.1	76.7	103.5	102.3	100.0	112.9	115.6	104.7	124.0	152.1	136.8	148.2
<b>Professional and technical services</b>													
541213	Tax preparation services.....	74.4	89.8	90.6	84.8	100.0	94.8	82.8	82.8	79.2	87.3	83.0	81.2
54131	Architectural services.....	83.7	92.9	100.0	103.2	100.0	103.4	107.9	107.9	105.8	109.6	113.3	111.9
54133	Engineering services.....	89.8	99.5	101.5	99.6	100.0	102.7	112.5	119.7	121.1	118.3	123.4	116.7
54181	Advertising agencies.....	84.8	88.5	95.1	94.5	100.0	106.4	116.2	114.5	115.2	118.7	124.6	126.9
541921	Photography studios, portrait.....	100.5	102.5	111.7	104.8	100.0	104.8	92.3	91.1	95.4	100.6	102.5	96.6
<b>Administrative and waste services</b>													
561311	Employment placement agencies.....	-	85.6	76.9	85.2	100.0	107.9	120.7	126.8	146.4	176.5	203.2	203.9
56151	Travel agencies.....	70.0	78.4	93.6	90.3	100.0	125.5	151.0	173.8	186.2	217.8	220.0	226.2
56172	Janitorial services.....	71.1	94.7	95.7	96.7	100.0	110.7	106.6	108.4	102.5	109.0	111.2	107.2
<b>Health care and social assistance</b>													
6215	Medical and diagnostic laboratories.....	-	72.7	95.9	98.3	100.0	103.1	103.9	102.4	104.6	102.4	111.5	114.5
621511	Medical laboratories.....	-	81.2	103.5	103.7	100.0	104.5	106.2	102.3	103.6	105.8	115.8	121.7
621512	Diagnostic imaging centers.....	-	61.2	85.7	90.8	100.0	99.8	97.5	99.4	102.9	92.4	100.4	99.7
<b>Arts, entertainment, and recreation</b>													
71311	Amusement and theme parks.....	105.4	94.1	99.5	87.4	100.0	108.4	99.1	109.6	99.7	107.2	107.9	99.4
71395	Bowling centers.....	110.0	103.8	96.9	97.9	100.0	104.4	108.0	104.3	98.4	116.1	117.7	114.3
<b>Accommodation and food services</b>													
72	Accommodation and food services.....	88.1	94.7	100.1	99.1	100.0	102.5	105.1	105.6	106.9	106.9	105.9	105.3
721	Accommodation.....	76.6	89.3	98.5	96.4	100.0	103.4	111.3	109.4	109.3	109.6	109.0	107.2
7211	Traveler accommodation.....	75.6	89.2	99.2	96.6	100.0	103.3	111.5	110.0	109.5	109.7	109.0	106.9
722	Food services and drinking places.....	92.0	95.8	99.1	99.4	100.0	102.2	103.2	104.4	106.0	105.9	104.8	105.1
7221	Full-service restaurants.....	88.3	95.8	98.7	99.2	100.0	100.5	101.6	102.7	103.7	102.8	100.5	100.8
7222	Limited-service eating places.....	94.0	97.4	99.4	99.8	100.0	102.6	104.0	104.6	106.3	106.5	106.8	108.1
7223	Special food services.....	78.6	87.4	100.2	100.4	100.0	104.5	107.0	109.3	110.9	113.7	113.0	107.1
7224	Drinking places, alcoholic beverages.....	132.8	97.2	97.8	94.8	100.0	113.8	106.1	112.1	122.0	123.4	117.9	122.4
<b>Other services</b>													
8111	Automotive repair and maintenance.....	82.8	96.4	105.5	105.0	100.0	99.7	106.5	105.7	104.5	102.5	101.3	96.6
81142	Reupholstery and furniture repair.....	103.3	98.0	103.4	102.9	100.0	93.7	94.6	94.6	91.8	94.8	90.2	87.8
81211	Hair, nail, and skin care services.....	75.7	90.6	98.0	103.8	100.0	108.0	112.3	116.1	115.4	119.5	122.4	115.1
81221	Funeral homes and funeral services.....	109.7	105.8	100.3	97.1	100.0	100.4	96.6	96.0	100.7	100.6	95.0	96.5
8123	Drycleaning and laundry services.....	86.3	88.9	95.7	98.6	100.0	92.6	99.1	109.0	108.3	103.8	104.1	114.6
81231	Coin-operated laundries and drycleaners.....	58.6	73.8	88.0	95.5	100.0	82.5	94.5	115.2	99.2	91.1	85.9	92.5
81232	Drycleaning and laundry services.....	90.7	86.3	96.7	97.8	100.0	89.8	95.4	103.9	103.1	101.5	102.1	113.9
81233	Linen and uniform supply.....	102.4	102.8	98.8	101.1	100.0	98.9	104.2	111.5	115.6	108.7	109.7	119.0
81292	Photofinishing.....	95.3	99.5	73.4	80.8	100.0	98.3	97.9	105.3	102.4	101.0	105.3	131.4

NOTE: Dash indicates data are not available

**51. Unemployment rates adjusted to U.S. concepts, 10 countries, seasonally adjusted**

[Percent]

Country	2009	2010	2009				2010			
			I	II	III	IV	I	II	III	IV
United States.....	9.3	9.6	8.2	9.3	9.7	10.0	9.7	9.6	9.6	9.6
Canada.....	7.3	7.1	6.9	7.5	7.6	7.5	7.4	7.2	7.0	6.7
Australia.....	5.6	5.2	5.3	5.7	5.8	5.6	5.3	5.2	5.2	5.2
Japan.....	4.8	4.8	4.2	4.8	5.1	5.0	4.7	4.8	4.7	4.7
France.....	9.2	9.4	8.7	9.3	9.3	9.6	9.6	9.4	9.4	9.3
Germany.....	7.8	7.2	7.5	7.9	7.9	7.8	7.5	7.3	7.1	7.0
Italy.....	7.9	8.6	7.5	7.7	8.1	8.4	8.5	8.6	8.5	8.7
Netherlands.....	3.7	4.5	3.2	3.6	3.9	4.3	4.5	4.5	4.5	4.4
Sweden.....	8.2	8.3	7.4	8.3	8.5	8.6	8.6	8.5	8.1	7.8
United Kingdom.....	7.7	7.9	7.1	7.8	7.9	7.8	8.0	7.8	7.8	7.9

Dash indicates data are not available. Quarterly figures for Germany are calculated by applying an annual adjustment factor to current published data and therefore should be viewed as a less precise indicator of unemployment under U.S. concepts than the annual figures. For further qualifications and historical annual data, see the BLS report *International Comparisons of Annual Labor Force Statistics, Adjusted to U.S. Concepts, 10 Countries* (on the Internet at <http://www.bls.gov/flscomparelft.htm>).

For monthly unemployment rates, as well as the quarterly and annual rates published in this table, see the BLS report *International Unemployment Rates and Employment Indexes, Seasonally Adjusted* (on the Internet at [http://www.bls.gov/ilc/intl\\_unemployment\\_rates\\_monthly.htm](http://www.bls.gov/ilc/intl_unemployment_rates_monthly.htm)). Unemployment rates may differ between the two reports mentioned, because the former is updated 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, adjusted to U.S. concepts, 10 countries

[Numbers in thousands]

Employment status and country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Civilian labor force</b>											
United States.....	142,583	143,734	144,863	146,510	147,401	149,320	151,428	153,124	154,287	154,142	153,889
Canada.....	15,632	15,886	16,356	16,722	16,925	17,056	17,266	17,626	17,936	18,058	18,263
Australia.....	9,590	9,746	9,901	10,085	10,213	10,529	10,773	11,060	11,356	11,602	11,868
Japan.....	66,710	66,480	65,866	65,495	65,366	65,386	65,556	65,909	65,660	65,362	65,100
France.....	26,193	26,339	26,658	26,692	26,872	27,061	27,260	27,466	27,683	27,972	28,067
Germany.....	39,302	39,459	39,413	39,276	39,711	40,696	41,206	41,364	41,481	41,507	41,189
Italy.....	23,361	23,524	23,728	24,020	24,084	24,179	24,395	24,459	24,836	24,705	24,741
Netherlands.....	8,008	8,155	8,288	8,330	8,379	8,400	8,462	8,595	8,679	8,716	8,654
Sweden.....	4,490	4,530	4,545	4,565	4,579	4,693	4,746	4,822	4,875	4,888	4,942
United Kingdom.....	28,962	29,092	29,343	29,565	29,802	30,137	30,599	30,780	31,126	31,274	31,421
<b>Participation rate<sup>1</sup></b>											
United States.....	67.1	66.8	66.6	66.2	66.0	66.0	66.2	66.0	66.0	65.4	64.7
Canada.....	66.0	66.1	67.1	67.7	67.6	67.3	67.2	67.5	67.7	67.2	67.0
Australia.....	64.4	64.4	64.3	64.6	64.6	65.4	65.8	66.2	66.7	66.7	66.5
Japan.....	61.7	61.2	60.4	59.9	59.6	59.5	59.6	59.8	59.5	59.3	59.0
France.....	56.8	56.6	56.8	56.4	56.3	56.2	56.2	56.3	56.4	56.6	56.5
Germany.....	56.7	56.7	56.4	56.0	56.4	57.5	58.1	58.3	58.4	58.5	58.1
Italy.....	48.1	48.3	48.5	49.1	49.1	48.7	48.9	48.6	49.0	48.4	48.2
Netherlands.....	63.0	63.7	64.3	64.3	64.4	64.2	64.5	65.2	65.4	65.2	64.3
Sweden.....	63.7	63.7	63.9	63.9	63.6	64.8	64.9	65.3	65.3	64.8	64.7
United Kingdom.....	62.8	62.7	62.9	62.9	63.0	63.1	63.5	63.3	63.5	63.3	63.1
<b>Employed</b>											
United States.....	136,891	136,933	136,485	137,736	139,252	141,730	144,427	146,047	145,362	139,877	139,064
Canada.....	14,677	14,860	15,210	15,576	15,835	16,032	16,317	16,704	16,985	16,732	16,969
Australia.....	8,989	9,088	9,271	9,485	9,662	9,998	10,257	10,576	10,873	10,953	11,247
Japan.....	63,790	63,460	62,650	62,510	62,640	62,910	63,210	63,509	63,250	62,242	62,000
France.....	23,928	24,264	24,521	24,397	24,464	24,632	24,828	25,246	25,614	25,395	25,423
Germany.....	36,236	36,350	36,018	35,615	35,604	36,123	36,949	37,763	38,345	38,279	38,209
Italy.....	20,973	21,359	21,666	21,972	22,124	22,290	22,721	22,953	23,144	22,760	22,621
Netherlands.....	7,762	7,950	8,035	7,989	7,960	7,959	8,096	8,290	8,412	8,389	8,264
Sweden.....	4,230	4,303	4,311	4,301	4,279	4,334	4,416	4,530	4,581	4,486	4,534
United Kingdom.....	27,375	27,604	27,815	28,077	28,380	28,674	28,929	29,129	29,346	28,880	28,944
<b>Employment-population ratio<sup>2</sup></b>											
United States.....	64.4	63.7	62.7	62.3	62.3	62.7	63.1	63.0	62.2	59.3	58.5
Canada.....	62.0	61.8	62.4	63.1	63.3	63.3	63.5	64.0	64.1	62.2	62.3
Australia.....	60.3	60.0	60.2	60.8	61.1	62.1	62.7	63.3	63.9	62.9	63.0
Japan.....	59.0	58.4	57.5	57.1	57.1	57.3	57.5	57.6	57.4	56.4	56.2
France.....	51.9	52.2	52.3	51.6	51.3	51.2	51.2	51.7	52.1	51.4	51.2
Germany.....	52.2	52.2	51.5	50.8	50.6	51.1	52.1	53.2	54.0	54.0	53.9
Italy.....	43.2	43.8	44.3	44.9	45.1	44.9	45.5	45.6	45.6	44.6	44.1
Netherlands.....	61.1	62.1	62.3	61.6	61.1	60.9	61.7	62.8	63.4	62.8	61.4
Sweden.....	60.1	60.5	60.6	60.2	59.5	59.9	60.4	61.3	61.4	59.5	59.3
United Kingdom.....	59.4	59.5	59.6	59.8	59.9	60.0	60.0	59.9	59.9	58.5	58.2
<b>Unemployed</b>											
United States.....	5,692	6,801	8,378	8,774	8,149	7,591	7,001	7,078	8,924	14,265	14,825
Canada.....	955	1,026	1,146	1,146	1,091	1,024	949	922	951	1,326	1,294
Australia.....	602	658	630	599	551	531	516	484	483	649	621
Japan.....	2,920	3,020	3,216	2,985	2,726	2,476	2,346	2,400	2,410	3,120	3,100
France.....	2,265	2,075	2,137	2,295	2,408	2,429	2,432	2,220	2,069	2,577	2,644
Germany.....	3,065	3,110	3,396	3,661	4,107	4,573	4,257	3,601	3,136	3,228	2,980
Italy.....	2,388	2,164	2,062	2,048	1,960	1,889	1,673	1,506	1,692	1,945	2,119
Netherlands.....	246	206	254	341	419	441	366	306	267	327	390
Sweden.....	260	227	234	264	300	360	330	292	294	401	409
United Kingdom.....	1,587	1,489	1,528	1,488	1,423	1,463	1,670	1,652	1,780	2,395	2,477
<b>Unemployment rate<sup>3</sup></b>											
United States.....	4.0	4.7	5.8	6.0	5.5	5.1	4.6	4.6	5.8	9.3	9.6
Canada.....	6.1	6.5	7.0	6.9	6.4	6.0	5.5	5.2	5.3	7.3	7.1
Australia.....	6.3	6.8	6.4	5.9	5.4	5.0	4.8	4.4	4.2	5.6	5.2
Japan.....	4.4	4.5	4.9	4.6	4.2	3.8	3.6	3.6	3.7	4.8	4.8
France.....	8.6	7.9	8.0	8.6	9.0	9.0	8.9	8.1	7.5	9.2	9.4
Germany.....	7.8	7.9	8.6	9.3	10.3	11.2	10.3	8.7	7.6	7.8	7.2
Italy.....	10.2	9.2	8.7	8.5	8.1	7.8	6.9	6.2	6.8	7.9	8.6
Netherlands.....	3.1	2.5	3.1	4.1	5.0	5.3	4.3	3.6	3.1	3.7	4.5
Sweden.....	5.8	5.0	5.1	5.8	6.6	7.7	7.0	6.1	6.0	8.2	8.3
United Kingdom.....	5.5	5.1	5.2	5.0	4.8	4.9	5.5	5.4	5.7	7.7	7.9

<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.

<sup>3</sup> Unemployment as a percent of the labor force.

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

*Comparisons of Annual Labor Force Statistics, Adjusted to U.S. Concepts, 10 Countries* (on the Internet at <http://www.bls.gov/iif/flscmparelf.htm>). Unemployment rates may differ from those in the BLS report *International Unemployment Rates and Employment Indexes, Seasonally Adjusted* (on the Internet at [http://www.bls.gov/iif/intl\\_unemployment\\_rates\\_monthly.htm](http://www.bls.gov/iif/intl_unemployment_rates_monthly.htm)), because the former is updated 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, 19 economies**

[2002 = 100]

Measure and economy	1980	1990	1995	1996	1997	1998	1999	2000	2001	2003	2004	2005	2006	2007	2008	2009
<b>Output per hour</b>																
United States.....	41.7	58.1	68.5	70.9	73.8	77.7	82.4	88.8	90.7	108.2	117.5	122.8	127.2	135.2	135.7	146.2
Australia.....	63.3	77.8	84.9	87.2	88.0	92.5	95.8	93.5	98.4	104.9	104.3	105.5	108.1	110.0	106.7	111.4
Belgium.....	50.3	74.5	86.7	88.0	93.5	94.7	94.0	97.8	97.3	101.8	105.6	107.5	108.2	113.0	114.1	115.8
Canada.....	55.2	70.7	83.4	83.0	87.2	91.3	95.1	100.7	98.3	100.3	101.3	104.8	106.2	106.6	104.0	105.0
Czech Republic.....	-	-	70.3	74.1	77.3	73.1	83.9	92.0	92.7	101.9	114.4	125.0	140.4	151.7	161.4	156.0
Denmark.....	66.1	79.3	90.8	87.8	94.8	94.3	95.8	99.2	99.4	104.2	110.2	113.7	119.5	122.1	125.2	123.4
Finland.....	29.4	48.4	66.1	67.9	71.5	75.7	81.0	90.4	94.1	106.0	112.9	118.0	131.4	143.4	145.1	132.8
France.....	42.9	63.6	75.2	75.5	80.0	84.1	87.8	94.0	95.9	104.5	107.3	112.3	114.9	116.2	115.1	106.8
Germany.....	54.5	69.8	80.6	82.8	87.7	88.1	90.2	96.5	99.0	103.6	107.5	112.1	120.9	122.7	122.4	111.0
Italy.....	56.8	78.1	94.2	94.6	96.5	95.2	95.9	100.9	101.2	97.9	99.3	100.8	102.6	103.1	99.4	93.5
Japan.....	47.9	70.9	83.4	87.2	90.3	91.2	93.6	98.5	96.5	106.8	114.3	121.7	122.9	127.6	127.9	113.3
Korea, Rep. of.....	-	33.3	52.1	57.6	65.6	73.6	82.7	90.8	90.1	106.8	117.0	130.6	145.6	156.1	157.2	160.1
Netherlands.....	48.0	68.3	82.1	83.9	84.1	86.6	90.1	96.6	97.1	102.1	109.0	113.9	118.2	124.3	121.5	116.1
Norway.....	70.1	87.8	88.1	90.8	91.0	88.7	91.7	94.6	97.2	108.7	115.1	119.1	116.7	116.1	117.2	118.1
Singapore.....	33.1	50.7	72.8	74.5	77.8	80.9	92.4	101.2	90.7	103.6	113.8	116.3	120.1	116.2	105.3	105.0
Spain.....	57.9	80.0	93.3	92.2	93.1	94.7	96.4	97.4	99.6	102.5	104.4	106.4	108.5	110.9	109.3	108.4
Sweden.....	40.1	49.4	64.9	67.1	73.6	78.4	85.4	91.6	89.4	108.2	120.2	128.0	138.8	141.7	137.5	127.5
Taiwan.....	28.6	52.5	65.4	69.9	73.1	76.1	80.7	85.6	89.9	107.2	112.6	121.7	132.1	143.2	145.5	152.4
United Kingdom.....	44.7	70.1	81.7	80.9	82.5	83.4	87.7	93.5	96.9	104.3	110.8	115.8	119.8	123.8	124.0	119.8
<b>Output</b>																
United States.....	49.8	67.6	79.4	82.0	86.9	91.2	96.1	102.3	97.6	102.9	111.2	114.8	119.9	125.2	120.7	113.6
Australia.....	70.8	81.8	86.5	88.2	90.1	92.2	93.5	94.9	96.9	102.6	102.6	101.9	102.7	105.7	104.6	102.2
Belgium.....	67.2	86.7	89.4	89.7	94.0	95.6	95.9	100.4	100.7	98.8	102.4	102.5	102.7	106.5	106.1	96.8
Canada.....	55.2	68.7	76.5	77.5	82.8	86.9	94.1	103.4	99.1	99.2	101.1	102.6	101.3	99.0	93.0	82.5
Czech Republic.....	-	-	73.4	80.2	84.1	78.5	87.0	95.4	94.9	99.0	112.1	125.5	143.8	157.0	169.4	149.3
Denmark.....	77.3	85.5	94.7	90.3	97.7	98.5	99.4	102.9	103.0	97.2	98.8	99.3	103.8	107.1	111.0	97.6
Finland.....	40.3	54.6	60.8	62.6	68.5	75.1	81.1	92.3	96.4	102.9	107.8	112.0	126.3	139.3	139.3	111.6
France.....	69.5	81.5	83.8	83.6	87.5	91.7	94.7	99.1	100.1	101.9	102.8	105.2	104.9	106.6	104.5	92.8
Germany.....	81.3	94.5	90.1	88.2	92.0	93.1	94.0	100.4	102.1	100.7	104.3	106.5	113.6	116.4	117.0	95.7
Italy.....	71.1	88.2	95.7	95.2	96.6	97.5	97.3	101.4	101.1	97.3	98.0	97.8	101.1	103.2	98.2	82.7
Japan.....	61.9	98.9	101.7	105.6	108.2	102.5	102.1	107.4	101.6	105.3	111.4	117.2	121.3	126.1	122.3	95.4
Korea, Rep. of.....	12.7	40.0	59.2	63.4	67.1	62.2	76.5	89.8	92.0	105.4	115.9	123.1	133.0	142.5	146.6	144.2
Netherlands.....	59.3	77.0	85.1	86.3	87.5	90.5	93.8	100.1	99.9	98.9	102.3	104.3	107.9	114.1	111.9	102.1
Norway.....	95.1	91.4	94.6	98.4	102.7	101.9	101.8	101.3	100.5	103.3	109.2	114.1	117.5	121.3	124.5	117.3
Singapore.....	26.0	51.2	75.4	77.4	80.8	80.2	90.6	104.4	92.2	102.9	117.2	128.3	143.6	152.2	145.8	139.8
Spain.....	58.8	73.7	76.0	77.9	82.9	87.9	92.9	97.0	100.1	101.2	101.9	103.1	105.0	105.8	103.0	88.9
Sweden.....	45.5	54.5	65.8	68.0	73.6	80.2	87.5	95.1	93.3	105.0	115.0	120.7	129.0	133.5	129.7	106.4
Taiwan.....	29.4	59.3	72.7	76.1	80.9	82.8	88.9	96.1	89.5	110.1	121.5	131.0	142.9	156.9	158.5	151.5
United Kingdom.....	78.5	94.8	97.1	97.8	99.6	100.3	101.3	103.6	102.2	99.7	101.9	101.8	103.3	103.8	100.8	90.0
<b>Total hours</b>																
United States.....	119.4	116.5	115.9	115.7	117.7	117.4	116.6	115.1	107.6	95.1	94.6	93.5	94.3	92.6	88.9	77.7
Australia.....	111.8	105.2	101.9	101.1	102.4	99.7	97.6	101.5	98.5	97.8	98.4	96.6	95.0	96.1	98.1	91.7
Belgium.....	133.5	116.4	103.1	102.0	100.6	100.9	102.0	102.7	103.6	97.0	97.0	95.3	94.9	94.2	93.0	83.6
Canada.....	100.0	97.2	91.8	93.4	94.9	95.2	98.9	102.7	100.8	99.0	99.8	97.9	95.4	92.9	89.4	78.6
Czech Republic.....	-	-	104.4	108.3	108.8	107.4	103.6	103.6	102.3	97.2	98.0	100.4	102.4	103.5	104.9	95.7
Denmark.....	117.0	107.8	104.3	102.9	103.1	104.5	103.7	103.7	103.7	93.4	89.6	87.3	86.9	87.7	88.7	79.0
Finland.....	137.0	112.9	92.0	92.3	95.8	99.3	100.1	102.1	102.5	97.1	95.4	95.0	96.1	97.1	96.0	84.0
France.....	161.9	128.2	111.3	110.7	109.4	109.0	108.0	105.4	104.4	97.5	95.8	93.7	91.3	91.8	90.7	86.8
Germany.....	149.3	135.4	111.7	106.4	104.9	105.8	104.2	104.0	103.1	97.3	97.1	95.0	93.9	94.9	95.6	86.2
Italy.....	125.2	113.0	101.6	100.7	100.1	102.5	101.5	100.5	99.9	99.4	98.7	97.0	98.5	100.1	98.8	88.4
Japan.....	129.3	139.6	122.0	121.0	119.9	112.5	109.1	109.0	105.3	98.6	97.5	96.3	98.6	98.9	95.6	84.2
Korea, Rep. of.....	-	119.8	113.6	109.9	102.2	84.5	92.5	98.9	102.1	98.7	99.0	94.2	91.3	91.3	93.2	90.1
Netherlands.....	123.6	112.8	103.7	102.9	104.0	104.5	104.1	103.6	103.0	96.8	93.9	91.6	91.3	91.8	92.1	87.9
Norway.....	135.6	104.1	107.3	108.4	112.8	115.0	111.0	107.1	103.4	95.1	94.9	95.8	100.7	104.5	106.3	99.3
Singapore.....	78.6	101.1	103.6	104.0	103.9	99.1	98.0	103.1	101.7	99.3	103.0	110.4	119.6	131.0	138.4	133.1
Spain.....	101.6	92.1	81.4	84.5	89.0	92.8	96.4	99.7	100.5	98.8	97.6	96.8	96.8	95.4	94.2	82.0
Sweden.....	113.3	110.2	101.3	101.3	100.1	102.3	102.5	103.8	104.4	97.0	95.7	94.3	93.0	94.2	94.3	83.4
Taiwan.....	102.9	113.0	111.1	108.9	110.6	108.8	110.1	112.4	99.6	102.7	107.9	107.7	108.1	109.6	108.9	99.4
United Kingdom.....	175.7	135.2	118.9	120.9	120.7	120.3	115.5	110.8	105.4	95.6	91.9	87.8	86.2	83.9	81.3	75.1

See notes at end of table.

**53. Continued— Annual indexes of manufacturing productivity and related measures, 19 economies**

Measure and economy	1980	1990	1995	1996	1997	1998	1999	2000	2001	2003	2004	2005	2006	2007	2008	2009
<b>Unit labor costs</b> (national currency basis)																
United States.....	91.6	107.0	107.1	105.3	103.6	104.5	102.8	102.8	104.5	99.8	92.6	91.6	90.2	87.6	90.7	88.7
Australia.....	-	82.1	91.6	94.1	94.3	94.8	95.4	96.8	97.6	101.0	105.5	111.0	115.8	118.7	124.1	130.1
Belgium.....	80.9	93.8	97.2	97.5	95.2	95.4	97.4	95.3	99.0	100.3	98.0	98.0	100.5	100.2	102.5	107.6
Canada.....	65.8	96.6	97.9	99.9	97.3	97.8	95.8	93.5	98.4	103.7	106.6	107.6	110.3	113.9	117.0	115.7
Czech Republic.....	-	-	73.8	82.4	86.7	100.4	92.2	89.2	98.7	106.1	100.1	94.5	88.7	87.9	86.6	88.6
Denmark.....	49.4	86.4	87.3	94.0	90.0	92.9	93.7	92.3	96.5	102.5	100.6	103.0	101.8	105.1	104.7	109.2
Finland.....	75.4	124.4	117.5	118.2	114.2	112.5	108.8	101.5	104.3	97.0	94.5	94.4	87.7	82.6	85.3	97.2
France.....	65.8	101.2	106.1	107.7	104.8	100.4	99.3	97.6	98.3	97.9	98.3	97.4	98.9	100.2	103.9	114.0
Germany.....	65.7	85.5	100.8	102.7	98.9	99.9	99.7	98.1	98.6	98.7	95.7	92.9	89.6	89.3	91.8	106.3
Italy.....	34.5	78.6	87.7	92.0	94.4	94.0	95.6	93.2	96.1	106.0	108.1	110.0	110.3	112.9	121.0	135.5
Japan.....	105.4	109.2	110.8	106.9	106.8	108.3	105.4	99.5	102.9	91.6	86.4	81.8	80.1	76.0	77.2	86.3
Korea, Rep. of.....	40.4	72.4	109.2	115.1	110.7	107.8	96.2	93.8	98.8	98.8	102.7	107.0	105.2	104.6	104.8	108.8
Netherlands.....	85.6	90.5	93.8	93.5	95.7	96.9	96.2	94.1	97.6	101.8	99.5	96.6	95.7	93.8	99.6	108.0
Norway.....	35.3	66.6	78.5	79.4	82.7	89.9	91.8	94.1	97.0	95.8	93.4	94.5	102.4	107.7	112.8	118.0
Singapore.....	78.5	107.5	113.5	116.5	117.8	115.8	96.0	92.3	106.0	97.1	88.9	86.4	82.7	85.3	95.2	91.4
Spain.....	35.7	73.7	93.6	97.0	98.4	97.4	95.6	96.0	97.6	102.5	104.1	107.0	110.0	114.4	122.4	125.9
Sweden.....	67.1	123.4	110.4	115.1	110.6	107.8	102.0	98.9	106.1	96.5	89.3	86.7	82.2	84.8	90.2	101.2
Taiwan.....	69.3	108.5	123.1	122.7	121.0	120.0	115.5	110.9	112.4	96.2	94.5	92.6	90.4	84.3	85.0	78.7
United Kingdom.....	52.8	83.2	87.6	88.3	90.4	96.3	97.3	96.5	97.6	100.7	98.9	100.2	102.2	102.4	104.3	110.9
<b>Unit labor costs</b> (U.S. dollar basis)																
United States.....	91.6	107.0	107.1	105.3	103.6	104.5	102.8	102.8	104.5	99.8	92.6	91.6	90.2	87.6	90.7	88.7
Australia.....	-	118.0	124.8	135.5	129.0	109.7	113.2	103.6	92.8	121.2	142.9	155.7	160.4	183.3	194.8	189.7
Belgium.....	118.1	119.7	140.7	134.4	113.4	112.1	109.8	93.0	93.8	120.2	128.9	129.1	133.5	145.3	159.6	158.5
Canada.....	88.4	130.1	112.1	115.0	110.4	103.5	101.3	98.8	99.8	116.3	128.6	139.5	152.8	166.7	172.4	159.2
Czech Republic.....	-	-	91.0	99.4	89.5	101.8	87.3	75.6	85.0	123.1	127.6	129.2	128.5	140.2	166.4	149.8
Denmark.....	69.1	110.1	123.0	127.8	107.4	109.3	105.8	89.9	91.4	122.9	132.5	135.5	135.1	152.3	162.3	160.8
Finland.....	127.1	204.6	169.2	161.8	138.4	132.4	122.6	99.2	98.8	116.2	124.3	124.3	116.6	119.8	132.9	143.2
France.....	108.0	128.9	147.6	146.1	124.5	118.1	111.9	95.3	93.1	117.2	129.3	128.2	131.4	145.3	161.9	168.1
Germany.....	74.7	109.4	145.6	141.2	117.9	117.4	112.4	95.8	93.3	118.2	125.9	122.3	119.1	129.4	143.0	156.7
Italy.....	82.6	134.3	110.2	122.1	113.5	110.8	107.7	91.0	91.0	126.9	142.2	144.8	146.5	163.7	188.5	199.8
Japan.....	58.2	94.3	147.7	123.1	110.4	103.6	116.1	115.6	106.0	98.9	100.1	93.0	86.3	80.8	93.5	115.4
Korea, Rep. of.....	83.1	127.3	176.7	178.8	146.1	96.2	101.1	103.7	95.6	103.6	112.1	130.6	137.8	140.8	119.2	106.7
Netherlands.....	100.4	115.9	136.3	129.3	114.2	113.8	108.4	91.9	92.5	121.9	130.8	127.2	127.2	136.0	155.1	159.1
Norway.....	57.0	85.0	98.9	98.1	93.2	95.0	93.9	85.2	86.1	108.0	110.6	117.2	127.6	146.9	159.7	149.8
Singapore.....	65.7	106.2	143.4	148.0	142.0	124.0	101.4	95.8	105.9	99.7	94.2	93.0	93.3	101.5	120.6	112.5
Spain.....	87.6	127.3	132.2	134.8	118.1	114.8	107.7	93.8	92.4	122.7	136.9	140.9	146.2	165.9	190.7	185.6
Sweden.....	154.3	202.6	150.4	166.8	140.7	131.9	119.9	104.8	99.8	116.2	118.1	112.8	108.5	122.1	133.2	128.5
Taiwan.....	66.4	139.3	160.4	154.2	145.2	123.5	123.4	122.6	114.7	96.5	97.8	99.5	96.1	88.6	93.2	82.3
United Kingdom.....	81.7	98.8	92.1	91.7	98.5	106.2	104.7	97.3	93.5	109.5	120.7	121.4	125.4	136.5	128.7	115.6
<b>Hourly compensation</b> (national currency basis)																
United States.....	38.2	62.1	73.4	74.6	76.5	81.2	84.8	91.3	94.8	108.0	108.9	112.5	114.7	118.5	123.2	129.6
Australia.....	-	63.9	77.8	82.1	83.0	87.7	91.4	90.5	96.0	106.0	110.1	117.1	125.2	130.7	132.4	145.0
Belgium.....	40.7	69.9	84.3	85.8	89.0	90.4	91.5	93.2	96.3	102.2	103.5	105.4	108.8	113.2	116.9	124.5
Canada.....	36.3	68.3	81.6	82.9	84.9	89.3	91.2	94.2	96.7	104.0	108.0	112.8	117.2	121.4	121.7	121.4
Czech Republic.....	-	-	51.9	61.0	67.1	73.4	77.4	82.0	91.6	108.1	114.6	118.1	124.5	133.3	139.9	138.3
Denmark.....	32.6	68.5	79.3	82.5	85.3	87.6	89.8	91.6	95.9	106.8	110.9	117.2	121.6	128.3	131.2	134.9
Finland.....	22.2	60.2	77.6	80.2	81.7	85.1	88.2	91.8	98.1	102.8	106.7	111.4	115.3	118.5	123.8	129.0
France.....	28.2	64.3	79.8	81.3	83.8	84.4	87.2	91.8	94.3	102.3	105.5	109.3	113.6	116.5	119.7	121.8
Germany.....	35.8	59.7	81.2	85.1	86.7	88.0	90.0	94.7	97.6	102.2	102.8	104.1	108.4	109.5	112.3	118.0
Italy.....	19.6	61.3	82.5	87.0	91.1	89.4	91.7	94.1	97.2	103.8	107.4	110.8	113.2	116.4	120.3	126.7
Japan.....	50.4	77.4	92.4	93.2	96.4	98.8	98.6	98.0	99.3	97.8	98.8	99.6	98.5	97.0	98.8	97.8
Korea, Rep. of.....	-	24.1	56.9	66.3	72.6	79.3	79.5	85.2	89.0	105.5	120.2	139.7	153.2	163.4	164.7	174.2
Netherlands.....	41.1	61.8	77.0	78.4	80.5	83.9	86.7	90.9	94.8	104.0	108.4	110.0	113.1	116.6	121.0	125.4
Norway.....	24.7	58.5	69.2	72.1	75.3	79.7	84.2	89.0	94.4	104.1	107.5	112.6	119.5	125.0	132.1	139.4
Singapore.....	26.0	54.5	82.6	86.8	91.7	93.7	88.8	93.4	96.2	100.6	101.2	100.5	99.4	99.2	100.2	95.9
Spain.....	20.7	59.0	87.4	89.5	91.6	92.3	92.1	93.5	97.2	105.0	108.7	113.9	119.4	126.9	133.8	136.5
Sweden.....	27.0	61.0	71.7	77.3	81.4	84.5	87.2	90.6	94.9	104.5	107.3	111.0	114.2	120.2	124.0	129.0
Taiwan.....	19.8	57.0	80.5	85.7	88.5	91.4	93.3	94.9	101.0	103.1	106.4	112.7	119.5	120.7	123.7	119.9
United Kingdom.....	23.6	58.4	71.6	71.5	74.6	80.3	85.3	90.2	94.6	105	109.7	116.1	122.5	126.8	129.3	132.8

NOTE: Data for Germany for years before 1995 are for the former West Germany. Data for 1995 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 Oxygen deficiency .....	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.