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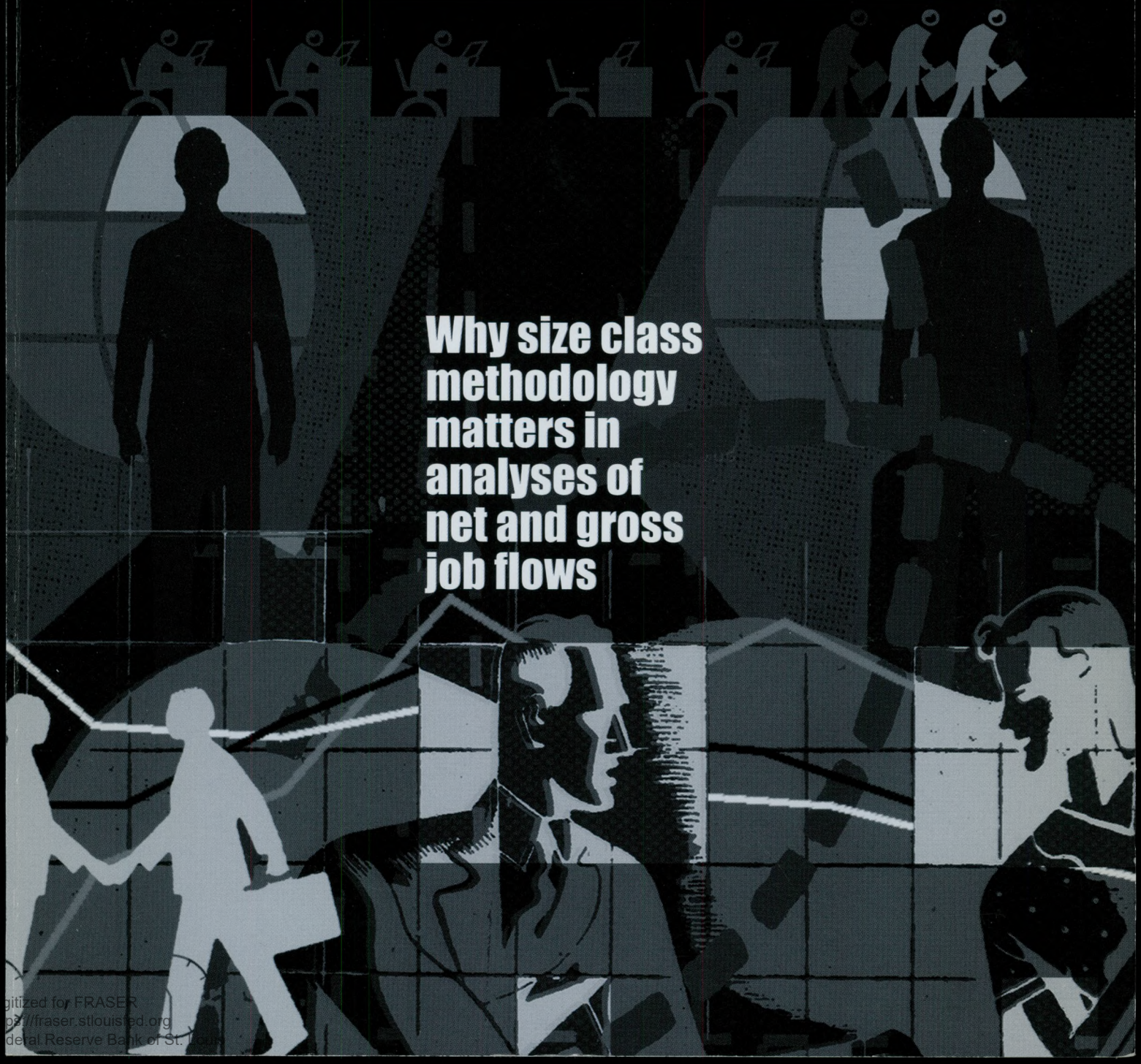

Why size class methodology matters in analyses of net and gross job flows

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The July *Review*

Job creation and job losses are among the most visible indications of a dynamic economy. The recently-introduced BLS data on Business Employment Dynamics promise to shed a great deal of light on the details underlying the dynamism that pervades the U.S. economy. Cordelia Okolie uses the Business Employment Dynamics data to examine the effect one's choice of method for determining the size class of an establishment makes in understanding the relative influences of smaller and larger businesses on job creation. To facilitate additional analysis of these issues, BLS plans to release research series using the three most widely used methods of assigning an establishment to a particular size class.

Steven Hipple updates the prevalence and characteristics of self-employment in the American labor market. The proportion of workers who are self-employed in an unincorporated business has fallen steadily since the first measurement was taken in 1948, but there were still more than 10 million such workers in 2003.

Lynn A. Karoly and Julie Zissimopoulos follow with a look at self-employment among older workers. Noting that rates of self-employment tend to rise with age, Karoly and Zissimopoulos suggest that the demographics of an aging population may slow or even halt or reverse the trend away from working for oneself.

Richard W. Johnson looks at older workers from the perspective of the demands placed on them by their jobs. Although the physical demands of work have declined, Johnson finds that, "the rigors of employment remain daunting for many older adults." The balance between the rigors of employment and the need for income will have important consequences for retirement policy.

Information sector productivity

Productivity, as measured by output per hour, increased in all but one of the information industries in 2002. In the detailed four- and five-digit information industries, the majority of the gains were greater than 4 percent. Double-digit productivity growth (11.2 percent) occurred in wireless telecommunications carriers. The one information industry to register a productivity decline was motion picture and video exhibition.

All of the information industries except motion picture and video exhibition saw reductions in unit labor costs. Unit labor costs fell 16.9 percent in wireless telecommunications carriers and 9.7 percent in software publishers. Additional information is available from "Productivity and Costs in Selected Service-Providing and Mining Industries, 2002," news release USDL 04–1061.

Employee benefits

Fringe benefits vary widely by geographic, establishment, and worker characteristics. For example, the number of days of paid vacations workers get each year typically increases the longer workers remain on the job. The vacation benefit also varied by a worker's union or nonunion status. For example, at 1 year of service, union and nonunion workers were eligible for almost the same number of days, whereas, after 25 years of service, union workers enjoyed 6 more paid vacation days than did nonunion workers.

Access to retirement benefits varied by the characteristics of the employer's establishment. Workers in goods-producing industries, for example, are more likely to have access to retirement benefits than are workers in service-providing industries. In addition, workers in medium-sized and large private establishments (those with 100 employees or more) enjoyed a higher rate of access to retirement benefits than did their counterparts in smaller establishments.

Workers in medium-sized to large establishments also had greater access to medical care benefits. Seventy-two percent of employees in establishments with 100 or more workers had access to a medical care plan. In contrast, fewer than half of employees in small establishments had access to such a plan.

Access to many benefits may also depend on a worker's occupation. Workers in service occupations had far less access to life insurance in March 2003 than did white-collar or blue-collar workers. At 56 percent, workers in white collar occupations had the highest access rate to life insurance. Access to life insurance among blue-collar workers was 53 percent. Among service workers, the rate was just 29 percent.

A worker's wage rate is also related to access to benefits. Workers in occupations averaging $15 an hour or more were in a much better position with respect to access to benefits than were those in occupations averaging under $15 in March 2003. The difference was particularly striking in rates of access to long-term disability insurance. Only 17 percent of those earning under $15 had access to such coverage, compared with half of those in the higher earnings category. With regard to short-term disability insurance, 29 percent of those earning less than $15 per hour had access to this benefit, while 53 percent of those earning more than $15 per hour had access. Learn more about the factors affecting benefits in "National Compensation Survey: Employee Benefits in Private Industry in the United States, March 2003," Summary 04-02. □

Why size class methodology matters in analyses of net and gross job flows

Net and gross job flow statistics by size class are produced with data from the Business Employment Dynamics program; alternative methodologies for defining size classes yield sharply different pictures of employment growth

Cordelia Okolie

One of the most interesting and often asked questions in empirical economics is whether small businesses create the most jobs. Answering this question requires longitudinal establishment microdata and is an ideal application for the new Business Employment Dynamics data series produced by the Bureau of Labor Statistics. Although it is often argued that small businesses are the fountainhead of job creation and the engine of economic growth, this view is not universally accepted, largely because of differences in the methodology used to construct net and gross job flow statistics. Using different methodologies, this article calculates net and gross job flow statistics by size class, with the aim of showing how alternative methodologies can produce sharply different portraits of employment growth.

Methodology issues

Three methodology issues influence the calculation and interpretation of business employment dynamic statistics by size class: (1) how establishments should be classified into size classes in the construction of net and gross job flow statistics, (2) the appropriate measure to use in the denominator in the calculation of net and gross job flow rates, and (3) whether there are differences in the statistics if the establishment or the firm is the unit of analysis.[1]

Defining size classes. With cross-sectional microdata, defining size classes for establishments is straightforward. For example, an establishment with 3 employees is classified into the category "1 to 4 employees," and an establishment with 11 employees is classified into the category "10 to 19 employees." By contrast, defining size classes with longitudinal microdata is more difficult. For instance, if an establishment grows from 3 employees in the previous quarter to 11 employees in the current quarter, in which size category does it belong?

In the gross job flows literature, there are three methodologies for defining size classes: (1) in *base sizing*, establishments are classified into size categories on the basis of their size in the previous quarter; (2) in *end sizing*, establishments are classified into size categories on the basis of their size in the current quarter; and (3) in *mean sizing*, establishments are classified into size categories on the basis of their average size during the previous and current quarters. In the earlier example in which an establishment grows from 3 employees in the previous quarter to 11 employees in the current quarter, the base-sizing methodology would classify that establishment into the "1 to 4 employees" category, whereas the end-sizing methodology would classify it into the "10 to 19 employees" category. The mean-sizing methodology would classify the establishment into the "5 to 9 employees" category, because the average size during the two quarters is 7 (3 + 11, divided by 2).

The methodology of classifying establishments into size categories can have large effects on business employment dynamics sta-

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tistics. For establishments that are growing and that move from one size class category to another, base sizing results in statistics which indicate that employment growth is coming from smaller establishments, whereas end sizing results in statistics which indicate that employment growth is coming from larger establishments. Similarly, for establishments that are contracting and that move from one size class category to another, base sizing results in statistics which indicate that employment decline is coming from larger establishments, whereas end sizing results in statistics which indicate that employment decline is coming from smaller establishments. Economists refer to this statistical phenomenon as the "regression fallacy" or "regression-to-the-mean" bias.[2]

Calculating rates. Another methodological issue is the question of how to compute rates of net and gross job flows. That is, should previous-quarter employment, current-quarter employment, or an average of the two be used in the denominator of the rate? An example will help illustrate the difference between the methods. Suppose employment increases from 1 to 2 and then declines back to 1. A conventional growth rate that uses previous-quarter employment in the denominator would yield a 100-percent increase followed by a 50-percent decrease. Even though the employment changes in levels sum to zero (a one-employee increase followed by a one-employee decrease), the percentages do not sum to zero. In fact, using previous-quarter employment in the denominator results in the sum of the percentages being greater than zero; the sum would be less than zero if current-quarter employment were used in the denominator. In contrast, if average employment were used in the denominator, the growth rate in this example would be a 67-percent increase $[(2-1)/1.5 = 0.67]$ followed by a 67-percent decrease. The example illustrates the fact that using average employment in the denominator results in rates that are equal in magnitude, but opposite in sign. (That is, the rates are symmetric.)

Unit of analysis: establishment or firm? An *establishment* is typically defined as an economic unit, such as a factory or store, that produces goods or provides services. An establishment is usually a physical location and is engaged in one, or predominantly one, type of economic activity. In contrast, a firm is defined as an aggregation of establishments under common ownership by a corporate parent. Establishment- and firm-level data will be identical for firms composed of a single legal entity and thus operating a single establishment. However, the size class distribution of employment differs at the establishment level compared with the firm level, because defining employment for a multiestablishment firm involves aggregating multiple establishments into a single larger firm. The methodological question raised in this article is whether there is a difference in net and gross job flow statistics if the establishment or the firm is used as the unit of analysis. Job flows should be less when the firm is the unit of analysis, because gains and losses of different establishments within a multiestablishment firm can offset each other.

Data and definitions

In what follows, net and gross job flows are computed under all of the various combinations of methodologies. Net and gross job flow statistics are calculated for establishments classified into size categories based on base sizing, mean sizing, and end sizing. The statistics are presented as levels and also as rates, with three possible denominators: previous-quarter employment, mean employment, and current-quarter employment. Also calculated in the article are net and gross job flow statistics at both the establishment level and the firm level.

The analysis uses data from the BLS Business Employment Dynamics program to calculate the net and gross job flow statistics. The new Business Employment Dynamics program is an extension of the Quarterly Census of Employment and Wages (QCEW) program. The data gathered in the QCEW program are a comprehensive and accurate source of employment and wages, and provide a virtual census (98 percent) of employees on nonfarm payrolls. The QCEW data are derived from quarterly Unemployment Insurance (UI) administrative microdata that all employers subject to State UI laws are required to submit. The establishment-level microdata in the QCEW program are then linked across time to create a longitudinal data set that can be used to measure establishment openings, expansions, contractions, and closings on a quarterly basis for the entire U.S. economy. This longitudinal establishment-level microdata is the foundation for the BLS Business Employment Dynamics program. The net and gross job flow statistics produced from the program are calculated from existing QCEW microdata without additional data collection efforts or additional respondent burden.[3]

Before discussing the results of the size class analysis, it is important to provide definitions of several terms that are used in discussing job flow estimates. *Establishment* estimates are estimates generated at the UI reporting-unit level, whereas *firm* estimates are estimates generated at the employer identification number level. Employer identification numbers are assigned to employers by the Internal Revenue Service to identify legal taxpaying business entities. In general, a firm operating in multiple States will have a separate UI account for each State, but will have one employer identification number covering all of its establishments across the Nation.

Gross job gains are defined as the summation of employment gains from expanding establishments and opening establishments. *Gross job losses* are defined as the summation of employment losses from contracting establishments and closing establishments. *Net employment growth* is the difference between gross job gains and gross job losses and is also the difference between employment levels in the current and previous quarters.

The statistics presented in this article use employment for the first and second quarters of 2000 and are not seasonally adjusted. Employment for the quarter is measured for the pay period that includes the 12th for the final month of the quarter. To be consistent with the scope of the establishments included in the Business Employment Dynamics program publications, private household workers, establishments in the public sector, and establishments located in Puerto Rico or the Virgin Islands are excluded from the analysis in this article. The aggregate net and gross job flow statistics presented herein replicate the official statistics (not seasonally adjusted) from the BLS Business Employment Dynamics program.

Before turning to the analysis, one caveat should be made perfectly clear. The empirical work presented in this article uses one quarter of longitudinal establishment microdata (employment growth from March 2000 to June 2000) to analyze how net and gross job flows are affected by various methodologies. It is not clear how methodology effects might interact with seasonality and cyclicality effects; thus, using *different* quarters of microdata may change the methodological and economic conclusions the article reaches.

Results: net employment change

Establishment-level net employment growth. Table 1 reports net employment growth statistics at the establishment level, calculated under the three alternative measures of employer size and the three alternative methods of calculating rates. The top third of the table uses the base-size method for categorizing establishments into size classes, the middle third uses the mean-size method, and the bottom third uses the end-size classification method. The three columns reporting net employment growth as rates rather than levels use previous-quarter, mean-quarter, and current-quarter employment in the denominator.[4]

The first observation of note from the table is that the method used to classify establishments into size classes has substantial effects on the measurement of net employment growth. The base-size statistics in the top third of the table and the end-size statistics in the bottom third provide different pictures of employment growth by size class, particularly for the smallest establishments. For example, for the smallest size category, 1 to 4 employees, the base-size statistic shows a net gain of more than 1 million jobs, whereas the end-size statistic indicates a net loss of more than 300,000 jobs.

The base-size and end-size statistics for the largest establishments also differ. For example, the base-size statistic shows that establishments with 500 to 999 employees had a net loss of 5,982 jobs, whereas the end-size statistic reveals a net gain of 285,743 jobs. Similarly, the base-size statistic indicates that establishments with 1,000 or more employees created 29,615 net jobs, in contrast to the end-size statistic, which shows that such establishments created 342,036 net jobs.

Clearly, the base-size and end-size statistics present sharply different portraits of net employment growth. These divergent outcomes are consistent with regression-to-the-mean effects: the base-size statistics indicate that the smallest establishments have substantial net job gains, while the end-size statistics indicate that the smallest establishments have sizable net job losses. The mean-size statistics in the middle of table 1 show a net employment growth profile that is between the base-size and the end-size profiles. The profile of net employment growth, by size class and for alternative methodologies, is graphed in chart 1.

With regard to the rates, the statistics given in table 1 show that the three different methods of calculating rates lead to only slight differences in the magnitude of net employment growth. For example, the middle third of the table shows that the net growth rate of establishments with 1 to 4 employees is 6.4 percent with previous-quarter employment in the denominator, 6.2 percent with mean employment in the denominator, and 6.0 percent with current-quarter employment in the denominator. For the largest size categories, the three methodologies result in a difference of only one-tenth of one percentage point in the net employment growth rates. Relative to the differences resulting from alternative size classification methodologies, using alternative employment measures in the denominator of the net employment change rate calculations has small effects regarding how net employment growth is measured.

Calculated under mean sizing and with mean-quarter employment in the denominator, the net employment growth rates are monotonically declining with size. Establishments with 1 to 4 employees have a net growth rate of 6.2 percent, and establishments with 1,000 or more employees have a 1.5-percent net growth rate. Thus, during the period from March 2000 to June 2000, smaller establishments have a higher net growth rate than larger establishments have. In addition to the caveat that this finding may not hold for other quarters,[5] it is important to keep in mind the distinction between rates and levels. The levels implied by a small percentage of a large base could exceed the levels implied by a large percentage of a small base. For example, for establishments with 100 to 249 employees, a 2.2-percent net growth rate results in 401,843 new jobs, whereas, for establishments with 5 to 9 employees,

Table 1. Establishment-level net employment growth, by size class, March 2000 to June 2000

Number of employees	Employment			Net employment growth		
	March 2000	June 2000	Change	Percent[1]	Percent[2]	Percent[3]
Base size class:						
Total	107,672,227	111,115,514	3,443,287	3.2	3.2	3.1
1 to 4	6,416,104	7,492,719	1,076,615	16.8	15.5	14.4
5 to 9	8,536,938	9,096,884	559,946	6.6	6.4	6.2
10 to 19	11,435,844	11,989,228	553,384	4.8	4.7	4.6
20 to 49	17,852,421	18,493,078	640,657	3.6	3.5	3.5
50 to 99	14,204,271	14,540,138	335,867	2.4	2.3	2.3
100 to 249	17,888,617	18,118,502	229,885	1.3	1.3	1.3
250 to 499	10,685,404	10,708,704	23,300	.2	.2	.2
500 to 999	7, 962,572	7,956,590	–5,982	–.1	–.1	–.1
1,000 or more	12,690,056	12,719,671	29,615	.2	.2	.2
Mean size class:						
Total	107,672,227	111,115,514	3,443,287	3.2	3.2	3.1
1 to 4	6,195,311	6,589,831	394,520	6.4	6.2	6.0
5 to 9	8,538,574	8,936,083	397,509	4.7	4.6	4.4
10 to 19	11,494,948	11,997,377	502,429	4.4	4.3	4.2
20 to 49	17,937,339	18,631,953	694,614	3.9	3.8	3.7
50 to 99	14,275,241	14,760,229	484,988	3.4	3.3	3.3
100 to 249	17,963,618	18,365,461	401,843	2.2	2.2	2.2
250 to 499	10,643,839	10,884,222	240,383	2.3	2.2	2.2
500 to 999	7, 947,198	8,077,217	130,019	1.6	1.6	1.6
1,000 or more	12,676,159	12,873,141	196,982	1.6	1.5	1.5
End size class:						
Total	107,672,227	111,115,514	3,443,287	3.2	3.2	3.1
1 to 4	6,783,156	6,473,174	–309,982	–4.6	–4.7	–4.8
5 to 9	8,475,384	8,726,219	250,835	2.9	2.9	2.9
10 to 19	11,345,563	11,788,778	443,215	3.9	3.8	3.8
20 to 49	17,776,005	18,542,280	766,275	4.3	4.2	4.1
50 to 99	14,180,981	14,792,541	611,560	4.3	4.2	4.1
100 to 249	17,869,045	18,546,738	677,693	3.8	3.7	3.7
250 to 499	10,614,761	10,990,673	375,912	3.5	3.5	3.4
500 to 999	7, 929,750	8,215,493	285,743	3.6	3.5	3.5
1,000 or more	12,697,582	13,039,618	342,036	2.7	2.7	2.6

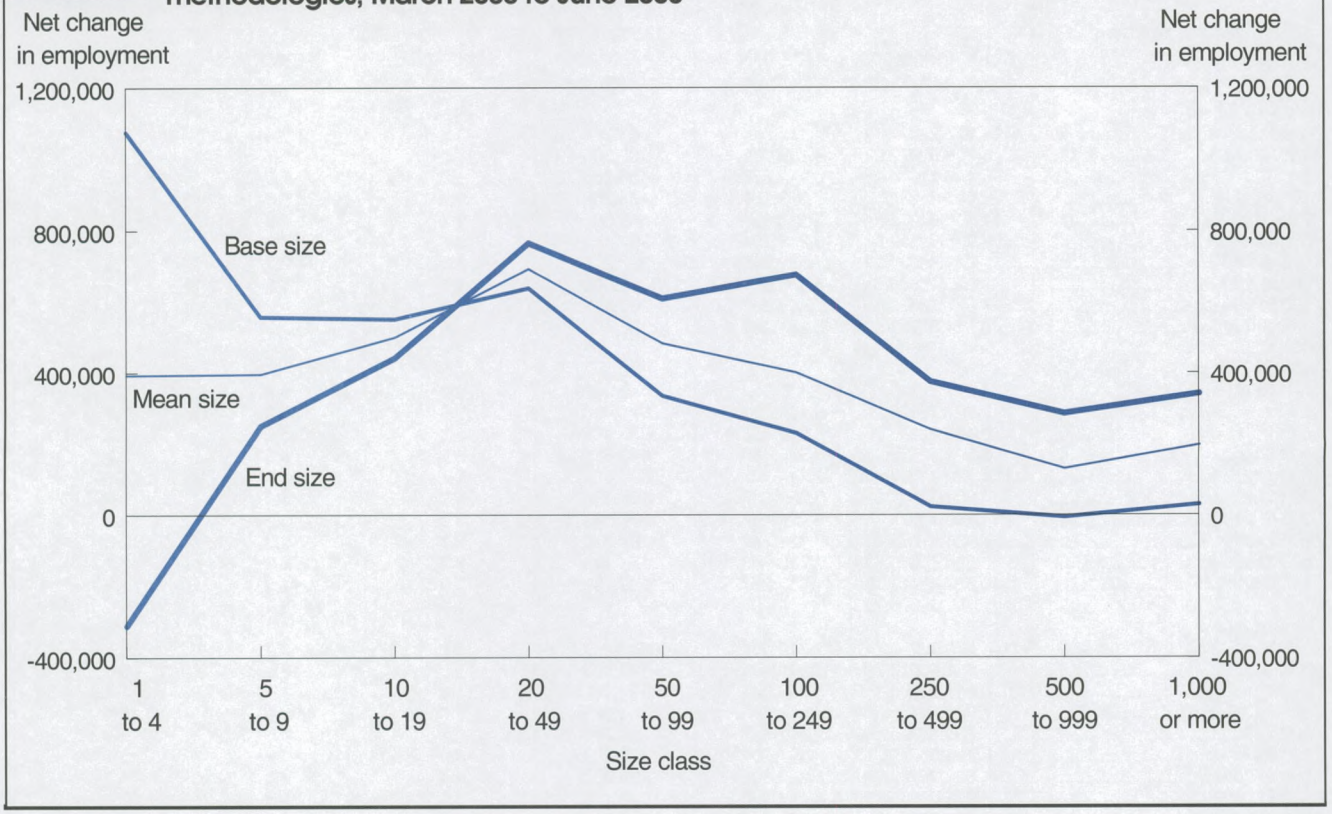
[1] Calculated with previous-quarter employment in the denominator.
[2] Calculated with mean-quarter employment in the denominator.
[3] Calculated with current-quarter employment in the denominator.

a 4.6-percent growth rate produces 397,509 new jobs.

Firm-level net employment growth. Table 2 reports net employment growth statistics at the firm level, calculated under the three alternative measures of employer size and the three alternative methods of calculating rates. The main results regarding how alternative methodologies affect calculations of the net employment growth of establishments also hold for calculations of the net employment growth of firms. Specifically, the method used to classify firms into size classes has substantial effects on net employment growth statistics, and the method used to calculate rates has relatively small effects. For the smallest establishments and the smallest firms, the base-size and end-size net growth statistics differ systematically in both magnitude and sign. The base-size and end-size estimates for the largest establishments and the largest firms also yield different results with respect to the magnitude of net job gains attributable to these businesses.

As mentioned earlier, the employment distributions differ for establishments as opposed to firms. For example, in June 2000, establishments with 1,000 or more employees accounted for slightly more than 13 million employees, whereas firms with 1,000 or more employees accounted for more than 41 million employees. In terms of percentages, 12 percent of jobs were in establishments with 1,000 or more employees, whereas 37 percent of jobs were in firms with 1,000 or more employees. Could this difference in the distribution of employment by size class affect the net employment growth statistics? Using the statistics from the mean-size methodology of classifying establishments and firms into size categories, chart 2 graphs the net employment growth by size class for establishments and for firms. The chart shows that, for most size categories, net job growth measured at the establishment level is somewhat higher than net job growth measured at the firm level. However, these small differences may be accounted for in the largest firm size category; that is, firms with 1,000 or more employees grew by 529,759 jobs, whereas establishments with 1,000 or more employees grew

Chart 1. Establishment-level net employment growth, by size class, using alternative size class methodologies, March 2000 to June 2000



by 196,982 jobs. The obvious conclusion, based upon chart 2, is that using the establishment, rather than the firm, as the unit of analysis does affect how we interpret the net employment growth attributable to small businesses compared with that of large businesses.

Results: gross job flows

Establishment-level gross job flows. The statistics in tables 1 and 2 report how employment grew from March 2000 to June 2000. This change in employment is the net result of the millions of business establishments in the U.S. economy changing their specific employment levels. Statistics on gross job gains and gross job losses decompose the net establishment growth statistic in such a way that one can observe the underlying dynamics resulting from establishment openings and expansions, as opposed to that stemming from establishment contractions and closings.

Establishment-level gross job flow statistics are reported in table 3. Similar to tables 1 and 2, table 3 reports gross job gains and gross job losses with the use of the base-size method, the mean-size method, and the end-size method for classifying establishments into size classes. All percentages reported in table 3 use mean-quarter employment in the denominator.

One immediate conclusion from the table is that the magnitude of the gross job flow statistics is substantially larger than that of the net employment growth statistics. The net employment change of 3,443,287 jobs between March 2000 and June 2000 is the result of gross gains of 10,306,902 jobs in expanding and opening establishments and gross losses of 6,863,615 jobs in contracting and closing establishments. Expressed in percentages, the net employment growth rate of 3.2 percent (rounded) is the difference of the gross job gain rate of 9.4 percent and the gross job loss rate of 6.3 percent. The relatively large gross job flow statistics indicate a substantial amount of "churning" underlying net employment growth.[6]

By definition, because the sum of gross job gains and gross job losses equals net employment growth, the substantial effects of alternative size classification methodologies on the net employment growth statistics also will affect the gross job gain and loss statistics. The gross job gains for the smallest establishments are almost twice as high when calculated with the base-size methodology (1.7 million) as when calculated with the end-size methodology (911,000). Similarly, the gross job losses for the smallest establishments are almost twice as high when calculated with the end-size methodology (1.2 million) as

Table 2. Firm-level net employment growth, by size class, March 2000 to June 2000

Number of employees	Employment			Net employment growth		
	March 2000	June 2000	Change	Percent[1]	Percent[2]	Percent[3]
Base size class:						
Total	107,672,227	111,115,514	3,443,287	3.2	3.2	3.1
1 to 4	5,298,827	6,199,132	900,305	17.0	15.7	14.5
5 to 9	6,446,111	6,912,377	466,266	7.2	7.0	6.7
10 to 19	8,048,243	8,512,151	463,908	5.8	5.6	5.4
20 to 49	11,670,622	12,215,929	545,307	4.7	4.6	4.5
50 to 99	8,926,325	9,218,794	292,469	3.3	3.2	3.2
100 to 249	11,274,986	11,537,905	262,919	2.3	2.3	2.3
250 to 499	7,955,188	8,050,794	95,606	1.2	1.2	1.2
500 to 999	7,536,968	7,596,981	60,013	.8	.8	.8
1,000 or more	40,514,957	40,871,451	356,494	.9	.9	.9
Mean size class:						
Total	107,672,227	111,115,514	3,443,287	3.2	3.2	3.1
1 to 4	5,097,751	5,469,221	371,470	7.3	7.0	6.8
5 to 9	6,448,735	6,822,652	373,917	5.8	5.6	5.5
10 to 19	8,081,625	8,522,480	440,855	5.5	5.3	5.2
20 to 49	11,722,143	12,314,797	592,654	5.1	4.9	4.8
50 to 99	8,954,323	9,359,883	405,560	4.5	4.4	4.3
100 to 249	11,346,789	11,724,154	377,365	3.3	3.3	3.2
250 to 499	7,936,870	8,121,182	184,312	2.3	2.3	2.3
500 to 999	7,556,513	7,723,908	167,395	2.2	2.2	2.2
1,000 or more	40,527,478	41,057,237	529,759	1.3	1.3	1.3
End size class:						
Total	107,672,227	111,115,514	3,443,287	3.2	3.2	3.1
1 to 4	5,541,802	5,349,199	−192,603	−3.5	−3.5	−3.6
5 to 9	6,345,319	6,640,041	294,722	4.6	4.5	4.4
10 to 19	7,923,764	8,377,792	454,028	5.7	5.6	5.4
20 to 49	11,634,857	12,301,435	666,578	5.7	5.6	5.4
50 to 99	8,921,007	9,397,704	476,697	5.3	5.2	5.1
100 to 249	11,362,907	11,859,807	496,900	4.4	4.3	4.2
250 to 499	7,906,094	8,185,199	279,105	3.5	3.5	3.4
500 to 999	7,517,396	7,760,933	243,537	3.2	3.2	3.1
1,000 or more	40,519,081	41,243,404	724,323	1.8	1.8	1.8

[1] Calculated with previous-quarter employment in the denominator.

[2] Calculated with mean-quarter employment in the denominator.

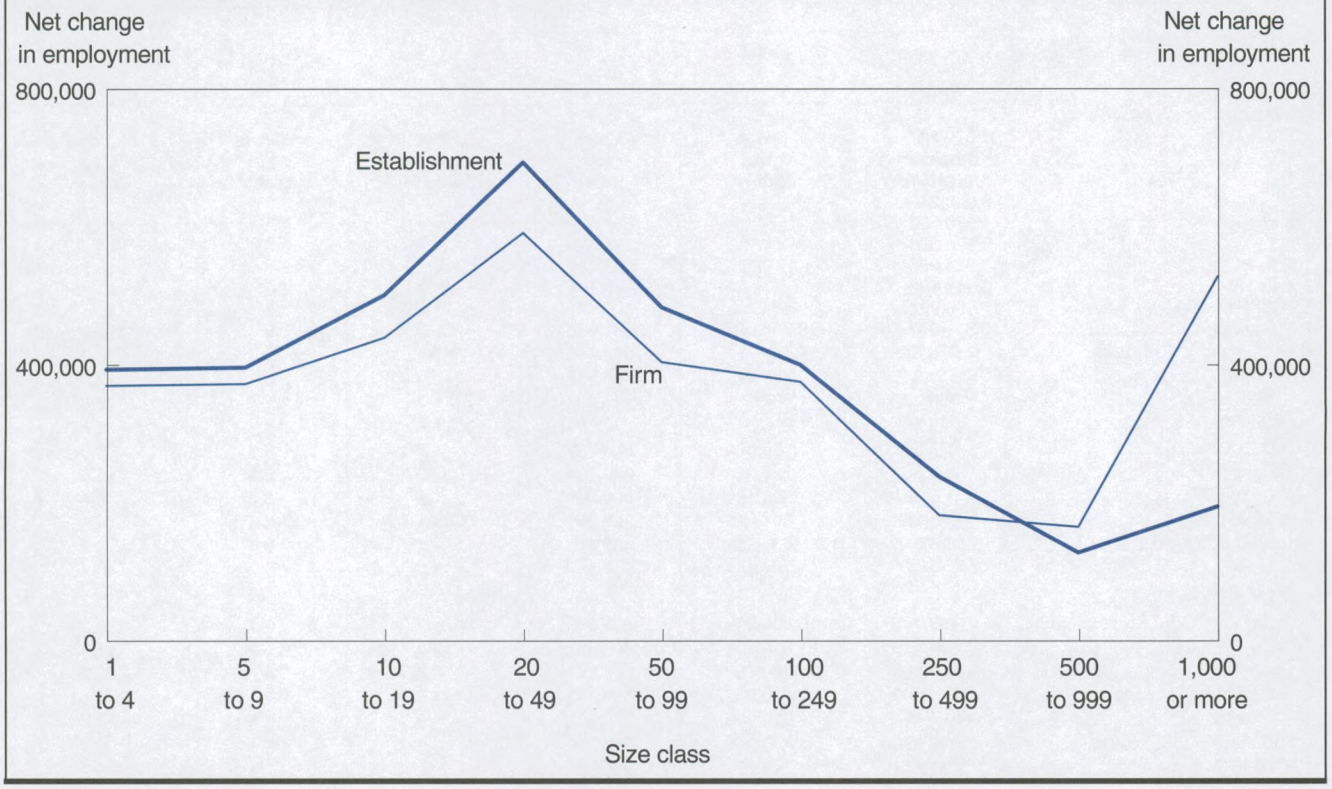
[3] Calculated with current-quarter employment in the denominator.

when calculated with the base-size methodology (668,000). These differences in both the gross job gain and the gross job loss statistics resulting from different size classification methodologies help explain why alternative methodologies have such a substantial effect on the net employment growth statistics for the smallest establishments (a gain of 1,076,615 jobs compared with a loss of 309,982 jobs). For all size classes, the mean-size methodology shows gross job flows that are between the base-size and end-size flows.

The gross job gain and gross job loss statistics by size class, computed under different methodologies, are depicted in charts 3 and 4. The base-size and end-size statistics show sharply different pictures of gross job flows by size class and emphasize how important differences in methodology are in examining longitudinal employment statistics. The high net employment growth of the smallest establishments computed under base sizing is the net result of both higher gross job gains and lower gross job losses relative to gross job flow statistics computed under alternative methodologies.

One additional finding in table 3 warrants mention: the gross job gain rates and the gross job loss rates both monotonically decline with employer size, regardless of the method used to categorize employers by size class. This means that small establishments gain and lose jobs at a much higher rate than do large establishments. However, caution is advised when these statistics are used to discuss job creation. First, finding that small establishments have a higher gross job gain rate than large establishments have is not equivalent to affirming that small establishments have more gross job gains. For example, from the mean size class portion of table 3, establishments with 1 to 4 employees have a gross job gain rate of 20.9 percent, and establishments with 10 to 19 employees have a gross job gain rate of 12.4 percent. But establishments with 1 to 4 employees have gross job gains of 1.335 million jobs, while establishments with 10 to 19 employees have

Chart 2. Establishment- and firm-level net employment growth, using mean-size methodology, March 2000 to June 2000



gross job gains of 1.453 million jobs. Second, it is important to keep in mind the distinction between gross job gains and net job gains, because, although small establishments have a high gross job gain rate, they also have a high gross job loss rate.

Firm-level gross job flows. Firm-level gross job flow statistics are reported in table 4. Although many of the conclusions about net and gross job flows at the firm level are qualitatively similar to the conclusions from the analysis of establishment-level statistics, one quantitative difference warrants mention. As noted earlier, a comparison of the statistics produced by the mean size class calculations in tables 3 and 4 shows that the net employment growth of the largest employers (with 1,000 or more employees) varies with whether establishments or firms are the unit of analysis (196,982 net jobs, compared with 529,759 net jobs). The number of gross jobs gained and gross jobs lost by the largest employers also varies as a function of whether the establishment or the firm is the unit of analysis. Establishments with 1,000 or more employees had 510,331 gross job gains, whereas firms with 1,000 or more employees had 1,374,207 gross job gains. As reflected in the relative similarity of the gross job gain rates, this difference between the establishment-level gross job flows and the firm-level gross job flows is attributable to the difference in the distribution of employment in establishments as opposed to firms.

USING MICRODATA FROM THE NEW BLS BUSINESS EMPLOYMENT DYNAMICS PROGRAM, this article has reviewed some of the core methodological issues involved in estimating net and gross job flows by size class. Some significant findings from the review are as follows: (1) base-sizing and end-sizing methods produce systematically different pictures of job flows, particularly for the smallest employers; (2) the measure used in the denominator to calculate job flow rates has relatively small effects on the net employment growth statistics; and (3) the contribution of large employers to net employment growth depends upon whether the unit of analysis is the establishment or the firm.

Table 3. Establishment-level gross job flows, by size class, March 2000 to June 2000

Number of employees	Level			Percent		
	Net employment growth	Gross job gains	Gross job losses	Net employment growth[1]	Gross job gains[1]	Gross job losses[1]
Base size class:						
Total	3,443,287	10,306,902	6,863,615	3.2	9.4	6.3
1 to 4	1,076,615	1,744,771	668,156	15.5	25.1	9.6
5 to 9	559,946	1,355,212	795,266	6.4	15.4	9.0
10 to 19	553,384	1,490,750	937,366	4.7	12.7	8.0
20 to 49	640,657	1,890,515	1,249,858	3.5	10.4	6.9
50 to 99	335,867	1,199,079	863,212	2.3	8.3	6.0
100 to 249	229,885	1,229,324	999,439	1.3	6.8	5.6
250 to 499	23,300	604,134	580,834	.2	5.7	5.4
500 to 999	–5,982	361,229	367,211	–.1	4.5	4.6
1,000 or more	29,615	431,888	402,273	.2	3.4	3.2
Mean size class:						
Total	3,443,287	10,306,902	6,863,615	3.2	9.4	6.3
1 to 4	394,520	1,335,401	940,881	6.2	20.9	14.7
5 to 9	397,509	1,280,702	883,193	4.6	14.7	10.1
10 to 19	502,429	1,453,232	950,803	4.3	12.4	8.1
20 to 49	694,614	1,920,906	1,226,292	3.8	10.5	6.7
50 to 99	484,988	1,315,253	830,265	3.3	9.1	5.7
100 to 249	401,843	1,342,194	940,351	2.2	7.4	5.2
250 to 499	240,383	710,309	469,926	2.2	6.6	4.4
500 to 999	130,019	438,574	308,555	1.6	5.5	3.9
1,000 or more	196,982	510,331	313,349	1.5	4.0	2.5
End size class:						
Total	3,443,287	10,306,902	6,863,615	3.2	9.4	6.3
1 to 4	–309,982	911,039	1,221,021	–4.7	13.8	18.4
5 to 9	250,835	1,147,300	896,465	2.9	13.3	10.4
10 to 19	443,215	1,411,638	968,423	3.8	12.2	8.4
20 to 49	766,275	1,968,567	1,202,292	4.2	10.8	6.6
50 to 99	611,560	1,386,546	774,986	4.2	9.6	5.4
100 to 249	677,693	1,506,673	828,980	3.7	8.3	4.6
250 to 499	375,912	801,911	425,999	3.5	7.4	3.9
500 to 999	285,743	544,439	258,696	3.5	6.7	3.2
1,000 or more	342,036	628,789	286,753	2.7	4.9	2.2

[1] Calculated with mean-quarter employment in the denominator.

The BLS Business Employment Dynamics program is dedicated to the development and publication of a wide variety of measures that reveal the underlying movements in business and employment. As a part of the extension of this work, the Bureau plans to release a research or development series of historical size class data in the fall of 2004, using the three alternative sizing methods described in this article. The publication of this series is intended to stimulate a review of the issues, methods, and concepts behind measuring employment change by size. The Bureau will be soliciting comments from the user community prior to introducing a formal publication-ready series of size class data. □

Chart 3. Establishment-level gross job gains, by size class, using alternative size class methodologies, March 2000 to June 2000

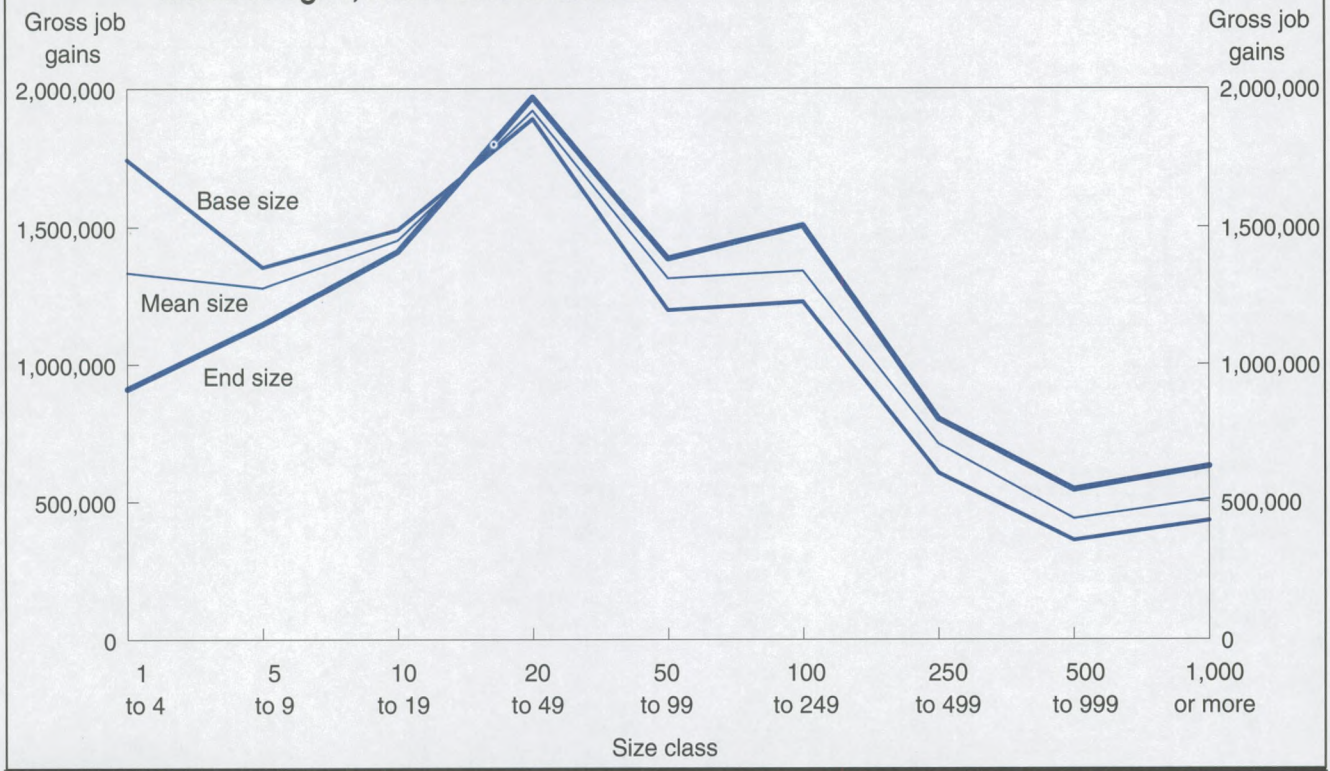


Chart 4. Establishment-level gross job losses, by size class, using alternative size class methodologies, March 2000 to June 2000

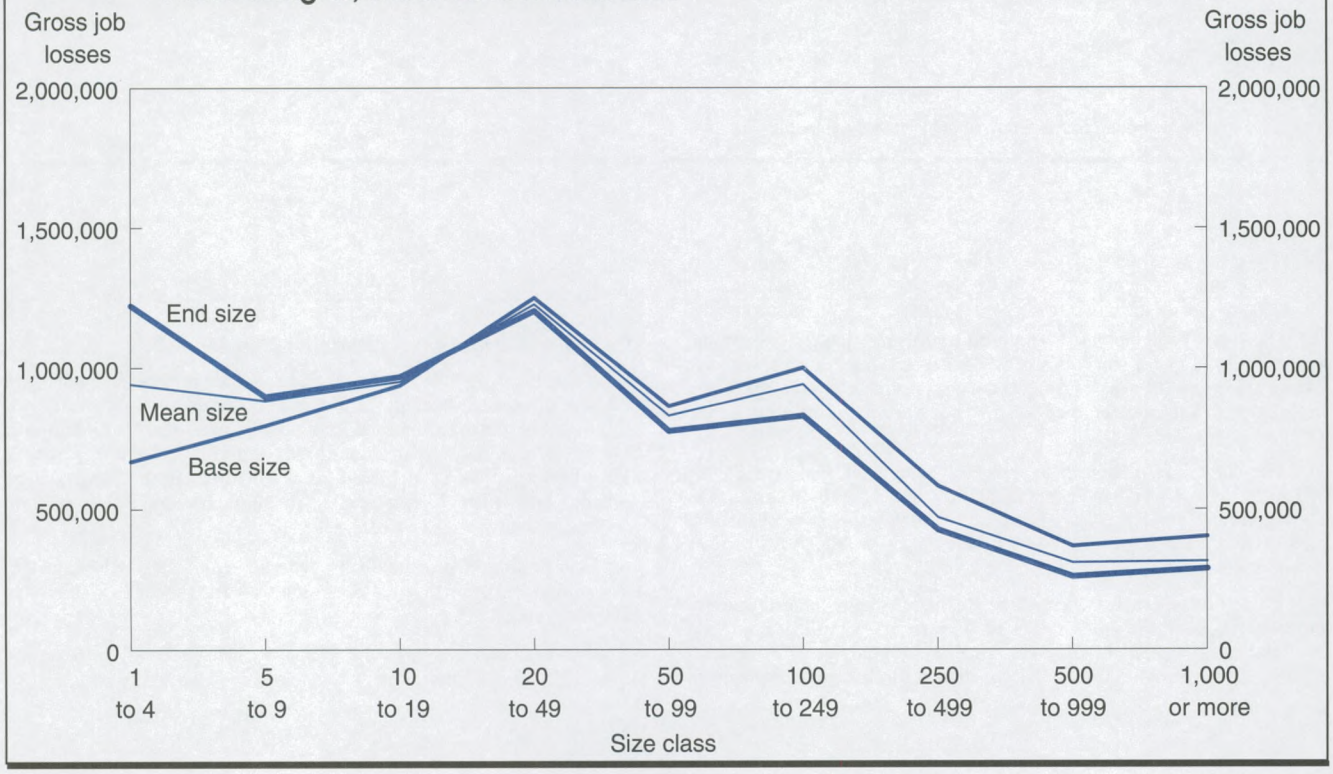


Table 4. Firm-level gross job flows, by size class, March 2000 to June 2000

Number of employees	Level			Percent		
	Net employment growth	Gross job gains	Gross job losses	Net employment growth[1]	Gross job gains[1]	Gross job losses[1]
Base size class						
Total	3,443,287	8,790,144	5,346,857	3.2	8.0	4.9
1 to 4	900,305	1,444,044	543,739	15.7	25.1	9.5
5 to 9	466,266	1,076,583	610,317	7.0	16.1	9.1
10 to 19	463,908	1,122,870	658,962	5.6	13.6	8.0
20 to 49	545,307	1,348,045	802,738	4.6	11.3	6.7
50 to 99	292,469	819,127	526,658	3.2	9.0	5.8
100 to 249	262,919	835,774	572,855	2.3	7.3	5.0
250 to 499	95,606	481,083	385,477	1.2	6.0	4.8
500 to 999	60,013	374,043	314,030	.8	4.9	4.2
1,000 or more	356,494	1,288,575	932,081	.9	3.2	2.3
Mean size class:						
Total	3,443,287	8,790,144	5,346,857	3.2	8.0	4.9
1 to 4	371,470	1,125,150	753,680	7.0	21.3	14.3
5 to 9	373,917	1,027,239	653,322	5.6	15.5	9.8
10 to 19	440,855	1,092,129	651,274	5.3	13.2	7.8
20 to 49	592,654	1,358,373	765,719	4.9	11.3	6.4
50 to 99	405,560	892,330	486,770	4.4	9.7	5.3
100 to 249	377,365	928,021	550,656	3.3	8.0	4.8
250 to 499	184,312	539,231	354,919	2.3	6.7	4.4
500 to 999	167,395	453,464	286,069	2.2	5.9	3.7
1,000 or more	529,759	1,374,207	844,448	1.3	3.4	2.1
End size class:						
Total	3,443,287	8,790,144	5,346,857	3.2	8.0	4.9
1 to 4	-192,603	769,315	961,918	–3.5	14.1	17.7
5 to 9	294,722	941,674	646,952	4.5	14.5	10.0
10 to 19	454,028	1,089,876	635,848	5.6	13.4	7.8
20 to 49	666,578	1,431,125	764,547	5.6	12.0	6.4
50 to 99	476,697	960,106	483,409	5.2	10.5	5.3
100 to 249	496,900	1,024,722	527,822	4.3	8.8	4.5
250 to 499	279,105	591,823	312,718	3.5	7.4	3.9
500 to 999	243,537	489,258	245,721	3.2	6.4	3.2
1,000 or more	724,323	1,492,245	767,922	1.8	3.7	1.9

[1] Calculated with mean-quarter employment in the denominator.

Notes

[1] One other issue that has been raised in the gross job flows literature is the definition of a small business. This article presents its statistics using BLS standard size class categories. Users can then aggregate categories in the manner they wish to for various definitions of the term *small business*.

[2] For more information on regression-to-the-mean bias, see Steven J. Davis, John C. Haltiwanger, and Scott Schuh, *Job Creation and Destruction* (Cambridge, MA, MIT Press, 1996), especially chapter 4; and Milton Friedman, "Do Old Fallacies Ever Die?" *Journal of Economic Literature*, December 1992, pp. 2129–32.

[3] For more information about the Business Employment Dynamics program, see James R. Spletzer, R. Jason Faberman, Akbar Sadeghi, David M. Talan, and Richard L. Clayton, "Business Employment Dynamics," *Monthly Labor Review*, April 2004, pp. 29–42. The Business Employment Dynamics program website is **www.bls.gov/bdm**.

[4] A technical point warrants mention. Establishment births in June 2000 are not in the database in March 2000, and establishment deaths are not in the database in June 2000. Thus, base-size employment is defined for openings as of June 2000, and end-size employment is defined for closings as of March 2000. To calculate the mean size of openings and closings, employment in the quarter in which the unit was not present was set to zero.

[5] This finding of monotonically declining (not seasonally adjusted) net employment growth rates does not hold for the other quarters in calendar-year 2000.

[6] For further analysis and discussion of this topic, see Spletzer and others, "Business Employment Dynamics."

Self-employment in the United States: an update

Self-employment continues to be an important source of jobs in the United States; as in the past, the incidence of self-employment continues to be highest among men, whites, older workers, and in agriculture, construction, and services industries

Steven Hipple

Following a long-term decline, the proportion of total employment made up of self-employed workers has leveled off in recent years. In 2003, 10.3 million workers were self-employed. The self-employment rate—the proportion of total employment made up of the self-employed—was 7.5 percent, up slightly from the rate in 2002. Reflecting the protracted shift away from agricultural self-employment, the vast majority (90.8 percent) of the self-employed in 2003 were in nonagricultural industries; in contrast, this proportion was 56.7 percent in the late-1940s.

Information on employment and unemployment is available from the Current Population Survey (CPS).[1] In addition to classifying employment by occupation and industry, the CPS subdivides employment by class of worker—that is, wage and salary employment, self-employment, and unpaid family work.

This article discusses the CPS measurement of self-employment, addresses historical trends in self-employment, and provides an overview of characteristics of the self-employed.

How are the self-employed measured in the CPS?

Since January 1994, employed respondents in the monthly CPS have been asked the following question: "Last month, were you employed by government, by a private company, a nonprofit organization, or were you self-employed?"

Individuals in the CPS who respond that they were employed by government, a private company, or a nonprofit organization are classified as wage and salary workers. Individuals who respond that they are self-employed are asked: "Is this business incorporated?" Individuals who respond "yes" are classified as wage and salary workers and are treated as employees of their own businesses. The "no" responses are classified as unincorporated self-employed—the measure that typically appears in Bureau of Labor Statistics publications.

Although the basic questions to determine class of worker status have undergone few changes since 1948, there is a break in series that took effect in 1967. Prior to that year, there was no question on incorporation of a business for the self-employed. Beginning in 1967, individuals identified as incorporated self-employed were classified as wage and salary workers. As table 1 shows, there was a substantial decline in self-employment beginning in 1967 due to the fact that these individuals were now classified as wage and salary workers. Other changes were implemented with the redesign of the CPS in 1994.[2] Furthermore, in 2003, the CPS adopted the 2002 North American Industry Classification System (NAICS) and the 2000 Standard Occupational Classification (SOC) system. The switch to these new classification systems affects comparability of the estimates of

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employment by class of worker.[3]

Table 2 shows data on incorporated self-employment since 1989. The proportion of total employment composed of the incorporated self-employed was nearly unchanged at 3.0 percent during the 1989–93 period; the implementation of the redesign of the CPS in 1994 caused the proportion to increase to 3.5 percent.[4] Since 1994, the rate of incorporated self-employment has ranged between 3.2 and 3.6 percent. Estimates of incorporated self-employment are available prior to 1989. These data show that incorporation has become increasingly common over time, rising from 1.5 million in March 1976 to 2.1 million in 1979 and 2.8 million in 1982; as a proportion of total employment, the rates rose from 1.8 percent to 2.2 percent to 2.8 percent over these points in time. The move toward incorporation is a function of many complex factors. Workers will typically incorporate their business for traditional benefits of the corporate structure, including limited liability, tax considerations, and the enhanced opportunity to raise capital through the sale of stocks and bonds.

Trends in self-employment

The proportion of individuals who are self-employed has fallen steadily since the late-1940s. (See table 1.) Several reasons could explain the overall decline in self-employment over the period. The most obvious reason is the overall decline in agricultural employment, an area in which a large proportion of employment comprises the self-employed. This decrease in self-employment in agriculture is primarily due to the disappearance of small farms, the rise of large farming operations, and enhanced productivity in the agricultural sector. A second explanation is the increase in the likelihood of businesses to incorporate—often for tax purposes. This would result in a decrease in the self-employed because in the official statistics workers in these firms are now classified as wage and salary workers. For instance, between 1990 and 2003, the proportion of nonagricultural employment made up of the unincorporated self-employed declined from 7.5 to 6.9 percent, while the proportion of nonfarm employment composed of the incorporated self-em-

Table 1. Unincorporated self-employment, annual averages, selected years, 1948–2003

[In thousands]

Year	All industries			Nonagricultural industries			Agriculture		
	Total employed	Self-employed	Percent	Total employed	Self-employed	Percent	Total employed	Self-employed	Percent
1948	58,343	10,775	18.5	50,714	6,110	12.0	7,629	4,665	61.1
1950	58,918	10,359	17.6	51,758	6,019	11.6	7,160	4,340	60.6
1955	62,170	9,577	15.4	55,722	5,851	10.5	6,450	3,726	57.8
1960	65,778	9,098	13.8	60,318	6,303	10.4	5,458	2,795	51.2
1965	71,088	8,394	11.8	66,726	6,097	9.1	4,361	2,297	52.7
1966	72,895	8,127	11.1	68,915	5,991	8.7	3,979	2,136	53.7
1967[1]	74,372	7,170	9.6	70,527	5,174	7.3	3,844	1,996	51.9
1970	78,678	7,031	8.9	75,215	5,221	6.9	3,463	1,810	52.3
1975	85,846	7,427	8.7	82,438	5,705	6.9	3,408	1,722	50.5
1980	99,303	8,642	8.7	95,938	7,000	7.3	3,365	1,642	48.8
1985	107,150	9,269	8.7	103,971	7,811	7.5	3,179	1,458	45.9
1990	118,793	10,097	8.5	115,570	8,719	7.5	3,223	1,378	42.8
1994[2]	123,060	10,648	8.7	119,651	9,003	7.5	3,409	1,645	48.3
1995	124,900	10,482	8.4	121,460	8,902	7.3	3,440	1,580	45.9
1996	126,708	10,489	8.3	123,264	8,971	7.3	3,443	1,518	44.1
1997	129,558	10,513	8.1	126,159	9,056	7.2	3,399	1,457	42.9
1998	131,463	10,303	7.8	128,085	8,962	7.0	3,378	1,341	39.7
1999	133,488	10,087	7.6	130,207	8,790	6.8	3,281	1,297	39.5
2000 [3 4]	136,891	10,215	7.5	134,427	9,205	6.8	2,464	1,010	41.0
2001[4]	136,933	10,109	7.4	134,635	9,121	6.8	2,299	988	43.0
2002[4]	136,485	9,926	7.3	134,174	8,923	6.7	2,311	1,003	43.4
2003[4]	137,736	10,295	7.5	135,461	9,344	6.9	2,275	951	41.8

[1] Prior to 1967, estimates of the self-employed included persons who operated their own incorporated businesses, not specifically identified until that year.

[2] Data for 1994 are not directly comparable with data for earlier years due to a major redesign of the CPS.

[3] Data for 2000–03 have been revised to incorporate Census 2000 population controls.

[4] Data for nonagricultural and agricultural industries are not directly comparable due to adoption of the North American Industry Classification System (NAICS) and the Standard Occupational Classification (SOC) system.

Table 2. Incorporated self-employment, annual averages, 1989–2003

[In thousands]

Year	All industries			Nonagricultural industries			Agriculture		
	Total employed	Incorporated self-employed	Percent	Total employed	Incorporated self-employed	Percent	Total employed	Incorporated self-employed	Percent
1989	117,342	3,444	2.9	114,142	3,311	2.9	3,199	133	4.2
1990	118,793	3,463	2.9	115,570	3,332	2.9	3,223	131	4.1
1991	117,718	3,379	2.9	114,449	3,253	2.8	3,269	126	3.9
1992	118,492	3,519	3.0	115,245	3,371	2.9	3,247	148	4.6
1993	120,259	3,555	3.0	117,144	3,399	2.9	3,115	156	5.0
1994[1]	123,060	4,246	3.5	119,651	4,049	3.4	3,409	197	5.8
1995	124,900	4,224	3.4	121,460	4,011	3.3	3,440	213	6.2
1996	126,708	4,080	3.2	123,264	3,917	3.2	3,443	163	4.7
1997	129,558	4,341	3.4	126,159	4,142	3.3	3,399	199	5.9
1998	131,463	4,290	3.3	128,085	4,099	3.2	3,378	191	5.7
1999	133,488	4,303	3.2	130,207	4,116	3.2	3,281	187	5.7
2000[2 3]	136,891	4,458	3.3	134,427	4,316	3.2	2,464	142	5.8
2001[3]	136,933	4,452	3.3	134,635	4,313	3.2	2,299	139	6.0
2002[3]	136,485	4,608	3.4	134,174	4,476	3.3	2,311	132	5.7
2003[3]	137,736	4,956	3.6	135,461	4,810	3.6	2,275	146	6.4

[1] Data for 1994 are not directly comparable with data for earlier years due to a major redesign of the CPS and the introduction of 1990 census-based population controls, adjusted for the estimated undercount.

[2] Data for 2000–03 have been revised to incorporate Census 2000 population controls.

[3] Data are not directly comparable due to adoption of the North American Industry Classification System (NAICS) and the Standard Occupational Classification (SOC) system.

ployed rose from 2.9 to 3.6 percent over the same period.

Research carried out by Marilyn E. Manser and Garnett Picott compared the contribution of self-employment to net job creation in Canada and the United States. The authors found that, during the 1980s, the role of self-employment within the two countries was somewhat similar. During the 1990s, however, self-employment accounted for essentially none of the net job creation in the United States, whereas the majority of net employment growth in Canada over the same period was composed of self-employed workers.[5]

Generally, during labor market contractions, most labor force groups are impacted negatively and experience a decline in employment. This procyclical response certainly affects many of the self-employed, as their businesses fail when profits decline or disappear. However, a competing countercyclical effect could result if laid-off wage and salary workers must rely on what was formerly "moonlighting" self-employment or possibly enter the ranks of the self-employed.

Recent analysis conducted by Ellen R. Rissman used data from the National Longitudinal Survey of Youth (NLSY) and, based on the model formulated in her study, found that flows into self-employment occur during recessions and flows out of self-employment occur during economic expansions.[6]

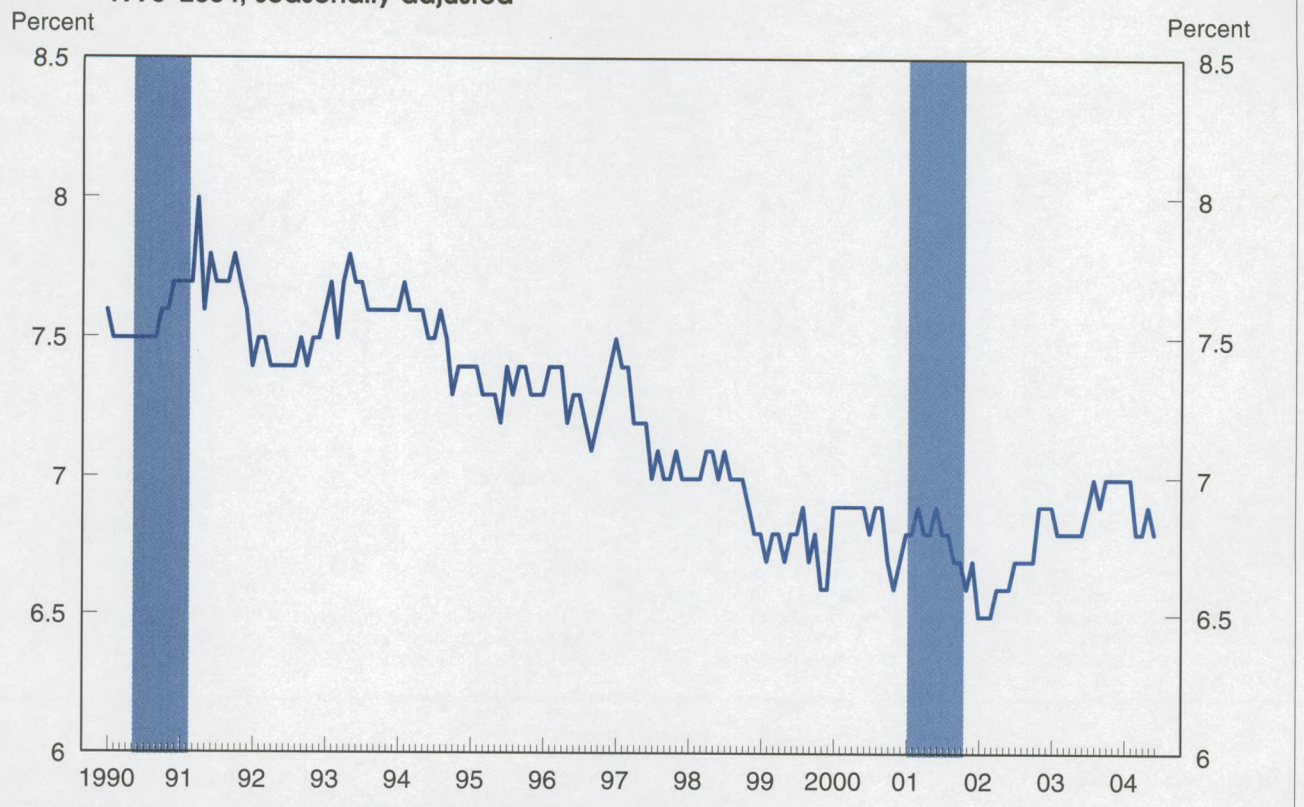
Additional research carried out by Daniel Aaronson, Ellen R. Rissman, and Daniel G. Sullivan concluded that a large proportion of the increase in self-employment since the beginning of the most recent recession is due to unincorporated firms emerging during weak economic conditions.[7]

Indeed, there has been an increase in the proportion of nonagricultural employment made up of the self-employed since the end of the most recent recession.[8] Between early 2002 and mid-2004, labor market conditions continued to be somewhat sluggish, and, over this period, nonagricultural self-employment rose slightly from 6.5 percent to 6.8 percent of total nonagricultural employment.[9] (See chart 1.)

Characteristics of the self-employed

Demographics. In 2003, older workers were more likely to be self-employed than younger workers.[10] (See tables 3 and 4.) (The following analysis will primarily focus on the unincorporated self-employed; in most cases the patterns exhibited by the incorporated self-employed are very similar.) The self-employment rate for workers age 65 and older was 19.1 percent, in contrast with only about 2.0 percent for their counterparts age 16 to 19 and age 20 to 24. Younger workers rarely have acquired the capital and managerial skills needed to start a business, whereas many older workers may be able to obtain these resources through their own efforts or through access to available credit. Furthermore, older workers who have retired from wage and salary jobs may become self-

Chart 1. Nonagricultural self-employment as a percent of total nonagricultural employment, 1990–2004, seasonally adjusted



NOTE: Shaded areas represent recessions. Data are monthly.

employed to supplement their retirement income.

Recent research conducted by Julie Zissimopoulos and Lynn A. Karoly examined factors associated with transitions into self-employment among older individuals. Using longitudinal data from the Health and Retirement Study, the authors analyzed the impact of a person's health, wealth, access to employer-provided benefits, and other factors such as availability of a flexible work schedule on their wage and salary job. The authors concluded that the likelihood of future groups of older workers to enter self-employment at the same rates as those observed in their study will be affected by economic conditions, individual wealth, and other factors such as possible changes to the Social Security system and other social insurance programs and technological advances.[11]

Self-employment is more common among men than women. In 2003, 8.8 percent of men were self-employed, compared with 6.0 percent of women. Self-employed men are more likely than their female counterparts to be employed in industries—construction, for example—that have a large proportion of self-employed workers.

Whites were more likely than blacks or Hispanics to operate their own businesses. In 2003, the self-employment rate for whites was 8.0 percent, while the rates for blacks or African Americans and Hispanics or Latinos were 4.1 percent and 5.5 percent, respectively. The rate for Asians was 6.9 percent.

Michael Hout and Harvey S. Rosen used the General Social Survey to study how family background affects the probability of being self-employed. The authors found that blacks have lower rates of self-employment than whites partly because of their differing family structures. Also, within each family type, blacks had lower self-employment rates than whites. Hout and Rosen contend that there is no indication that the rates of self-employment between blacks and whites will converge in the near future.[12]

Other research carried out by Robert W. Fairlie and Bruce D. Meyer examined trends in white and black male self-employment in nonagricultural industries from 1910 to 1997. The authors found that self-employment rates declined through 1970 and then rose. With regard to white males, trends in business ownership were due to falling rates within industries, ending in 1970, and then counterbalanced by a continued shift towards industries with a large proportion of self-employed workers. Blacks were much less likely than whites to be self-employed over the 1910–97 period. In their

Table 3. Unincorporated self-employed, incorporated self-employed, and wage and salary workers by sex and selected characteristics, 2003 annual averages

Characteristic	Unincorporated self-employed			Incorporated self-employed			Wage and salary workers[1]		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
Age									
Total, 16 years and older:									
Thousands	10,295	6,430	3,865	4,956	3,626	1,330	122,358	63,236	59,123
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16 to 19 years	.9	1.0	.7	.2	.2	.5	4.7	4.5	5.0
20 to 24 years	2.6	2.8	2.3	1.0	.9	1.2	10.7	10.8	10.6
25 to 34 years	15.6	15.3	16.2	11.6	11.5	12.0	23.0	24.1	21.8
35 to 44 years	26.4	25.4	28.0	28.7	29.0	27.8	25.1	25.4	24.8
45 to 54 years	27.1	27.2	27.0	30.8	30.6	31.4	22.5	21.7	23.4
55 to 64 years	18.8	19.1	18.3	20.5	19.9	22.0	11.1	10.7	11.6
65 years and older	8.5	9.2	7.5	7.2	7.8	5.6	2.7	2.7	2.8
Race and Hispanic or Latino ethnicity									
White	88.2	88.7	87.3	90.1	90.5	88.9	82.2	83.6	80.7
Black or African American	5.8	5.6	6.1	4.1	4.2	3.9	11.4	10.0	12.9
Asian	3.9	3.5	4.4	4.6	4.2	5.9	4.2	4.3	4.1
Hispanic or Latino	9.3	10.2	7.7	5.5	5.4	5.9	13.2	15.2	11.0
Country of birth and U.S. citizenship status									
U.S. born	87.2	86.6	88.1	87.0	86.8	87.3	85.5	83.4	87.8
Foreign-born	12.8	13.4	11.9	13.1	13.2	12.8	14.5	16.6	12.2
U.S. citizen	6.4	6.4	6.3	8.6	8.6	8.6	5.5	5.6	5.4
Not a U.S. citizen	6.4	7.0	5.6	4.5	4.6	4.1	9.0	11.0	6.8
Educational attainment									
Total, 25 years and older:									
Thousands	9,936	6,186	3,750	4,896	3,586	1,310	103,454	53,553	49,901
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than a high school diploma	10.6	12.7	7.3	4.9	5.1	4.4	9.9	11.8	7.8
High school graduates, no college	31.4	32.4	29.7	23.0	23.0	23.1	30.5	30.6	30.5
Some college, no degree	18.3	17.7	19.2	18.3	17.6	20.2	17.8	17.0	18.5
Associate degree	8.5	7.1	10.8	7.4	7.0	8.6	9.8	8.5	11.1
College graduates	31.2	30.1	33.0	46.3	47.3	43.6	32.1	32.1	32.0
Advanced degree	12.3	12.2	12.5	17.9	18.8	15.5	10.9	11.2	10.6

[1]Data exclude the incorporated self-employed.

NOTE: Detail for the above race and Hispanic or Latino groups will not sum to total because data for the "other races" group are not presented and Hispanics or Latinos are included in both the white and black population groups. Detail for other characteristics may not sum to totals due to rounding. In addition, data exclude unpaid family workers.

study, Fairlie and Meyer argue that, absent continuing forces holding back self-employment among blacks, a simple intergenerational model suggests a rapid convergence of black and white rates of self-employment.[13]

Workers who were natives of the United States were somewhat more likely than the foreign-born to be self-employed. The self-employment rate for U.S. citizens was 7.6 percent, compared with 6.7 percent for the foreign-born.[14] Foreign-born workers who were naturalized citizens had a higher probability of being self-employed than their counterparts who were noncitizens; the self-employment rate for naturalized citizens was 8.3 percent, in contrast with 5.6 percent for noncitizens. Among the foreign-born—both naturalized citizens and noncitizens combined—natives of South Korea had the highest probability of owning their own business; about one in every five of these workers were self-employed.

Self-employed workers were found at both ends of the educational spectrum. Among workers age 25 and older, those with either an advanced degree or with less than a high school diploma had relatively high self-employment rates—9.2 percent. The probability of being a business owner was somewhat lower for workers with an associate degree, high

Table 4. Self-employment rates by sex and selected characteristics, 2003 annual averages

Characteristic	Self-employment rates[1]					
	Unincorporated self-employed			Incorporated self-employed		
	Total	Men	Women	Total	Men	Women
Age						
Total, 16 years and older	7.5	8.8	6.0	3.6	4.9	2.1
16 to 19 years	1.5	2.2	.9	.2	.2	.2
20 to 24 years	2.0	2.5	1.4	.4	.5	.3
25 to 34 years	5.3	5.9	4.6	1.9	2.5	1.2
35 to 44 years	7.8	8.7	6.7	4.1	5.6	2.3
45 to 54 years	8.7	10.5	6.8	4.8	6.7	2.7
55 to 64 years	11.7	14.1	9.0	6.1	8.3	3.7
65 years and older	19.1	22.8	14.3	7.8	10.9	3.7
Race and Hispanic or Latino ethnicity						
White	8.0	9.2	6.4	3.9	5.3	2.3
Black or African American	4.1	5.3	3.0	1.4	2.2	.7
Asian	6.9	7.4	6.3	4.0	4.9	2.9
Hispanic or Latino	5.5	6.3	4.3	1.6	1.9	1.1
Country of birth and U.S. citizenship status						
U.S. born	7.6	9.1	6.0	3.7	5.1	2.1
Foreign-born	6.7	7.3	5.8	3.3	4.0	2.2
U.S. citizen	8.3	9.6	6.8	5.4	7.3	3.2
Not a U.S. citizen	5.6	5.9	5.0	1.9	2.2	1.3
Educational attainment						
Total, 25 years and older	8.4	9.8	6.8	4.1	5.7	2.4
Less than a high school diploma	9.2	10.8	6.4	2.1	2.5	1.4
High school graduates, no college	8.7	10.4	6.7	3.1	4.3	1.8
Some college, no degree	8.6	10.1	7.0	4.2	5.8	2.6
Associate degree	7.5	8.4	6.6	3.2	4.8	1.9
College graduates	8.0	9.0	6.9	5.9	8.2	3.2
Advanced degree	9.2	10.2	7.8	6.5	9.1	3.4

[1]Self-employment rates are calculated by dividing the number of self-employed workers in a specified worker group by total employment in the same worker group.

school graduates with no college, and workers with some college but no degree.

Among the *incorporated* self-employed, the rate of self-employment for individuals with advanced degrees (6.5 percent) was more than three times the rate for their counterparts with less than a high school diploma—2.1 percent. Employment among the incorporated self-employed tends to be concentrated in those occupations—management, professional and related occupations—in which a large proportion of workers have advanced degrees. For instance, above-average incorporated self-employment rates were found among dentists (40.1 percent); veterinarians (30.9 percent); physicians and surgeons (18.3 percent); and lawyers, judges, magistrates, and other judicial workers (11.5 percent).

Tables 5 and 6 show trends in nonagricultural self-employment rates since 1989 for self-employed workers and incorporated business owners by sex, race, Hispanic or Latino ethnicity, and age. Over this period, the incidence of self-employment has consistently been more common among men, whites, and older workers. However, the rates of self-employment among most of the unincorporated groups have been falling, whereas the incidence of self-employment among the vast majority of the incorporated groups has been rising.

Work schedules and multiple jobholding. In terms of work schedules, about one in every three of the nonagricultural self-employed worked part time—that is, 1 to 34 hours per week. There were, however, differences between men and women. Only about one-fourth of all self-employed men worked part time, compared with nearly half of their female counterparts.

Table 5. Incidence of unincorporated self-employment in nonagricultural industries by sex, race, Hispanic or Latino ethnicity, and age, annual averages, 1989–2003

[Percent]

Year	Total	Men	Women	White	Black or African American	Asian	Hispanic or Latino	16 to 19 years	20 to 24 years	25 to 34 years	35 to 44 years	45 to 54 years	55 to 64 years	65 years and older
1989	7.5	9.0	5.8	8.0	3.3	–	5.9	1.2	2.3	5.8	8.4	9.7	11.6	19.8
1990	7.5	8.9	5.9	8.0	3.6	–	5.4	1.1	2.3	5.9	8.5	9.9	11.9	19.0
1991	7.7	9.2	6.0	8.2	3.7	–	5.3	1.0	2.3	6.0	8.6	10.2	11.7	19.9
1992	7.4	9.1	5.6	7.9	3.5	–	5.0	1.3	2.1	5.6	8.0	9.8	11.5	19.6
1993	7.6	9.4	5.6	8.1	3.5	–	5.4	1.1	2.1	5.8	8.2	9.8	12.2	19.8
1994[1]	7.5	8.7	6.2	8.0	3.6	–	5.2	2.1	2.2	5.6	8.0	9.4	12.1	20.0
1995	7.3	8.4	6.1	7.8	3.7	–	4.8	1.8	2.2	5.4	7.7	9.3	11.4	19.4
1996	7.3	8.3	6.1	7.8	3.6	–	5.1	1.2	2.3	5.3	7.7	9.3	11.1	19.3
1997	7.2	8.2	6.0	7.6	3.4	–	5.0	1.2	2.1	5.1	7.7	9.0	11.7	19.8
1998	7.0	8.0	5.8	7.5	3.4	–	4.7	.8	2.0	4.9	7.6	8.9	11.2	18.5
1999	6.8	7.8	5.6	7.2	3.5	–	5.0	.9	2.1	4.9	7.2	8.5	10.7	17.7
2000[2 3]	6.8	7.8	5.7	7.2	4.1	6.7	4.8	1.4	2.0	4.9	7.4	8.6	10.6	16.9
2001[3]	6.8	7.7	5.7	7.2	3.9	6.4	5.2	1.4	2.2	4.7	7.2	8.3	10.7	16.6
2002[3]	6.7	7.6	5.6	7.1	3.9	5.7	5.2	1.5	2.1	4.9	7.0	8.2	9.9	15.3
2003[3]	6.9	8.0	5.7	7.3	4.0	6.8	5.5	1.5	1.9	5.0	7.4	8.2	10.5	15.3

[1] Data, beginning in 1994, are not directly comparable with data for earlier years due to a major redesign of the CPS and the introduction of census-based population controls, adjusted for the estimated undercount.

[2] Data not directly comparable due to incorporation of Census 2000 population controls.

[3] Data are not directly comparable due to adaptation of the North American Industry Classification System (NAICS) and the Standard Occupational Classification (SOC) system.

NOTE: Dash indicates data not available.

Table 6. Incidence of incorporated self-employment in nonagricultural industries by sex, race, Hispanic or Latino ethnicity, and age, annual averages, 1989–2003

[Percent]

Year	Total	Men	Women	White	Black or African American	Asian	Hispanic or Latino	16 to 19 years	20 to 24 years	25 to 34 years	35 to 44 years	45 to 54 years	55 to 64 years	65 years and older
1989	2.9	4.2	1.3	3.2	0.5	–	1.4	0.1	0.3	1.6	3.7	4.6	5.0	7.2
1990	2.9	4.2	1.4	3.1	.7	–	1.1	.1	.3	1.7	3.5	4.8	4.9	7.0
1991	2.8	4.1	1.3	3.1	.6	–	1.1	.1	.3	1.6	3.5	4.6	5.0	6.8
1992	2.9	4.3	1.4	3.2	.5	–	1.2	.1	.3	1.5	3.4	4.9	5.4	7.2
1993	2.9	4.2	1.4	3.2	.5	–	1.4	.1	.3	1.5	3.4	4.6	5.5	7.1
1994[1]	3.4	4.6	2.0	3.7	.9	–	1.4	.9	.7	1.9	3.8	5.0	6.1	8.5
1995	3.3	4.5	2.0	3.6	.9	–	1.5	.7	.7	1.9	3.7	4.8	5.9	7.9
1996	3.2	4.5	1.7	3.5	.9	–	1.4	.1	.5	1.8	3.6	4.7	5.6	7.3
1997	3.3	4.6	1.8	3.6	.8	–	1.4	.1	.3	1.8	3.7	4.9	5.9	8.2
1998	3.2	4.5	1.8	3.5	.9	–	1.4	.1	.3	1.7	3.7	4.5	6.1	7.7
1999	3.2	4.4	1.8	3.4	1.0	–	1.4	.1	.3	1.7	3.6	4.4	5.7	7.8
2000[2 3]	3.2	4.5	1.8	3.5	1.2	3.5	1.4	.1	.3	1.7	3.7	4.5	5.7	7.7
2001[3]	3.2	4.4	1.8	3.4	1.2	4.2	1.3	.1	.4	1.7	3.7	4.4	5.7	7.5
2002[3]	3.3	4.7	1.8	3.6	1.1	4.1	1.2	.1	.3	1.7	3.7	4.6	6.0	7.7
2003[3]	3.6	4.9	2.0	3.9	1.4	4.0	1.6	.2	.4	1.9	4.1	4.7	6.1	7.7

[1] Data, beginning in 1994, are not directly comparable with data for earlier years due to a major redesign of the CPS and the introduction of census-based population controls, adjusted for the estimated undercount.

[2] Data not directly comparable due to incorporation of Census 2000 population controls.

[3] Data are not directly comparable due to adaptation of the North American Industry Classification System (NAICS) and the Standard Occupational Classification (SOC) system.

NOTE: Dash indicates data not available.

The following tabulation shows the percent distribution of hours at work and average weekly hours for nonagricultural self-employed workers in 2003:

Hours worked per week	*Both sexes*	*Men*	*Women*
Total at work (in thousands)	8,750	5,422	3,328
Percent distribution	100.0	100.0	100.0
1 to 14 hours	10.3	6.7	16.1
15 to 34 hours	23.2	19.0	30.0
35 hours or more	66.5	74.3	53.9
35 to 40 hours	32.2	35.0	27.6
41 to 48 hours	6.9	7.7	5.7
49 hours or more	27.4	31.6	20.6
Average weekly hours	38.4	41.3	33.8

Among the self-employed, men were much more likely than women to put in a long workweek; for instance, 31.6 percent of men worked 49 hours or more per week, in contrast with 20.6 percent of women. The average workweek for men was nearly 8 hours longer than that for women (41.3 hours versus 33.8 hours).

Since 1994, monthly data on multiple jobholding have been available from the CPS. In the survey, a quarter of respondents are asked questions about the occupation, industry, and class of worker of their secondary job. In 2003, 1.5 million workers were classified as wage and salary on their main job and self-employed on their secondary job; these workers, however, made up a small proportion of total employment—only 1.1 percent. As is the case with total multiple jobholding, this proportion has declined steadily since the mid-1990s.

Industry and occupation

Industry. The probability of being self-employed was highest for workers in agriculture, forestry, fishing, and hunting; construction; "other services"; and, professional and business services. (See table 7.)

Specific industries within agriculture, forestry, fishing, and hunting that had high rates of self-employment included animal production (52.9 percent) and crop production (38.1 percent). Within the "other services" sector, self-employment rates were highest for barber shops (48.8 percent), personal and household goods repair and maintenance (43.1 percent), nail salons and other personal care services (41.8 percent), and beauty salons (33.5 percent). In the professional and business services sector, the proportion of employment made up of business owners was highest in offices of other health care practitioners (39.4 percent); specialized design services (36.9 percent); other schools, institution, and education services (32.6 percent); landscaping services (29.4 percent); and child day care services (29.4 percent).

Occupation. The self-employed are widely distributed across occupations. (See table 7.) Occupational categories that had the highest self-employment rates were construction and extraction; management, business, and financial; and sales and related occupations.

Construction and extraction occupations with relatively high self-employment rates included carpet, floor, and tile installers and finishers (33.4 percent); painters, construction and maintenance (26.5 percent); and drywall installers, ceiling tile installers, and tapers (23.1 percent). Specific occupations within the management, business, and financial category with large proportions of business owners included management analysts (27.8 percent); construction managers (25.1 percent); property, real estate, and community association managers (21.8 percent); and tax preparers (19.1 percent). Within the sales and related occupations category, self-employment rates were highest for door-to-door sales workers, street vendors, and related workers (49.9 percent); real estate brokers and agents (29.4 percent); and first line supervisors/managers of retail sales workers (15.7 percent).

A number of jobs in the professional and related occupations category lend themselves to business ownership. For instance, the rate of self-employment was very high for artists and related workers (46.9 percent); writers and authors (46.8 percent); musicians, singers, and related workers (43.0 percent); and photographers (38.3 percent).

Regions

In 2003, the likelihood of being a business owner was highest in the western region. The self-employment rate in the West was 8.9 percent, compared with 7.4 percent in the South, 6.9 percent in the Midwest, and 6.6 percent in the Northeast.[15] (See table 8.)

By far, the largest proportion of foreign-born workers was in the West; nearly one in every four workers in this region was foreign-born. Among the foreign-born, the self-employment rate for individuals in the West (7.7 percent) was above-average, and higher than the rates for their counterparts in the South (6.7 percent), Northeast (6.0 percent), and Midwest (4.7 percent).

As is the case for the entire Nation, men were more likely than women to be self-employed in every region. Among the incorporated self-employed, the disparity in self-employment rates was even greater; in every region, men were at least twice as likely as women to own their own business.

Presence of paid employees

Beginning in January 1995, two questions were added to the CPS to provide information on the self-employed that would allow these individuals to be classified as employers, or al-

Table 7. Self-employment rates by sex, occupation and industry, 2003 annual averages

[Percent]

Occupation and industry	Self-employment rates[1]					
	Unincorporated self-employed			Incorporated self-employed		
	Total	Men	Women	Total	Men	Women
Occupation						
Total, age 16 and older	7.5	8.8	6.0	3.6	4.9	2.1
Management, professional, and related occupations	8.7	11.3	6.2	5.8	8.8	2.7
Management, business, and financial occupations	12.3	14.9	8.7	9.7	12.9	5.3
Professional and related occupations	6.2	7.9	4.8	2.9	5.0	1.3
Service occupations	7.7	5.9	9.0	1.1	1.5	.9
Sales and office occupations	5.5	7.2	4.5	3.5	5.8	2.3
Sales and related occupations	10.0	10.7	9.3	6.0	8.7	3.2
Office and administrative support occupations	1.8	1.1	2.0	1.5	.9	1.7
Natural resources, construction, and maintenance occupations	12.6	12.7	11.0	3.3	3.3	2.2
Farming, fishing, and forestry occupations	6.4	7.5	2.5	1.6	1.7	.9
Construction and extraction occupations	16.5	16.3	23.7	4.3	4.3	4.7
Installation, maintenance, and repair occupations	7.7	7.8	6.9	2.0	2.1	.9
Production, transportation, and material moving occupations	3.8	4.0	3.3	1.2	1.4	.6
Production occupations	3.2	3.1	3.6	.9	1.1	.5
Transportation and material moving occupations	4.5	4.8	2.5	1.6	1.6	1.0
Industry						
Total, age 16 and older	7.5	8.8	6.0	3.6	4.9	2.1
Agriculture, forestry, fishing, and hunting	41.8	40.9	44.3	6.4	6.0	7.6
Mining	1.7	1.5	5.1	4.2	4.0	2.0
Construction	16.9	17.6	10.9	7.2	6.9	10.1
Manufacturing	1.9	1.9	2.1	2.1	2.4	1.4
Durable goods	1.9	1.9	1.8	2.3	2.5	1.6
Nondurable goods	2.0	1.7	2.5	1.8	2.3	1.0
Wholesale and retail trade	6.0	5.6	6.5	4.4	5.7	2.9
Wholesale trade	5.3	5.5	4.9	6.3	7.0	4.8
Retail trade	6.2	5.6	6.8	3.9	5.2	2.6
Transportation and public utilities	5.1	6.0	2.5	2.5	2.9	1.5
Information	4.1	4.8	3.2	2.9	3.8	1.7
Financial activities	7.6	10.4	5.3	4.9	7.6	2.7
Professional and business services	13.7	14.8	12.3	7.1	8.9	4.7
Education and health services	4.0	4.1	4.0	1.5	3.8	.7
Leisure and hospitality	5.9	6.9	4.9	2.8	3.6	2.1
Other services	15.7	16.6	14.9	4.4	6.2	2.7

[1] Self-employment rates are calculated by dividing the number of self-employed workers in a specified worker group by total employment in the same worker group.

ternatively, persons who worked on their own account. Specifically, the unincorporated self-employed were asked if they had any paid employees, and if so, the number of employees they usually employed. Table 9 shows data on the presence of paid employees from 1995–2003. The estimates show that the incidence of employment of other individuals in self-employed business is uncommon. Indeed, in 2003, only 16.9 percent of the self-employed had paid employees. Interestingly, this proportion had declined from 20.7 percent in 1995.

Of the 1.7 million with employees in 2003, over three-fourths had just 1 to 4 employees; the share with more than 20 was very small—less than 4 percent. These proportions were fairly consistent over the 1995–2003 period.[16] Men were about twice as likely as women to have paid employees. In 2003, about 1 in every 5 self-employed men had employees, compared with 1 in every 10 women. For both groups, the proportions have declined slightly since the data were first collected in 1995. In terms of number of employees, the pattern between men and women was very similar, and about the same as for all self-employed workers.

Table 8. Self-employment rates by sex, region and census division, 2003 annual averages

[Percent]

Census region and division	Self-employment rates[1]					
	Unincorporated self-employed			Incorporated self-employed		
	Total	Men	Women	Total	Men	Women
Total, United States	7.5	8.8	6.0	3.6	4.9	2.1
Northeast	6.6	7.9	5.2	3.6	5.2	1.9
New England	7.5	8.9	6.0	3.4	5.0	1.8
Middle Atlantic	6.3	7.5	4.9	3.7	5.3	2.0
Midwest	6.9	7.9	5.8	3.6	5.0	1.9
East North Central	6.1	6.9	5.3	3.5	4.9	1.9
West North Central	8.6	10.1	7.0	3.7	5.2	2.1
South	7.4	9.0	5.6	3.7	5.1	2.2
South Atlantic	6.6	7.9	5.1	4.4	6.2	2.4
East South Central	7.6	9.3	5.6	2.9	4.1	1.7
West South Central	8.7	10.6	6.4	3.1	4.0	2.0
West	8.9	10.0	7.6	3.4	4.4	2.2
Mountain	8.0	8.7	7.2	4.8	6.2	3.1
Pacific	9.3	10.6	7.8	2.8	3.6	1.8

[1]Self-employment rates are calculated by dividing the number of self-employed workers in a specified worker group by total employment in the same worker group.

Table 9. Self-employed workers by sex and presence and number of paid employees, annual averages, 1995–2003

Characteristic	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total, age 16 and older (thousands)	10,409	10,580	10,501	10,355	10,053	9,949	9,855	9,627	10,319
Percent with no paid employees	79.3	79.6	79.6	79.6	80.6	80.9	80.9	82.0	83.1
Percent with paid employees	20.7	20.4	20.4	20.4	19.4	19.1	19.1	18.0	16.9
Total with paid employees (thousands)	2,159	2,155	2,143	2,115	1,954	1,900	1,883	1,737	1,743
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1–4 employees	78.6	76.7	74.2	77.2	75.7	74.3	77.4	74.4	76.7
5–9 employees	13.8	15.4	17.1	14.6	14.9	15.5	13.2	15.9	14.4
10–19 employees	5.2	5.3	5.8	6.0	5.1	5.9	6.5	5.6	5.3
20 or more employees	2.3	2.6	2.9	2.3	4.2	4.4	3.0	4.1	3.7
Men, age 16 and older (thousands)	6,556	6,646	6,596	6,517	6,299	6,186	6,106	5,978	6,427
Percent with no paid employees	74.5	75.0	75.4	75.6	76.6	77.1	76.7	78.2	79.7
Percent with paid employees	25.5	25.0	24.6	24.5	23.4	22.9	23.3	21.8	20.3
Total with paid employees (thousands)	1,673	1,662	1,625	1,594	1,471	1,418	1,424	1,301	1,307
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1–4 employees	78.3	76.8	74.5	77.4	76.0	74.8	76.5	74.8	75.5
5–9 employees	14.0	15.6	17.4	14.3	14.8	14.5	14.1	15.6	15.1
10–19 employees	5.1	4.9	5.1	6.0	4.7	6.1	6.3	5.3	5.3
20 or more employees	2.5	2.8	3.0	2.3	4.5	4.7	3.1	4.2	4.0
Women, age 16 and older (thousands)	3,853	3,934	3,905	3,838	3,754	3,763	3,749	3,649	3,892
Percent with no paid employees	87.4	87.5	86.7	86.4	87.1	87.2	87.7	88.0	88.8
Percent with paid employees	12.6	12.5	13.3	13.6	12.9	12.8	12.3	12.0	11.2
Total with paid employees (thousands)	486	492	519	522	483	483	460	437	437
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1–4 employees	79.8	76.6	73.2	76.4	74.7	72.7	80.2	73.2	79.9
5–9 employees	12.8	14.6	16.4	15.3	15.5	18.4	10.2	16.7	12.1
10–19 employees	5.8	6.7	7.9	5.7	6.4	5.4	7.0	6.6	5.3
20 or more employees	1.9	2.0	2.3	2.3	3.5	3.5	2.6	3.2	2.7

NOTE: The estimates shown above use sample weights based on population controls developed from the 1990 Census. The 2003 estimates use sampling based on population controls developed from Census 2000. In addition, the 2003 estimates use revised classification and editing systems for class of worker, industry, and occupation. These estimates were tabulated using the outgoing rotation groups only. Because the sample for these tabulations is limited to one quarter of the full CPS sample, estimates of the unincorporated self-employed may not exactly match estimates derived from the full sample. The reliability also will be less than the reliability of the estimates based on the full CPS sample.

AFTER STEADILY DECLINING FOR many years, the rate of self-employment in the United States has edged up recently. Although self-employment was much more common in the late-1940s, it still accounts for a substantial proportion of total employment in 2003. The reduced incidence of self-employment is largely due to the decline in the importance of agriculture and unpaid family work over the post-World War II period and the accompanying rise in incorporated self-employment and wage and salary work or "paid employment."

In 2003, self-employed workers were more likely to be men, white, and older. Workers in agriculture, construction, and services had the greatest likelihood of being self-employed. As is the case with their industry distribution, business owners are concentrated in a wide range of occupations ranging from professional, sales, and construction occupations. Data from the CPS also show that most self-employed workers do not have paid employees and, of those who do, most employ few workers. In addition, self-employed men were about twice as likely as their female counterparts to have paid employees. □

Notes

ACKNOWLEDGMENT: The author thanks Kenneth W. Robertson for tabulating the data on self-employed workers by presence and number of paid employees.

[1] The Current Population Survey (CPS) is a monthly sample survey of about 60,000 households that provides information on the demographic characteristics of the labor force and employment status of the noninstitutional population age 16 years and older.

[2] For more information on the impact of the CPS redesign on the self-employment estimates, see Anne E. Polivka and Stephen M. Miller, "The CPS after the Redesign: Refocusing the Economic Lens," in John Haltiwanger, Marilyn Manser, and Robert Topel, eds., *Labor Statistics Measurement Issues* (National Bureau of Economic Research, Studies in Income and Wealth Volume 60) pp. 249–86.

[3] For a detailed explanation of changes to the CPS, see Mary Bowler, Randy E. Ilg, Stephen Miller, Ed Robison, and Anne Polivka,"Revisions to the Current Population Survey Effective in January 2003," *Employment and Earnings* (Bureau of Labor Statistics, February 2003).

[4] As with total employment, the 1994 increase was particularly pronounced among women. See Polivka and Miller, "The CPS after the Redesign," pp. 275–77.

[5] See Marilyn E. Manser and Garnett Picot, "The role of self-employment in U.S. and Canadian job growth," *Monthly Labor Review*, April 1999, pp. 10–25.

[6] See Ellen R. Rissman, "Self-employment as an Alternative to Unemployment," Working Paper Number 34, Fourth Quarter 2003 (Federal Reserve Bank of Chicago, 2003).

[7] See Daniel Aaronson, Ellen R. Rissman, and Daniel Sullivan, "Assessing the jobless recovery," *Economic Perspectives*, Second Quarter 2004 (Federal Reserve Bank of Chicago, 2004), pp. 6–9.

[8] The National Bureau of Economic Research, Inc., the generally recognized arbiter of business cycle dates, has designated November 2001 as the trough of the recession that began in March 2001.

[9] Aaronson, Rissman, and Sullivan suggest that many of the new enterprises that emerged during the most recent economic downturn will disappear as labor market conditions in the wage and salary sector improve. See Aaronson and others, "Assessing the jobless recovery," p. 9.

[10] For a comprehensive overview of self-employment among older workers see Lynn A. Karoly and Julie Zissimopoulos, "Self-Employment and the 50+ Population," AARP Public Policy Institute Issue Paper, March 2004. In addition, see Lynn A. Karoly and Julie Zissimopoulos, "Self-Employment Trends and Patterns Among Older U.S. Workers," RAND Labor and Population Working Paper, WR-136, December 2003, on the Internet at **http://www.rand.org/publications/WR/WR136/.**

[11] See Julie Zissimopoulos and Lynn A. Karoly, "Transitions to Self-Employment at Older Ages: The Role of Wealth, Health, Health Insurance, and Other Factors," RAND Labor and Population Working Paper, WR-135, December 2003, on the Internet at **http://www.rand.org/publications/WR/WR135/.** For additional research on this topic, see Donald Bruce, Douglas Holtz-Eakin, and Joseph Quinn, "Self-employment and Labor Market Transitions at Older Ages," Working Paper 2000-13 (Center for Retirement Research at Boston College, December 2000).

[12] See Michael Hout and Harvey S. Rosen, "Self-employment, Family Background, and Race," *Journal of Human Resources*, fall 2000, pp. 670–92.

[13] See Robert W. Fairlie and Bruce D. Meyer, "Trends in Self-Employment Among White and Black Men During the Twentieth Century," *Journal of Human Resources*, fall 2000, pp. 643–69.

[14] Beginning in 1994, questions on nativity and U.S. citizenship status were added to the basic monthly CPS. Respondents are asked to name their country of birth. Those who said that they were born in the United States, Puerto Rico, or another U.S. territory, or that they were born abroad of an American parent, or parents, are classified as U.S. natives. Individuals who provided another response are classified as foreign-born.

[15] The four census regions of the United States are Northeast, South, Midwest, and West. Within the Northeast, the New England division includes Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; and the Middle Atlantic division includes New Jersey, New York, and Pennsylvania. Within the South, the South Atlantic division includes Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia; the East South Central division includes Alabama, Kentucky, Mississippi, and Tennessee; and the West South Central division includes Arkansas, Louisiana, Oklahoma, and Texas. Within the Midwest, the East North Central division includes Illinois, Indiana, Michigan, Ohio, and Wisconsin; the West North Central division includes Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota. Within the West, the Mountain division includes Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming; the Pacific division includes Alaska, California, Hawaii, Oregon, and Washington.

[16] The February 2001 Contingent and Alternative Work Arrangements Supplement to the CPS collected data on presence of employees from both unincorporated and incorporated self-employed workers. Roughly 3 in every 5 of the 3.9 million incorporated self-employed workers had paid employees. Of this group, 40.9 percent employed 1 to 4 workers, while 15.7 percent had 20 or more employees.

Self-employment among older U.S. workers

The 1990s showed a downward trend in self-employment rates, however, the fact that self-employment rates rise at older ages and that the baby-boom cohort is approaching retirement suggests that demographics alone may halt or reverse that trend

According to published and unpublished data from the Bureau of Labor Statistics, 14.4 million U. S. workers, or 10.5 percent of the workforce, were self-employed in incorporated or unincorporated businesses in 2002. Of those self-employed, middle aged or older workers constitute a disproportionate share because rates of self-employment rise with age. For example, in 2002, workers age 45 and older represented 38 percent of the workforce in total, but they made up 54 percent of the self-employed (in unincorporated businesses only). Some of these older workers have been self-employed for much or all of their working careers while others have made the transition to self-employment later in their careers, often as part of the transition to retirement.

Although self-employment is an important labor force phenomenon among individuals at older ages, there is a paucity of studies that examine the patterns of self-employment among older U.S. workers. The studies that do exist are largely confined to younger workers or analyses of the self-employed workforce as a whole, with only a few efforts that focus on how patterns may differ at older ages. With the leading edge of the baby-boom cohort reaching retirement years, the rising rates of self-employment with age suggest that it is important to have a solid understanding of who is self-employed at older ages and how patterns of self-employment may be changing over time.

This article helps to fill a gap in the research by focusing on self-employed workers age 50 and older. In particular, it describes the overall trend in rates of self-employment among the population as a whole and for those age 50 and older, and examines the characteristics of the self-employed, particularly those in middle-age and older and compares them with their wage and salary counterparts. It begins by reviewing trends in self-employment rates evident in published and unpublished data series. It also reviews prior studies of the characteristics of the self-employed, with a particular focus on analyses of older workers. Next it analyzes the trends in self-employment rates based on the Current Population Survey (CPS) for workers age 50 and older. This article examines trends using alternative definitions, as well as changes in the characteristics of older self-employed workers over time. It continues with a descriptive analysis using cross-sectional data from the 1998 Health and Retirement Study (HRS98) on workers age 51 and older, examining detailed characteristics of the self-employed in total and for subgroups and by whether they became self-employed before or after age 50. [1]

This study relies on two primary sources of complementary data: cross-sectional time-series data from the annual CPS from

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1968 to 2002 and cross-sectional data from the Health and Retirement Study from 1998. Conducted by the Census Bureau, the CPS is a nationally representative survey of the U.S. noninstitutionalized civilian population and serves as the source of official statistics on self-employment. For this study, the CPS is used to provide information on trends in self-employment rates in general and for the population age 50 and older. The CPS provides data on demographic and employment characteristics of the self-employed over time. Beginning in 1992, the Health and Retirement Study has conducted biennial interviews with a nationally representative cohort of individuals born between 1931 and 1941 and their spouses.[2] Additional cohorts have been added over time so that starting with the 1998 survey wave (HRS98), the sample is representative of all cohorts born prior to 1947 and their spouses. The HRS98 data—with their more detailed information on economic and health status—provide an even richer portrait of self-employed workers age 51 and older than what is available using the CPS.

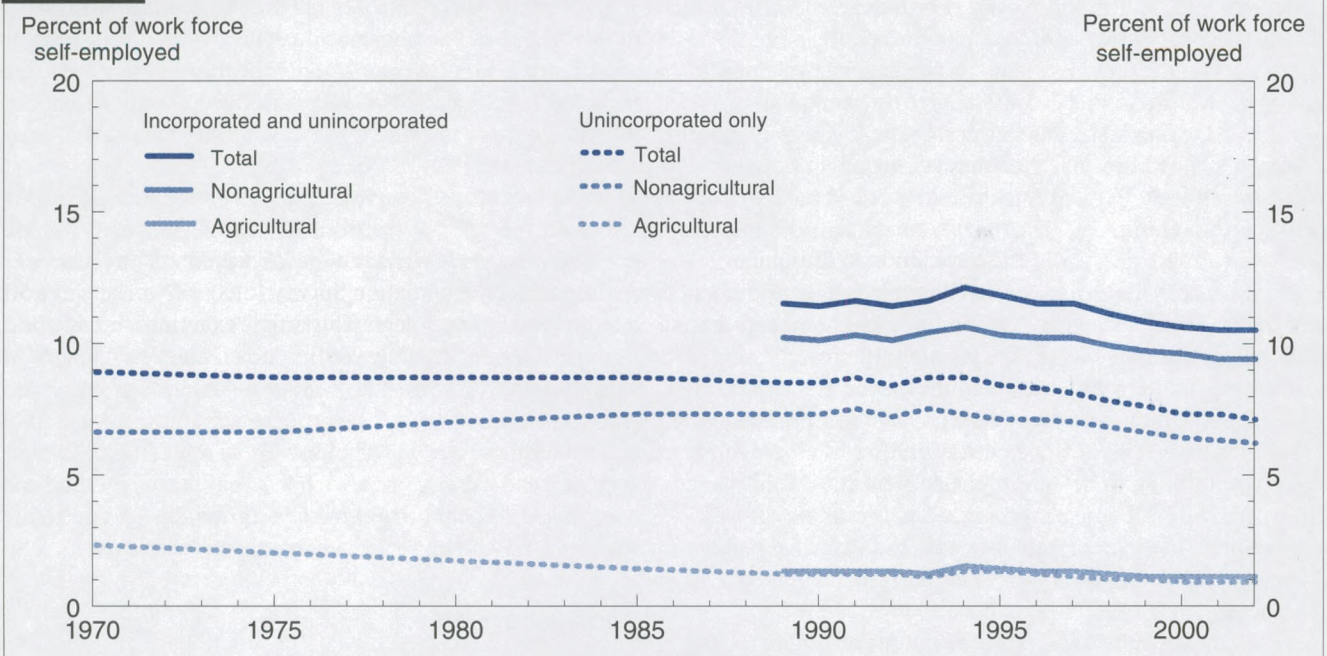
BLS data on self-employment

Employment data, analyzed and published by BLS through the monthly CPS, are the official source of data on self-employment in the United States. Each month, the CPS records the employment status and class of employment for the civilian noninstitutional population age 16 and older. Individuals who report they are employed during the reference week are asked about their employment class for their main job: "Were you employed by a government, by a private company, a nonprofit organization, or were you self-employed (or working in a family business)?"[3] If the answer is self-employed, respondents are further asked "Is this business incorporated?" Those who respond they are self-employed in an incorporated business, along with those who work for government, a private company or a nonprofit organization are all classified as wage and salary workers. The self-employed in incorporated businesses are considered to be wage and salary workers because legally they are employees of their own business.[4] The self-employed are therefore defined only as those who report they work for themselves in an unincorporated business for their main job.

Chart 1 plots the trend in annual average self-employment rates in total and separately for the self-employed in the agricultural and nonagricultural sectors as tabulated by BLS for all workers age 16 and older. It shows the official series from 1970 onwards including only the self-employed in unincorporated business, as well as the series, available since 1989, that can be constructed from published and unpublished data for the incorporated and unincorporated self-employed.

In 2002, 14.4 million workers or 10.5 percent of the workforce

Chart 1. Trends in self-employment rate, 1970–2002



SOURCE: Published and unpublished household data from the CPS reported by BLS in table 580 of the 2001 edition of the *Statistical Abstract of the United States*, in table 12 on the Internet at: http://www.bls.gov/cps/home.htm#empstat, and in an unpublished tabulation provided by BLS staff.

Table 1. Self-employment rates by sex and age, 2002

[Numbers in thousands]

Characteristic	Total employment			Agricultural employment			Nonagricultural employment		
	Total	Self-employed	Self-employed (percent)	Total	Self-employed	Self-employed (percent)	Total	Self-employed	Self-employed (percent)
All workers	136,485	9,756	7.1	3,340	1,266	37.9	133,145	8,490	6.4
Workers age 45 and older:									
45–54	31,281	2,728	8.7	631	306	48.5	30,650	2,422	7.9
55–64	15,674	1,736	11.1	426	265	62.2	15,248	1,471	9.6
65 and older	4,306	830	19.3	304	223	73.4	4,002	607	15.2
All men	72,904	6,068	8.3	2,474	944	38.2	70,430	5,124	7.3
Men age 45 and older:									
45–54	16,418	1,727	10.5	443	221	49.9	15,975	1,506	9.4
55–64	8,378	1,100	13.1	310	188	60.6	8,068	912	11.3
65 and older	2,455	569	23.2	227	169	74.4	2,228	400	18.0
All women	63,583	3,689	5.8	867	323	37.3	62,716	3,366	5.4
Women age 45 and older:									
45–54	14,864	1,001	6.7	189	85	45.0	14,675	916	6.2
55–64	7,296	637	8.7	115	77	67.0	7,181	560	7.8
65 and older	1,850	261	14.1	77	54	70.1	1,773	207	11.7

NOTE: Self-employed are those in unincorporated businesses only.

SOURCE: Household data from the CPS reported by Bureau of Labor Statistics in *Employment and Earnings*, June 2003, table 15, p.205.

were self-employed in incorporated and unincorporated businesses. Of the total, 1.5 million were employed in the agricultural sector, while the remaining 12.9 million worked in nonagricultural industries. Nearly one in three or 4.6 million workers were in incorporated businesses, in contrast to unincorporated businesses. This is the segment of the self-employed workforce that is considered to be "wage and salary" workers in the official tabulations of self-employment by BLS.

Chart 1 illustrates that there has been a slight downward trend in self-employment rates since the 1994 peak of 14.9 million self-employed incorporated and unincorporated workers (or 12.1 percent of the workforce).[5] This pattern is evident for both the agricultural and nonagricultural sectors, and for the broad and narrow definitions of self-employment. This recent decline reverses the prior slight upward trend in self-employment in the nonagricultural sector since the mid-1970s.[6] Self-employment was an important source of net job creation in the 1980s, however, in the 1990s, self-employment did not contribute to net employment growth.[7] At the same time, there has been an increase in the share of self-employment in incorporated business. In 1989, 25.6 percent of self-employed workers were incorporated, compared with 32.0 percent in 2002.

Self-employment rates are considerably higher in the agricultural sector, compared with the nonagricultural sector.[8] The share of the agricultural workforce that was self-employed in unincorporated businesses, which stood at 52 percent in 1970, has steadily declined to 39 percent in 2001. The share of the nonagricultural workforce that is self-employed in unincorporated business also decreased from 7.5 percent in 1991 to 6.5 percent in 2001. Self-employment rates within both the nonagricultural and agricultural sectors are higher when workers in incorporated business are included (about a third of self-employed workers), but the downward trend is evident for the broader measure of self-employment as well.

Table 1 shows self-employment rates by age and sex in 2002 based on the official measure of self-employment (which excludes the self-employed in incorporated businesses).[9] Among all workers, self-employment rates are higher for men than for women (8.3 percent versus 5.8 percent in total), and increase with age (a finding verified in a number of studies).[10] At ages 45 to 54, 8.7 percent of all workers are self-employed compared with 11.1 percent for those ages 55 to 64 and 19.3 percent for those age 65 and older. These age patterns hold for both men and women, and are evident for both agricultural and nonagricultural employment. As a result, middle-aged and older workers are overrepresented among the self-employed.

Prior research

Detailed characteristics. Prior research has relied on data from the CPS and other sources to examine the characteristics of the self-employed workforce.[11] In addition to self-employ-

ment being more prevalent for men than women and increasing with age (as noted above), prior studies document that rates of self-employment typically increase with schooling levels (although rates can be relatively high for those with the least education), and that they are highest among currently married persons and lowest for the never married.[12] On average, self-employed men work more hours and weeks per year than their wage and salary counterparts. Blacks and Hispanics tend to be underrepresented among the self-employed, although there is tremendous variability in rates among detailed race and ethnic groups.[13]

As noted earlier, self-employment rates are higher in the agricultural sector, but they are also relatively high in construction as well. Rates are especially low in mining, manufacturing, and transportation and public utilities. The self-employed have lower rates of health insurance coverage through their own job, and higher rates of coverage through a spouse.[14] The self-employed also make up to three-quarters of those who work at home for pay, a combination that is more prevalent among women.[15]

Overall, the self-employed tend to have higher rates of job satisfaction than their wage and salary counterparts.[16] A comparison of various earnings measures shows, however, that the typical self-employed male has lower initial earnings and lower earnings growth, implying a 35-percent gap with his wage and salary counterpart after 10 years.[17] After considering alternative explanations, Barton H. Hamilton concludes that the self-employed derive nonpecuniary benefits from self-employment, such as the opportunity to "be your own boss."[18]

Patterns and distributions. A number of studies also document changes in patterns of self-employment in the United States over the past several decades.[19] For example, Theresa Devine documents that the share of women in self-employment increased during the late 1970s and 1980s, from 23.7 percent in 1975 to 32.3 percent in 1990.[20] The increase in female self-employment rates is evident for most detailed race and ethnic groups identified in the decennial Census.[21]

According to Yannis Georgellis and Howard Wall, the broad industrial and occupation distribution of self-employed workers did not change much for men between 1987 and 1997, whereas the distribution for women changed more, with a tendency toward convergence with the patterns of male self-employment.[22] At the same time, female self-employed workers on average earn less than their male counterparts, which is explained by several factors including their distribution across occupations and industries, smaller capital stocks, fewer hours of work, and lower levels of self-employment experience.[23]

International comparisons. Cross-national comparisons of self-employment rates show that the incidence of self-employment is higher in Canada than in the United States and lower in many other developed countries, compared with the United States. The gap in rates of self-employment in Canada and the United States has increased over the 1990s.[24] In Canada, between 1989 and 1997, the overall self-employment rate increased from 14 to 18 percent, while the U.S. rate remained fairly constant at about 10 percent through 1996.[25] Outside of Canada, rates of self-employment in most industrialized countries have been trending downward.[26] For example, among the OECD countries, only Portugal, New Zealand, and the United Kingdom show increases in self-employment rates in recent decades. A recent study of new entrepreneurial activity, defined as efforts at new business creation or expansion of an existing business, ranked the United States and Canada along with Israel as having the highest rates of entrepreneurship, compared with France, Japan, and Finland, which ranked the lowest.[27]

Older entrepreneurs. Although the phenomenon of self-employment in general has received attention, relatively little research has been devoted to studying self-employment among those in middle and late life. As noted earlier, analyses of self-employment rates by age indicate higher rates of self-employment among mature and older workers compared with younger workers, even for those working past age 65.[28] As documented by Victor Fuchs using data from the Retirement History Survey, the increased prevalence of self-employment among men at older ages was due to shifts from wage and salary work into self-employment as well as differential propensity to retire by class of worker in the late 1960s and early 1970s.[29]

Joseph Quinn notes that self-employment at older ages may be a form of partial retirement, with self-employment offering greater flexibility in hours and wages to accommodate tastes for leisure and the Social Security earnings test.[30] Although informative, these two studies rely upon the Retirement History Survey, which provides a perspective on the cohort of workers reaching retirement in the late 1960s and 1970s. These studies were also primarily interested in self-employment among older men.

Definitions of self-employment using the CPS

To analyze current rates of self-employment, detailed characteristics, and trends in self-employment among older workers, we rely on annual data from the March Annual Demographic File of the CPS from 1968 to 2002. The March CPS provides detailed demographic and labor market information for individuals in about 60,000 households.[31] The CPS is the source of household data on employment and unemployment, as well as the primary source of data for the

trends in self-employment rates.[32] Thus, it provides a baseline for identifying trends and describing the characteristics of middle-aged and older self-employed workers. Basic demographic information in the CPS includes age, sex, race, education, and marital status. For those who are employed in the reference week, there is information for the main job on class of worker (wage and salary versus self-employed), industry, occupation, and usual weekly hours.[33] Similar information on job characteristics is available for the longest job worked in the last calendar year. Wage and salary income, self-employment income, and income from other sources for the prior year are also available.

We discuss the comparability of data from the CPS over time because of changes in data collection methods. Most importantly, the CPS questionnaire first introduced the distinction between the self-employed in incorporated versus unincorporated business in 1967. In the published statistics from 1967 onward, the self-employed in incorporated business are counted as wage and salary workers, not as self-employed. Starting with the micro data files in either 1976 (for employment in the prior year) or 1989 (for current employment), we can separately identify the self-employed in incorporated business, and we can identify the broader group of self-employed (incorporated plus unincorporated) not identified in the published statistics after 1967. For the public use files between 1968 and 1975 or between 1968 and 1988, the code for self-employed in the reference week or in the prior year includes only those in unincorporated businesses.

The CPS also underwent a major redesign beginning in January 1994. Estimates from Marilyn E. Manser and Garnett Picot suggest that this revision increased the number of self-employed in total and their share of total employment due to the changes in questionnaire wording.[34] This affected the incidence of self-employment based on the reference week questions, and also likely affected the incidence of self-employment based on the longest job last year. (We discuss the implications of this change for our time series analysis in a later section.)

Other changes in the CPS over time may affect trends in self-employment rates. The CPS public use data files include two versions for the March 1988 file, one that used the same processing system as in 1987 and earlier years, and the other that used the new processing system implemented in 1989 and beyond. In the time series analyses (discussed later), we have generated results using both files and plotted one trend line from 1968 to 1988 and another from 1988 to 2002. In most cases, the impact on self-employment levels and rates is small. This suggests that our comparisons of the characteristics of the self-employment before and after this change in the processing system are not likely to be significantly affected.

Given the potential differences in definitions of self-employment based on the CPS, we analyze several alternatives and examine the comparability across definitions. In particular, as shown in exhibit 1, our first definition, C1, replicates the official definition by defining self-employment as those who are self-employed in unincorporated businesses in the reference week (that is, current employment) in

Exhibit 1. Self-employment definitions based on the CPS

	Self-employment definition	March CPS survey years	Reference years
C1	Current employment in main job: self-employed in unincorporated business	1968–2002	1968–2002
C2	Current employment in main job: self-employed in incorporated or unincorporated business	1989–2002	1989–2002
C3	Longest job in calendar (last) year: self-employed in unincorporated business	1968–2002	1967–2001
C4	Longest job calendar (last) year: self-employed in incorporated or unincorporated business	1976–2002	1975–2001
C5	Employment calendar (last) year: self-employed in incorporated or unincorporated business in longest job last year or had any reported self-employment income in the last year	1976–2002	1975–2001

Table 2. Self-employment rates in 2001 for all workers and workers age 50 and older, based on alternative definitions in the CPS

[Numbers in thousands]

Self-employment definition		Self-employed age 50 and older		Self-employed age 16 and older		Percent of self-employed age 50 and older
		Number	Percent	Number	Percent	
C1	Currently self-employed in main job, unincorporated	3,866	12.0	9,759	7.2	39.6
C2	Currently self-employed in main job, unincorporated or incorporated	5,536	17.2	13,884	10.3	39.9
C3	Self-employed in longest job during calendar year, unincorporated	3,766	9.9	9,316	6.2	40.4
C4	Self-employed in longest job during calendar year, unincorporated or incorporated	5,642	14.9	13,362	9.1	42.2
C5	Self-employed in longest job during calendar year, unincorporated or incorporated, or any self-employment income during calendar year	6,417	16.9	16,815	11.2	38.2

NOTES: Sample is civilian noninstitutionalized workers age 16 and older and civilian noninstitutionalized workers age 50 and older. See exhibit 1 for definitions of self-employment. Numbers and percentages have been calculated using CPS sampling weights.

SOURCE: Authors' calculations using March CPS from 2001 (C1-C2) and 2002 (C3-C5).

the main job. This definition can be calculated from 1968 to 2002. The C2 definition adds the self-employed in the reference week in incorporated businesses to C1 so it is a more inclusive definition. The difference between C2 and C1 is the number of incorporated self-employed. As seen in exhibit 1, C2 is only available starting in 1989, the first year the CPS public use file separately codes those who are self-employed during the reference week in an incorporated business.

The next two definitions, C3 and C4, parallel those for C1 and C2 for the longest job in the prior calendar year with C3 available for the longer time series (that is, for the March surveys from 1968 to 2002), and C4 available for the March surveys from 1976 onwards. Finally, definition C5 augments the group identified in C4 by adding in those who also report any self-employment income in the prior year. This would potentially identify workers who were self-employed at some time in the prior year but not necessarily on the longest job (for example, on a secondary job or a job held for a shorter part of the year). For C3 to C5, because the reference period is for the prior calendar year, we note in exhibit 1 that the reference year for employment is the year prior to the March survey year.

Table 2 shows the number of self-employed and rates of self-employment among workers age 50 and older in 2001 based on these alternative definitions.[35] For comparison, counts and rates are also calculated for all workers age 16 and older, and the share of the self-employed work force age 50 and older is shown in the last column. Regardless of the definition, rates of self-employment are higher among older workers, compared with the workforce as a whole and older workers make up approximately 38 percent to 42 percent of the self-employed workforce. For example, in 2001, 5.5 million workers age 50 and older were self-employed in an unincorporated or incorporated business in their main job during the reference week (definition C2). This represents 17.2 percent of the age 50 older workforce. Based on the same definition, the self-employment rate of the workforce as a whole was 10.3 percent. Consequently, although those age 50 and older made up 24 percent of the workforce in 2001, they made up 40 percent of the self-employed in the same year.

For workers age 50 and older in 2001, 12.0 percent are self-employed based on definition C1 which replicates the official BLS definition. Including the self-employed in incorporated businesses adds another 1.7 million older self-employed workers and increases the rate of self-employment by 5.2 percentage points (definition C2). When self-employment is defined based on the longest job in the prior calendar year, the rate is always lower than it is for the current job (compared C3 versus C1 or C4 versus C2). For example, in 2001, definition C3, which is most comparable to C1, shows a smaller number of unincorporated self-employed age 50 and older in the longest job for the calendar year compared with the estimate based on the main job for the survey week (3.8 million versus 3.9 million), and the rate is lower as well (9.9 versus 12.0 percent). This is consistent with the expectation that a snapshot (or reference week) for the year will show a higher fraction in self-employment than would be the case when considering the longest job for the calendar year since the former group includes those who will be self-employed for a short spell.

Definition C5 potentially captures those with short spells of self-employment because it includes those who report any

Table 3. Trend in self-employment for workers age 50 and older, based on the CPS, using five alternative definitions, 1968– 2002

[Numbers in thousands]

Year	Self-employment status in reference week				Self-employment status for calendar year					
	C1:Unincorporated		C2: C1 + incorporated		C3: Unincorporated		C4: C3 + incorporated		C5: C4 + any self-employed income	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1968	3,389	16.0	–	–	3,998	15.8	–	–	–	–
1969	3,401	15.6	–	–	3,747	14.7	–	–	–	
1970	3,329	15.2	–	–	3,851	15.0	–	–	–	–
1971	3,304	15.2	–	–	3,708	14.3	–	–	–	–
1972	3,232	14.7	–	–	3,814	14.8	–	–	–	–
1973	3,211	14.7	–	–	3,678	14.1	–	–	–	
1974	3,178	14.4	–	–	3,502	13.6	–	–	–	–
1975	3,079	14.4	–	–	3,198	12.8	3,730	14.9	4,495	17.9
1976	2,933	13.7	–	–	3,244	12.9	3,845	15.3	4,682	18.6
1977	2,983	13.9	–	–	3,341	13.0	4,024	15.7	4,932	19.3
1978	3,112	14.1	–	–	3,379	13.1	4,214	16.3	5,046	19.5
1979	3,148	14.0	–	–	3,382	13.1	4,269	16.5	4,851	18.7
1980	3,165	14.1	–	–	3,298	12.6	4,224	16.1	4,739	18.1
1981	3,173	14.0	–	–	3,345	12.9	4,310	16.6	4,869	18.8
1982	3,096	14.0	–	–	3,343	13.1	4,454	17.4	5,074	19.8
1983	3,119	14.4	–	–	3,232	12.7	4,268	16.7	4,834	19.0
1984	2,949	13.4	–	–	3,207	12.5	4,380	17.0	4,972	19.3
1985	3,015	13.6	–	–	3,276	12.7	4,422	17.2	5,041	19.6
1986	2,974	13.6	–	–	3,242	12.5	4,366	16.9	5,035	19.5
1987	2,978	13.4	–	–	3,510	13.4	4,719	18.1	5,274	20.2
1988	3,200	14.2	–	–	3,585	13.7	4,779	18.2	5,487	20.9
1988 (revised)	3,201	14.1	4,367	19.3	3,581	13.3	4,887	18.2	5,698	21.2
1989	3,219	13.8	4,448	19.1	3,638	13.5	4,887	18.1	5,719	21.2
1990	3,331	14.2	4,539	19.4	3,742	13.7	4,901	17.9	5,710	20.9
1991	3,330	14.3	4,474	19.2	3,599	13.1	4,928	17.9	5,692	20.7
1992	3,300	13.9	4,641	19.6	3,704	13.2	5,138	18.3	5,885	21.0
1993	3,315	13.7	4,677	19.4	3,810	13.5	5,262	18.7	5,837	20.7
1994	3,581	14.7	5,054	20.7	3,660	12.7	5,082	17.7	5,778	20.1
1995	3,531	14.0	5,086	20.1	2,892	9.9	5,046	17.3	5,747	19.7
1996	3,669	14.3	4,986	19.4	2,833	9.2	5,591	18.1	6,383	20.6
1997	3,831	13.9	5,408	19.6	3,813	11.9	5,582	17.4	6,360	19.8
1998	3,619	12.7	5,323	18.6	3,914	11.8	5,491	16.5	6,203	18.7
1999	3,640	12.2	5,232	17.6	3,874	11.1	5,589	16.1	6,243	17.9
2000	3,827	12.2	5,550	17.8	3,968	11.1	5,561	15.6	6,489	18.2
2001	3,866	12.0	5,536	17.2	3,766	9.9	5,642	14.9	6,417	16.9
2002	3,722	11.0	5,567	16.4	–	–	–	–	–	–

NOTES: Sample is civilian noninstitutionalized workers age 50 and older. See exhibit 1 for definitions of self-employment. Numbers and percentages have been calculated using CPS sampling weights. Dash indicates data not available.

SOURCE: Authors' calculations using March CPS from 1968 to 2002.

self-employment income even through their longest job for the year was in the wage and salary class. This definition results in the highest absolute size of the self-employed workforce age 50 and older although the rate in 2001 is slightly below that based on definition C2. A comparison of C4 versus C5 indicates that in 2001, 775,000 workers age 50 and older or 12 percent of those defined as self-employed using definition C5 were self-employed workers in a secondary job or in a part-year job of shorter duration than their longest wage and salary job.

Time trends based on the CPS

Given the relatively long time-series of micro data available in the CPS, it is particularly well suited for examining trends in self-employment for the subset of middle-aged and older workers. We begin by calculating the number and percent self-employed for all civilian workers age 50 and older from 1968 to 2002 using definitions C1 to C5.[36] Table 3 reports the weighted number of self-employed and the corresponding self-employment rate for the five definitions. The self-

employment rates for the five definitions are also plotted in chart 2.[37]

A comparison over time for unincorporated self-employed workers on the main job (C1) and unincorporated plus incorporated workers on the main job (C2) shows the absolute size of the self-employed workforce age 50 and older peaked in 2001 and 2002 at 3.9 and 5.6 million workers, respectively although the rate of self-employment peaked for both measures in 1994 at 14.7 percent and 20.7 percent, respectively.[38] Consistent with the published data discussed in the data section, the share of self-employed older workers in incorporated businesses increased steadily over time from slightly more than 1 in 4 workers (26.7 percent) in 1988 to about 1 in 3 workers (33.1 percent) in 2002 (calculations based on C1 and C2).

As seen in chart 2, the 1968–2000 series for the unincorporated self-employed (C1) shows a fluctuating self-employment rate within a broader downward trend. From 1968 to about 1976 there was a decline (from 16.0 to 13.7 percent), followed by an increase to 1983 (reaching 14.4 percent). From 1983 to 1993, there was a slight downward trend again (from 14.4 to 13.7 percent), and then a sharper decline thereafter to the lowest level ever in 2002 at 11.0 percent. The more inclusive self-employment series (definition C2) mirrors this general pattern for the years it is available which indicates that the rate of self-employment in incorporated businesses remained fairly steady over this period, ranging from 5.2 percent in 1988 to 5.4 percent in 2002.

For C1 and C2 (and the difference between C2 and C1), there is evidence of a discrete increase in 1994 consistent with the impact of the CPS revisions to the monthly labor force questions implemented in that year. Manser and Picot cite a BLS study that compared CPS self-employment rates for the workforce as a whole using both old and new methods, which found that that the net effect of the changes was to raise self-employment rates by about 6 percent.[39] For C1, assuming the 6 percent adjustment factor can be applied to the workforce age 50 and older, the level of self-employment in 1994 that would be consistent with prior years would be 3.4 million unincorporated self-employed workers (13.8 percent) versus the estimated level of 3.6 million workers (14.7 percent) shown in table 3 and chart 2.[40] By 2002, instead of 3.7 million workers (11.0 percent), the consistent series would be adjusted downward to 3.5 million workers (10.3 percent). Similar adjustments could be applied to C2. Thus, the decline over time would be even larger than what is shown in chart 2. To the extent that the revised procedures implemented in 1994 and later surveys do a better job at capturing the number of self-employed, the absolute and percent figures in table 3 prior to 1994 need to be adjusted upwards. Regardless, the basic point remains that a consistent self-employment series would show a steeper decline over time than the one evident in chart 2.

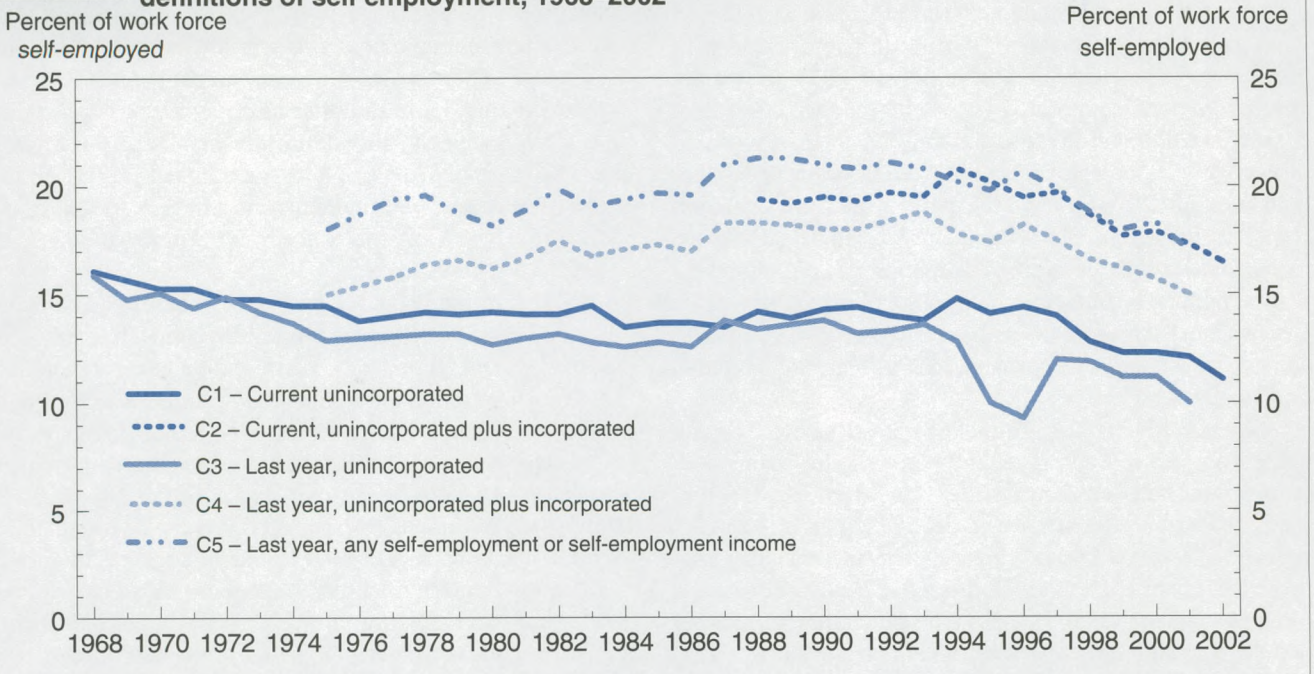
Table 3 and chart 2 also report the trends in the rate of self-employment based on employment in the entire calendar year. In all years where a comparison can be made, the rate of self-employment among older workers is always lower based on C3 than C1. The same is true for the comparison of C4 and C2 for the broader definition of self-employment. In all years that C5 is available, this definition results in the highest absolute size of the self-employed workforce age 50 and older although the self-employment rate is close to the broad definition based on reference week employment (C2), especially after 1994.

These three series based on employment in the calendar year (C3 to C5) do not show the discrete jump in 1994 associated with C1 and C2. Manser and Picott note that it is not known what the approximate adjustment factor should be for the self-employment series based on questions specific to the March Annual Demographic File about employment last year. At the same time, there is a noticeable dip in C3 in 1995 and 1996 (based on March survey years 1996 and 1997), but it is not evident in C4 and C5. This suggests there was some questionnaire or coding change for those two survey years that resulted in more self-employed workers being classified as incorporated self-employed than in the surrounding years. We have yet to ascertain the source of this discrepancy.

The longer time series available for the self-employed in the longest job for the calendar year (C3 and C4) provides an even more dramatic picture of the increase in the share of self-employment among older workers that is in incorporated versus unincorporated businesses. As seen in chart 2, the gap between the C3 and C4 series (lighter solid versus lighter dotted lines) widens at a faster rate between 1975 (when the C4 series begins) and 1984. Overall, between 1975 and 2001, the share of incorporated self-employed more than doubled, increasing from 14.3 percent to 33.3 percent. The increasing trend in incorporated self-employment means that the broader definition of self-employment in the calendar year (C4), which extend farther back in time than the counterpart for current employment (C2), shows a modest upward trend in self-employment rates from the mid-1970s to the mid-1990s, in contrast to the flatter trend line for the narrow definitions (C1 and C3) during this same period. Since the mid-1990s, when self-employment rates were falling for both definitions C2 and C4, the rates of self-employment in incorporated businesses remained fairly steady so the decline resulted from falling rates of unincorporated self-employment.

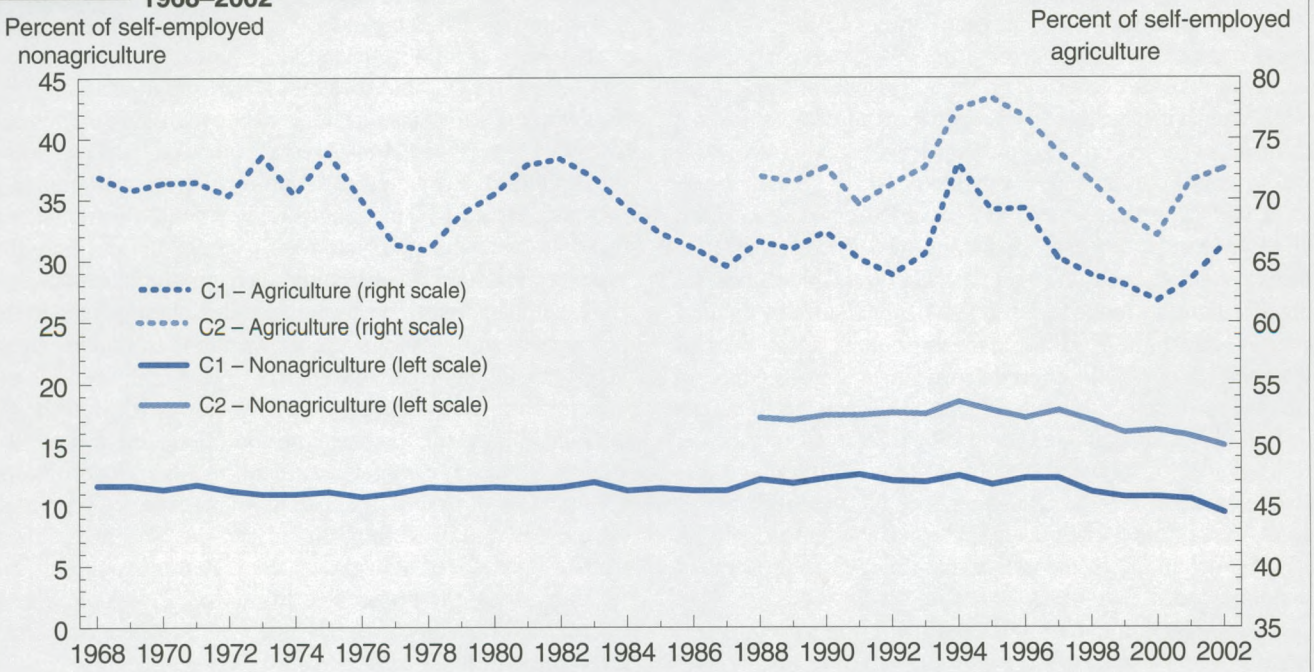
Thus, using the broader definition of self-employment, C4, reveals (1) an upward trend in self-employment rates from the mid-1970s to the mid-1990s for workers age 50 and older due to growth in the rate of self-employment in incorporated businesses; and (2) a downward trend in self-employment rates among older workers since the mid-1990s due to a

Chart 2. **Trend in self-employment for workers age 50 and older, based on the CPS, using five definitions of self employment, 1968–2002**



NOTE: Sample is civilian noninstitutionalized workers age 50 and older. See exhibit 1 for definitions of self-employment. Percentages have been calculated using CPS sampling weights.
SOURCE: Authors' calculations using March CPS from 1968 to 2002.

Chart 3. **Trend in self-employment for workers age 50 and older, based on the CPS by sector, 1968–2002**



NOTE: Sample is civilian noninstitutionalized workers age 50 and older. See exhibit 1 for definitions of self-employment. Percentages have been calculated using CPS sampling weights.
SOURCE: Authors' calculations using March CPS from 1968 to 2002.

declining rate of self-employment in unincorporated businesses.[41] Over the entire period, the share of self-employment in incorporated business increased steadily, albeit at a slower rate during the 1990s. The similarity in trends for C2 and C4 (when they are available) suggests that definition C2 captures the trends in a broad definition of self-employment that includes both those self-employed in incorporated and unincorporated businesses. As we proceed, this will be our preferred definition although we continue to make some comparisons with C1 because this corresponds to the official definition of self-employment (and it is available for a longer time series).

We also limit our subsequent analysis of CPS data to workers age 50 and older in the nonagricultural sector. As noted in the data section, rates of self-employment are considerably higher in the agricultural sector, compared with the nonagricultural sector. Self-employed workers in the agriculture sector consist primarily of farmers or farm managers, as well as gardeners or those in forestry or fishery occupations. A small fraction represents other occupations providing services to farm businesses such as bookkeepers, truckdrivers, or even pilots. Given the potential differences between the agricultural and nonagricultural sectors, chart 3 plots the trends in the rates of self-employment using definitions C1 and C2 only for workers age 50 and older in the agricultural and nonagricultural sectors (on the right and left axes, respectively). As expected, rates of self-employment are higher by a factor of 5 to 6 in the agricultural sector, compared with the nonagricultural sector. For example, in 2002, 14.8 percent of all nonagricultural workers age 50 and older were self-employed in unincorporated or incorporated businesses (definition C2), compared with a 72.4-percent rate of self-employment among agricultural workers in the same age group.

Self-employment rates in agriculture for workers age 50 and older, evident in chart 3 show a long-term downward trend (one that would be even sharper with a correction for the discontinuity in the series in 1994), punctuated by cyclical swings. The pattern for C2 in the agriculture sector mirrors that for C1 when both series are available, indicating the time trends are largely due to changing rates of self-employment in unincorporated businesses.

The downward trend in self-employment in the nonagricultural sector, notable since the early- to mid-1990s, is less dramatic, in part, because the rate is lower. Again, the recent trend is due to falling rates of unincorporated self-employment accompanied by steady rates of incorporated self-employment (compare C1 and C2 in chart 3). Note that while agricultural unincorporated self-employment rates fell even during the 1970s and 1980s (definition C1 in chart 3), the rates were steady or increasing somewhat in the nonagricultural sector. Given the unusual patterns evident for the agricultural sector, and its small share in the economy overall, the next section focuses on nonagricultural self-employment.

Characteristics based on the CPS

The CPS data provide an opportunity to determine how the characteristics of the self-employed age 50 and older have changed over time. We tabulate the basic characteristics of the self-employed (sex, age distribution, race and ethnicity, marital status, education, weekly hours, full- versus part-time status, occupation, industry, and incorporation status) for four points in time dated by the March survey year: 1969, 1979, 1990, and 2001. These years correspond with equivalent points in the business cycle (all peak years) and therefore provide a similar basis for comparison that controls to some extent for the state of the economy.

This analysis is based on our two preferred definitions of self-employment, specifically C2 and C1. Because the C2 time series is only available for our peak years for 1990 and 2001, we begin by considering the more narrow definition of self-employment, which can be examined for all four peak years. For the two points in time when both series are available, we can examine the sensitivity of the characteristics of the self-employed age 50 and older to the composition by incorporated versus unincorporated status. In addition to tabulating the distribution of the characteristics of older self-employed workers, we also generate the equivalent distribution for wage and salary workers in the same age group so the two groups of workers can be compared.[42]

Tables 4 and 5 present our results, showing the characteristics of self-employed workers age 50 and older using definition C1 (table 4) or C2 (table 5). The characteristics for the wage and salary group corresponding to C1, labeled W1, is reported in table 4 and the characteristics for the wage and salary group W2, the counterpart to C2, is reported in table 5. Most characteristics are reported as percent distribution with the exception of hours, which is an average. The percent change for each characteristic from the available starting year to the ending year is also shown. Several patterns emerge from the characteristics tabulated in the two tables.

Patterns by gender. As of 2001, men are overrepresented among self-employed older workers (61 percent based on C1 and 65 percent based on C2) to an even greater extent than for wage and salary workers (52 percent for W1 and 51 percent for W2). The fact that the share of male workers is even higher using C2 than C1 indicates that men are even more dominant among the self-employed in incorporated businesses, compared with those in unincorporated businesses. Even so, there has been a substantial shift away from male dominance in the self-employed ranks. For example, table 4 shows that in 1969, 73 percent of the self-employed

Table 4. Characteristics of unincorporated self-employed workers and wage and salary workers age 50 and older in the CPS, selected years

[In percent, unless otherwise noted]

Characteristic	Self-employed workers age 50 and older (C1)					Wage and salary workers age 50 and older (WI)				
	1969	1979	1990	2001	Percent change	1969	1979	1990	2001	Percent change
Sample size (number)	1,657	1,571	1,620	1,407	–	12,929	12,255	11,925	12,588	–
Men	73.1	72.3	66.1	61.3	–16.1	60.8	57.8	54.0	51.8	–14.7
Age group										
50 to 54	27.5	32.6	31.6	35.9	30.7	37.4	37.5	37.9	44.4	18.7
55 to 59	27.0	25.4	26.9	25.6	–5.0	30.7	32.3	29.3	28.4	–7.6
60 to 64	21.5	19.6	20.3	16.1	–25.0	19.9	19.3	19.4	15.4	–22.7
65 to 69	12.8	11.1	11.7	10.6	–17.1	7.5	6.9	8.5	6.5	–13.6
70 and older	11.2	11.3	9.5	11.7	4.3	4.4	4.0	5.0	5.3	20.0
Race/ethnicity										
White non-Hispanic	–	93.0	88.4	84.0	–9.7	–	86.8	83.0	79.7	–8.2
Black non-Hispanic	–	4.0	4.2	6.8	70.5	–	8.7	9.3	9.5	9.3
Hispanic	–	1.8	4.4	5.1	182.4	–	3.0	5.0	7.1	137.8
Other	–	1.2	2.9	4.1	252.1	–	1.6	2.8	3.8	140.8
Marital status										
Married	80.7	80.2	77.0	75.5	–6.4	74.5	75.2	72.9	70.7	–5.1
Widowed	.9	1.5	1.9	1.3	37.8	2.1	2.2	2.2	2.0	–5.6
Divorced	10.5	8.6	7.5	4.8	–54.4	12.0	10.5	9.0	6.1	–48.9
Separated	3.0	5.7	9.9	12.8	328.0	4.8	6.4	11.2	15.3	221.2
Never married	4.9	4.0	3.6	5.6	14.2	6.6	5.7	4.7	5.9	–11.3
Education level										
Less than high school	45.5	32.1	20.6	11.6	–74.5	49.9	33.0	20.7	9.6	–80.8
High school	26.3	29.9	33.2	26.3	–.2	29.4	37.0	38.1	33.0	12.3
Some college	12.6	16.2	19.0	27.2	115.9	10.3	14.9	18.3	26.0	152.8
College graduate and higher	15.6	21.8	27.2	34.9	124.3	10.4	15.0	22.9	31.4	201.7
Weekly hours (in hours)	44.0	40.9	39.2	38.3	–12.9	39.3	38.4	38.3	39.2	–.4
Full-time	66.9	64.4	59.4	59.1	–11.8	77.1	73.9	72.3	74.4	–3.6
Occupation										
Executive, administrative, managerial	45.9	32.3	17.4	20.6	–55.2	12.5	14.8	14.9	18.0	44.7
Professional specialty	15.3	16.2	16.1	18.1	18.6	9.6	11.8	14.3	17.5	82.8
Technicians and support	.4	.3	1.3	.8	104.0	1.7	1.3	2.3	3.0	75.8
Sales	6.7	14.5	26.0	23.3	246.5	7.7	8.2	11.2	10.9	41.3
Administrative support	1.3	2.7	3.6	4.8	279.7	14.5	17.0	17.6	15.7	8.5
Private household	.8	.9	.1	.0	–100.0	4.2	2.3	1.5	.9	–79.6
Protective service	.0	.2	.1	.4	–	1.6	1.8	1.9	1.8	13.6
Other service	9.7	9.2	12.3	11.3	17.2	10.2	11.5	11.0	9.4	–7.7
Farming, forestry, fisheries	.7	.3	0.6	.4	–37.3	.7	.6	.4	.4	–41.9
Precision production, craft, repair	14.3	17.1	16.4	14.2	–.6	14.0	12.2	10.8	9.7	–30.8
Machine operators, assemblers, repairers	1.9	2.8	1.8	1.9	.2	14.6	11.5	6.9	5.5	–62.4
Transportation and material moving	2.7	3.3	3.4	4.1	49.1	5.1	4.2	4.5	4.7	–7.1
Handlers, equipment cleaners, helpers, laborers	.4	.2	.9	.2	–63.8	3.7	2.8	2.7	2.5	–31.4
Industry										
Mining	.3	.4	.3	.3	–.7	.9	.8	.5	.4	–50.3
Construction	10.8	13.4	12.0	11.2	3.5	5.2	5.2	5.1	4.9	–5.0
Manufacturing	4.9	4.3	5.4	3.7	–24.9	29.4	26.8	20.6	16.8	–42.8
Transportation, public utilities	3.2	3.5	3.6	4.5	42.9	7.0	6.7	6.9	7.8	12.0
Trade	33.6	30.7	24.9	19.6	–41.6	17.7	17.0	17.2	16.1	–8.7
Finance, insurance, real estate	6.0	9.8	10.4	11.8	95.4	4.6	6.1	7.3	6.8	46.4
Other services	41.2	37.9	43.4	49.0	18.7	27.9	30.1	36.1	40.5	45.1
Public administration	.0	.0	.0	.0	–	7.4	7.3	6.3	6.6	–10.4
Incorporated self-employed	.0	.0	.0	.0	–	–	–	–	–	–

NOTES: Sample is civilian noninstitutionalized workers age 50 and above who are either self-employed in an unincorporated business in their main job during the reference week (definition C1) or are wage and salary workers in their main job during the reference week (definition W1 which includes the self-employed in incorporated businesses). Dash indicates data not available or percent change not applicable.

SOURCE: Authors' calculations using March CPS from 1969, 1979, 1990, and 2001.

age 50 and older were men, compared with 61 percent in 2001 (based on C1). This shift was especially pronounced between 1979 and 1990 when about half of the percentage point drop over the three decades covered by our data occurred. This pattern is also evident for the shorter time series available for definition C2 (from 1990 to 2001; table 5), although it is less dramatic than what occurred in the prior decade. This pattern is consistent with trends reported elsewhere in the literature as summarized earlier.

Comparisons by age. As already noted, the self-employed on average are older than their wage and salary counterparts and this is evident in the age distributions reported in tables 4 and 5. Table 4 shows that the self-employed age 50 and older became younger, with an increased share between 1969 and 2001 in the 50- to 54-year-old age group (based on C1). The same pattern is evident for wage and salary workers (based on W1) and for the short time series available for C2 and W2. (See table 5.) Thus, the shifting age composition among the self-employed mirrors the overall demographic shifts in the labor force over this period.

Race and ethnicity. Information on the combination of race and ethnicity is only available starting in the March 1976 CPS so the series begins with 1979 in tables 4 and 5. Using definitions C1 and C2 we find evidence, consistent with studies of the self-employed as a whole, that blacks and Hispanics are underrepresented among older self-employed workers, compared with wage and salary workers, whereas whites and those in the residual "other" category are overrepresented. As with gender, whites have an even greater share using C2 than C1, indicating they are even more likely to be among the incorporated self-employed. (See tables 4 and 5.) Over time, the share of minorities in the ranks of the self-employed has increased for workers age 50 and older, mirroring a pattern for the wage and salary workforce. The percent change in the minority group shares is somewhat more pronounced for the self-employed, in part because the rates started so low.

Marital status. As discussed in the literature, the self-employed as a whole are more likely to be married, compared with their wage and salary counterparts, and this pattern is evident for those age 50 and older as well. For example, in 2001, 76 percent of the self-employed in unincorporated businesses age 50 and older were married, a rate that increases to 79 percent for those in incorporated and unincorporated businesses (again indicating that self-employed workers in incorporated businesses are more likely to be married, compared with their unincorporated counterparts). Over time, there has been a decrease in the likelihood that the self-employed are married particularly based on C1 with the longer time series. This change is more pronounced among all self-employed workers, compared with their wage and salary counterparts based on definition C1, but the reverse is true based on definition C2.

Educational attainment. In 2001, the self-employed age 50 and older—using either definition C1 or C2—had a higher proportion of college educated workers, compared with their wage and salary counterparts. The share was higher for C2 than C1 demonstrating that the incorporated self-employed are even more educated than those who are unincorporated. Over time, the composition of the workforce has shifted toward higher levels of educational attainment, a trend reflected in the pattern for both the self-employed and wage and salary workers age 50 and older. It is interesting to note that by 2001, the self-employed in unincorporated businesses had a higher share of high school dropouts than the comparable wage and salary group (11.6 versus 9.6 percent), whereas the reverse was true in 1969 (45.5 versus 49.9 percent). This pattern does not hold after accounting for workers in incorporated businesses.

Hours of work. Another stylized fact in the literature is that the self-employed tend to work more hours than wage and salary workers. Although this was true in 1969, using definition C1, when older self-employed workers worked an average of 4.7 more hours per week (44.0 versus 39.3 hours), by 2001 older self-employed workers reported on average 1 hour less per week than their wage and salary counterparts (38.3 versus 39.2 hours). This is a dramatic convergence in hours, all due to a steady decline in work hours for the self-employed, compared with almost no change for wage and salary workers. On average, older workers in incorporated businesses work more hours than those in unincorporated businesses so the average hours using definition C2 exceeds that based on C1. The shorter time series for C2 shows some convergence in hours between the self-employed and wage and salary workers, but the self-employed still work slightly more in 2001 (about 1 hour more per week).

Full time versus part time. Even though average hours for the self-employed tended to be higher, at least in the past, the fraction working full-time—defined as 35 or more hours per week—is lower, indicating a more bipolar distribution of workers reporting both low and high hours. In 2001, 59 percent of older self-employed workers in unincorporated businesses worked 35 or more hours per week, compared with 74 percent of wage and salary workers in the same age group. Self-employed workers in incorporated businesses report a higher propensity for full-time work. Overall, the rates of full-time employment, like average hours, have been declining over time for older workers, more sharply for the self-employed.

Table 5. Characteristics of unincorporated and incorporated self-employed workers and wage and salary workers age 50 and older based on the CPS, 1990 and 2001

[In percent unless otherwise noted]

Characteristic	Self-employed workers age 50 and older in unincorporated and incorporated businesses (C2)			Wage and salary workers age 50 and older (W2)		
	1990	2001	Percent change	1990	2001	Percent change
Sample size (number)	2,312	2,103	–	11,233	11,892	–
Men	69.4	65.4	–5.9	52.6	50.5	–3.9
Age group						
50 to 54	32.2	36.1	12.0	38.1	44.8	17.6
55 to 59	25.7	26.1	1.8	29.7	28.5	–4.1
60 to 64	20.9	16.0	–23.7	19.2	15.4	–19.8
65 to 69	11.8	10.3	–13.0	8.2	6.3	–23.2
70 and older	9.4	11.5	23.2	4.7	5.0	5.1
Race/ethnicity						
White non-Hispanic	89.5	86.1	–3.8	82.4	79.0	–4.1
Black non-Hispanic	3.6	5.5	52.2	9.7	9.9	2.1
Hispanic	3.8	4.1	5.7	5.1	7.4	43.0
Other	3.0	4.3	42.0	2.7	3.7	35.3
Marital status						
Married	79.3	79.2	–.1	72.2	69.7	–3.4
Widowed	1.7	1.3	–25.4	2.3	2.0	–10.8
Divorced	6.8	4.2	–37.9	9.2	6.3	–31.5
Separated	8.7	10.9	24.6	11.6	15.8	36.5
Never married	3.4	4.4	28.7	4.8	6.1	28.2
Education level						
Less than high school	16.8	9.0	–46.0	21.5	9.9	–53.8
High school	32.7	25.9	–20.9	38.5	33.4	–13.1
Some college	19.8	25.8	30.3	18.1	26.2	44.8
College graduate and higher	30.8	39.3	27.8	21.9	30.4	38.6
Weekly hours (in hours)	40.6	40.0	–1.5	38.0	38.9	2.5
Full-time	64.1	64.4	.5	72.1	74.3	3.0
Occupation						
Executive, administrative, managerial	23.6	27.7	17.3	13.5	16.6	23.0
Professional specialty	15.5	16.8	8.1	14.3	17.7	23.4
Technicians and support	1.2	.6	–53.1	2.4	3.1	32.0
Sales	26.3	23.2	–11.8	10.2	10.2	–.4
Administrative support	4.7	5.4	15.1	18.2	16.3	–10.7
Private household	.1	.0	–100.0	1.5	.9	–40.9
Protective service	.1	.3	171.3	2.0	1.9	–3.8
Other service	9.4	8.2	–12.3	11.5	9.9	–13.8
Farming, forestry, fisheries	.4	.4	–15.0	.4	.4	–4.9
Precision production, craft, repair	13.7	12.3	–9.6	11.0	9.8	–11.3
Machine operator, assemblers, repairers	1.4	1.5	7.7	7.3	5.8	–21.4
Transportation and material moving	2.9	3.3	12.5	4.7	4.9	3.6
Handlers, equipment cleaners, helpers, laborers	.7	.3	–50.3	2.9	2.6	–9.1
Industry						
Mining	.4	.3	–17.1	.5	.4	–14.8
Construction	11.6	11.4	–1.9	4.7	4.5	–4.1
Manufacturing	6.8	5.9	–13.0	21.2	17.2	–19.1
Transportation, public utilities	3.6	5.0	38.4	7.1	7.9	11.2
Trade	27.5	21.3	–22.4	16.2	15.6	–3.4
Finance, insurance, real estate	10.3	11.3	9.3	7.1	6.6	–7.6
Other services	39.8	44.7	12.5	36.4	40.8	11.9
Public administration	.0	.0	–	6.7	7.0	3.8
Incorporated self-employed	29.8	32.9	10.2	–	–	–

NOTES: Sample is civilian noninstitutionalized workers age 50 and older who are either self-employed in an unincorporated or incorporated business in their main job during the reference week (definition C2) or are wage and salary workers in their main job during the reference week (W2). Means and percentage distributions have been calculated using CPS sampling weights. Dash indicates data not available or percent change not applicable.

SOURCE: Authors' calculations using March CPS from 1990 and 2001.

Occupation and industry. The occupational and industrial composition of the self-employed workforce age 50 and older differs from those in wage and salary employment in ways that are consistent with patterns reported elsewhere in the literature. In 2001, older self-employed workers were overrepresented in managerial and professional specialties, sales, other service occupations, and precision production, craft and repair occupations (which includes the construction trades). Industries underrepresented among the self-employed age 50 and older include mining, manufacturing, transportation and public utilities, and public administration. They are overrepresented in construction, trade, and other services. A comparison of the occupation distribution using definition C2 versus C1 shows an even higher fraction in the former group in executive and managerial positions, indicating the overrepresentation of this occupational group among the incorporated self-employed. The industrial composition is more similar for C1 and C2 than is the case for the occupational distribution. Over time, the occupational distribution shifted somewhat differently for the self-employed, compared with that for wage and salary workers. For example, the share in executive and managerial occupations declined for the self-employed (based on definition C1) at the same time that it increased among the wage and salary workforce. The reverse pattern holds for precision production, craft and repair occupations.

Incorporated status. The measure of incorporation status is only relevant for definition C2 (table 5) and shows, consistent with the time trends earlier discussed, that the share of total self-employment among older workers, that is, individuals in incorporated businesses, increased from 30 percent to 33 percent.

The Health and Retirement Study

Although the CPS has the advantage of a relatively long time series for examining patterns and trends in self-employment among older workers, the Health and Retirement Study provides extremely rich data on the cohort of older workers age 51 and older in 1998. These data can be used to supplement the portrait of older self-employed workers that we glean from the CPS, providing more detail on their health and economic status and job characteristics.

The Health and Retirement Study, when appropriately weighted, is a nationally representative, longitudinal survey of middle-aged and older Americans. The study is a biennial survey that began in 1992 with a sample of the noninstitutional population born between January 1, 1931 and December 31, 1941 and their spouses or partners, with oversamples of blacks, persons of Hispanic origin, and residents of Florida. Several other cohorts have been added to the Health and Retirement Study over time. In 1998, interviews that began in 1993 with the cohort born prior to January 1, 1924, known as the "AHEAD" (Assets and Health Dynamics of the Oldest Old) sample, were merged with the Health and Retirement Study. Two additional cohorts were added in 1998: the cohort born between January 1, 1924 and December 31, 1930 (known as the "Children of the Depression Era" or "CODA" sample), and the cohort born between January 1, 1942 and December 31, 1947 (known as the "War Babies" sample). For this analysis, we use the 1998 wave of the Health and Retirement Study (HRS98) as a cross-sectional survey, focusing on the sample of those age 51 and older in 1998 (that is, all cohorts born up through 1947).

Key demographic variables in the Health and Retirement Study are similar to those available in the CPS. In terms of employment outcomes, workers are asked whether they are currently self-employed in their main job, how long they have been self-employed (that is, tenure on the current job) and the employment status of a previous job lasting 5 years or more. Retired workers are asked about the employment status of previous jobs. The respondents' answers are used to determine who is self-employed, and who transitioned into self-employment before and after age 50. Respondents in the Health and Retirement Study are also asked about jobs other than their main job and if the second job is in self-employment. Unlike in the CPS, in the Health and Retirement Study the distinction between incorporated and unincorporated self-employment is not made, although interviewers in the Health and Retirement Study are instructed to classify individuals who work in a business they own as self-employed.

The Health and Retirement Study is extremely rich in terms of a number of other characteristics available for the study population. This includes information about job characteristics, income and its sources, wealth from various sources (for example, pensions, Social Security, housing, and other financial assets),[43] health status, access to health insurance coverage, retirement expectations, and a similar array of characteristics for the respondent's spouse. This information allows for a detailed analysis of the characteristics of the self-employed. Comparable data are also available for the wage and salary workforce as well.

There are several alternative definitions of self-employment that can be analyzed in the Health and Retirement Study. The appendix provides a comparison between the five definitions used for the CPS and four alternative definitions based on the Health and Retirement Study. This analysis shows that a definition of self-employment in the Health and Retirement Study, based on reported current self-employment in the primary job (defined as H1 in the appendix), is most comparable with the CPS definition that captures current self-employment in unincorporated and incorporated businesses (definition C2). Thus, using this definition, we find that 22.7 percent or 6.4 million workers age 51 and older

in 1998 were self-employed in their primary job. (See the appendix for a comparison of self-employment rates across the two surveys.)

Characteristics based on the HRS

The extremely rich data in the Health and Retirement Study allow us to go beyond the descriptive analysis that is possible using the characteristics available in the CPS. Using the HRS98 sample of workers age 51 and older and our preferred definition of self-employment in the Health and Retirement Study (those workers who state they are self-employed in their primary job in the reference week), we compare the characteristics of self-employed workers to wage and salary workers, and for the self-employed, we compare the characteristics of male and female workers. We also compare the characteristics of self-employed workers age 51 and older by whether they became self-employed before versus at or after age 50 based on retrospective employment information.[44] This allows us to contrast the characteristics of those who are more likely to be considered career self-employed versus those who made the transition to self-employment in later life. (As noted in the appendix table A1, 23 percent of workers age 51 and older are self-employed in their primary job, of these, 32 percent became self-employed at age 50 or older.)

Table 6 shows the demographic, income and wealth, health, employment, and spouse characteristics for the six groups: wage and salary workers, self-employed workers, male self-employed, female self-employed, self-employed before age 50, and self-employed at or after age 50.

Demographic characteristics. Consistent with the data in tables 4 and 5 for the CPS, the demographic characteristics reveal that, compared with wage and salary workers, self-employed workers (age 51 and older) are older, more likely to be white, male, married, and to have at least a college education. Thirty-five percent of the older self-employed workers are women, and the most striking differences between older female and male self-employed workers are their education levels and marital status. Self-employed women age 51 and older are 8 percentage points less likely to have some college education or more, and 3 percentage points more likely to be a high-school drop-out than self-employed men. They are also approximately 16 percentage points less likely to be married. Notably, nearly 16 percent of older female self-employed workers are widowed, compared with fewer than 4 percent for their self-employed male counterparts. Female self-employed workers are also younger than the men, and more racially diverse. Workers who become self-employed at age 50 or older are much older than workers self-employed before age 50, and are more likely to be female.

Income and wealth. Self-employed workers age 51 and older have higher household income and wealth than wage and salary workers. Mean household income for older self-employed workers is $101,183, compared with $66,191 for wage and salary workers, although at the medians, household income is more similar between the two groups: $56,103 and $50,200 respectively. The average capital income for the self-employed (income primarily from self-employment, other businesses, and assets) is more than six times that for wage and salary workers, while their financial wealth is more than three times the wealth of wage and salary workers. The gap in the wealth stock or income flow from the wealth stock is as large or larger at the median. Similar patterns exist when considering subcomponents of wealth, such as housing wealth or assets in IRA or Keogh accounts, or wealth less business assets. In each case, older self-employed workers have higher asset levels, although the gap is smaller when medians are considered compared with means. Some of the difference in the wealth measure reported in table 6 may be reduced after accounting for differences in pension wealth which is likely to be greater for wage and salary workers.

Older self-employed men have higher household income and wealth than self-employed women regardless of the income and wealth measure. Likewise, with one exception, workers who become self-employed at age 50 or older have consistently lower household income and wealth than workers who become self-employed before age 50. The one exception is assets in IRA or Keogh accounts which are higher at the mean and median for those who become self-employed at or after age 50. Such accounts are often the result of rolling over defined contribution pension plan balances from prior jobs, a course of action that may be more prevalent among those who become self-employed later in their career. The overall higher financial asset levels for the long-term self-employed may reflect greater wealth accumulation for career self-employed workers, compared with wage and salary workers who transition to self-employment later in their labor market careers. Alternatively, wealth may be lower for more recently self-employed workers because part of their accumulated wealth was invested in their business. We are not able to differentiate between these two explanations. Similar to wage and salary workers, workers who become self-employed at or after age 50 may also have higher pension wealth than those who were self-employed before age 50 so that the overall wealth levels available at retirement may be closer to that of workers who become self-employed before age 50.

Health status. As seen in table 6, the self-employed age 51 and older are drawn from both the very healthy and those who have a work-limiting disability. Approximately 57 percent of self-employed workers report being in excellent or very good health, compared with 53 percent of wage and salary

Table 6. Characteristics of self-employed in primary job in 1998 for workers age 51 and older based on Health and Retirement Study

[In percent, unless otherwise indicated]

Characteristic	Class of worker		Self-employed		Self-employed	
	Wage	Self-employed	Men	Women	Before age 50	At or after age 50
Sample size (number)	5,779	1,694	1,092	602	1,129	547
Men	50.3	65.1	100.0	0.0	68.3	58.6
Age group						
51 to 53	27.3	19.4	17.5	22.8	22.7	12.0
54 to 56	24.8	19.3	17.6	22.5	20.7	16.5
57 to 59	16.4	13.6	13.7	13.3	14.7	11.2
60 to 62	11.9	11.5	12.1	10.4	11.5	11.7
63 to 65	7.1	8.6	9.2	7.4	8.2	9.7
66 to 68	4.6	7.7	8.2	6.8	5.9	11.6
69 and older	7.9	20.0	21.6	16.9	16.4	27.3
Race						
White non-Hispanic	81.8	88.9	89.8	87.3	89.7	87.8
Black non-Hispanic	9.2	5.2	4.8	5.8	4.7	6.3
Hispanic	6.6	3.8	3.3	4.7	3.7	3.2
Other	2.3	2.2	2.2	2.2	1.9	2.7
Marital status						
Married	72.5	76.6	82.2	66.3	76.9	76.6
Widowed	7.9	7.6	3.4	15.5	9.1	6.9
Separated/divorced	16.0	12.6	11.0	15.5	12.0	13.0
Never married	3.6	3.1	3.3	2.8	2.1	3.6
Education						
High-school dropout	14.4	14.6	13.6	16.6	14.2	14.8
GED	4.4	3.1	3.1	3.3	3.3	2.9
High-school graduate	32.6	27.1	25.5	30.2	28.1	24.5
Some college	23.7	23.6	21.8	26.8	23.0	25.6
College graduate and higher	24.9	31.5	36.1	23.1	31.4	32.1
Income and wealth (in dollars)						
Total household income (mean)	$66,191	$101,183	$108,123	$88,246	$114,736	$70,759
Total household income (median)	50,200	56,103	60,532	46,732	60,532	48,022
Wage earnings (mean)	33,783	14,236	18,478	6,327	15,408	11,834
Wage earnings (median)	26,000	0	0	0	0	0
Household capital income (mean)	9,996	61,782	68,734	48,822	75,198	31,595
Household capital income (median)	500	27,221	32,144	17,000	33,997	12,112
Total financial wealth (mean)	238,857	740,765	786,403	655,686	888,370	409,990
Total financial wealth (median)	119,000	312,000	345,000	249,000	366,660	213,500
Housing wealth (mean)	80,006	148,360	163,438	120,251	164,586	112,652
Housing wealth (median)	60,000	86,000	90,000	80,000	90,000	75,000
IRA/Keogh account wealth (mean)	37,667	70,381	74,756	62,227	15,408	64,386
IRA/Keogh account wealth (median)	0	0	5,000	0	0	3,500
Total wealth less business assets (mean)	224,348	554,344	595,847	476,972	635,361	369,560
Total wealth less business assets (median)	116,000	248,200	267,000	205,000	267,800	194,000
Health status						
Excellent	19.2	25.4	24.6	26.9	25.5	25.2
Very good	34.0	31.2	32.2	29.3	30.8	32.8
Good	32.4	27.4	28.5	25.4	27.7	26.5
Fair	12.3	13.2	11.7	15.9	13.3	12.3
Poor	2.1	2.9	3.0	2.6	2.7	3.3
Health condition limits work	8.4	15.0	13.1	18.4	14.1	16.5
Activities of daily living (ADLs)						
0	95.2	95.0	95.5	94.0	95.2	94.6
1	3.4	3.9	3.7	4.4	3.5	4.9
2 or more	1.4	1.1	.8	1.6	1.3	.5
Job characteristics						
Covered by employer health insurance	67.4	34.3	37.2	27.9	40.6	17.6
Has pension on current job	60.6	12.4	15.4	8.3	14.7	7.5

Table 6. Continued—Characteristics of self-employed in primary job in 1998 for workers age 51 and older based on Health and Retirement Study

[In percent, unless otherwise indicated]

Characteristic	Class of worker		Self-employed		Self-employed	
	Wage	Self-employed	Men	Women	Before age 50	At or after age 50
Job characteristics (continued)						
Pension type on current job						
Defined benefit (DB) pension only	34.7	19.0	21.5	7.1	16.6	29.5
Defined contribution (DC) pension only	37.8	63.3	54.9	80.8	65.9	52.2
Both DB and DC pension	24.9	11.7	11.4	10.7	12.4	8.5
Doesn't know pension type	2.5	6.0	12.2	1.4	5.1	9.8
Had pension on previous job	49.1	48.4	54.9	35.9	44.4	55.7
Job requires a lot of physical effort						
All/almost all the time	17.8	18.3	18.8	17.4	19.0	17.0
Most of the time	14.8	16.1	17.5	13.5	16.1	16.0
Some of the time	30.3	27.6	27.6	27.6	29.1	23.8
None/almost none of time	37.1	38.1	36.2	41.5	35.8	43.2
Full-time on main job	74.3	53.5	59.5	42.2	59.0	41.2
Hold second job	10.8	10.8	11.7	9.2	11.7	9.2
Second job in same class	52.8	61.8	64.9	54.5	60.2	66.3
Retirement expectations (mean)						
Probability of working full-time after age 62	47.0	56.0	63.0	47.0	57.0	54.0
Probability of working full-time after age 65	26.0	42.0	48.0	32.0	43.0	38.0
Occupation						
Executive, administrative, managerial	15.8	16.4	19.5	10.7	16.8	16.0
Professional specialty	18.0	19.4	19.9	18.4	19.5	19.2
Sales	9.1	20.3	19.0	22.8	20.0	21.4
Administrative support	18.2	5.1	1.6	11.6	5.5	4.1
Private household	.9	2.9	.2	8.1	2.2	4.6
Protective service	2.2	.1	.1	.0	.0	.2
Other service	11.2	8.0	2.4	18.5	5.9	12.5
Farming, forestry, fisheries	1.4	9.1	13.0	1.9	11.1	4.5
Precision production, craft, repair	9.8	11.6	15.3	4.9	12.7	9.4
Operators, assemblers, repairers, laborers	13.4	7.0	9.1	3.1	6.5	8.3
Industry						
Agricultural	1.4	9.6	12.7	3.9	11.5	5.2
Mining and construction	4.3	9.8	14.1	1.8	11.1	6.9
Manufacturing	18.3	7.5	7.9	6.7	8.3	5.8
Transportation	7.7	3.3	3.9	2.3	3.3	3.5
Wholesale and retail trade	15.7	16.8	14.6	20.7	16.0	18.2
Finance, insurance, real estate	6.2	11.7	11.5	12.0	12.2	10.4
Business/repair services	6.1	12.8	14.6	9.3	11.1	16.9
Personal services	3.3	9.3	2.3	22.4	7.3	13.4
Entertainment	2.0	2.3	2.0	2.9	2.6	1.6
Professional services	29.3	16.5	15.9	17.7	16.2	17.4
Public administration	5.8	.5	.6	.3	.3	.9
Reason for leaving previous job						
No previous job	35.9	33.0	32.1	34.6	40.7	14.5
Business closed	10.9	7.2	7.7	6.3	7.5	6.7
Laid off/let go	9.2	7.9	8.1	7.6	5.5	13.4
Poor health/disabled	2.3	3.2	3.2	3.3	3.2	3.4
Family care	3.4	2.8	.6	7.0	2.9	2.6
Better job	13.9	14.2	16.3	10.2	16.2	10.1
Quit	10.1	11.5	10.5	13.3	11.3	12.1
Retired	9.4	16.1	18.4	11.8	8.8	32.9
Respondent's family moved	3.5	3.0	2.3	4.3	2.7	3.6
Sold business (own)	.4	.4	.3	.6	.5	.0
Other	1.0	.8	.6	1.1	.8	.8
Spouse characteristics						
Spouse age (mean)	57.0	58.0	57.0	60.0	57.0	60.0
Education						
High-school dropout	15.2	12.8	10.9	17.4	12.3	12.9
GED	4.8	2.7	2.6	2.9	2.1	4.2
High-school graduate	33.0	30.9	33.9	24.1	30.1	33.3
Some college	23.0	26.0	28.4	20.7	27.2	24.0
College graduate and higher	24.1	27.5	24.3	35.0	28.3	25.6

Table 6. Continued—Characteristics of self-employed in primary job in 1998 for workers age 51 and older based on Health and Retirement Study

[In percent, unless otherwise indicated]

Charactertisc	Class of worker		Self-employed		Self-employed	
	Wage	Self-employed	Men	Women	Before age 50	At or after age 50
Spouse characteristics (continued)						
Health status						
Excellent	16.9	22.0	22.1	22.0	24.1	17.6
Very good	32.7	33.1	33.9	31.3	32.5	35.1
Good	31.2	27.8	27.3	29.0	27.1	29.8
Fair	13.9	12.9	13.4	11.9	12.8	12.4
Poor	5.3	4.2	3.4	5.9	3.6	5.1
Working for pay	66.2	64.2	59.7	74.7	66.3	60.1
Self-employed	9.5	26.9	20.5	41.6	29.4	21.5
Covered by employer health insurance	45.6	44.8	40.0	56.4	47.0	40.6
Has pension	58.0	43.4	43.5	43.1	43.0	43.3

NOTES: Sample is self-employed workers age 51 and older using definition H1 (See exhibit A-1). Means and percentages have been calculated using Health and Retirement Study sampling weights.

SOURCE: Authors' calculations using Health and Retirement Study 1998 (HRS98).

workers. The fraction reporting fair or poor health is also slightly higher for the self-employed. In addition, the self-employed are approximately 7 percentage points more likely to say that their health limits their work, compared with their wage and salary counterparts. The two groups have similar numbers of limitations with eating, bathing, dressing, getting out of bed, or walking across a room (measures of activities of daily living). Comparing self-employed women and men, we find more self-employed women report being in fair or poor health (a difference of 4 percentage points) and more report having a health condition that limits their work (a difference of 5 percentage points). The frequency of reporting limitations with activities of daily living is also slightly higher for female self-employed workers. Although the overall health status of self-employed workers before and after age 50 is similar, workers who become self-employed at age 50 or older are slightly more likely to have a health condition that limits their work.

Employment characteristics. Table 6 also compares the employment characteristics across older wage and salary workers and the various groups of older self-employed workers. In terms of employee benefits, health insurance and pension access is considerably different between the self-employed and wage and salary workers: 34 percent of the self-employed versus 67 percent of wage and salary workers have health insurance coverage, and 12 percent versus 61 percent respectively have pension coverage on the current job. At the same time, pension coverage on the prior job is almost identical for the two groups. Among those with pension coverage on the current job, the self-employed are more likely to participate in a defined contribution plan than a defined benefit plan. Among the self-employed, women have lower health insurance coverage and lower pension coverage on both the current and prior job. Among those with pension coverage, defined contribution plans or both defined benefit and defined contribution plans are considerably more common for women than men (92 versus 66 percent). Although the more recently self-employed have lower health and pension coverage on the current job, they have higher pension coverage on the prior job. This suggests that pension coverage on a prior wage and salary job might facilitate the transition to self-employment later in life.

In terms of work effort, self-employed workers age 51 and older are only slightly more likely than wage and salary workers of the same age to have a job that requires a lot of physical effort all or most of the time. Among the self-employed, physical effort associated with the job is lower for women than men, and for those who become self-employed after age 50. It is striking to note that the self-employed are much more likely to report working part-time (less than 35 hours per week) on their main job, particularly self-employed women and workers who become self-employed at age 50 or older. At the same time, the self-employed are equally likely as wage and salary workers to hold a second job, although second jobs are somewhat more likely to be in the same class of employment for the self-employed (that is, a second wage and salary job for wage and salary workers, and a second self-employment job for the self-employed). Men and those self-employed before age 50 are somewhat more likely to have a second job but, among the self-employed with second jobs, the rates of self-employment are higher for men and those self-employed at or after age 50 than for those who become self-employed before age 50.

It may be the case that self-employed workers age 51 and older reduce hours rather than retire from the labor force or

wage and salary workers become self-employed in order to work part-time. Indeed, compared with wage and salary workers, self-employed workers have a higher probability of working full-time at age 62 and age 65—a measure of retirement expectations—particularly self-employed men and the longer term self-employed. This suggests that transitions to self-employment later in the career may be part of the retirement process.

Occupation and industry composition. With regards to occupation and industry, consistent with our earlier analysis of the CPS, older self-employed workers are more likely to have an occupation of farming and to be in the agricultural sector than wage and salary workers, particularly male workers who become self-employed before age 50. The occupation and industry distributions of male and female self-employed workers show a number of differences, with women more likely to be self-employed in clerical and other services occupations, and in the trade and personal services sectors. Those who become self-employed later in their career are more concentrated in segments of the services sector rather than in agriculture or mining/construction.

Employment history. The Health and Retirement Study asks respondents, age 51 and older, about the reason they departed from their prior job. The responses, tabulated in table 6, reveal that, compared with their wage and salary counterparts, self-employed workers are less likely to have left a prior job involuntarily (for example, due to layoffs, firings, or business closures) and more likely to have experienced a voluntary departure (quit or retired). Notably, 16 percent of self-employed workers retired from their previous job, compared with 9 percent of wage and salary workers. Among self-employed workers after age 50, the percentage rises to 33 percent. This group is also more likely than wage and salary workers to have been laid off. Self-employed men are more likely to report leaving a prior job for a better job or having had retired compared with self-employed women.

Spouses' characteristics. Finally, table 6 reports the characteristics of the spouses of the wage and salary and self-employed workers age 51 and older in terms of age, education, health and health insurance, and some employment characteristics. Spouses of the self-employed, like self-employed workers themselves, are more likely to be college educated and are healthier than spouses of wage and salary workers. Overall the spouses of self-employed workers are only slightly less likely to be working. Some self-employment is likely to be family-owned businesses: 27 percent of self-employed workers have spouses who are also self-employed, a rate that exceeds that for the spouses of wage and salary workers. Despite the differential class of employment, spouses of the self-employed and of wage and salary workers are about equally likely to be covered by employer health insurance. At the same time, consistent with this differential, the spouse of a self-employed worker is less likely to have a pension than the spouse of a wage and salary worker.

Among older self-employed workers, the spouses of female workers are more polarized in their education distribution, with a higher fraction in both the lowest and highest education levels, but spousal health is quite similar. The husbands of self-employed women are more likely to be working, to be self-employed, and to be covered by employer health insurance than the wives of self-employed men. Rates of pension coverage are almost identical. The contrasts in the characteristics of the spouses of workers who become self-employed before and after age 50 are not as sharp. There is some indication that, compared with individuals who become self-employed before age 50, persons who become self-employed at or after age 50 have older spouses (expected given that the self-employed after age 50 are more likely to be women and are older themselves), have worse health, and are less likely to be working at all or to be self-employed.

Conclusions

Given the importance of self-employment at older ages—both relative to the ranks of the self-employed as a whole and relative to the wage and salary workforce at older ages—it is important to have a solid understanding of the characteristics of this segment of the workforce and how those characteristics may be changing over time. The aging of the workforce as the baby-boom cohort approaches retirement will almost certainly influence the size and characteristics of the self-employed workforce. Although the overall trend in self-employment rates has been downward in the past decade, the fact that self-employment rates rise at older ages and that the population is aging suggests that demographics alone may halt or reverse that trend. At the same time, we also know that a growing share of those who are self-employed do so through an incorporated business. The fact that this form of business organization is not officially tracked as a form of self-employment in U.S. labor force statistics may conceal changes in underlying rates of self-employment, particularly among older workers, where up to one-third are in incorporated businesses. Future research can help deepen our understanding of this important labor force phenomenon.

Our two data sources—cross-sectional time-series data from the CPS and cross-sectional data from the Health and Retirement Study—reveal that older self-employed workers exhibit many of the same characteristics found for the self-employed more generally. Among workers age 51 and older, self-employed workers, compared with their wage and salary

counterparts, are older; are more likely to be male, white, married, and college educated; and more likely to be healthier, but to have a health condition that limits work. Self-employed workers are also more likely to be working part-time and to have a family-business or a spouse who is also self-employed. The differences in the age distribution, health status, and work effort among older self-employed workers versus their wage and salary counterparts suggest that the self-employed at older ages are able to work longer even despite poorer health, and to work with more flexibility in hours. Thus, self-employed workers may be better able to accommodate their changing preferences for work versus leisure as they make the transition to retirement.

At the same time, older self-employed workers are financially better off than workers in the wage and salary class as measured by household income and wealth, but are less likely to have a pension and health insurance on their current job. Those who become self-employed after age 50 —about one third of older self-employed workers—also have lower levels of income and wealth and lower rates of pension and health coverage, compared with those who become self-employed earlier in their career. Women, whose share of self-employment among older workers has been growing over time, also exhibit lower income, asset, and employee benefit levels than their male counterparts who are self-employed. Future research could help identify the implications of self-employment for the retirement income security of older workers, especially self-employed women and older workers who make the transition to self-employment later in their careers. □

Notes

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[1] We recognize that our analysis of the CPS and the Health and Retirement Study uses slightly different age groups (50 and older from the CPS and 51 and older from the Health and Retirement Study), but the difference is not analytically significant. In the appendix, we compare the level and rate of self-employment for both data sources for workers in the same age cohort (that is, age 51 and older).

[2] F. Thomas Juster, and Richard Suzman, "An Overview of the Health and Retirement Study," *Journal of Human Resources*, 1995, pp. S7-S56.

[3] The parenthetical phrase is asked only of households that responded to an earlier question that they run a family business as a way of identifying unpaid family workers.

[4] This approach differs from that followed in many other countries (for example, Canada) where owners of incorporated businesses are also classified as self-employed. This latter approach is consistent with the 1993 International Classification of Status in Employment (ICSE-93) standards set by the International Labour Organization. The United States is one of only a handful of countries that deviates from the standard in the treatment of the self-employed. See Peter Elias, "Status in Employment: A World Survey of Practices and Problems," *ILO Bulletin of Labour Statistics*, No. 11–19, 2000.

[5] The upward jump in self-employment rates between 1993 and 1994 evident in chart 1 across all the series (and especially the ones that include the incorporated self-employed) is due, in part, to changes in the CPS implemented in 1994. See Marilyn E. Manser and Garnett Picot, "The role of self-employment in U.S. and Canadian job growth, *Monthly Labor Review*, April 1999, pp. 10–25. This change in the series is discussed later in the text.

[6] David M. Blau, "A Time-Series Analysis of Self-Employment in the United States," *The Journal of Political Economy*, June 1987, pp. 445–67.

[7] Manser and Picot, "The role of self-employment," 1999, pp. 10–25.

[8] The discussion that follows is based on tabulations using data from the sources cited in table 1.

[9] Our analysis of CPS microdata allows us to look at self-employment rates for the older workforce using a definition that includes the self-employed in incorporated businesses.

[10] See, for example, Theresa Devine, "Characteristics of self-employed women in the United States," *Monthly Labor Review*, March 1994, pp. 20–34; Manser and Picot, "The role of self-employment," 1999, pp. 10–25; Yannis Georgellis, and Howard J. Wall, "Who Are the Self-Employed?" *Federal Reserve Bank of St. Louis Review*, November/December 2000, pp. 15–23; and Steven Haider and D. Loughran, "Elderly Labor Supply: Work or Play?" RAND DRU-2582, Santa Monica, CA, 2001.

[11] Another strand of the self-employment literature considers the factors that lead individuals to choose self-employment over wage and salary work, as well as the determinants of transitions to self-employment. For a review of that literature, see Julie Zissimopoulos and Lynn A. Karoly, "Transitions to Self-Employment at Older Ages: The Role of Wealth, Health, Health Insurance, and Other Factors," paper presented at the 2003 annual meetings of the Population Association of America, April 2003.

[12] Devine, "Characteristics of self-employed women," 1994, pp. 20–34; John E. Bregger, "Measuring self-employment in the United States," *Monthly Labor Review*, January/February 1996, pp. 3–9; Robert W. Fairlie, *Ethnic and Racial Entrepreneurship: A Study of Historical and Contemporary Differences* (New York, Garland, 1996); Manser and Picot, "The role of self-employment," 1999, pp. 10–25; and Yannis and Wall, "Who Are the Self-Employed?" 2000, pp. 15–23.

[13] Fairlie, *Ethnic and Racial Entrepreneurship: A Study of Historical and Contemporary Differences* (New York, Garland, 1996); Robert W. Fairlie and Bruce D. Meyer, "The Ethnic and Racial Character of Self-Employment," NBER Working Paper No. 4791 (National Bureau of Economic Research, 1994); and Robert W. Fairlie and Bruce D. Meyer, "Ethnic and Racial Self-Employment

Differences and Possible Explanations," *Journal of Human Resources*, Autumn 1996, pp. 757–93.

[14] Barton H. Hamilton, "Does Entrepreneurship Pay? An Empirical Analysis of the Returns of Self-Employment," *The Journal of Political Economy*, June 2000, pp. 604–31.

[15] William G. Deming, "Work at home: data from the CPS," *Monthly Labor Review*, February 1994, pp. 14–20; and Linda N. Edwards, and Elizabeth Field-Hendrey, "Home-Based Work and Women's Labor Force Decisions," *Journal of Labor Economics*, January 2002, pp. 170–200.

[16] David G. Blanchflower and Andrew J. Oswald, "What Makes an Entrepreneur?" *Journal of Labor Economics*, January 1998, pp. 26–60; and David G. Blanchflower, Andrew J. Oswald, and Alois Stulzer, "Latent Entrepreneurship across Nations," *European Economic Review*, May 2001, pp. 680–691; and Greg Hundley, "Why and When are the Self-Employed More Satisfied with Their Work?" *Industrial Relations*, April 2001, pp. 293–316.

[17] Hamilton, "Does Entrepreneurship Pay?" 2000, pp. 604–31.

[18] Hamilton, "Does Entrepreneurship Pay?" 2000, pp. 604–31.

[19] Devine, "Characteristics of self-employed women," 1994, pp. 20-34; Fairlie and Meyer, "The Ethnic and Racial Character of Self-Employment," 1994; Fairlie, *Ethnic and Racial Entrepreneurship*, 1996; Manser and Picot, "The role of self-employment," 1999; and Georgellis and Wall, "Who Are the Self-Employed?" 2000, pp. 15–23.

[20] Devine, "Characteristics of Self-Employed Women," 1994, pp. 20–34.

[21] Fairlie and Meyer, "The Ethnic and Racial Character of Self-Employment," 1994.

[22] Georgellis, and Wall, "Who Are the Self-Employed?" 2000, pp. 15–23.

[23] Greg Hundley, "Why Women Earn Less Than Men in Self-Employment," *Journal of Labor Research*, Fall 2001, pp. 817–29.

[24] Manser and Picot, "The role of self-employment," 1999, pp. 10–25.

[25] Data presented earlier in chart 1 show that after 1996, the last year in the Manser and Picot ("The role of self-employment," 1999, pp. 10–25) analysis, there was a decline in self-employment rates for the United States.

[26] David G. Blanchflower, "Self-Employment in OECD Countries," *Labour Economics*, September 2000, pp. 471–506; and Yuji Genda, and Ryo Kambayashi, "Declining Self-Employment in Japan," *Journal of the Japanese and International Economies*, March 2002, pp. 73–91.

[27] Robert W. Bednarzik, "The role of entrepreneurship in U.S. and European job growth," *Monthly Labor Review*, July 2000, pp. 3–16.

[28] Haider and Loughran, "Elderly Labor Supply," 2001, and Doreen Duchesne, "Seniors at Work," *Perspectives on Labour and Income (Canada)*, Summer 2002, pp. 33–44.

[29] Victor R. Fuchs, "Self-Employment and Labor Force Participation of Older Males," Journal of Human Resources, Summer 1982, 339–57.

[30] Joseph Quinn, "Labor Force Participation Patterns of Older Self-Employed Workers," *Social Security Bulletin*, April 1980, pp. 17–28.

[31] The sample size for the Annual Demographic File increased beginning with the March 2001 survey, although the public use file we use for March 2001 is based on the old sampling scheme. (For detail, see on the Internet: **www.bls.census.gov/cps/ads/data_dissem_letterng.htm**.) The sample for the March 2002 file is about 50 percent larger than that of the prior year. To minimize potential discontinuities in the data series, we expect to use the 2001 public use file for the sample that replicates what was used in earlier surveys.

[32] Our estimates will not exactly replicate the published figures presented in the BLS data section because the official data are based on annual averages from the monthly CPS surveys. We rely on the March data for our analysis because the monthly surveys do not include the supplemental information available only in the March interview (for example, on employment in the prior year, and income and income sources in the prior year).

[33] For one-fourth of the sample starting in 1994, the CPS also provides information on the class of worker for secondary jobs, if any, held during the reference week.

[34] Manser and Picot, "The role of self-employment," 1999, pp. 10–25.

[35] The last year of data available for all five series is 2001.

[36] In the case of definitions C1 and C2, those who report they are with a job but not at work (for example, they may be absent for reasons of illness or vacation) in the reference week are also counted as employed. These individuals do not report their weekly hours, so this information is missing for this part of the sample.

[37] As discussed earlier in the article, only definitions C1 and C3 (the self-employed in unincorporated businesses) are available for the full time series, whereas the other definitions can be calculated starting in 1975 (C4 and C5) or 1989 (C2), given the way class of worker is coded in the CPS public use files. In addition, series C3 to C5 end in 2001 because they are based on data for the prior calendar year.

[38] As discussed later in the article, this peak in 1994 may be an artifact of the change in the survey questionnaire in that year.

[39] Manser and Picot, "The role of self-employment," 1999, pp. 10–25.

[40] Note that this adjustment means the change from 1993 to 1994 is from 13.7 to 13.8 percent versus 13.7 to 14.7 percent.

[41] Although self-employment rates are lower on average for the workforce as a whole, compared with workers age 50 and older, a similar time series analysis for all workers age 16 and older shows the same general patterns for the entire workforce as what is observed for workers age 50 and older. For all workers, the pattern since the mid-1990s is one of decreasing rates of self-employment, due largely to a declining rate of self-employment in unincorporated businesses. From the mid-1970s to the mid-1990s, self-employment rates in unincorporated and incorporated businesses increased due to a growth in the latter form of business organization.

[42] In addition to the self-employed and wage and salary workers, our sample of workers during the reference week includes those who report they work without pay in a family business. These workers are treated as a residual class of workers in official employment statistics and represent less than 1 percent of the workforce.

[43] Computation of Social Security wealth and pension wealth is available only for researchers with restricted data permission. These data are currently available for the original Health and Retirement Study cohort only rather than the full 1998 cross-section examined here.

[44] In particular, we rely on several sources of retrospective information. Individuals currently not working are asked about his or her last job and whether they were self-employed. These individuals are also asked about jobs lasting 5 years or more in a job history segment and self-employment is identified for those prior "long" jobs. Health and Retirement Study respondents working at the time of the interview are also asked about employment status on previous jobs lasting 5 years or more. In addition, for the Health and Retirement Study 1931–41 birth cohort, we look prospectively over the panel from 1992 to 1998 to determine if there was other self-employment prior to when they are observed in 1998.

Appendix: Comparison of self-employment definitions in the CPS and Health and Retirement Study

This appendix provides a comparison of self-employment levels and rates based on alternative definitions of self-employment in the CPS and HRS. For the CPS, we use the same five measures of self-employment defined in exhibit 1. As with the CPS, we consider definitions in the Health and Retirement Study based on both employment in the reference week and in the prior year.

Exhibit A1 provides a summary of the four measures of self-employment we consider based on the Health and Retirement Study. Because the Health and Retirement Study distinguishes self-employment status for current employment for both a primary and secondary job, we define H1 as current self-employment in the primary job only and H2 as self-employment in the primary or secondary job. H1 is closest to C1 or possibly C2 depending on how the self-employed in incorporated businesses are classified in the Health and Retirement Study. The difference between H1 and H2 captures "moonlighters," those who work in self-employment only as a secondary job, in addition to a main job in the wage and salary class. To account for the possibility that some Health and Retirement Study respondents who are self-employed in an incorporated business would classify themselves as wage and salary workers, we also use information in the Health and Retirement Study about business ownership to potentially identify these individuals. Thus, definition H3 expands the group classified as self-employed in H2 by adding in those who report they own a business. H3 is therefore potentially equivalent to C2, the more expansive CPS definition of the self-employed. It is also possible, however, that H3 would overestimate the number of self-employed to the extent that individuals own businesses that they do not work in. Finally, H4 is based on reported self-employment income in the prior year, a definition that parallels C5 for the CPS. Again, however, if the self-employed in incorporated businesses report their labor income as wage and salary income, these definitions may not be equivalent.

Table A1 shows the weighted estimates for the number of self-employed workers and the self-employment rate for the Health and Retirement Study 1998 cross-section of civilian noninstitutionalized workers age 51 and older for each of the

Exhibit A1. Self-employment definitions based on the Health and Retirement Study

Self-employment definition	Health and Retirement Study survey and reference years
H1. Current employment: self-employed in primary job	1992, 1994, 1996, 1998, 2000
H2. Current employment: self-employed in primary or secondary job	1992, 1994, 1996, 1998, 2000
H3. Current employment: self-employed in primary or secondary job; or current assets: own business(es)	1992, 1994, 1996, 1998, 2000
H4. Employment last year: any self-employment income	1992, 1994, 1996, 1998, 2000

Table A1. Self-employment rates in 1998 for workers age 51 and older based on alternative definitions in the Health and Retirement Study and the Current Population Survey

[Numbers in thousands]

Survey and definition of self-employed		Self-employed		Sample size
		Number	Percent	
Health and Retirement Study:				
H1	Currently self-employed in primary job	6,378	22.7	7,473
H2	Currently self-employed in primary or secondary job	7,484	26.4	7,535
H3	Currently self-employed in primary or secondary job or currently own business(es)	8,844	31.2	7,535
H4	Any self-employment income in last year	6,898	24.8	7,433
Current Population Survey:				
C1	Currently self-employed in main job, unincorporated	3,330	13.0	12,735
C2	Currently self-employed in main job, unincorporated or incorporated	4,908	19.1	12,735
C3	Self-employed in longest job during calendar year, unincorporated	3,533	12.2	14,383
C4	Self-employed in longest job during calendar year, unincorporated or incorporated	5,164	17.8	14,383
C5	Self-employed in longest job during calendar year, unincorporated or incorporated, or any self-employment income during calendar year	5,864	20.3	14,383

NOTES: Sample is all civilian noninstitutionalized workers age 51 and older. Numbers and percentages have been calculated using Health and Retirement Study (HRS) and CPS sampling weights.

SOURCE: Authors' calculations using HRS98 (H1-H4), March 1998 CPS (C1–C5).

four definitions. H1 provides the most narrow definition, with an estimated 22.7 percent of older workers (or 6.4 million) classified as self-employed in their primary job in 1998. H2 includes the self-employed in H1 plus workers who moonlight in self-employment through a secondary job, bringing the self-employment rate to 26.4 percent. Thus, about 4.3 percent of the older workforce or 1.1 million workers are estimated to moonlight in self-employment. Including individuals who report owning one or more businesses in definition H3 brings the self-employment rate up to 31.2 percent; more than 8 percentage points higher than the narrow definition H1. As noted earlier, this definition is likely to include some individuals who do not contribute labor to the business they own and might therefore not be considered self-employed according to traditional definitions of employment status. Finally, H4 provides an estimated self-employment rate of 24.8 percent, a result close to, but slightly less than that provided by H2.

Table A1 also provides weighted estimates of the number of self-employed and the self-employment rates for the CPS using a cohort of workers equivalent to that for the Health and Retirement Study. Specifically, the CPS sample consists of civilian noninstitutionalized workers age 51 and older in March 1998, with data on self-employment status in the March 1998 reference week for definitions C1 and C2 and for calendar year 1997 for definitions C3 to C5. Definitions C1 and C3, which include only unincorporated workers, are considerably below those for the Health and Retirement Study. This suggests that the Health and Retirement Study base definition, H1, does include both self-employed in unincorporated and incorporated businesses. The C2 definition in the CPS for the reference week is conceptually the most equivalent to H1, and comes closest to matching the base Health and Retirement Study definition H1, but it is still lower by about 3.5 percentage points. The absolute size of the self-employed workforce according to C2 is also lower than H1 by almost 1.5 million workers. Definitions H2 to H4 in the Health and Retirement Study are clearly more expansive in defining older workers as self-employed than any of the CPS definitions. Although we might expect H4 and C5 to be comparable based on their definitions, C5 falls short of H4 by almost 6 percentage points and 1.1 million workers. Thus, the most comparable definitions between the two data sources are H1 for the Health and Retirement Study and C2 for the CPS. Both refer to self-employment for the survey reference week in the main or primary job, and capture individuals in both incorporated and unincorporated businesses.[1] Thus, in the analyses provided in the text, we rely on H1 as our preferred definition of self-employment in the Health and Retirement Study.

Note to the appendix

[1] For the characteristics that are common across the Health and Retirement Study and CPS, we have compared the distributions for the various measures of self-employment in the two surveys. A comparison across tables 5 and 6 shows similar distributions based on definitions C2 and H1. There is some indication that the CPS definition C2 generates a higher proportion of men, younger workers within the age range, workers in the residual "other" race/ethnicity category, married workers, more educated workers, and individuals working full time. However, these differences are probably due in part to sampling errors. The occupational and industrial distributions may differ to some extent as well because of different coding schemes.

Trends in job demands among older workers, 1992–2002

Employment increases among older adults could relieve some of the demographic pressures created by population aging, but only if older workers are physically able to perform their job responsibilities; the share of workers ages 55 to 60 in jobs that never require much physical effort increased 18 percent between 1992 and 2002

Richard W. Johnson

The aging of the population raises concerns about the Nation's ability to support future retirees, whose numbers will soar once members of the "baby-boom" cohort begin reaching old age in coming years. If current employment patterns persist, there will be fewer workers in the future available to produce goods and services, threatening standards of living for Americans of all ages. As long as job demands do not force many older workers into retirement, increasing employment among older adults could relieve these demographic pressures. This article explores the ability of the labor force to accommodate older adults by examining recent trends in job demands among older workers.

Once the oldest baby-boomers reach age 65 in 2011, the population will begin to age rapidly. The U.S. Census Bureau predicts that between 2000 and 2040, the number of Americans ages 65 and older will more than double, to 77 million, while the number of prime working-age adults, between the ages of 25 and 54, will increase by only 12 percent.[1] As a result, the number of prime working-age adults per elderly American will fall over the next 40 years from 3.5 to 1.8. The number of dependent children will also grow relatively rapidly over the next 40 years, compounding the pressures on working adults. In 2040, the number of Americans under 18 and ages 65 and older, who have been less likely to work, will exceed the number of prime working-age adults by 21 percent. In 2000, by contrast, prime working-age adults outnumbered dependent children and elderly adults by 14 percent.

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The growing imbalance between working age adults and elderly persons is reducing the number of workers who can finance retirement benefits for older Americans. Both Social Security and Medicare are funded primarily on a pay-as-you-go basis, with payroll taxes on workers financing benefits received by retirees. According to the latest official projections, outlays will begin to exceed revenues for Medicare in 2011 and for Social Security in 2018.[2] More fundamentally, the aging of the population reduces the number of workers available to produce the goods and services that the economy needs. Without dramatic increases in productivity or changes in employment patterns, the looming worker shortage will reduce per-capita output and lower living standards.[3]

Higher employment rates among older adults could relieve these pressures, by increasing the labor force and reducing claims on retirement benefits. The average retirement age has been falling over most of the past century—despite improvements in health and life expectancy that could allow individuals to work until older ages[4]—although the trend seems to have leveled off and even reversed in recent years.[5] Congress has increased the age at which retirees qualify for full Social Security benefits, which could encourage older workers to remain in the labor force. The legislation slowly raises the normal retirement age from 65 to 67 (for workers born after 1959, who will reach age 67 after 2026). Some experts have proposed that Congress increase the normal retirement age to 67 more quickly,[6] increase it to age 70,[7] or tie the retirement age to

changes in life expectancy.[8] Others have advocated removing some of the legal impediments to work at older ages.[9] For example, many older workers prefer to reduce their work hours gradually, but Federal law prohibits employers from paying retirement benefits to active employees, even if they work only part time.

Job demands also encourage early retirement. Studies have found that workers in blue collar jobs tend to retire before workers in white collar jobs,[10] and that workers in physically demanding jobs are less likely to remain in the labor force after the initial receipt of Social Security benefits.[11] Other studies have found that physical job demands and stress are important predictors of early retirement.[12]

The decline of the manufacturing sector over the past half century and the growing computerization of the workplace have likely reduced physical job demands, potentially enabling more older adults to remain at work. Between 1950 and 2000, the share of jobs in the goods-producing sector—which includes the construction and mining industries as well as manufacturing—fell from 41 percent to 20 percent; virtually all employment growth between 2000 and 2010 is expected to come from the services-producing sector.[13] In addition, the share of workers using computers increased from 24 percent in 1984 to 54 percent in 2001.[14]

In fact, fewer jobs appear to require physical strength now than they did in the past. Between 1950 and 1996, the share of workers in jobs that required them to lift more than 50 pounds occasionally and 25 pounds frequently fell from 20 percent to less than 8 percent.[15] These estimates, based on job data from the 1977 edition of the *Dictionary of Occupational Titles* matched with worker data from the Current Population Survey, understate the true decline in the number of demanding jobs. They do not account for the possibility that jobs classified as physically demanding based on 1977 job ratings became less strenuous in later years. An important limitation of this research, however, is that it provides no direct evidence on how job demands faced by older workers have changed over time.

Although the physical demands of work appear to be declining, there is some evidence that jobs are now more time-consuming and stressful than they used to be.[16] These nonphysical demands may push some older workers into retirement, even when their jobs do not require physical strength or stamina.

Methods

This study measures recent trends in job demands at older ages by comparing self-reported job characteristics among older workers in 1992 and 2002. The data come from the Health and Retirement Study (HRS), a nationally representative survey of older Americans conducted by the University of Michigan for the National Institute on Aging. The survey began in 1992 with interviews of 9,761 Americans born between 1931 and 1941, and was expanded in 1998 to include 1,967 respondents in the 1942 to 1947 birth cohort. Every other year, the survey collects detailed information on a wide range of subjects, including basic demographic information, detailed health status, and employment characteristics. The survey oversamples African Americans, Hispanics, and Florida residents, but includes sample weights used to adjust the estimates so that they represent the underlying national population.

At each wave, the survey asks employed respondents about their job requirements. Respondents report how often (all or almost all of the time, most of the time, some of the time, or none or almost none of the time) their jobs require "lots" of physical effort; lifting heavy loads; stooping, kneeling, or crouching; good eyesight; intense concentration or attention; skill in dealing with other people; and work with computers. In addition, the survey asks workers whether they agree (strongly agree, agree, disagree, or strongly disagree) that their job requires them "to do more difficult things than it used to" and that it "involves a lot of stress." The wording of the questions about job requirements was identical in 1992 and 2002.

This study uses the HRS to compute the share of workers ages 55 to 60 in 1992 and 2002 who report particular job demands all or almost all of the time and none or almost none of the time, as well as the share who strongly agree and strongly disagree that their jobs have become more difficult or that they are stressful. It computes the percentage point differences between the 1992 and 2002 shares and uses t-tests to determine whether these differences are statistically significant. The relative percent change in the observed differences is also computed. The analysis compares changes in job demands by gender and educational attainment brought on by economic structural shifts over the past 10 years.

In addition, the study examines the demographics, health, and industry of older workers in jobs that require substantial physical effort all or almost all of the time and those in jobs that never require much physical effort. Workers in physically demanding jobs may face special difficulty delaying retirement if they have health problems. Measures of health include self-rated overall health status (excellent or very good, good, and fair or poor); whether a doctor has diagnosed the respondent with arthritis or rheumatism; whether the respondent reports being troubled often by pain; and the presence of serious medical conditions (defined as a history of heart problems, diabetes, chronic lung disease, cancer, and stroke). Because the aim is to measure serious medical conditions that could force workers to drop out of the labor force, the analysis only includes cases of chronic lung disease that limit everyday activities such as employment or household chores;

cases of cancer for which the respondent receives at least periodic medical checkups (suggesting that the cancer is not completely cured); and cases of stroke that continue to cause health problems for respondents, such as muscle weakness or difficulty speaking. The analysis also identifies respondents whose arthritis limits their activities in 2002. (The survey did not collect information on the severity of arthritis in 1992.)

Table 1 compares the characteristics of HRS respondents ages 55 to 60 in 1992 and 2002. Members of the later cohort completed significantly more schooling than those from the earlier cohort. Between 1992 and 2002, the share of adults in their late 50s who did not graduate from high school fell by 11 percentage points, while the share who completed 4 or more years of college increased by 11 percentage points—to 29 percent of the population. The prevalence of serious medical conditions increased over the past decade among adults in their late 50s, because more adults had diabetes in 2002 than in 1992. Significantly more older adults reported being troubled often by pain and suffering from arthritis in 2002 than in 1992, although fewer than half of the arthritis cases were serious enough to limit everyday activities. Overall health status did not change significantly during the period.

The sample for the analyses consists of 3,125 workers in 1992 and 1,124 workers in 2002. Consistent with other evidence that many workers are now delaying retirement,[17] the share of employed adults ages 55 to 60 in the HRS increased from 67 percent in 1992 to 70 percent in 2002.

Results

Table 2 describes job characteristics for all workers ages 55 to 60. In 2002, 18 percent of older workers reported that their jobs require lots of physical effort all or almost all of the time, while about twice as many older workers (38 percent) reported that their jobs never or almost never require much physical effort. About 6 out of 10 workers said they never lift heavy loads on

Table 1. Characteristics of adults ages 55 to 60, 1992 and 2002

Characteristic	1992 (percent)	2002 (percent)	Percentage point difference	Percent change
Education:				
Did not complete high school	23.5	12.1	[1]–11.4	–48.5
High school graduate	39.6	34.0	[1]–5.6	–14.1
Some college, but less than 4 years	18.8	24.5	[1]5.7	30.5
Completed 4 years of college	18.1	29.3	[1]11.3	62.6
Race:				
Hispanic	6.0	7.0	1.0	17.5
Non-Hispanic black	10.4	10.4	.0	0.4
Non-Hispanic white and other	83.7	82.6	–1.1	–1.3
Self-reported health status:				
Excellent or very good	50.9	51.3	0.4	.8
Good	27.4	28.1	.8	2.8
Fair or poor	21.7	20.6	–1.2	–5.4
Medical conditions:				
Any serious medical conditions[3]	27.2	29.8	[2]2.6	9.6
Heart problems	14.3	13.8	–.4	–3.1
Diabetes	11.0	14.7	[1]3.6	33.1
Chronic lung disease that limits activities	3.5	3.4	–.1	–2.9
History of cancer, continues to see doctor	4.2	4.1	–.1	–2.4
History of stroke that continues to cause problems	1.4	1.7	.3	21.4
Arthritis	41.2	45.1	[1]3.9	9.4
Arthritis that limits activities	–	19.5	–	–
Often troubled by pain	24.6	30.3	[1]5.8	23.5
Employed	66.6	70.1	[2]3.5	5.2
Number of observations	4,886	1,634	...	...

[1] Significant at the 1-percent level.

[2] Significant at the 5-percent level.

[3] Serious medical conditions include heart problems, chronic lung disease, cancer, stroke, and diabetes.

NOTE: Estimates are weighted to account for the sampling design of the Health and Retirement Study. Dash indicates data not available.

SOURCE: Author's estimates from the Health and Retirement Study (HRS).

Table 2. Self-reported job characteristics of workers ages 55 to 60, 1992 and 2002

Characteristic	1992 (percent)	2002 (percent)	Percentage point difference	Percent change
Job requirements apply all or almost all of the time				
Lots of physical effort	20.3	18.3	–2.0	–9.9
Lifting heavy loads	8.1	9.1	1.0	12.3
Stooping, kneeling, or crouching	13.0	15.7	[2]2.7	20.8
Good eyesight	52.3	66.5	[1]14.2	27.2
Intense concentration	46.8	54.5	[1]7.7	16.5
Skill in dealing with other people	62.1	71.8	[1]9.7	15.6
Work with computers	18.6	40.7	[1]22.1	118.8
Job requirements apply none or almost none of the time				
Lots of physical effort	32.0	37.7	[1]5.7	17.8
Lifting heavy loads	56.1	60.1	[2]4.0	7.1
Stooping, kneeling, or crouching	37.1	40.8	[2]3.7	10.0
Good eyesight	3.5	4.5	1.0	28.6
Intense concentration	3.1	3.1	.0	.0
Skill in dealing with other people	3.5	2.1	[2]–1.4	–40.0
Work with computers	54.2	26.9	[1]27.3	–50.4
Strongly agree with descriptions of current job				
More difficult now than it was in the past	11.6	15.5	[1]3.9	33.6
Involves a lot of stress	17.5	20.6	[2]3.1	17.7
Strongly disagree with descriptions of current job				
More difficult now than it was in the past	7.4	5.8	[3]–1.6	–21.6
Involves a lot of stress	5.3	3.4	[1]–1.9	–35.8
Number of observations	3,125	1,124	...	...

[1] Significant at the 1-percent level.

[2] Significant at the 5-percent level.

[3] Significant at the 10-percent level.

NOTE: Estimates are weighted to account for the sampling design of the Health and Retirement Study (HRS).

SOURCE: Author's estimates from the Health and Retirement Study (HRS).

the job, and about 4 out of 10 said their jobs never require them to stoop, kneel, or crouch. Only 9 percent reported that their jobs always require them to lift heavy loads, and 16 percent said their jobs always involve stooping, kneeling, or crouching.

Although only a minority of older adults work in physically demanding jobs, most older workers face intense non-physical demands on the job. About 55 percent reported in 2002 that their jobs always require intense concentration; 72 percent reported that their jobs always require skill in dealing with other people; 41 percent reported that they always work with computers; and 67 percent reported that their jobs always require good eyesight. In addition, about 1 out of 5 older workers strongly agreed that their jobs involve a lot of stress, and about 1 out of 6 strongly agreed that their jobs have become more difficult than they were in the past.

In general, the share of older workers reporting that their jobs entail physical demands all or almost all of the time did not change much over the past 10 years, while the share reporting virtually no physical demands on the job increased significantly. For example, the share with jobs that never require substantial amounts of physical effort jumped 6 percentage points between 1992 and 2002, an increase of 18 percent in relative terms. The share with jobs that never require heavy lifting and the share with jobs that never involve stooping, kneeling, or crouching both increased by 4 percentage points. But the share of older workers with jobs that require heavy lifting all or almost all of the time and that involve regular stooping, kneeling, or crouching also increased over the period—although the difference is significant only for jobs with stooping, kneeling, and crouching requirements. The propor-

tion reporting that their jobs always require substantial amounts of physical effort declined by 2 percentage points, but the difference is not significant.

Non-physical job demands appear to have increased between 1992 and 2002. The proportion of older workers claiming that their jobs require intense concentration all or almost all of the time increased 8 percentage points (or 17 percent in relative terms), and the share claiming that their jobs always require skill in dealing with other people increased 10 percentage points (or 16 percent in relative terms). In addition, the share who strongly agree that their jobs have become more difficult than they were in the past rose by 4 percentage points (or about one-third), while those that involve a lot of stress increased by 3 percentage points (or more than one-sixth). Computer use more than doubled over the period, perhaps accounting for the 14-percentage-point jump between 1992 and 2002 in the share of older workers whose jobs always require good eyesight.

Table 3 shows self-reported job demands for older workers by gender. Women are significantly more likely than men to report that their jobs never involve lifting heavy loads, but there are no significant differences between men and women in the share reporting substantial amounts of physical effort. Non-physical job demands appear to be more intense for women than for men. Larger shares of women than men report that their jobs require good eyesight, intense concentration, and work with computers. Women also report more job stress than men, but the differences are significant only in 1992.

Between 1992 and 2002, the share of older workers reporting that they never exert substantial amounts of physical effort on the job or never lift heavy loads increased significantly for men, but not for women. Older men, however, generally experienced sharper gains in non-physical job demands than women. The share of older men in jobs that require good vision increased by 17 percentage points; the share in jobs that require intense concentration increased by 8 percentage points; the share in jobs that have become more difficult over time increased by 5 percentage points; and the share in stressful jobs increased by 3 percentage points. As a result, the job demands faced by men and women were more similar in 2002 than they were 10 years earlier.

Table 3. Self-reported job characteristics of workers ages 55 to 60 by gender, 1992 and 2002

Characteristic	1992 (percent)	2002 (percent)	Percentage point difference	Percent change
Men				
Lots of physical effort all or almost all of the time	20.0	19.2	–0.8	–4.0
Lots of physical effort none or almost none of the time	30.7	38.7	[1]8.0	26.1
Lift heavy loads all or almost all of the time	9.1	9.8	0.7	7.7
Lift heavy loads none or almost none of the time	52.3	56.8	[3]4.5	8.6
Stoop, kneel, or crouch all or almost all of the time	14.6	15.2	.6	4.1
Stoop, kneel, or crouch none or almost none of the time	35.2	42.1	[1]6.9	19.6
Good eyesight all or almost all of the time	44.8	62.2	[1]17.4	38.8
Intense concentration all or almost all of the time	44.9	52.9	[1]8.0	17.8
Work with computers all or almost all of the time	13.6	35.3	[1]21.7	159.3
Strongly agree that job is more difficult now than in the past	10.7	15.6	[1]4.9	45.8
Strongly agree that job involves a lot of stress	15.5	18.3	2.8	18.1
Number of observations	1,632	606	...	...
Women				
Lots of physical effort all or almost all of the time	20.6	17.3	–3.3	–16.0
Lots of physical effort none or almost none of the time	33.6	36.5	2.9	8.6
Lift heavy loads all or almost all of the time	[4]7.0	8.2	1.2	17.1
Lift heavy loads none or almost none of the time	[4]60.4	[4]64.0	3.6	6.0
Stoop, kneel, or crouch all or almost all of the time	[4]11.3	16.2	[2]4.9	43.4
Stoop, kneel, or crouch none or almost none of the time	[4]39.2	39.2	.0	.0
Good eyesight all or almost all of the time	[4]60.6	[4]71.3	[1]10.7	17.7
Intense concentration all or almost all of the time	[4]48.9	56.3	[1]7.4	15.1
Work with computers all or almost all of the time	[4]24.2	[4]46.9	[1]22.7	93.8
Strongly agree that job is more difficult now than in the past	12.6	15.5	2.9	23.0
Strongly agree that job involves a lot of stress	[4]19.7	23.2	3.5	17.8
Number of observations	1,493	518	...	...

[1] Significant at the 1-percent level.

[2] Significant at the 5-percent level.

[3] Significant at the 10-percent level.

[4] Significantly differs (at the 5-percent level) from male workers.

NOTE: Estimates are weighted to account for the sampling design of the Health and Retirement Survey.

SOURCE: Author's estimates from the Health and Retirement Survey (HRS).

Table 4 compares self-reported job demands for older workers by education. Not surprisingly, physical job demands fall significantly with educational attainment. For example, in 2002, 28 percent of older workers who did not attend college reported that their jobs require lots of physical effort all or almost all of the time, compared with only 8 percent of college graduates. Older workers who completed 4 or more years of college are more likely than those who never attended college to report that their jobs are stressful, require intense concentration, involve work with computers, and have become more difficult than they were in the past. However, the differences in terms of job stress and concentration demands are significant only in 1992.

The decline in physical job demands that occurred over the past decade was confined to college graduates. The share of older workers who never need to exert much physical effort on the job increased by 8 percentage points among those who completed 4 or more years of college, while falling (insignificantly) among those who did not graduate from college. Non-physical job demands increased for all educational groups, however. For example, between 1992 and 2002, the share of older workers with jobs that require intense concentration almost all of the time increased by 7 percentage points for each educational group. Within educational groups, the share of older workers in jobs that involve a lot of stress did not change significantly over the period. The overall increase in the share of older workers in stressful jobs resulted from the rise in educational attainment among older workers (college-educated workers are more likely to face stress on the job than workers with less education).

Table 5 compares the characteristics of older workers in jobs that require substantial amounts of physical effort all or almost all of the time and those in jobs that never require much physical effort, for 1992 and 2002. Workers in physically demanding jobs have significantly less education than workers in non-physically demanding jobs. For example, the share of older workers who did not complete high school is more than four times as high in jobs that always require sub-

Table 4. Self-reported job characteristics of workers ages 55 to 60 by education, 1992 and 2002

Characteristic	1992 (percent)	2002 (percent)	Percentage point difference	Percent change
No college				
Lots of physical effort all or almost all of the time	26.6	28.1	1.5	5.6
Lots of physical effort none or almost none of the time	23.3	21.6	–1.7	–7.3
Good eyesight all or almost all of the time	52.6	68.4	[1]15.8	30.0
Intense concentration all or almost all of the time	45.7	53.1	[1]7.4	16.2
Work with computers all or almost all of the time	15.2	28.6	[1]13.4	88.2
Strongly agree that job is more difficult now than in the past	10.1	11.3	1.2	11.9
Strongly agree that job involves a lot of stress	15.1	17.8	2.7	17.9
Number of observations	1,893	459	...	...
Some college, but less than 4 years				
Lots of physical effort all or almost all of the time	[4]14.3	[4]17.1	2.8	19.6
Lots of physical effort none or almost none of the time	[4]39.7	[4]38.9	–.8	–2.0
Good eyesight all or almost all of the time	51.1	66.3	[1]15.2	29.7
Intense concentration all or almost all of the time	44.5	51.0	[3]6.5	14.6
Work with computers all or almost all of the time	[4]25.5	[4]43.8	[1]18.3	71.8
Strongly agree that job is more difficult now than in the past	12.9	[4]17.9	[3]5.0	38.8
Strongly agree that job involves a lot of stress	[4]19.4	22.7	3.3	17.0
Number of observations	622	291	...	...
4 or more years of college				
Lots of physical effort all or almost all of the time	[4]9.0	[4]7.6	–1.4	–15.6
Lots of physical effort none or almost none of the time	[4]48.4	[4]56.1	[2]7.7	15.9
Good eyesight all or almost all of the time	52.6	64.2	[1]11.6	22.1
Intense concentration all or almost all of the time	[4]52.0	58.9	[2]6.9	13.3
Work with computers all or almost all of the time	[4]21.4	[4]52.6	[1]31.2	145.8
Strongly agree that job is more difficult now than in the past	[4]14.5	[4]18.8	[3]4.3	29.7
Strongly agree that job involves a lot of stress	[4]22.3	22.3	.0	.0
Number of observations	610	374	...	...

[1] Significant at the 1- percent level.

[2] Significant at the 5-percent level.

[3] Significant at the 10-percent level.

[4] Significantly differs (at the 5-percent level) from workers who did not attend college.

NOTE: Estimates are weighted to account for the sampling design of the Health and Retirement Study (HRS).

SOURCE: Author's estimates from the Health and Retirement Study (HRS).

stantial amounts of physical effort than in jobs that never require much physical effort. Blacks and Hispanics also account for a disproportionate share of older workers in physically demanding jobs.

In 2002, almost two-thirds of older workers in jobs that always require lots of physical effort are in the manufacturing, mining, construction, agriculture, transportation, and trade industries, which account for only one-third of older workers in jobs that never require much physical effort.

Relatively few older workers in jobs with virtually no physical demands reported health problems that could force them to retire early. Only 17 percent of workers in jobs that impose virtually no physical demands are troubled frequently by pain, and only 8 percent describe their overall health as fair or poor. They are also significantly more likely to describe their health as excellent or very good than workers in physically demanding jobs. But differences across job types in the share of older workers in fair or poor health were small and insignificant in

Table 5. Characteristics of workers ages 55 to 60, by physical demands of jobs, 1992 and 2002.

Characteristic	1992				2002			
	Amount of time job requires physical effort (percent)		Percentage point difference	Percent difference	Amount of time job requires physical effort (percent)		Percentage point difference	Percent difference
	Never	Always			Never	Always		
Gender:								
Male	50.3	51.8	1.5	3.0	55.1	56.3	1.2	2.2
Female	49.7	48.2	–1.5	–3.0	44.9	43.7	–1.2	–2.7
Education:								
Did not complete high school	8.3	36.1	[1]27.8	334.9	3.2	14.5	[1]11.3	353.1
High school graduate	34.0	40.0	[3]6.0*	17.6	19.8	47.0	[1]27.2	137.4
Some college, but less than 4 years	25.3	14.4	[1]–10.9	–43.1	27.2	24.6	–2.6	–9.6
Completed 4 years of college	32.5	9.6	[1]–22.9	–70.5	49.8	13.9	[1]–35.9	–72.1
Race:								
Hispanic	3.0	7.0	[1]4.0	133.3	5.8	8.3	[2]2.5	43.1
Non-Hispanic black	6.7	13.5	[1]6.8	101.5	5.9	12.3	[1]6.4	108.5
Non-Hispanic white and other	90.3	79.5	[1]–10.8	–12.0	88.3	79.4	[1]–8.9	–10.1
Self-reported health status:								
Excellent or very good	65.6	49.4	[1]–16.2	–24.7	68.6	53.4	[1]–15.2	–22.2
Good	25.2	33.4	[1]8.2	32.5	23.4	35.7	[1]12.3	52.6
Fair or poor	9.2	17.2	[1]8.0	87.0	8.0	10.9	2.9	36.3
Any serious medical conditions	22.2	21.8	–.4	–1.8	22.8	19.6	–3.2	–14.0
Arthritis	34.6	41.1	[2]6.5	18.8	34.6	46.3	[1]11.7	33.8
Arthritis that limits activities	–	–	–	–	10.8	14.4	3.6	33.3
Often troubled by pain	13.6	21.3	[1]7.7	56.6	17.4	28.5	[1]11.1	63.8
Industry:								
Manufacturing	17.0	21.0	[2]4.0	23.5	15.8	21.4	[3]5.6	35.4
Mining, construction, agriculture	3.5	16.3	[1]12.8	365.7	3.3	13.7	[1]10.4	315.2
Services	37.0	36.7	–.3	–.8	49.0	34.8	[1]–14.2	–29.0
Transportation	7.5	5.2	[3]–2.3	–30.7	5.3	10.2	[3]4.9	92.5
Trade	12.1	15.0	2.9	24.0	7.8	16.8	[1]9.0	115.4
Fire, insurance, and real estate	14.3	3.5	[1]–10.8	–75.5	12.0	1.0	[1]–11.0	–91.7
Public administration	8.6	2.3	[1]–6.3	–73.3	6.9	2.0	[1]–4.9	–70.0
Number of observations	946	686	...	...	417	213	...	...

[1] Significant at the 1-percent level.

[2] Significant at the 5-percent level.

[3] Significant at the 10-percent level.

NOTE: Serious medical conditions include heart problems, chronic lung disease, cancer, stroke, and diabetes. Estimates are weighted to account for the HRS sampling design.

SOURCE: Author's estimates from the Health and Retirement Study (HRS).

2002. These differences have narrowed substantially since 1992, when workers in physically demanding jobs were almost twice as likely to report being in fair or poor health than those in less physically demanding jobs. In 2002, only 11 percent of workers ages 55 to 60 in physically demanding jobs described their health as fair or poor, down from 17 percent in 1992, suggesting that more older workers in physically rigorous jobs may now be able to remain at work and delay retirement. However, more workers in physically demanding jobs are now troubled by pain and suffer from arthritis, which could lead to early retirement. In 2002, 29 percent of workers in physically demanding jobs reported chronic pain, and 46 percent reported arthritis—although only 14 percent reported that their arthritis was serious enough to limit everyday activities.

Conclusions

The findings show that the share of older workers facing virtually no physical demands on the job increased significantly in the 1990s. Nearly 2 out of 5 workers ages 55 to 60 reported in 2002 that their jobs almost never required much physical effort. In combination with health status improvements in middle age and beyond,[18] reductions in physical job demands suggest that more workers are now able to delay retirement and work until older ages than in the past. Higher levels of employment among older adults would help restore balance to the Medicare and Social Security systems and ease the demographic pressures that threaten to slow economic growth and lower standards of living in the coming decades.

The study also found evidence, however, that the level of non-physical job demands faced by older workers has increased significantly over the past decade. Jobs held by older workers increasingly require intense concentration, skill in dealing with other people, and good eyesight, and thus are becoming more difficult and stressful. Although older workers are now better educated than they were only a few years ago, these cognitive job demands may lead some to retire early.

Despite recent overall declines in the physical demands of work and potential improvements in the capacity to work at older ages, the rigors of employment remain daunting for many older adults. Nearly 1 in 5 workers ages 55 to 60 report that their jobs almost always require substantial physical effort. The reduction in physical job demands between 1992 and 2002 was limited to jobs that require physical effort only some of the time. The share of older workers who report that their jobs always impose physical demands did not fall significantly over the past decade. Moreover, many workers in physically demanding jobs—who are disproportionately people of color and low educated adults—suffer from health problems that further complicate their ability to remain in the labor force. More than 1 in 4 reports being troubled by pain often; 1 in 5 has serious medical conditions; and 1 in 7 has arthritis severe enough to limit everyday activities. Consequently, many of these workers will be unable to remain at work through their late 60s. When devising ways to encourage older adults to delay retirement and remain at work, policymakers should provide an adequate safety net for those adults whose demanding jobs and health problems force them to retire early. □

Notes

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Educational attainment of the labor force and jobless rates, 2003

Thomas J. Krolik

States differ rather widely in the educational attainment of their workforces. The Current Population Survey (CPS), a monthly sample survey of 60,000 households, provided data on the labor force ages 25 and older in 2003 for four categories of educational attainment—those with less than a high school diploma; those with a high school diploma but no college; those with some college or an associate degree; and those with a bachelor's degree and higher.

Labor force composition

In 2003, Texas had the greatest share of persons with less than a high school diploma in its labor force (17.3 percent), followed by California (14.7 percent). Of the 13 States where persons without a high school diploma accounted for a greater share of the labor force than the U.S. average of 10.2 percent, 8 were located in the South and 4 were in the West. All four of the States along the Mexican border were included in this group. Two Great Plains States—Minnesota and North Dakota—had the smallest shares of persons in this least educated category, each less than 5 percent. (See table 1.)

The share of the workforce with a bachelor's degree and higher was greatest in Massachusetts (43.5 percent). Maryland and New Jersey were the only other States in which those who completed college constituted more than 40 percent of the labor force. However, in the District of Columbia, these highly educated workers accounted for about 55 percent of the labor force. Of the 17 States in which the share of labor force participants with a bachelor's degree and higher was above the U.S. average of 32 percent, nearly half were located in the Northeast region of the country. At the other extreme, fewer than 1 in 4 labor force participants in Arkansas, Indiana, Mississippi, Nevada, West Virginia, and Wyoming were college graduates. In every State of the East South Central and West South Central divisions, persons with a bachelor's degree and higher made up less than 30 percent of the labor force.

The proportion of labor force participants who completed high school but never attended college ranged from 21.8 percent in California to 43.5 percent in West Virginia. Shares of the workforce with some college or an associate degree ranged from slightly more than 21 percent in New Jersey and Pennsylvania to just more than 36 percent in Wyoming. For both of these intermediate educational attainment groups, the District of Columbia had lower shares than any State: only 19.3 percent were high school graduates with no college, and 16.4 percent had some college or an associate degree.

Unemployment rates

Nationwide, the unemployment rate for persons 25 years and older with less than a high school diploma was 8.8 percent in 2003. The jobless rates for these persons were above the U.S. average in 25 States and the District of Columbia and below it in 24 States. The Pacific division States in which unemployment was highest for persons 25 years and older also reported the highest rates for the least educated group: Alaska, Oregon, and Washington each recorded rates of more than 12 percent. Of the 12 other States in which persons who never completed high school had jobless rates of at least 10 percent, 4 were located in the East North Central division and 3 were in the Mountain division. In the District of Columbia, persons with less than a high school diploma had an unemployment rate slightly higher than 15 percent. Meanwhile, New Hampshire (3.9 percent) and Delaware (4.6 percent) reported the lowest jobless rates for the least educated worker group; both States had overall rates well below the national average. (See table 2.)

College graduates 25 years and older had a slightly higher than 3-percent unemployment rate in the United States. The range of jobless rates across States for this group was the narrowest of the educational attainment categories. Mississippi and South Dakota, at 1.2 percent each, registered the lowest jobless rates for college graduates. Six other States—half of which were located in the low unemployment West North Central division—had rates below 2 percent for the most educated category. Oregon, by a wide margin, reported the highest jobless rate for college graduates, 4.8 percent. The next highest rates were

Census divisions

New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; **Middle Atlantic**: New Jersey, New York, Pennsylvania; **South Atlantic**: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia; **East South Central**: Alabama, Kentucky, Mississippi, Tennessee; **West South Central**: Arkansas, Louisiana, Oklahoma, Texas; **East North Central**: Illinois, Indiana, Michigan, Ohio, Wisconsin; **West North Central**: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; **Mountain**: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming; **Pacific**: Alaska, California, Hawaii, Oregon, Washington.

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Table 1. Educational attainment of civilian labor force 25 years and older by State, 2003 annual averages

[Percent distribution]

Area	Less than a high school diploma	High school graduates, no college	Some college or associate degree	Bachelor's degree and higher
United States	10.2	30.5	27.4	32.0
Alabama	10.6	34.1	27.9	27.4
Alaska	6.0	30.9	34.0	29.1
Arizona	12.2	25.8	31.6	30.4
Arkansas	11.0	37.3	29.1	22.6
California	14.7	21.8	28.9	34.7
Colorado	8.8	25.3	26.4	39.6
Connecticut	6.9	29.9	23.7	39.4
Delaware	9.1	34.9	25.0	31.0
District of Columbia	9.1	19.3	16.4	55.1
Florida	10.0	30.5	29.0	30.5
Georgia	12.7	32.3	26.5	28.5
Hawaii	5.6	30.3	31.1	33.0
Idaho	8.6	31.7	34.2	25.4
Illinois	9.1	30.3	27.6	33.0
Indiana	8.9	39.6	26.7	24.8
Iowa	6.2	34.6	29.5	29.7
Kansas	6.6	29.3	29.8	34.4
Kentucky	9.2	37.6	27.2	25.9
Louisiana	14.0	35.6	25.0	25.4
Maine	6.0	38.0	27.3	28.7
Maryland	8.3	27.8	23.2	40.7
Massachusetts	6.6	28.2	21.7	43.5
Michigan	6.9	33.9	31.4	27.8
Minnesota	4.7	25.6	33.6	36.0
Mississippi	12.1	33.3	31.7	22.8
Missouri	6.5	31.8	30.1	31.5
Montana	5.8	33.8	30.2	30.2
Nebraska	6.5	32.0	32.5	29.1
Nevada	13.0	33.2	28.9	24.9
New Hampshire	5.5	30.8	26.6	37.1
New Jersey	8.3	30.6	21.1	40.1
New Mexico	11.9	30.6	30.6	26.8
New York	10.1	31.0	22.9	36.0
North Carolina	11.8	31.7	27.6	28.8
North Dakota	4.8	30.7	35.2	29.4
Ohio	7.1	37.5	26.2	29.1
Oklahoma	8.7	32.8	29.8	28.7
Oregon	9.3	27.0	34.8	29.0
Pennsylvania	6.8	39.8	21.3	32.1
Rhode Island	11.1	30.1	24.3	34.5
South Carolina	11.0	33.5	27.9	27.6
South Dakota	6.0	34.5	31.6	27.9
Tennessee	9.8	35.3	25.4	29.4
Texas	17.3	27.1	27.2	28.4
Utah	8.4	26.9	34.3	30.4
Vermont	6.0	34.9	23.2	35.9
Virginia	9.1	28.3	24.8	37.8
Washington	7.3	25.8	32.8	34.1
West Virginia	9.1	43.5	25.1	22.2
Wisconsin	6.4	35.3	30.4	27.9
Wyoming	6.0	35.2	36.1	22.7

posted by California, Colorado, and Massachusetts, all 3.9 percent, followed by Washington, 3.8 percent, and New Jersey and New York, 3.7 percent each.

Unemployment rates tend to be lower for the more educated worker groups. However, this generalization did not hold for all States in 2003. Most notably, only college graduates had distinctly lower unemployment rates than any other educational groups in Delaware and New Hampshire; differences among those States' rates for the three lesser educated categories were not statistically significant at a 90-percent con-

Table 2. Unemployment rates by educational attainment of the civilian labor force 25 years and older by State, 2003 annual averages

[Percent]

Area	Total	Less than a high school diploma	High school graduates, no college	Some college or associate degree	Bachelor's degree and higher
United States	4.8	8.8	5.5	4.8	3.1
Alabama	4.2	11.0	5.1	3.3	1.7
Alaska	6.3	12.3	8.8	5.6	3.2
Arizona	4.5	9.9	4.4	3.8	2.9
Arkansas	4.3	7.8	5.0	3.3	2.7
California	5.6	8.6	6.7	5.4	3.9
Colorado	4.9	8.1	4.9	5.3	3.9
Connecticut	4.4	8.0	6.0	4.0	2.7
Delaware	3.4	4.6	3.5	4.0	2.8
District of Columbia	6.2	15.3	8.4	8.4	3.4
Florida	4.2	7.2	4.3	4.5	2.7
Georgia	3.8	5.4	5.0	3.4	2.0
Hawaii	3.5	6.2	4.9	2.3	2.2
Idaho	4.5	11.0	4.9	3.8	2.9
Illinois	5.6	11.4	6.5	5.8	3.1
Indiana	4.1	9.6	4.1	4.1	2.1
Iowa	3.4	8.3	4.0	3.3	1.8
Kansas	4.2	9.3	5.5	3.6	2.6
Kentucky	4.4	6.2	5.3	4.3	2.6
Louisiana	5.1	8.6	6.1	3.8	3.0
Maine	4.0	9.5	4.9	3.3	2.4
Maryland	3.4	5.4	4.0	3.3	2.5
Massachusetts	4.9	8.8	5.3	5.4	3.9
Michigan	6.2	11.6	7.9	5.7	3.5
Minnesota	4.0	7.3	5.2	4.3	2.5
Mississippi	4.9	8.0	5.5	5.7	1.2
Missouri	4.5	9.5	5.1	4.6	2.6
Montana	3.6	11.7	4.5	2.7	1.8
Nebraska	2.9	10.6	2.6	2.8	1.5
Nevada	4.5	6.6	4.7	4.0	3.3
New Hampshire	3.4	3.9	4.2	3.5	2.6
New Jersey	4.9	9.5	5.2	5.2	3.7
New Mexico	5.0	7.5	5.8	5.5	2.6
New York	5.3	10.3	5.2	5.5	3.7
North Carolina	5.1	10.0	5.8	4.9	2.6
North Dakota	2.7	9.8	3.9	3.2	1.7
Ohio	4.9	10.0	5.9	4.4	2.8
Oklahoma	4.5	7.8	4.7	4.3	3.4
Oregon	6.7	12.4	6.6	6.8	4.8
Pennsylvania	4.6	7.4	5.4	5.2	2.5
Rhode Island	4.6	9.2	5.1	4.1	3.1
South Carolina	5.1	10.6	5.4	5.0	2.7
South Dakota	2.8	7.4	3.1	2.8	1.2
Tennessee	4.7	8.3	5.3	5.5	2.0
Texas	5.5	7.9	6.0	5.4	3.5
Utah	4.1	9.2	4.2	4.4	2.4
Vermont	3.7	6.4	4.2	4.1	2.6
Virginia	3.0	6.8	3.3	2.8	2.1
Washington	6.2	12.4	6.8	6.9	3.8
West Virginia	4.9	9.9	5.4	4.2	2.5
Wisconsin	4.6	10.4	5.7	3.8	2.7
Wyoming	3.0	10.1	3.4	2.1	1.8

fidence level. In 11 States, jobless rates for persons with some college or an associate degree appeared to be higher than for those who just completed high school, although in no State was such a difference statistically significant. For a handful of States, having a bachelor's degree appeared to confer no significant reduction in group joblessness beyond having some college or an associate degree.

The inability to discern clear pat-terns of incremental jobless rate declines as educational attainment increased may have resulted partly from the relatively small CPS sample sizes. However, local labor market conditions, demographic differences, and the interaction between the two likely contributed to the variation across States in aggregate jobless rates by educational attainment. □

Multiple jobholding in States, 2003

Jim Campbell

In 2003, States were about evenly split between those reporting lower multiple jobholding rates than a year earlier and those that had higher rates: 24 States and the District of Columbia recorded decreases, 22 States had increases, and 4 States had no change. The national multiple jobholding rate was unchanged in 2003 at 5.3 percent, after edging downward every year since 1996. The largest over-the-year decreases in the States were posted in Connecticut (–1.0 percentage point), Nebraska and Oklahoma (–0.9 point each), and Maryland (–0.8 point). Idaho and Utah experienced the largest increases in multiple jobholding rates (+1.2 percentage points each), followed by Louisiana (+0.9 point). Another four States had over-the-year increases of +0.7 point, and three had increases of +0.6 point.

While the national rate was the same as a year earlier, it was still 0.9 percentage point lower than in 1996, when it began edging downward from a peak of 6.2 percent. Over that 8-year span, 45 States and the District of Columbia experienced decreases in multiple jobholding rates. The largest declines over this time period were in Wisconsin (–2.6 points), Missouri (–2.5 points), Massachusetts (–2.3 points), and Iowa (–2.2 points). Only one State experienced an increase in multiple jobholding greater than 0.4 percentage point over this span—Utah (+1.1 points).

Overall, 29 States had higher rates than the national average, 19 States and the District of Columbia had lower rates, and 2 States matched the national rate. The States with relatively high multiple job-holding rates were concentrated in the northern half of the country. All seven States in the West North Central division continued to register multiple jobholding rates above that of the Nation, with North Dakota and Nebraska again recording the highest rates, 9.7 and 9.4 percent, respectively. The northernmost States in the Mountain, New England, and Pacific divisions also had relatively high rates. The high multiple jobholding rates in many States, particularly in the relatively less populous Plains States, generally coincided with above-average incidence of both part-time employment and agricultural employment.

In contrast, seven of the eight States composing the southern border of the United States had multiple jobholding rates below the national figure. Eleven of the 16 States in the South region plus

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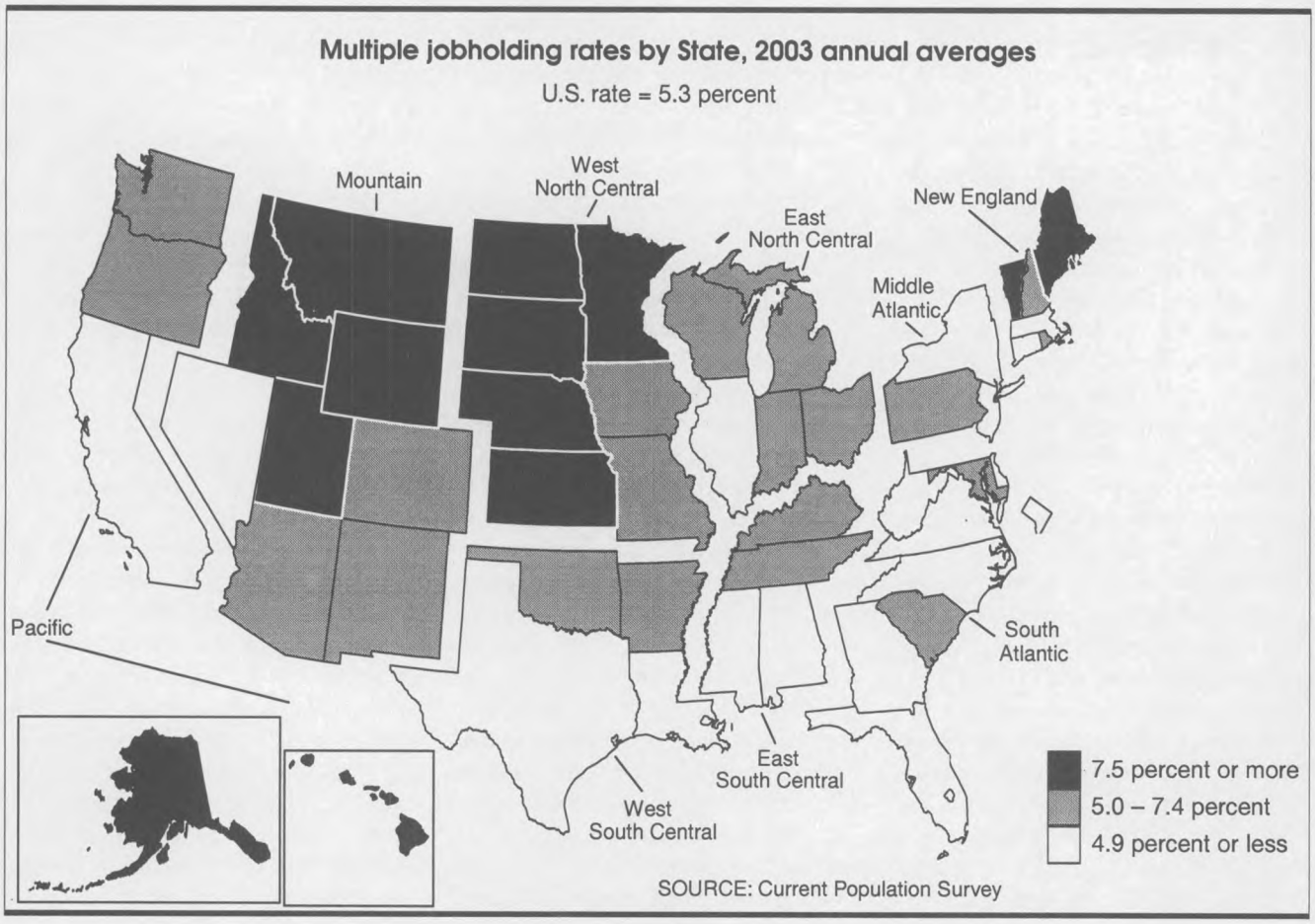
Multiple jobholders as a percentage of total employment by State, 2002 and 2003 annual averages

State	2002	2003	State	2002	2003
United States	5.3	5.3	Missouri	5.9	6.5
Alabama	3.8	4.0	Montana	8.8	8.5
Alaska	7.5	7.7	Nebraska	10.3	9.4
Arizona	5.8	5.5	Nevada	4.5	3.9
Arkansas	5.3	6.0	New Hampshire	6.5	6.2
California	4.5	4.5	New Jersey	4.1	4.7
Colorado	5.7	6.2	New Mexico	5.2	5.2
Connecticut	5.9	4.9	New York	4.8	4.2
Delaware	4.7	4.3	North Carolina	4.9	4.8
District of Columbia	5.2	5.0	North Dakota	9.2	9.7
Florida	3.9	4.0	Ohio	5.9	6.2
Georgia	3.8	3.9	Oklahoma	6.5	5.6
Hawaii	8.2	7.6	Oregon	6.0	5.9
Idaho	6.9	8.1	Pennsylvania	5.6	5.5
Illinois	4.7	4.6	Rhode Island	6.2	6.4
Indiana	6.1	5.4	South Carolina	4.4	5.1
Iowa	8.1	7.5	South Dakota	8.9	8.6
Kansas	8.1	8.6	Tennessee	4.7	5.3
Kentucky	5.7	5.8	Texas	4.7	4.8
Louisiana	3.7	4.6	Utah	7.8	9.0
Maine	7.2	7.9	Vermont	8.9	8.9
Maryland	6.7	5.9	Virginia	5.3	5.0
Massachusetts	4.9	4.9	Washington	5.8	6.1
Michigan	5.5	5.3	West Virginia	3.9	4.6
Minnesota	9.2	8.5	Wisconsin	7.6	7.3
Mississippi	5.0	4.9	Wyoming	8.7	8.3



the District of Columbia reported multiple jobholding rates below the national rate. Among the seven States with rates of 4.5 percent or lower, four were in the South. The lowest multiple jobholding rates were recorded in Georgia and Nevada, 3.9 percent each, and Alabama and Florida, 4.0 percent each. □

The Fed reports

The annual reports of the regional Federal Reserve Banks are a valuable but quite probably underutilized resource for economists, business analysts, and other professionals in related fields. As institutions that are run as businesses, the regional banks are required to provide a great deal of financial information, income statements, balance sheets, auditor's certifications, and so forth. The 12 regional banks together reported incomes before distribution totaling just over $23 billion in 2003, with the bulk of the distribution going to the Treasury as interest on Federal Reserve Notes.

As is frequently the case in annual reports, many of the Federal Reserve Banks use the opportunity to do some community relations and to present information about developments in some of the firm's major lines of business. While outreach activities rated only a paragraph in the 2003 report from the Board of Governors in Washington, some of the regional banks, out closer to the coal face, devoted significant sections to community affairs and outreach.

The Federal Reserve Bank of Boston devoted several pages of its report to extolling the work its community affairs staff has been doing "with nonprofit organizations, public schools, and other academic institutions to share expertise and enhance economic understanding with all our audiences." In St. Louis, the annual report outlines a six-point plan to enhance and extend their outreach efforts. The bullets ranged from conducting additional research on local economic issues to adding staff to the community affairs department to establishing a new satellite bank examining office in one of the region's smaller cities.

At the extreme for this theme in the reports, the Federal Reserve Bank of Atlanta's distinctively designed report was entitled *Grassroots* and, in the words of the bank's president, Jack Guynn, "explores how the Fed's grassroots foundation not only remains relevant today but actually enhances how we perform our core functions of monetary policy, bank supervision, and payment services as well as the educational mission that is increasingly important for a public policy organization in today's complex and rapidly changing world."

Payment services, such as clearing checks and other financial instruments, is a significant line of business for the Federal Reserve Banks. New legislation and new technologies affecting the payments system were thus featured in several of the Banks' reports. According to Chicago Fed president Michael H. Moskow, "The move toward electronic payments has also had a significant impact on our day-to-day check processing operations. In 2003, our check revenue fell short of its targets." The Federal Reserve Banks of Boston, Kansas City, and St. Louis cited some of the operational consolidation the Federal Reserve System as a whole is undertaking to reduce check processing costs. However, the Boston bank, along with several others, saw the implementation of the Check Clearing in the 21st Century Act (Check 21) as having the potential to "increase efficiency in the payments system and encourage banks to provide innovative services to their customers." Check 21 requires banks to accept electronic images in place of the original paper check. This allows electronic workflows to replace much of the physical transportation and shuffling of bits of paper. According to the Federal Reserve Bank of Philadelphia report, the benefits of this may include increased efficiencies, lower costs, expedited collection and return of checks, more deposit options, and extended deposit hours.

Monetary policy is a function of the Federal Reserve System that many of this *Review's* readers would have thought of before check cashing. As the President of the Federal Reserve Bank of New York states in his spare annual report letter, "As a central bank, our principal focus must be to get monetary policy decisions right and to help ensure that monetary policy is appropriately calibrated to achieve sustained growth and price stability." Two of the Banks—Kansas City and Richmond—prominently feature an analysis of monetary policy issues in their annual reports. The Federal Reserve Bank of Kansas City had even sponsored a 3-day symposium on "Monetary Policy and Uncertainty: Adapting to a Changing Economy." The Federal Reserve Bank of Richmond report contained an essay by its president and a senior vice president on inflation targeting and how it might support the Fed's credibility in its policies to sustain stable prices and low inflation.

One of the most interesting and valuable features in the Federal Reserve Banks' annual reports has been essays—commissioned from eminent economists or written by the Banks' own professional research staffs—on general economic topics. In 2003, the most prevalent essay topic was innovation and productivity. The Federal Reserve Bank of Dallas builds on previous annual report essays on the microeconomic forces that raise productivity and, in 2003, focus on the impact broader forces such as competition, reorganization, and trade have on productivity growth. The Federal Reserve Bank of Minneapolis commissioned economist Robert E. Lucas, Jr., to survey the growth of productivity and output through the whole range of economic history, focusing on what he calls "the initial phase of the industrial revolution, the years from 1800 to the end of the colonial age in 1950," and the current phase with its emphasis on the rapid diffusion of information, knowledge, and skill.

The Federal Reserve Banks of Cleveland and San Francisco take somewhat different cuts at innovation as the source of productivity growth and economic prosperity. The Cleveland bank's report stresses the individual and corporate need for the flexibility to embrace change, while San Francisco's emphasizes the roles of technological and organizational innovation. □

Nonstandard work

Nonstandard Work in Developed Economies: Causes and Consequences. By Susan Houseman and Machiko Osawa, eds. Kalamazoo, MI, W.E. Upjohn Institute for Employment Research, 2003, 513 pp., $70/cloth; $26/paperback.

This informative collection of studies uses an interdisciplinary and comparative approach to explore why nonstandard work arrangements have grown in many developed countries and the implications of these arrangements for workers. The papers were originally presented at a 2000 conference sponsored by the Japan Foundation and the Upjohn Institute.

Nonstandard work refers to jobs that are not full-time paid employment of unlimited duration. Nonstandard work takes multiple forms, and each chapter of the volume is careful to indicate the form(s) being considered and the differences across countries in their definitions. Most chapters focus on part-time work, one of the most well enumerated forms of nonstandard work. In addition, various types of temporary or limited-duration employment are covered, known in Europe as "fixed-term contracts" and in the United States as "contingent work." Several chapters also deal with trends in forms of self-employment, such as contract workers provided to a particular client or independent contractors who have few or no employees. These types of employment come within the BLS concept of "alternative work arrangements."

Of the 12 chapters in the book, 10 of them, excluding the first and last one, can be viewed in three groups. The first group consists of six papers that explore the development of nonstandard employment on mainly a paired-country basis. Hoffmann and Walwei study the rapid growth in nonstandard employment in Germany and Denmark; Fagan and Ward contrast the Netherlands, which has had rapid growth in both part-time and temporary employment, with Great Britain, which has had much slower growth in these forms. Italy and Spain, countries similar in their high unemployment and relatively highly regulated labor markets, are shown by Cebrián, Moreno, Samek and others to have quite different nonstandard employment patterns. Two chapters compare the United States with another country: limited growth of nonstandard work arrangements in the United States is contrasted with a rapid evolution in France and Japan, by Carré and by Houseman and Osawa, respectively. Finally, Gustafsson, Kenjoh, and Wetzels explore employment choices and pay differences among four European countries: Great Britain, Germany, the Netherlands, and Sweden.

Women in nonstandard employment are the focus of two chapters in the next grouping. Nagase concentrates on Japanese mothers who work, while Cassirer considers nonstandard work arrangements among women in the United States. Furthermore, several of the first group of papers emphasize the fact that women in all countries covered are disproportionately involved in nonstandard forms of work, particularly part-time and temporary jobs.

The final grouping consists of two chapters that consider laws pertaining to nonstandard employment. Schömann and Schömann discuss European Union (EU) regulation of nonstandard employment, while Kojima and Fujikawa compare and contrast employment law in Japan and the United States. These two chapters provide an essential legal background that aids in understanding the crucial role that laws play in the phenomenon of nonstandard employment. The legal movement in the EU is toward guaranteeing the same benefits and protections to workers in nonstandard activities as to those in regular full-time positions, with the Netherlands leading the way. By contrast, Japan and the United States lack such movement toward parity.

The introductory and concluding chapters serve as excellent bookends to the three groups of studies. Houseman and Osawa's introductory chapter is a fine overview of the volume, while the final chapter by Kalleberg and Reynolds tests the conventional wisdom on workers' attitudes toward nonstandard work arrangements, based upon the 1997 International Social Survey Program module on "work orientations." When controlling for demographic characteristics and occupations, their analysis finds, for most countries, surprisingly few statistically significant differences between workers in standard and nonstandard positions in their attitudes and behaviors (such as absenteeism) toward their work. Admittedly speculative explanations rather than hard evidence are given for these findings.

What are the consequences of nonstandard work for workers? The studies in this volume reveal that, in most countries, workers in part-time and temporary positions often are concentrated in low-skilled, low-paid jobs with little job security. An important question left largely unanswered is to what extent nonstandard work becomes a transition phase to standard work. We are told only that there is little mobility between "regular" and "nonregular" positions in Japan, while in Spain, over a long timeframe, temporary workers typically settle into permanent jobs. Apparently, the data on job flows from nonstandard to standard work are scant, pointing out a need for such data in order to explore the extent to which nonstandard workers become "trapped" in this form of employment.

Various aspects of nonstandard work in the Netherlands are covered in several chapters, and together they provide an interesting portrait of this country. The Netherlands presents a unique profile—it is a country with low unemployment rates, high job growth, and the larg-

est part-time sector of the countries studied. Indeed, according to Gustafsson, Kenjoh, and Wetzels, the Netherlands has been called "the first part-time economy in the world." Almost 40 percent of employed persons work part time, compared with an EU average of 18 percent. The Netherlands is the only EU country in which the majority of employed women and a sizable minority of men are now working part time in their core working years, and with relatively few doing so on an involuntary basis. We learn in the Fagan and Ward chapter that the Dutch government actively promoted the expansion of part-time work as a means to job-intensive growth beginning in the 1980s through a combination of subsidies and public employment policies, information campaigns, and legislation to extend equal treatment to part-time employees. Schömann and Schömann trace the evolution of the Dutch legal framework for each form of nonstandard employment, while Gustafsson and others add some historical and comparative perspective, describing how the country moved from the "Dutch Disease" of the 1970s to the "Dutch Miracle" of the 1990s, and contrasting the Netherlands with three other European countries that have taken quite different paths. Kalleberg and Reynolds reveal that Dutch part-time workers have jobs that they perceive as paying less and having fewer opportunities for promotion than those of full-time workers.

The example of the Netherlands demonstrates how nonstandard work conditions need not be "contingent" in the sense of precarious or uncertain. Indeed, nonstandard jobs have become virtually standard in the Netherlands, in many respects. The Dutch model is, however, not easily transferable to other countries. Fagan and Ward argue that this model is dependent on a number of economic and political conditions, including "an inclusive welfare state regime, centrally institutionalized collective bargaining mechanisms involving a powerful trade union movement, high wage and productivity levels, and a large pool of available women outside the labor market." They also note that the situation for Dutch nonstandard workers is not without some negative aspects: "the extension of equal treatment to marginal part-time workers (those working fewer than 12 hours a week) has been slow....and part-time work is still mainly a female undertaking, thus reinforcing gender segregation of the labor market."

The U.S. experience is in sharp contrast with the Netherlands, many other European countries, and Japan in terms of levels and trends in nonstandard work. Most nonstandard forms of work have been fixtures of the U.S. labor market for many years, whereas they are more recent phenomena in Europe. Houseman and Osawa show that in 1998 temporary and part-time workers comprised about 20 percent of total U.S. employment, while the proportions were much higher in other countries: for example, the Netherlands (50 percent), Sweden (40 percent), the United Kingdom and Spain (around 30 percent), and Japan (25 percent). The U.S. proportions have been rather stable since the 1980s, with full-time jobs (albeit, some being nonstandard) accounting for most of the strong employment gains characterizing the U.S. labor market in the 1980s and 1990s. In Japan, mobility of regular workers in the "lifetime employment system" is almost nonexistent, but that country has long had a "peripheral" or nonstandard segment of the labor force that gives its system some flexibility. In Japan's economic downturn of the 1990s, the nonstandard work force became more pronounced as the lifetime system came under increased pressure. Temporary agency employment in Japan is expected to grow rapidly due to a 1999 law substantially deregulating this sector. Europe has a lengthy tradition of regulated labor markets; for instance, before the 1980s, temporary agencies were generally illegal and layoffs were rare due to legal constraints. Labor markets were deregulated beginning in the 1980s, and in the 1990s nonstandard forms of work accounted for most, if not all, of the meager job growth in most European countries.

The chapters of *Nonstandard Work in Developed Countries* are consistently well written and, taken together, provide an in-depth analysis of historical, legal, cultural, economic, and institutional factors operating in each country that help to explain their diverse experiences with regard to nonstandard work.

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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 were revised in the February 2004 issue of the *Review*. Seasonally adjusted establishment survey data shown in tables 1, 12–14, and 17 were revised in the March 2004 *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 x 100 = $2). The $2 (or any other resulting values) are described as "real," "constant," or "1982" dollars.

Sources of information

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

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

http://www.bls.gov/cps/

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

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:

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: **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 **http:www.bls.gov/cps/cpsrs.pdf**) for a discussion of the introduction of the use of X-12 ARIMA for seasonal adjustment of the labor force data and the effects that it had on the data.

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

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

Establishment survey data

Description of the series

Employment, hours, and earnings data in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies by about 160,000 businesses and government agencies, which represent approximately 400,000 individual worksites and represent all industries except agriculture. The active CES sample covers approximately one-third of all nonfarm payroll workers. Industries are classified in accordance with the 2002 North American Industry Classification System. In most industries, the sampling probabilities are based on the size of the establishment; most large establishments are therefore in the sample. (An establishment is not necessarily a firm; it may be a branch plant, for example, or warehouse.) Self-employed persons and others not on a regular civilian payroll are outside the scope of the survey because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

Definitions

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

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

in each establishment which reports them.

Production workers in the goods-producing industries cover employees, up through the level of working supervisors, who engage directly in the manufacture or construction of the establishment's product. In private service-providing industries, data are collected for nonsupervisory workers, which include most employees except those in executive, managerial, and supervisory positions. Those workers mentioned in tables 11–16 include production workers in manufacturing and natural resources and mining; construction workers in construction; and nonsupervisory workers in all private service-providing industries. Production and nonsupervisory workers account for about four-fifths of the total employment on private nonagricultural payrolls.

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

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

The **Diffusion Index** represents the percent of industries in which employment was rising over the indicated period, plus one-half of the industries with unchanged employment; 50 percent indicates an equal balance between industries with increasing and decreasing employment. In line with Bureau practice, data for the 1-, 3-, and 6-month spans are seasonally adjusted, while those for the 12-month span are unadjusted. Table 17 provides an index on private nonfarm employment based on 278 industries, and a manufacturing index based on 84 industries. These indexes are useful for measuring the dispersion of economic gains or losses and are also economic indicators.

Notes on the data

Establishment survey data are annually adjusted to comprehensive counts of employment (called "benchmarks"). The March 2003 benchmark was introduced in February 2004 with the release of data for January 2004, published in the March 2004 issue of the *Review.* With the release in June 2003, CES completed a conversion from the Standard Industrial Classification (SIC) system to the North American Industry Classification System (NAICS) and completed the transition from its original quota sample design to a probability-based sample design. The industry-coding update included reconstruction of historical estimates in order to preserve time series for data users. Normally 5 years of seasonally adjusted data are revised with each benchmark revision. However, with this release, the entire new time series history for all CES data series were re-seasonally adjusted due to the NAICS conversion, which resulted in the revision of all CES time series.

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

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

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

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

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

Unemployment data by State

Description of the series

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

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

Notes on the data

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

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

Quarterly Census of Employment and Wages

Description of the series

Employment, wage, and establishment data in this section are derived from the quarterly tax reports submitted to State employment security agencies by private and State and local government employers sub-

ject to State unemployment insurance (UI) laws and from Federal, agencies subject to the Unemployment Compensation for Federal Employees (UCFE) program. Each quarter, State agencies edit and process the data and send the information to the Bureau of Labor Statistics.

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

Definitions

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

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

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

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

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

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

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

Covered employers in most States report total **wages** paid during the calendar quarter, regardless of when the services were performed. A few State laws, however, specify that wages be reported for, or based on the period during which services are performed rather than the period during which compensation is paid. Under most State laws or regulations, wages include bonuses, stock options, the cash value of meals and lodging, tips and other gratuities, and, in some States, employer contributions to certain deferred compensation plans such as 401(k) plans.

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

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

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

Average weekly or annual wage is affected by the ratio of full-time to part-time workers as well as the number of individuals in high-paying and low-paying occupations. When average pay levels between States and industries are compared, these factors should be taken into consideration. For example, industries characterized by high proportions of part-time workers will

show average wage levels appreciably less than the weekly pay levels of regular full-time employees in these industries. The opposite effect characterizes industries with *low proportions of* part-time workers, or industries that typically schedule heavy weekend and overtime work. Average wage data also may be influenced by work stoppages, labor turnover rates, retroactive payments, seasonal factors, bonus payments, and so on.

Notes on the data

Beginning with the release of data for 2001, publications presenting data from the Covered Employment and Wages program have switched to the 2002 version of the North American Industry Classification System (NAICS) as the basis for the assignment and tabulation of economic data by industry. NAICS is the product of a cooperative effort on the part of the statistical agencies of the United States, Canada, and Mexico. Due to difference in NAICS and Standard Industrial Classification (SIC) structures, industry data for 2001 is not comparable to the SIC-based data for earlier years.

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

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

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

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

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

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

Job Openings and Labor Turnover Survey

Description of the series

Data for the **Job Openings and Labor Turnover Survey** (JOLTS) are collected and compiled from a sample of 16,000 business establishments. Each month, data are collected for total employment, job openings, hires, quits, layoffs and discharges, and other separations. The JOLTS program covers all private nonfarm establishments such as factories, offices, and stores, as well as Federal, State, and local government entities in the 50 States and the District of Columbia. The JOLTS sample design is a random sample drawn from a universe of more than eight million establishments compiled as part of the operations of the Quarterly Census of Employment and Wages, or QCEW, program. This program includes all employers subject to State unemployment insurance (UI) laws and Federal agencies subject to Unemployment Compensation for Federal Employees (UCFE).

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

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

Definitions

Establishments submit **job openings** information for the last business day of the reference month. A job opening requires that (1) a specific position exists and there is work available for that position; and (2) work could start within 30 days regardless of whether a suitable candidate is found; and (3) the employer is actively recruiting from outside the establishment to fill the position. Included are full-time, part-time, permanent,

short-term, and seasonal openings. Active recruiting means that the establishment is taking steps to fill a position by advertising in newspapers or on the Internet, posting help-wanted signs, accepting applications, or using other similar methods.

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

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

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

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

Notes on the data

The JOLTS data series on job openings, hires, and separations are relatively new. The full sample is divided into panels, with one panel enrolled each month. A full complement of panels for the original data series based on the 1987 Standard Industrial Classification (SIC) system was not completely enrolled in the survey until January 2002. The supplemental panels of establishments needed to create NAICS estimates were not completely enrolled until May 2003. The data collected up until those points are from less than a full sample. Therefore, estimates from earlier months should be used with caution, as fewer sampled units were reporting data at that time.

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

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

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

JOLTS hires and separations estimates cannot be used to exactly explain net changes in payroll employment. Some reasons why it is problematic to compare changes in payroll employment with JOLTS hires and separations, especially on a monthly basis, are: (1) the reference period for payroll employment is the pay period including the 12th of the month, while the reference period for hires and separations is the calendar month; and (2) payroll employment can vary from month to month simply because part-time and on-call workers may not always work during the pay period that includes the 12th of the month. Additionally, research has found that some reporters systematically underreport separations relative to hires due to a number of factors, including the nature of their payroll systems and practices. The shortfall appears to be about 2 percent or less over a 12-month period.

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

Compensation and Wage Data

(Tables 1–3; 30–36)

Compensation and waged data are gathered by the Bureau from business establishments, State and local governments, labor unions, collective bargaining agreements on file with the Bureau, and secondary sources.

Employment Cost Index

Description of the series

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

Statistical series on total compensation

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

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

Beginning with June 1986 data, fixed employment weights from the 1980 Census of Population are used each quarter to calculate the civilian and private indexes and the index for State and local governments. (Prior to June 1986, the employment weights are from the 1970 Census of Population.) These fixed weights, also used to derive all of the industry and occupation series indexes, ensure that changes in these indexes reflect only changes in compensation, not employment shifts among industries or occupations with different levels of wages and compensation. For the bargaining status, region, and metropolitan/nonmetropolitan area series, however, employment data by industry and occupation are not available from the census. Instead, the 1980 employment weights are reallocated within these series each quarter based on the current sample. Therefore, these indexes are not strictly comparable to those for the aggregate, industry, and occupation series.

Definitions

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

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

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

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

Notes on the data

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

http://www.bls.gov/ect/

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

Employee Benefits Survey

Description of the series

Employee benefits data are obtained from the Employee Benefits Survey, an annual survey of the incidence and provisions of selected benefits provided by employers. The survey collects data from a sample of approximately 9,000 private sector and State and local government establishments. The data are presented as a percentage of employees who participate in a certain benefit, or as an average benefit provision (for example, the average number of paid holidays provided to employees per year). Selected data from the survey are presented in table 34 for medium and large private establishments and in table 35 for small private establishments and State and local government.

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

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

Definitions

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

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

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

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

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

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

Notes on the data

Surveys of employees in medium and large establishments conducted over the 1979–86 period included establishments that employed at least 50, 100, or 250 workers, depending on the industry (most service industries were excluded). The survey conducted in 1987 covered only State and local governments with 50 or more employ-

ees. The surveys conducted in 1988 and 1989 included medium and large establishments with 100 workers or more in private industries. All surveys conducted over the 1979–89 period excluded establishments in Alaska and Hawaii, as well as part-time employees.

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

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

http://www.bls.gov/ebs/

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 36.

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.

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

http:/www.bls.gov/cba/

Price Data

(Tables 2; 37–47)

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 38. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

Notes on the data

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

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

Producer Price Indexes

Description of the series

Producer Price Indexes (PPI) measure average changes in prices received by domestic producers of commodities in all stages of processing. The sample used for calculating these indexes currently contains about 3,200 commodities and about 80,000 quotations per month, selected to represent the movement of prices of all commodities produced in the manufacturing; agriculture, forestry, and fishing; mining; and gas and electricity and public utilities sectors. The stage-of-processing structure of PPI organizes products by class of buyer and degree of fabrication (that is, finished goods, intermediate goods, and crude materials). The traditional commodity structure of PPI organizes products by similarity of end use or material composition. The industry and product structure of PPI organizes data in accordance with the 2002 North American Industry Classification System and product codes developed by the U.S. Census Bureau.

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

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

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

International Price Indexes

Description of the series

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

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

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

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

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

Notes on the data

The export and import price indexes are weighted indexes of the Laspeyres type. The trade weights currently used to compute both indexes relate to 2000.

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

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

Productivity Data

(Tables 2; 48–51)

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 48–51 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.

International Comparisons

(Tables 52–54)

Labor force and unemployment

Description of the series

Tables 52 and 53 present comparative measures of the labor force, employment, and unemployment approximating U.S. concepts for the United States, Canada, Australia, Japan, and six European countries. The labor force statistics published by other industrial countries are not, in most cases, comparable to U.S. concepts. Therefore, the Bureau adjusts the figures for 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 BLS Web site at **http://www.bls.gov/opub/mlr/2000/06/art1full.pdf**).

Definitions

For the principal U.S. definitions of the labor force, employment, and unemployment, see the Notes section on Employment and

Unemployment Data: Household survey data.

Notes on the data

The foreign country data are adjusted as closely as possible to U.S. concepts, with the exception of lower age limits and the treatment of layoffs. These adjustments include, but are not limited to: including older persons in the labor force by imposing no upper age limit, adding unemployed students to the unemployed, excluding the military and family workers working fewer than 15 hours from the employed, and excluding persons engaged in passive job search from the unemployed.

Data for the United States relate to the population 16 years of age and older. The U.S. concept of the working age population has no upper age limit. The adjusted to U.S. concepts statistics have been adapted, insofar as possible, to the age at which compulsory schooling ends in each country, and the Swedish statistics have been adjusted to include persons older than the Swedish upper age limit of 64 years. The adjusted statistics presented here relate to the population 16 years of age and older in France, Sweden, and the United Kingdom; 15 years of age and older in Australia, Japan, Germany, Italy, and the Netherlands. An exception to this rule is that the Canadian statistics are adjusted to cover the population 16 years of age and older, whereas the age at which compulsory schooling ends remains at 15 years. In the labor force participation rates and employment-population ratios, the denominator is the civilian noninstitutionalized working age population, except that the institutionalized working age population is included in Japan and Germany.

In the United States, the unemployed include persons who are not employed and who were actively seeking work during the reference period, as well as persons on layoff. Persons waiting to start a new job who were actively seeking work during the reference period are counted as unemployed under U.S. concepts; if they were not actively seeking work, they are not counted in the labor force. In some countries, persons on layoff are classified as employed due to their strong job attachment. No adjustment is made for the countries that classify those on layoff as employed. In the United States, as in Australia and Japan, passive job seekers are not in the labor force; job search must be active, such as placing or answering advertisements, contacting employers directly,or registering with an employment agency (simply reading ads is not enough to qualify as active search). Canada and the European countries classify passive jobseekers as unemployed. An adjustment is made to exclude them in Canada, but not in the European countries where the phenomenon is less prevalent. Persons waiting to start a new job are counted among the unemployed for all other countries, whether or not they were actively seeking work.

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

There are breaks in series for the United States (1994, 1997, 1998, 1999, 2000, 2003), Australia (2001), and Germany (1999).

For the United States, beginning in 1994, data are not strictly comparable for prior years because of the introduction of a major redesign of the labor force survey questionnaire and collection methodology. The redesign effect has been estimated to increase the overall unemployment rate by 0.1 percentage point. Other breaks noted relate to changes in population controls that had virtually no effect on unemployment rates.

For a description of all the changes in the U.S. labor force survey over time and their impact, see Historical Comparability in the "Household Data" section of the BLS publication *Employment and Earnings* (available on the BLS Web site at **http://www.bls.gov/cps/eetech_methods.pdf**).

For Australia, the 2001 break reflects the introduction in April 2001 of a redesigned labor force survey that allowed for a closer application of International Labor Office guidelines for the definitions of labor force statistics. The Australian Bureau of Statistics revised their data so there is no break in the employment series. However, the reclassification of persons who had not actively looked for work because they were waiting to begin a new job from "not in the labor force" to "unemployed" could only be incorporated for April 2001 forward. This reclassification diverges from the U.S. definition where persons waiting to start a new job but not actively seeking work are not counted in the labor force. The impact of the reclassification was an increase in the unemployment rate by 0.1 percentage point in 2001.

For Germany, the 1999 break reflects the incorporation of an improved method of data calculation and a change in coverage to persons living in private households only.

For further qualifications and historical data, see *Comparative Civilian Labor Force Statistics, Ten Countries,* on the BLS Web site at **http://www.bls.gov/fls/flslforc.pdf**

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

Manufacturing productivity and labor costs

Description of the series

Table 54 presents comparative indexes of manufacturing labor productivity (output per hour), output, total hours, compensation per hour, and unit labor costs for the United States, Canada, Japan, and nine European countries. These measures are trend comparisons—that is, series that measure changes over time—rather than level comparisons. There are greater technical problems in comparing the levels of manufacturing output among countries.

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

Definitions

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

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

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

To preserve the comparability of the U.S. measures with those for other economies, BLS uses gross product originating in manufacturing for the United States for these comparative measures. The gross product originating series differs from the manufacturing output series that BLS publishes in its news releases on quarterly measures of U.S. productivity and costs (and that underlies the measures that appear in tables 48 and 50 in this section). The quarterly measures are on a "sectoral output" basis, rather than a value-added basis. Sectoral output is gross output less intrasector transactions.

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

An hours series is not available for Denmark after 1993; therefore, the BLS measure of labor input for Denmark ends in 1993.

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

Notes on the data

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

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

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

Occupational Injury and Illness Data

(Tables 55–56)

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 ill-

nesses are believed to be understated in the survey's illness measure. In contrast, the overwhelming majority of the reported new illnesses are those which are easier to directly relate to workplace activity (for example, contact dermatitis and carpal tunnel syndrome).

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

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

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

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

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

http://www.bls.gov/iif/

Census of Fatal Occupational Injuries

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

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

Definition

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

Notes on the data

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

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

http://www.bls.gov/iif/

1. Labor market indicators

Selected indicators	2002	2003	2002				2003				2004
			I	II	III	IV	I	II	III	IV	I
Employment data											
Employment status of the civilian noninstitutional population (household survey):[1]											
Labor force participation rate	66.6	66.2	66.6	66.7	66.6	66.5	66.3	66.4	66.2	66.1	66.0
Employment-population ratio	62.7	62.3	62.8	62.8	62.8	62.5	62.4	62.3	62.1	62.3	62.2
Unemployment rate	5.8	6.0	5.6	5.9	5.8	5.9	5.8	6.1	6.1	5.9	5.6
Men	5.9	6.3	5.7	6.0	5.9	6.1	6.1	6.5	6.4	6.1	5.7
16 to 24 years	12.8	13.4	12.9	12.8	13.1	12.5	12.6	14.0	13.8	13.1	12.5
25 years and older	4.7	5.0	4.5	4.8	4.7	4.9	5.0	5.2	5.1	4.9	4.5
Women	5.6	5.7	5.5	5.7	5.6	5.7	5.5	5.7	5.8	5.6	5.6
16 to 24 years	11.1	11.4	11.0	11.2	10.9	11.4	11.2	11.8	11.5	10.9	11.1
25 years and older	4.6	4.6	4.4	4.8	4.6	4.6	4.5	4.6	4.7	4.6	4.5
Employment, nonfarm (payroll data), in thousands:[1]											
Total nonfarm	130,341	129,932	130,448	130,389	130,287	130,248	130,047	129,878	129,820	130,005	130,327
Total private	108,828	108,356	109,046	108,895	108,736	108,654	108,428	108,309	108,260	108,457	108,780
Goods-producing	22,557	21,817	22,867	22,638	22,466	22,252	22,025	21,848	21,718	21,677	21,706
Manufacturing	15,259	14,524	15,504	15,347	15,197	14,979	14,775	14,570	14,410	14,337	14,311
Service-providing	107,789	108,115	107,581	107,751	107,821	107,995	108,022	108,030	108,102	108,328	108,621
Average hours:											
Total private	33.9	33.7	33.8	33.9	33.9	33.8	33.8	33.7	33.6	33.7	33.8
Manufacturing	40.5	40.4	40.3	40.6	40.4	40.4	40.4	40.2	40.2	40.6	41.0
Overtime	4.2	4.2	4.0	4.3	4.3	4.2	4.2	4.1	4.1	4.4	4.6
Employment Cost Index[2]											
Percent change in the ECI, compensation:											
All workers (excluding farm, household and Federal workers)	3.4	3.8	1.0	.9	.9	.6	1.4	.8	1.1	.5	1.4
Private industry workers	3.2	4.0	1.1	1.1	.6	.4	1.7	.8	1.0	.4	1.5
Goods-producing[3]	3.7	4.0	1.2	.9	.6	.9	1.8	.9	.7	.5	2.3
Service-providing[3]	3.1	4.0	1.1	1.2	.6	.2	1.5	.8	1.1	.5	1.1
State and local government workers	4.1	3.3	.6	.4	2.2	.9	.7	.4	1.7	.5	.7
Workers by bargaining status (private industry):											
Union	4.2	4.6	1.1	1.0	1.2	.9	1.6	1.2	1.0	.7	2.8
Nonunion	3.2	3.9	1.1	1.1	.5	.4	1.6	.8	1.0	.4	1.3

[1] Quarterly data seasonally adjusted.

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

[3] Goods-producing industries include mining, construction, and manufacturing. Service-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	2002	2003	2002				2003				2004
			I	II	III	IV	I	II	III	IV	I
Compensation data[1,2]											
Employment Cost Index—compensation (wages, salaries, benefits):											
Civilian nonfarm	3.4	3.8	1.0	0.9	0.9	0.6	1.4	0.8	1.1	0.5	1.4
Private nonfarm	3.2	4.0	1.1	1.1	.6	.4	1.7	.8	1.0	.4	1.5
Employment Cost Index—wages and salaries:											
Civilian nonfarm	2.9	2.9	.9	.8	.7	.4	1.0	.6	.9	.3	.6
Private nonfarm	2.7	3.0	.9	1.0	.4	.3	1.1	.7	.8	.4	.7
Price data[1]											
Consumer Price Index (All Urban Consumers): All Items	2.3	2.3	.7	.5	.6	-.1	1.8	–.3	–.2	–.2	1.2
Producer Price Index:											
Finished goods	3.2	3.2	1.1	.2	.2	-.1	3.7	–.8	.3	.0	1.2
Finished consumer goods	4.2	4.2	1.5	.4	.0	-.3	2.4	1.8	.3	.0	1.5
Capital equipment	.4	.4	2.9	–.3	–.7	.6	.6	–.6	–.1	.0	.6
Intermediate materials, supplies, and components	4.6	4.6	.9	1.1	1.1	.1	6.5	–2.1	–.1	.0	2.5
Crude materials	25.2	25.2	8.0	37.1	1.9	6.5	28.0	–10.6	3.4	14.4	6.0
Productivity data[3]											
Output per hour of all persons:											
Business sector	4.9	4.5	8.4	1.5	4.9	2.0	3.5	7.2	8.7	1.8	4.6
Nonfarm business sector	5.0	4.4	9.8	.7	4.5	2.3	3.4	6.2	9.5	2.5	3.8
Nonfinancial corporations[4]	5.1	5.8	4.6	6.0	4.9	4.9	2.4	9.7	9.5	4.3	2.3

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

[2] Excludes Federal and private household workers.

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

[4] Output per hour of all employees.

3. Alternative measures of wage and compensation changes

Components	Quarter change					Four quarters ending—				
	2003				2004	2003				2004
	I	II	III	IV	I	I	II	III	IV	I
Average hourly compensation:[1]										
All persons, business sector	4.8	5.3	4.1	3.8	5.9	2.6	3.4	4.1	4.5	4.8
All persons, nonfarm business sector	4.0	4.9	4.7	4.2	4.6	2.5	3.1	4.0	4.5	4.6
Employment Cost Index—compensation:										
Civilian nonfarm[2]	1.4	.8	1.1	.5	1.4	3.9	3.7	3.9	3.8	3.8
Private nonfarm	1.7	.8	1.0	.4	1.5	3.8	3.5	4.0	4.0	3.9
Union	1.6	1.2	1.0	.7	2.8	4.7	5.0	4.8	4.6	5.7
Nonunion	1.6	.8	1.0	.4	1.3	3.6	3.3	3.8	3.9	3.6
State and local governments	.7	.4	1.7	.5	.7	4.2	4.1	3.6	3.3	3.3
Employment Cost Index—wages and salaries:										
Civilian nonfarm[2]	1.0	.6	.9	.3	.6	2.9	2.7	2.9	2.9	2.5
Private nonfarm	1.1	.7	.8	.4	.7	3.0	2.6	3.0	3.0	2.6
Union	.5	.7	.6	.6	.6	3.3	3.0	2.6	2.4	2.5
Nonunion	1.2	.7	.9	.2	.7	2.9	2.5	3.1	3.1	2.6
State and local governments	.4	.3	1.0	.4	.4	3.1	3.1	2.3	2.1	2.1

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

[2] Excludes Federal and 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		2003								2004				
	2002	2003	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
TOTAL															
Civilian noninstitutional population[1]	217,570	221,168	220,768	221,014	221,252	221,507	221,779	222,039	222,279	222,509	222,161	222,357	222,550	222,757	222,967
Civilian labor force	144,863	146,510	146,462	146,917	146,652	146,622	146,610	146,892	147,187	146,878	146,863	146,471	146,650	146,741	146,974
Participation rate	66.6	66.2	66.3	66.5	66.3	66.2	66.1	66.2	66.2	66.0	66.1	65.9	65.9	65.9	65.9
Employed	136,485	137,736	137,505	137,673	137,604	137,693	137,644	138,095	138,533	138,479	138,566	138,301	138,298	138,576	138,772
Employment-population ratio[2]	62.7	62.3	62.3	62.3	62.2	62.2	62.1	62.2	62.3	62.2	62.4	62.2	62.1	62.2	62.2
Unemployed	8,378	8,774	8,957	9,245	9,048	8,929	8,966	8,797	8,653	8,398	8,297	8,170	8,352	8,164	8,203
Unemployment rate	5.8	6.0	6.1	6.3	6.2	6.1	6.1	6.0	5.9	5.7	5.6	5.6	5.7	5.6	5.6
Not in the labor force	72,707	74,658	74,306	74,097	74,600	74,884	75,168	75,147	75,093	75,631	75,298	75,886	75,900	76,016	75,993
Men, 20 years and over															
Civilian noninstitutional population[1]	96,439	98,272	98,083	98,196	98,304	98,434	98,568	98,696	98,814	98,927	98,866	98,966	99,065	99,170	99,279
Civilian labor force	73,630	74,623	74,523	74,675	74,660	74,682	74,905	74,942	75,188	75,044	75,171	74,797	75,018	74,871	75,048
Participation rate	76.3	75.9	76.0	76.0	75.9	75.9	76.0	75.9	76.1	75.9	76.0	75.6	75.7	75.5	75.6
Employed	69,734	70,415	70,182	70,190	70,269	70,324	70,596	70,726	70,964	71,099	71,329	70,969	71,128	71,118	71,162
Employment-population ratio[2]	72.3	71.7	71.6	71.5	71.5	71.4	71.6	71.7	71.8	71.9	72.1	71.7	71.8	71.7	71.7
Unemployed	3,896	4,209	4,341	4,485	4,391	4,358	4,309	4,216	4,224	3,945	3,842	3,828	3,890	3,753	3,886
Unemployment rate	5.3	5.6	5.8	6.0	5.9	5.8	5.8	5.6	5.6	5.3	5.1	5.1	5.2	5.0	5.2
Not in the labor force	22,809	23,649	23,560	23,521	23,644	23,751	23,663	23,754	23,620	23,882	23,694	24,168	24,047	24,299	24,231
Women, 20 years and over															
Civilian noninstitutional population[1]	105,136	106,800	106,613	106,724	106,839	106,957	107,080	107,197	107,303	107,404	107,131	107,216	107,299	107,389	107,483
Civilian labor force	63,648	64,716	64,699	64,989	64,835	64,836	64,608	64,899	64,917	64,846	64,515	64,629	64,687	64,785	64,813
Participation rate	60.5	60.6	60.7	60.9	60.7	60.6	60.3	60.5	60.5	60.4	60.2	60.3	60.3	60.3	60.3
Employed	60,420	61,402	61,397	61,610	61,479	61,467	61,191	61,524	61,597	61,521	61,260	61,456	61,373	61,571	61,721
Employment-population ratio[2]	57.5	57.5	27.6	57.7	57.5	57.5	57.1	57.4	57.4	57.3	57.2	57.3	57.2	57.3	57.4
Unemployed	3,228	3,314	3,302	3,379	3,356	3,369	3,417	3,375	3,320	3,326	3,255	3,172	3,314	3,215	3,092
Unemployment rate	5.1	5.1	5.1	5.2	5.2	5.2	5.3	5.2	5.1	5.1	5.0	4.9	5.1	5.0	4.8
Not in the labor force	41,488	42,083	41,914	41,735	42,004	42,121	42,472	42,299	42,387	42,558	42,617	42,587	42,613	42,604	42,670
Both sexes, 16 to 19 years															
Civilian noninstitutional population[1]	15,994	16,096	16,072	16,095	16,109	16,116	16,131	16,145	16,162	16,178	16,164	16,175	16,186	16,198	16,205
Civilian labor force	7,585	7,170	7,240	7,254	7,157	7,104	7,097	7,051	7,082	6,987	7,177	7,045	6,945	7,085	7,113
Participation rate	47.4	44.5	45.0	45.1	44.4	44.1	44.0	43.7	43.8	43.2	44.4	43.6	42.9	43.7	43.9
Employed	6,332	5,919	5,926	5,873	5,856	5,902	5,857	5,846	5,972	5,859	5,977	5,875	5,797	5,888	5,888
Employment-population ratio[2]	39.6	36.8	36.9	36.5	36.4	36.6	36.3	36.2	37.0	36.2	37.0	36.3	35.8	36.3	36.3
Unemployed	1,253	1,251	1,314	1,381	1,301	1,202	1,240	1,205	1,109	1,128	1,200	1,170	1,148	1,197	1,225
Unemployment rate	16.5	17.5	18.1	19.0	18.2	16.9	17.5	17.1	15.7	16.1	16.7	16.6	16.5	16.9	17.2
Not in the labor force	8,409	8,926	8,832	8,841	8,952	9,012	9,034	9,094	9,080	9,191	8,987	9,130	9,240	9,113	9,092
White[3]															
Civilian noninstitutional population[1]	179,783	181,292	181,021	181,184	181,341	181,512	181,696	181,871	182,032	182,185	181,879	182,001	182,001	182,252	182,384
Civilian labor force	120,150	120,546	120,470	120,816	120,645	120,658	120,411	120,736	121,041	120,751	120,723	120,540	120,542	120,675	120,984
Participation rate	66.8	66.5	66.6	66.7	66.5	66.5	66.3	66.4	66.5	66.3	66.4	66.2	66.2	66.2	66.3
Employed	114,013	114,235	113,978	114,222	114,086	114,156	114,015	114,535	114,783	114,678	114,765	114,602	114,433	114,712	114,976
Employment-population ratio[2]	63.4	63.0	63.0	63.0	62.9	62.9	62.8	63.0	63.1	62.9	63.1	63.0	62.8	62.9	63.0
Unemployed	6,137	6,311	6,491	6,594	6,559	6,502	6,397	6,200	6,258	6,073	5,958	5,938	6,109	5,963	6,008
Unemployment rate	5.1	5.2	5.4	5.5	5.4	5.4	5.3	5.1	5.2	5.0	4.9	4.9	5.1	4.9	5.0
Not in the labor force	59,633	60,746	60,551	60,368	60,696	60,854	61,285	61,135	60,991	61,434	61,156	61,460	61,579	61,577	61,400
Black or African American[3]															
Civilian noninstitutional population[1]	25,578	25,686	25,624	25,664	25,702	25,742	25,784	25,825	25,860	25,894	25,867	25,900	25,932	25,967	26,002
Civilian labor force	16,565	16,526	16,614	16,655	16,563	16,585	166,677	16,589	16,524	16,365	16,602	16,404	16,595	16,485	16,442
Participation rate	64.8	64.3	64.8	64.9	64.4	64.4	64.7	64.2	63.9	63.2	64.2	63.3	64.0	63.5	63.2
Employed	14,872	14,739	14,838	14,729	14,727	14,771	14,826	14,696	14,812	14,679	14,886	14,804	14,909	14,878	14,818
Employment-population ratio[2]	58.1	57.4	57.9	57.4	57.3	57.4	57.5	56.9	57.3	56.7	57.5	57.2	57.2	57.3	57.0
Unemployed	1,693	1,787	1,776	1,926	1,836	1,813	1,851	1,893	1,712	1,686	1,736	1,600	1,686	1,607	1,624
Unemployment rate	10.2	10.8	10.7	11.6	11.1	10.9	11.1	11.4	10.4	10.3	10.5	9.8	10.2	9.7	9.9
Not in the labor force	9,013	9,161	9,011	9,009	9,139	9,127	9,107	9,236	9,336	9,529	9,265	9,495	9,337	9,482	9,560

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		2003								2004				
	2002	2003	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Hispanic or Latino ethnicity															
Civilian noninstitutional population[1]	25,963	27,551	27,391	27,494	27,597	27,701	27,808	27,913	28,016	28,116	27,619	27,705	27,791	27,879	27,968
Civilian labor force	17,943	18,813	18,763	18,840	18,770	18,843	18,877	18,940	19,125	19,035	18,811	18,693	19,010	19,064	19,313
Participation rate	69.1	68.3	68.5	68.5	68.0	68.0	67.9	67.9	68.3	67.7	68.1	67.5	68.4	68.4	69.1
Employed	16,590	17,372	17,247	17,290	17,247	173 83	17,456	17,556	17,709	17,784	17,441	17,303	17,596	17,693	17,958
Employment-population ratio[2]	63.9	63.1	63.0	62.9	62.5	62.8	62.8	62.9	63.2	63.3	63.2	62.5	63.3	63.5	64.2
Unemployed	1,353	1,441	1,516	1,550	1,523	1,460	1,421	1,383	1,416	1,250	1,370	1,389	1,414	1,371	1,355
Unemployment rate	7.5	7.7	8.1	8.2	8.1	7.8	7.5	7.3	7.4	6.6	7.3	7.4	7.4	7.2	7.0
Not in the labor force	8,020	8,738	8,628	8,654	8,828	8,858	8,931	8,974	8,891	9,082	8,807	9,012	8,781	8,815	8,654

[1] The population figures are not seasonally adjusted.

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

[3] 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		2003								2004				
	2002	2003	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Characteristic															
Employed, 16 years and over	136,845	137,736	137,505	137,673	137,604	137,693	137,644	138,095	138,533	138,479	138,566	138,301	138,298	138,576	138,772
Men	72,903	73,332	73,049	73,124	73,149	73,263	73,488	73,643	73,915	74,085	74,343	73,901	74,006	74,053	74,035
Women	63,582	64,404	64,456	64,548	64,455	64,431	64,155	64,452	64,618	64,394	64,223	64,400	64,292	64,523	64,737
Married men, spouse present	44,116	44,653	44,476	44,459	44,747	44,659	44,566	44,684	45,152	45,431	45,490	45,128	45,043	44,735	44,723
Married women, spouse present	34,155	34,695	34,494	34,627	34,648	34,684	34,612	34,993	35,076	35,034	34,585	34,502	34,256	34,339	34,522
Persons at work part time[1]															
All industries:															
Part time for economic reasons	4,213	4,701	4,610	4,615	4,661	4,498	4,896	4,800	4,880	4,788	4,714	4,437	4,733	4,574	4,665
Slack work or business conditions	2,788	3,118	3,069	3,136	3,113	3,063	3,185	3,030	3,226	3,205	2,996	2,865	3,011	2,819	2,853
Could only find part-time work	1,124	1,279	1,264	1,266	1,296	1,201	1,334	1,356	1,350	1,295	1,380	1,347	1,427	1,439	1,467
Part time for noneconomic reasons	18,843	19,014	19,703	19,382	19,089	19,482	19,021	18,935	19,110	18,561	18,905	18,900	19,006	19,000	19,621
Nonagricultural industries:															
Part time for economic reasons	4,119	4,596	4,498	4,500	4,568	4,404	4,794	4,690	4,782	4,727	4,613	4,328	4,622	4,471	4,605
Slack work or business conditions	2,726	3,052	3,012	3,064	3,071	2,989	3,127	2,964	3,153	3,144	2,911	2,778	2,927	2,756	2,812
Could only find part-time work	1,114	1,264	1,236	1,244	1,273	1,191	1,335	1,349	1,353	1,279	1,399	1,340	1,414	1,431	1,476
Part time for noneconomic reasons	18,487	18,658	18,653	18,930	18,651	19,016	18,633	18,628	18,752	18,367	18,636	18,691	18,693	18,664	19,220

[1] 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		2003								2004				
	2002	2003	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Characteristic															
Total, 16 years and older	5.8	6.0	6.1	6.3	6.2	6.1	6.1	6.0	5.9	5.7	5.6	5.6	5.7	5.6	5.6
Both sexes, 16 to 19 years	16.5	17.5	18.1	19.0	18.2	16.9	17.5	17.1	15.7	16.1	16.7	16.6	16.5	16.9	17.2
Men, 20 years and older	5.3	5.6	5.8	6.0	5.9	5.8	5.8	5.6	5.6	5.3	5.3	5.1	5.2	5.0	5.2
Women, 20 years and older	5.1	5.1	5.1	5.2	5.2	5.2	5.3	5.2	5.1	5.1	5.0	4.9	5.1	5.0	4.8
White, total[1]	5.1	5.2	5.4	5.5	5.4	5.4	5.3	5.1	5.2	5.0	4.9	4.9	5.1	4.9	5.0
Both sexes, 16 to 19 years	14.5	15.2	15.3	16.2	15.7	15.1	15.1	14.3	14.3	14.8	14.1	15.2	14.8	15.7	15.7
Men, 16 to 19 years	15.9	17.1	17.1	17.6	17.9	16.5	17.6	15.9	16.8	16.3	14.0	15.5	16.2	17.9	18.6
Women, 16 to 19 years	13.1	13.3	13.6	14.8	13.3	13.7	12.6	12.6	11.5	13.1	14.2	14.9	13.3	13.3	12.7
Men, 20 years and older	4.7	5.0	5.2	5.3	5.3	5.3	5.0	4.9	5.0	4.7	4.5	4.5	4.7	4.5	4.7
Women, 20 years and older	4.4	4.4	4.5	4.4	4.4	4.4	4.5	4.4	4.4	4.3	4.4	4.2	4.4	4.2	4.1
Black or African American, total[1]	10.2	10.8	10.7	11.6	11.1	10.9	11.1	11.4	10.4	10.3	10.5	9.8	10.2	9.7	9.9
Both sexes, 16 to 19 years	29.8	33.0	35.8	38.5	35.1	29.8	32.7	37.3	28.9	27.3	32.5	25.1	29.4	28.3	32.5
Men, 16 to 19 years	31.3	36.0	41.1	36.5	37.1	27.8	34.2	40.9	32.5	28.4	42.1	29.6	36.6	30.9	30.3
Women, 16 to 19 years	28.3	30.3	31.3	40.3	33.4	31.5	31.4	33.2	25.7	26.5	25.8	21.9	22.8	26.1	34.1
Men, 20 years and older	9.5	10.3	11.0	11.0	10.3	10.5	11.0	10.5	10.1	9.3	9.6	9.4	9.2	9.3	9.3
Women, 20 years and older	8.8	9.2	8.0	9.6	9.6	9.7	9.2	9.8	9.1	9.7	9.1	8.8	9.3	8.7	8.4
Hispanic or Latino ethnicity	7.5	7.7	8.1	8.2	8.1	7.8	7.5	7.3	7.4	6.6	7.3	7.4	7.4	7.2	7.0
Married men, spouse present	3.6	3.8	3.9	4.3	3.9	3.9	3.8	3.8	3.7	3.3	3.3	3.4	3.2	3.1	3.1
Married women, spouse present	3.7	3.7	3.7	3.9	3.9	3.9	3.9	3.8	3.8	3.9	3.7	3.6	3.7	3.7	3.3
Full-time workers	5.9	6.1	6.2	6.4	6.3	6.2	6.2	6.1	6.1	5.8	5.7	5.6	5.8	5.6	5.7
Part-time workers	5.2	5.5	5.6	5. 9	5.5	5.3	5.7	5.5	5.1	5.3	5.4	5.2	5.4	5.3	5.2
Educational attainment[2]															
Less than a high school diploma	8.4	8.8	9.1	9.4	8.8	9.3	8.7	8.8	8.5	8.1	8.8	8.5	8.8	8.7	8.8
High school graduates, no college[3]	5.3	5.5	5.5	5.7	5.5	5.4	5.4	5.5	5.4	5.5	4.9	5.0	5.3	5.2	5.0
Some college or associate degree	4.5	4.8	4.9	4.9	5.0	4.7	4.8	4.8	4.8	4.5	4.5	4.4	4.7	4.1	4.0
Bachelor's degree and higher[4]	2.9	3.1	3.1	3.1	3.1	3.1	3.2	3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.9

[1] 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.

[2] Data refer to persons 25 years and older.

[3] Includes high school diploma or equivalent.

[4] Includes persons with bachelor's, master's, professional, and doctoral degrees.

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

7. Duration of unemployment, monthly data seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	Annual average		2003								2004				
	2002	2003	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Less than 5 weeks	2,893	2,785	3,033	2,937	2,739	2,735	2,749	2,733	2,622	2,627	2,612	2,468	2,589	2,792	2,707
5 to 14 weeks	2,580	2,612	2,617	2,787	2,698	2,630	2,736	2,585	2,556	2,450	2,394	2,412	2,414	2,369	2,376
15 weeks and over	2,904	3,378	3,294	3,510	3,559	3,561	3,511	3,478	3,484	3,403	3,365	3,274	3,320	2,969	3,077
15 to 26 weeks	1,369	1,442	1,380	1,500	1,598	1,561	1,438	1,460	1,448	1,513	1,467	1,403	1,332	1,170	1,288
27 weeks and over	1,535	1,936	1,914	2,010	1,961	2,001	2,073	2,018	2,036	1,890	1,898	1,871	1,988	1,800	1,789
Mean duration, in weeks	16.6	19.2	19.2	19.6	19.3	19.2	19.6	19.4	20.0	19.6	19.8	20.3	20.1	19.7	20.0
Median duration, in weeks	9.1	10.1	10.1	11.7	10.1	10.0	10.1	10.3	10.4	10.4	10.7	10.3	10.3	9.5	10.0

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		2003								2004				
	2002	2003	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Job losers[1]	4,607	4,838	5,021	4,972	4,947	4,939	4,947	4,877	4,719	4,618	4,382	4,323	4,607	4,399	4,211
On temporary layoff	1,124	1,121	1,197	1,177	1,173	1,092	1,110	1,097	1,055	1,060	1,028	1,064	1,040	994	926
Not on temporary layoff	3,483	3,717	3,824	3,795	3,774	3,847	3,837	3,780	3,664	3,558	3,353	3,258	3,567	3,405	3,286
Job leavers	866	818	778	890	798	790	836	789	931	783	804	827	836	822	846
Reentrants	2,368	2,477	2,506	2,646	2,522	2,530	2,436	2,518	2,440	2,366	2,509	2,424	2,424	2,314	2,438
New entrants	536	641	635	642	661	650	684	653	619	694	681	676	627	645	713
Percent of unemployed															
Job losers[1]	55.0	55.1	56.2	54.3	55.4	55.4	55.6	55.2	54.2	54.6	52.3	52.4	54.2	53.8	51.3
On temporary layoff	13.4	12.8	13.4	12.9	13.1	12.3	12.5	12.4	12.1	12.5	12.3	12.9	12.2	12.1	11.3
Not on temporary layoff	41.6	42.4	42.8	41.5	42.3	43.2	43.1	42.8	42.1	42.0	40.0	39.8	42.0	41.6	40.0
Job leavers	10.3	9.3	8.7	9.7	8.9	8.9	9.4	8.9	10.7	9.3	9.6	10.0	9.8	10.1	10.3
Reentrants	28.3	28.2	28.0	28.9	28.2	28.4	27.4	28.5	28.0	28.0	30.0	29.4	28.5	28.3	29.7
New entrants	6.4	7.3	7.1	7.0	7.4	7.3	7.7	7.4	7.1	8.2	8.1	8.2	7.4	7.9	8.7
Percent of civilian labor force															
Job losers[1]	3.2	3.3	3.4	3.4	3.4	3.4	3.4	3.3	3.2	3.1	3.0	3.0	3.1	3.0	2.9
Job leavers	.6	.6	.5	.6	.5	.5	.6	.5	.6	.5	.5	.6	.6	.6	.6
Reentrants	1.6	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.7	1.7	1.6	1.7
New entrants	.4	.4	.4	.4	.5	.4	.5	.4	.4	.5	.5	.5	.4	.4	.5

[1] 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		2003								2004				
	2002	2003	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Total, 16 years and older	5.8	6.0	6.1	6.3	6.2	6.1	6.1	6.0	5.9	5.7	5.6	5.6	5.7	5.6	5.6
16 to 24 years	12.0	12.4	12.9	13.3	12.9	12.4	12.8	12.3	12.1	11.7	12.0	11.8	11.8	11.6	12.1
16 to 19 years	16.5	17.5	18.1	19.0	18.2	16.9	17.5	17.1	15.7	16.1	16.7	16.6	16.5	16.9	17.2
16 to 17 years	18.8	19.1	18.8	21.1	20.3	18.8	19.3	20.2	17.5	18.3	18.2	17.6	19.4	20.2	21.6
18 to 19 years	15.1	16.4	18.1	17.4	16.8	15.7	16.2	15.2	14.7	14.7	15.7	15.7	14.5	14.7	14.7
20 to 24 years	9.7	10.0	10.4	10.5	10.4	10.2	10.6	10.1	10.4	9.6	9.8	9.5	9.6	9.2	9.7
25 years and older	4.6	4.8	4.9	5.1	5.0	5.0	4.9	4.9	4.8	4.7	4.5	4.5	4.6	4.5	4.4
25 to 54 years	4.8	5.0	5.0	5.2	5.1	5.1	5.1	5.1	5.0	4.9	4.7	4.7	4.9	4.6	4.5
55 years and older	3.8	4.1	4.4	4.4	4.2	4.1	4.0	3.8	3.9	3.9	3.7	3.8	3.8	3.8	3.9
Men, 16 years and older	5.9	6.3	6.5	6.7	6.6	6.4	6.4	6.2	6.2	5.8	5.7	5.7	5.8	5.7	5.8
16 to 24 years	12.8	13.4	14.1	14.1	14.4	12.9	14.1	13.2	13.4	12.6	12.7	12.2	12.6	12.8	13.0
16 to 19 years	18.1	19.3	20.3	19.9	20.4	17.6	19.6	18.7	18.3	17.4	17.5	17.2	18.3	19.1	19.1
16 to 17 years	21.1	20.7	21.5	23.2	22.3	20.6	22.1	20.4	18.3	18.4	19.3	19.4	22.3	23.4	23.3
18 to 19 years	16.4	18.4	19.9	17.9	19.0	15.6	18.2	17.9	18.1	16.9	16.2	15.7	15.8	16.5	16.6
20 to 24 years	10.2	10.6	11.3	11.5	11.6	10.7	11.7	10.8	11.2	10.4	10.5	10.0	10.1	10.0	10.3
25 years and older	4.7	5.0	5.2	5.4	5.2	5.2	5.0	5.0	5.0	4.7	4.5	4.5	4.6	4.4	4.6
25 to 54 years	4.8	5.2	5.3	5.4	5.3	5.4	5.2	5.2	5.2	4.9	4.7	4.7	4.8	4.5	4.7
55 years and older	4.1	4.4	4.7	5.3	4.6	4.4	4.2	4.0	4.1	4.0	3.6	3.7	3.8	3.9	4.1
Women, 16 years and older	5.6	5.7	5.7	5.9	5.7	5.8	5.8	5.7	5.5	5.6	5.6	5.5	5.6	5.4	5.3
16 to 24 years	11.1	11.4	11.7	12.4	11.3	11.8	11.4	11.3	10.7	10.7	11.3	11.2	10.8	10.3	11.1
16 to 19 years	14.9	15.6	16.0	18.2	15.9	16.2	15.2	15.4	13.0	14.7	15.9	16.0	14.7	14.5	15.3
16 to 17 years	16.6	17.5	16.3	19.1	18.3	17.0	16.5	20.1	16.6	18.2	17.1	15.9	16.9	17.3	20.1
18 t0 19 years	13.8	14.2	16.3	16.8	14.5	15.8	14.1	12.5	11.1	12.2	15.2	15.6	13.0	12.6	12.7
20 to 24 years	9.1	9.3	9.5	9.5	9.0	9.7	9.5	9.3	9.6	8.8	8.9	8.9	8.9	8.3	9.0
25 years and older	4.6	4.6	4.6	4.7	4.7	4.7	4.7	4.7	4.6	4.6	4.6	4.4	4.6	4.6	4.2
25 to 54 years	4.8	4.8	4.7	4.9	4.9	4.8	4.9	4.9	4.8	5.0	4.8	4.5	4.9	4.7	4.4
55 years and older[1]	3.6	3.7	3.6	3.7	4.2	4.5	3.8	3.4	3.5	3.5	4.1	3.9	3.5	3.3	3.3

[1] 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	Apr. 2003	Mar. 2004[P]	Apr. 2004[P]	State	Apr. 2003	Mar. 2004[P]	Apr. 2004[P]
Alabama	5.9	5.9	5.8	Missouri	5.7	5.0	4.7
Alaska	8.0	7.1	7.1	Montana	4.6	4.2	4.6
Arizona	5.9	4.9	5.4	Nebraska	4.1	3.6	3.5
Arkansas	5.9	5.4	5.6	Nevada	5.3	4.4	4.3
California	6.8	6.6	6.2	New Hampshire	4.3	4.0	3.9
Colorado	6.2	4.9	5.1	New Jersey	6.0	5.2	5.3
Connecticut	5.6	4.9	4.5	New Mexico	6.2	5.6	5.6
Delaware	4.4	3.8	3.8	New York	6.3	6.5	6.2
District of Columbia	7.1	6.9	7.3	North Carolina	6.6	5.2	5.3
Florida	5.3	4.9	4.6	North Dakota	3.9	2.9	2.7
Georgia	4.9	3.6	3.8	Ohio	6.2	5.7	5.8
Hawaii	4.2	3.8	3.6	Oklahoma	5.6	4.8	4.7
Idaho	5.6	4.6	4.4	Oregon	8.6	7.2	6.7
Illinois	6.6	6.0	6.1	Pennsylvania	5.8	5.3	5.3
Indiana	5.1	5.3	4.9	Rhode Island	5.5	5.6	5.7
Iowa	4.4	4.1	3.9	South Carolina	6.7	6.7	6.8
Kansas	5.4	4.7	4.6	South Dakota	3.5	3.3	2.8
Kentucky	6.3	5.5	5.3	Tennessee	5.7	5.0	4.9
Louisiana	6.7	5.5	5.9	Texas	6.9	6.2	6.0
Maine	5.0	4.9	4.3	Utah	5.8	4.8	4.5
Maryland	4.5	4.0	4.0	Vermont	4.7	3.6	3.6
Massachusetts	5.8	5.1	4.8	Virginia	4.3	3.5	3.4
Michigan	7.2	6.9	6.1	Washington	7.7	6.1	6.3
Minnesota	4.9	4.8	4.1	West Virginia	6.4	5.4	5.2
Mississippi	6.8	4.2	5.0	Wisconsin	5.7	5.1	4.6
				Wyoming	4.5	3.4	3.4

[P] = preliminary

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

[In thousands]

State	Apr. 2003	Mar. 2004[P]	Apr. 2004[P]	State	Apr. 2003	Mar. 2004[P]	Apr. 2004[P]
Alabama	2,139,050	2,160,958	2,164,325	Missouri	3,016,435	3,007,441	3,011,621
Alaska	329,732	342,640	343,784	Montana	473,266	477,827	477,047
Arizona	2,684,474	2,751,015	2,764,623	Nebraska	974,140	983,505	985,113
Arkansas	1,266,270	1,310,860	1,316,531	Nevada	1,135,650	1,180,046	1,185,219
California	17,445,986	17,560,426	17,555,009	New Hampshire	714,349	725,380	726,806
Colorado	2,473,287	2,485,480	2,504,533	New Jersey	4,364,436	4,404,401	4,419,474
Connecticut	1,806,963	1,786,692	1,781,552	New Mexico	892,417	901,082	903,978
Delaware	416,199	424,848	426,492	New York	9,322,356	9,327,631	9,298,492
District of Columbia	302,701	304,800	303,555	North Carolina	4,213,370	4,195,882	4,204,768
Florida	8,137,200	8,316,702	8,334,257	North Dakota	345,697	348,407	348,744
Georgia	4,396,610	4,394,506	4,394,284	Ohio	5,918,039	5,863,019	5,869,471
Hawaii	613,726	628,019	628,698	Oklahoma	1,695,807	1,699,927	1,698,005
Idaho	691,096	702,283	699,140	Oregon	1,864,311	1,870,706	1,897,601
Illinois	6,318,284	6,376,281	6,379,201	Pennsylvania	6,188,339	6,239,658	6,252,824
Indiana	3,180,363	3,195,174	3,178,349	Rhode Island	571,896	566,066	569,573
Iowa	1,618,375	1,622,172	1,619,147	South Carolina	1,994,782	2,048,364	2,050,615
Kansas	1,430,330	1,463,333	1,461,127	South Dakota	423,906	423,599	422,475
Kentucky	1,954,104	1,987,641	1,986,556	Tennessee	2,910,671	2,927,998	2,929,619
Louisiana	2,033,206	2,024,696	2,021,662	Texas	10,899,044	10,947,606	10,965,114
Maine	690,107	693,740	695,520	Utah	1,179,508	1,199,939	1,200,145
Maryland	2,902,428	2,940,075	2,944,154	Vermont	349,829	353,869	352,656
Massachusetts	3,428,694	3,402,429	3,391,600	Virginia	3,769,044	3,828,659	3,836,210
Michigan	5,027,753	5,075,216	5,034,612	Washington	3,134,809	3,183,952	3,217,896
Minnesota	2,920,439	2,952,851	2,944,674	West Virginia	791,951	796,070	796,317
Mississippi	1,312,424	1,303,140	1,311,606	Wisconsin	3,071,628	3,109,940	9,101,654
				Wyoming	276,738	276,911	277,559

[P] = preliminary.

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

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

[In thousands]

Industry	Annual average		2003								2004				
	2002	2003	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.[p]	May.[p]
TOTAL NONFARM	130,341	129,931	129,873	129,859	129,814	129,789	129,856	129,944	130,027	130,035	130,194	130,277	130,630	130,954	131,189
TOTAL PRIVATE	108,828	108,356	108,332	108,292	108,253	108,209	108,317	108,384	108,483	108,491	108,667	108,738	109,077	109,382	109,645
GOODS-PRODUCING	22,557	21,817	21,859	21,805	21,744	21,712	21,697	21,674	21,686	21,668	21,696	21,684	21,778	21,822	21,888
Natural resources and mining	583	571	570	573	571	569	568	569	571	570	570	572	581	585	588
Logging	70.4	68.5	68.7	69.7	68.2	67.5	67.4	67.9	67.6	65.9	65.1	64.2	65.9	66.7	65.6
Mining	512.2	502.3	501.6	503.2	502.7	501.8	500.8	501.5	503.4	504.3	505.1	508.1	514.9	518.5	522.7
Oil and gas extraction	121.9	122.9	122.9	123.7	123.5	123.2	123.6	124.1	123.9	124.6	126.9	128.9	130.0	131.0	132.2
Mining, except oil and gas[1]	210.6	202.7	202.6	203.3	204.3	203.6	201.6	202.1	202.4	202.0	200.0	200.6	202.8	205.2	207.3
Coal mining	74.4	70.4	70.6	70.9	71.6	70.7	69.2	69.6	69.5	69.8	69.6	70.2	70.6	71.8	72.7
Support activities for mining	179.8	176.8	176.1	176.2	174.9	175.0	175.6	175.3	177.1	177.7	178.2	178.6	182.1	182.3	183.2
Construction	6,716	6,722	6,715	6,718	6,721	6,739	6,754	6,754	6,771	6,774	6,812	6,791	6,853	6,872	6,911
Construction of buildings	1,574.8	1,575.9	1,578.5	1,572.3	1,566.4	1,570.0	1,577.7	1,579.4	1,583.9	1,585.1	1,593.3	1,590.9	1,607.6	1,609.8	1,620.2
Heavy and civil engineering	930.6	910.7	905.2	907.3	910.6	913.9	915.2	910.8	918.8	920.7	928.0	924.0	926.8	924.7	924.5
Specialty trade contractors	4,210.4	4,235.5	4,230.8	4,238.8	4,244.1	4,255.5	4,260.9	4,263.7	4,268.6	4,268.4	4,290.2	4,276.5	4,318.9	4,337.3	4,366.2
Manufacturing	15,259	14,525	14,574	14,514	14,452	14,404	14,375	14,351	14,344	14,324	14,314	14,321	14,344	14,365	14,389
Production workers	10,766	10,200	10,233	10,181	10,136	10,104	10,077	10,058	10,048	10,044	10,035	10,038	10,058	10,085	10,110
Durable goods	9,483	8,970	8,993	8,958	8,908	8,886	8,867	8,854	8,874	8,868	8,869	8,882	8,889	8,924	8,946
Production workers	6,529	6,157	6,168	6,142	6,104	6,099	6,077	6,066	6,089	6,079	6,081	6,088	6,101	6,126	6,148
Wood products	554.9	536.1	536.1	533.3	532.4	528.9	531.8	533.4	536.3	536.6	536.3	538.4	539.7	540	544.2
Nonmetallic mineral products	516.0	492.6	494.8	494.8	760.8	490.2	488	486.6	489.7	487.5	492.7	490.5	493.2	497.8	501.6
Primary metals	509.4	476.7	481.3	475.8	472.1	470.6	466.3	463.4	464.1	464.6	432.2	462.2	462.0	462.5	464.1
Fabricated metal products	1,548.5	1,478.4	1,480.6	1,474.4	1,468.4	1,465.6	1,461.1	1,461.3	1,468.1	1,471.2	1,471.8	1,476.6	1,478.5	1,486.7	1,494.7
Machinery	1,229.5	1,153.5	1,155.2	1,149.9	1,145.5	1,140.8	1,139.4	1,137.0	1,142.5	1,140.4	1,138.7	1,141.2	1,145.1	1,152.0	1,153.2
Computer and electronic products[1]	1,507.2	1,360.9	1,366.4	1,359.3	1,348.7	1,343.8	1,339.2	1,332.8	1,334.4	1,332.2	1,333.2	1,333.9	1,338.0	1,339.7	1,344.0
Computer and peripheral equipment	250.0	225.7	228.4	227.3	224.0	222.5	221.9	219.3	219.1	217.8	219.4	219.0	218.6	218.1	218.0
Communications equipment	185.8	157.0	157.4	156.3	155.8	155.0	154.1	1 53.9	154.4	153.0	154.8	154.8	155.0	155.1	155.6
Semiconductors and electronic components	524.5	461.8	464.3	461.5	457.9	456.2	453.3	449.4	451.2	451.3	450.2	451.4	452.1	453.4	455.8
Electronic instruments	450.0	429.3	429.0	426.9	424.7	425.2	425.5	425.1	425.2	425.3	423.7	423.3	426.8	427.5	429.7
Electrical equipment and appliances	496.5	459.9	461.0	459.7	457.7	453.8	452.1	450.8	450.9	451.2	449.8	448.6	446.8	446.5	446.4
Transportation equipment	1,828.9	1,775.4	1,780.1	1,775.0	1,759.8	1,766.5	1,765.6	1,765.5	1,766.5	1,762.7	1,760.6	1,766.5	1,769.1	1,768.8	1,767.8
Furniture and related products	604.1	573.5	572.5	571.1	572.6	568.1	568.0	568.2	568.9	569.3	571.3	571.2	573.4	576.5	576.2
Miscellaneous manufacturing	688.3	662.8	665.2	664.3	660.2	657.9	655.9	655.2	652.7	651.9	652.0	653.0	653.0	653.0	653.5
Nondurable goods	5,775	5,555	5,581	5,556	5,544	5,518	5,508	5,497	5,470	5,456	5,445	5,439	5,445	5,441	5,443
Production workers	4,239	4,043	4,065	4,039	4,032	4,005	4,000	3,992	3,959	3,965	3,954	3,950	3,957	3,959	3,962
Food manufacturing	1,525.7	1,518.7	1,517.2	1,517.8	1,522.1	1,523.8	1,526.0	1,528.2	1,508.3	1,506.3	1,500.7	1,502.4	1,504.5	1,502.7	1,503.8
Beverages and tobacco products	207.4	200.6	201.0	2..04	200.7	201.0	200.2	201.0	198.3	198.3	197.7	195.9	197.2	197.8	197.7
Textile mills	290.9	260.3	265.6	262.9	256.9	251.8	250.2	247.0	245.1	241.0	239.2	237.3	237.1	235.8	236.0
Textile product mills	194.6	179.8	182.7	181.6	178.7	170.7	173.7	172.6	175.2	174.3	176.9	176.6	179.7	180.1	181.7
Apparel	359.7	312.7	318.5	313.2	307.5	304.0	299.8	299.7	297.7	297.7	296.1	297.1	294.3	292.7	290.1
Leather and allied products	50.2	45.2	45.7	44.2	44.9	44.3	44.2	43.7	44.1	44.3	44.6	44.8	44.8	44.6	44.5
Paper and paper products	546.6	519.0	520.9	519.2	516.3	515.1	513.8	513.3	511.7	510.3	509.8	508.0	508.8	507.0	506.9
Printing and related support activities	706.6	680.0	683.8	682.2	681.1	678.8	676.2	673.3	673.1	670.1	667.6	665.0	664.4	663.6	665.8
Petroleum and coal products	118.1	114.6	115.5	114.8	114.6	113.8	112.9	112.6	112.0	112.4	114.3	112.9	113.1	112.6	113.3
Chemicals	927.5	7.9	912.0	907.9	908.2	905.4	902.7	899.1	897.6	895.9	893.7	894.7	894.9	896.4	894.2
Plastics and rubber products	848.0	815.9	818.0	811.8	813.1	808.8	808.4	806.3	806.5	805.8	804.8	803.9	806.3	807.5	809.4
SERVICE-PROVIDING	107,784	108,114	108,014	108,054	108,070	108,077	108,159	108,270	108,341	108,367	108,498	108,593	108,852	109,132	109,301
PRIVATE SERVICE-PROVIDING	86,271	86,538	86,473	86,487	86,509	82,497	86,620	86,710	86,797	86,823	86,971	87,054	87,299	87,560	87,757
Trade, transportation, and utilities	25,497	25,275	25,302	25,266	25,225	25,225	25,252	25,272	25,261	25,211	25,312	25,331	25,415	25,448	25,485
Wholesale trade	5,652.3	5,605.0	5,618.4	5,608.6	5,596.8	5,589.0	5,585.1	5,581.6	5,592.7	5,598.4	5,611.4	5,612.2	5,623.5	5,632.5	5,636.1
Durable goods	3,007.9	2,949.2	2,953.4	2,948.4	2,942.5	2,936.2	2,932.1	2,932.0	2,943.9	2,945.8	2,954.9	2,953.8	2,963.4	2,967.5	2,968.4
Nondurable goods	2,015.0	2,002.1	2,009.7	2,005.1	2,001.6	1,997.9	1,995.9	1,992.4	1,989.2	1,991.8	1,993.7	1,994.5	1,995.3	1,996.3	1,996.9
Electronic markets and agents and brokers	629.4	654.3	655.3	655.1	652.7	651.9	6657.1	657.2	659.6	660.8	662.8	663.9	664.8	668.7	670.8
Retail trade	15.025.1	14.911.5	14,917.4	14.908.0	14.896.5	14.911.6	14.926.8	14.948.1	14.921.7	14.876.0	14.944.8	14.963.0	15.013.0	15.037.1	15.054.7
Motor vehicles and parts dealers[1]	1,879.4	1,883.5	1,880.1	1,881.7	1,883.7	1,883.5	1,889.8	1,889.7	1,892.9	1,893.7	1,895.4	1,900.9	1,906.9	1,910.9	1,912.0
Automobile dealers	1,252.8	1,255.1	1,252.4	1,254.8	1,256.9	1,257.0	1,259.7	1,259.6	1,258.9	1,259.5	1,261.3	1,262.9	1,263.9	1,264.7	1,263.6
Furniture and home furnishings stores	538.7	542.9	541.2	543.1	540.1	538.0	539.7	540.2	544.8	547.2	546.4	544.5	544.8	544.5	545.0
Electronics and appliance stores	525.3	511.9	512.2	511.3	507.2	507.4	506.7	506.5	512.8	511.9	509.3	508.2	511.7	514.1	513.1

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		2003								2004				
	2002	2003	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.[p]	May[p]
Building material and garden supply stores	1,176.5	1,191.1	1,182.1	1,187.4	1,188.3	1,194.7	1,203.4	1,204.0	1,210.0	1,209.5	1,221.4	1,231.4	1,243.5	1,247.3	1,250.3
Food and beverage stores	2,881.6	2,840.9	2,856.5	2,847.3	2,835.6	2,833.6	2,829.4	2,838.7	2,821.4	2,813.9	2,826.3	2,831.3	2,838.9	2,839.9	2,845.9
Health and personal care stores	938.8	943.1	940.3	943.2	941.4	941.0	943.1	948.3	951.6	952.6	954.1	954.9	958.2	957.9	958.4
Gasoline stations	895.9	879.9	883.8	882.6	877.9	881.4	877.9	873.8	875.2	871.1	875..1	871.8	873.0	872.4	872.5
Clothing and clothing accessories stores	1,312.5	1,296.7	1,296.6	1,293.1	1,294.0	1,294.8	1,295.6	1,302.6	1,297.1	1,301.0	1,304.3	1,311.3	1,321.8	1,328.0	1,333.5
Sporting goods, hobby, book, and music stores	661.3	645.0	648.0	644.8	644.1	642.5	642.8	642.0	641.6	633.2	635.9	636.8	636.5	635.8	636.7
General merchandise stores[1]	2,812.0	2,815.2	2,811.8	2,811.2	2,820.4	2,834.9	2,839.9	2,842.9	2,826.4	2,793.4	2,822.7	2,822.5	2,824.4	2,831.0	2,830.2
Department stores	1,684.0	1,618.8	1,613.5	1,612.2	1,613.7	1,622.3	1,623.7	1,623.5	1,612.6	1,601.3	1,603.4	1,602.7	1,604.9	16.7	1,606.5
Miscellaneous store retailers	959.5	934.1	936.3	934.7	934.0	931.9	931.7	933.5	930.9	924.4	929.6	924.6	926.9	927.9	927.3
Nonstore retailers	443.7	427.5	428.5	427.6	429.8	427.9	426.8	425.9	417.3	424.1	424.3	424.8	427.4	429.8	431.7
Transportation and warehousing	4,223.6	4,176.7	4,185.8	4,171.6	4,153.6	4,148.4	4,160.8	4,162.9	4,168.0	4,157.0	4,175.9	4,175.8	4,197.0	4,196.5	4,212.2
Air transportation	563.5	527.3	532.6	523.0	513.8	512.4	511.8	506.1	511.5	512.9	510.2	511.6	512.9	513.3	513.6
Rail transportation	217.8	215.4	215.2	216.0	216.1	213.8	215.6	215.2	215.5	215.5	215.4	215.7	216.0	216.3	216.3
Water transportation	52.6	52.5	53.4	53.1	53.1	52.9	51.5	52.5	50.9	50.0	50.6	48.8	49.2	50.6	50.9
Truck transportation	1,339.3	1,328.0	1,322.0	1,324.6	1,324.3	1,329.6	1,328.7	1,329.3	1,335.7	1,338.7	1,343.6	1,344.1	1,346.4	1,352.2	1,354.3
Transit and ground passenger transportation	380.8	380.3	381.1	378.3	372.8	371.2	380.7	389.2	385.7	385.0	382.3	380.1	380.5	372.3	382.8
Pipeline transportation	41.7	40.0	40.8	40.4	40.1	39.5	39.3	39.0	38.7	38.8	38.3	38.2	38.1	38.1	38.3
Scenic and sightseeing transportation	25.6	28.0	28.5	29.1	29.1	28.9	28.9	29.0	28.7	29.4	28.7	29.7	31.4	31.1	31.1
Support activities for transportation	524.7	516.3	520.7	517.1	513.4	512.2	515.4	514.3	512.4	511.6	514.1	515.5	518.5	519.1	519.8
Couriers and messengers	560.9	566.6	569.0	569.4	569.5	566.7	566.5	565.0	564.7	559.0	566.9	567.7	572.1	570.9	574.3
Warehousing and storage	516.7	522.3	522.5	520.6	521.4	521.2	522.4	522.6	524.2	516.1	525.8	524.4	531.9	532.6	530.8
Utilities	596.2	580.8	580.7	577.8	578.1	578.8	578.9	579.2	578.9	579.3	580.2	580.0	581.2	582.1	582.1
Information	3,395	3,198	3,203	3,194	3,188	3,174	3,175	3,166	3,172	3,175	3,163	3,169	3,169	3,173	3,177
Publishing industries, except Internet	964.1	926.4	928.8	926.4	922.7	922.0	919.3	918.0	918.4	917.4	914.0	915.1	915.3	916.3	915.4
Motion picture and sound recording industries	387.9	376.1	374.8	374.2	376.6	369.9	375.4	373.4	382.7	385.2	379.7	382.7	381.2	385.7	390.1
Broadcasting, except Internet	334.1	327.0	326.7	326.3	326.5	325.5	327.6	326.0	327.0	329.5	329.7	331.8	333.0	333.3	335.4
Internet publishing and broadcasting	33.7	30.0	29.1	29.5	30.1	30.0	30.1	29.9	30.4	30.4	30.8	31.9	31.9	32.5	33.0
Telecommunications	1,186.5	1,082.6	1,088.3	1,082.0	1,075.3	1,071.3	1,069.4	1,065.2	1,062.2	1,061.2	1,061.3	1,058.2	1,055.0	1,051.9	1,047.7
ISPs, search portals, and data processing	441.0	407.5	407.9	408.0	409.5	407.6	405.4	404.8	402.6	402.6	400.1	401.1	403.7	404.0	405.5
Other information services	47.3	48.1	47.8	47.5	47.3	47.8	48.0	48.3	48.2	48.2	47.8	48.0	48.6	49.6	49.6
Financial activities	7,847	7,974	7,987	7,988	7,995	7,996	8,004	7,990	7,985	7,981	7,981	7,989	8,003	8,015	8,032
Finance and insurance	5,817.3	5,920.5	5,934.8	5,933.8	5,936.8	5,936.8	5,945.6	5,930.2	5,922.7	5,916.5	5,917.1	5,924.7	5,933.0	5,947.7	5,950.8
Monetary authorities—central bank	23.4	22.7	22.8	22.7	22.7	22.6	22.6	22.5	22.5	22.5	22.4	22.4	22.3	22.3	21.8
Credit intermediation and related activities[1]	2,686.0	2,785.6	2,796.9	2,797.6	2,802.6	2,806.0	2,808.1	2,801.0	2,790.3	2,783.3	2,785.3	2,787.2	2,793.8	2,802.1	2,805.3
Depository credit intermediation[1]	1,733.0	1,752.1	1,752.0	1,752.2	1,755.1	1,756.0	1,757.9	1,760.1	1,758.1	1,757.1	1,758.7	1,762.6	1,762.8	1,765.0	1,765.8
Commercial banking	1,278.1	1,281.1	1,281.7	1,281.5	1,283.2	1,283.9	1,283.6	1,284.4	1,280.5	1,278.9	1,280.4	1,283.5	1,284.1	1,285.0	1,284.7
Securities, commodity contracts, investments	789.4	764.4	761.1	760.7	760.4	758.7	761.7	762.0	769.1	771.9	773.8	778.2	780.8	781.0	784.0
Insurance carriers and related activities	2,233.2	2,266.1	2,271.7	2,271.3	2,269.7	2,268.7	2,271.9	2,264.7	2,261.2	2,258.1	2,255.8	2,257.4	2,257.1	2,259.5	2,261.6
Funds, trusts, and other financial vehicles	85.4	81.7	82.3	81.5	81.4	80.8	81.3	80.0	79.6	80.7	79.8	79.5	79.0	78.8	78.1
Real estate and rental and leasing	2,029.8	2,053.6	2,051.9	2,053.8	2,057.8	2,058.8	2,057.9	2,060.2	2,062.7	2,064.0	2,063.6	2,064.5	2,069.5	2,071.6	2,081.2
Real estate	1,352.9	1,384.4	1,383.0	1,382.4	1,385.3	1,386.6	1,388.8	1,390.6	1,394.5	1,395.7	1,397.7	1,400.2	1,405.8	1,409.2	1,417.0
Rental and leasing services	649.1	640.8	640.4	642.8	643.9	643.4	639.8	639.9	639.0	638.3	636.0	634.2	634.1	633.2	635.1
Lessors of nonfinancial intangible assets	27.6	28.4	28.5	28.6	28.6	28.8	29.3	29.7	29.2	30.0	29.9	30.1	29.6	29.2	29.1
Professional and business services	15,976	15,999	15,943	15,967	16,021	15,998	16,051	16,070	16,114	16,159	16,172	16,196	16,237	16,363	16,429
Professional and technical services[1]	6,675.6	6,623.5	6,616.7	6,606.5	6,585.7	6,578.1	6,606.3	6,624.1	6,647.9	6,669.3	6,657.9	6,658.1	6,679.8	6,701.4	6,707.1
Legal services	1,115.3	1,136.8	1,136.9	1,137.4	1,135.0	1,133.8	1,136.6	1,140.4	1,142.9	1,140.5	1,138.7	1,139.2	1,138.4	1,141.9	1,143.4
Accounting and bookkeeping services	837.3	815.6	808.8	802.0	800.7	800.7	802.5	801.5	810.6	826.6	815.2	813.3	812.8	818.5	807.5
Architectural and engineering services	1,246.1	1,228.0	1,225.1	1,220.8	1,224.6	1,222.0	1,230.1	1,230.9	1,233.9	1,235.2	1,230.9	1,240.0	1,246.4	1,254.1	1,258.0

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		2003								2004				
	2002	2003	May	June	July	Aug	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.[p]	May[p]
Computer systems design and related services	1,152.8	1,108.3	1,115.1	1,112.4	1,100.7	1,094.5	1,103.3	1,107.0	1,105.7	1,105.7	1,104.6	1,099.8	1,103.5	1,103.5	1,109.2
Management and technical consulting services	734.4	747.3	743.2	741.6	742.5	744.2	749.3	755.6	760.6	764.0	765.4	767.9	774.0	780.9	785.3
Management of companies and enterprises	1,705.4	1,675.5	1,677.5	1,374.9	1,680.3	1,671.4	1,671.7	1,669.1	1,671.6	1,670.2	1,675.1	1,675.6	1,676.6	1,679.7	1,683.3
Administrative and waste services	7,595.2	7,698.3	7,648.7	7,685.9	7,754.7	7,748.1	7,773.1	7,776.3	7,794.5	7,819.2	7,838.5	7,862.4	7,880.1	7,982.3	8,038.4
Administrative and support services[1]	7,276.8	73,764.0	7,325.9	7,364.8	7,426.5	7,427.0	7,451.6	7,456.0	7,473.7	7,496.3	7,517.5	7,539.6	7,556.8	7,657.0	7,713.6
Employment services[1]	3,246.5	3,336.2	3,276.1	3,314.6	3,369.6	3,366.2	3,389.1	3,402.0	3,427.6	3,461.3	3,473.8	3,493.8	3,492.3	3,553.7	3,591.3
Temporary help services	2.193.7	2.243.2	2.199.7	2.235.4	2.248.8	2.262.3	2.287.2	2.291.7	2.319.4	2.355.3	2.344.3	2.370.4	2.380.3	2.423.8	2.453.3
Business support services	756.6	747.4	748.3	747.8	744.2	748.7	753.2	753.2	746.7	745.1	739.0	739.8	746.0	748.6	751.6
Services to buildings and dwellings	1.606.1	1.631.7	1.628.8	1.634.8	1.643.8	1.648.4	1.645.2	1.639.6	1.639.4	1.635.9	1.637.1	1.639.5	1.646.2	1.674.5	1.685.2
Waste management and remediation services	318.3	321.9	322.8	321.1	328.2	321.1	321.5	320.3	320.8	322.9	321	322.8	323.3	325.3	324.8
Educational and health services	16,199	16,577	16,564	16,576	16,568	16,591	16,672	16,678	16,705	16,731	16,746	16,764	16,813	16,854	16,893
Educational services	2,642.8	2,688.5	2,692.0	2,677.7	2,676.4	2,673.9	2,689.1	2,707.7	2,723.1	2,728.0	2,729.3	2,727.4	2,736.0	2,740.8	2,745.1
Health care and social assistance	13,555.7	13,888.0	13,872.3	13,898.4	13,891.3	13,916.8	13,933.3	13,970.0	13,981.5	14,003.2	14,017.1	14,036.8	14,077.1	14,113.1	14,147.9
Ambulatory health care services[1]	4,633.2	4,776.0	4,763.2	4,777.3	4,783.4	4,791.9	4,792.8	4,812.8	4,818.7	4,831.0	4,840.3	4,855.3	4,868.0	4,883.6	4,897.7
Offices of physicians	1,967.8	2,003.8	1,996.3	2,001.0	2,004.6	2,007.1	2,008.2	2,018.5	2,023.3	2,030.0	2,032.3	2,034.4	2,043.5	2,046.1	2,049.6
Outpatient care centers	413.0	423.1	422.8	425.0	422.8	423.5	422.9	423.3	426.4	425.0	427.8	431.1	430.3	432.2	435.2
Home health care services	679.8	727.1	725.7	729.7	732.0	733.7	732.8	737.7	735.7	739.9	740.2	741.5	743.8	748.4	752.2
Hospitals	4,159.6	4,252.5	4,249.7	4,259.8	4,247.4	4,260.2	4,264.4	4,268.9	4,278.1	4,283.9	4,287.8	4,284.1	4,298.0	4,305.1	4,314.7
Nursing and residential care facilities[1]	2,743.3	2,784.3	2,784.6	2,786.7	2,784.2	2,787.7	2,789.3	2,794.2	2,792.8	2,793.0	2,792.1	2,791.1	2,798.4	2,802.8	2,804.8
Nursing care facilities	1.573.2	1.582.8	1.583.9	1.586.1	1.582.8	1.580.5	1.583.1	1.585.2	1.584.1	1.581.7	1.580.3	1.578.7	1.582.1	1.584.0	1.584.8
Social assistance[1]	2,019.7	2,075.2	2,074.8	2,074.6	2,076.3	2,080.0	2,086.8	2,094.1	2,091.9	2,095.3	2,096.9	2,106.3	2,112.7	2,121.6	2,130.7
Child day care services	744.1	760.5	758.2	756.5	761.1	764.5	765.8	771.6	766.3	770	766.3	772.2	773.7	777.6	779.8
Leisure and hospitality	11,986	12,128	12,078	12,097	12,118	12,117	12,126	12,147	12,178	12,192	12,218	12,229	12,271	12,303	12,332
Arts, entertainment, and recreation	1,782.6	1,801.0	1,794.3	1,792.1	1,797.7	1,795.0	1,794.4	1,796.9	1,799.4	1,795.2	1,801.4	1,796.7	1,798.7	1,791.1	1,791.6
Performing arts and spectator sports	363.7	370.2	370.9	366.6	366.2	366.7	372.0	369.6	371.7	368.8	369.4	366.5	364.6	361.4	358.7
Museums, historical sites, zoos, and parks	114.0	114.1	114.3	114.3	114.6	114.5	113.4	114.2	113.3	113.1	113.4	113.7	114.2	114.6	115.4
Amusements, gambling, and recreation	1,305.0	1,316.6	1,309.1	1,311.2	1,316.9	1,313.8	1,309.0	1,313.1	1,314.4	1,313.3	1,318.6	1,316.5	1,319.9	1,315.1	1,317.5
Accommodations and food services	10,203.2	10,324.4	10,283.8	10,305.1	10,319.9	10,321.8	10,331.7	10,350.4	10,378.9	10,396.3	10,416.5	10,432.3	10,742.0	10,511.8	10,540.3
Accommodations	1,778.6	1,765.2	1,751.1	1,756.0	1,762.5	1,755.0	1,739.1	1,733.7	1,751.7	1,763.0	1,752.1	1,754.4	1,753.4	1,758.5	1,758.9
Food services and drinking places	8,424.6	8,559.2	8,562.7	8,549.1	8,557.4	8,566.8	8,592.6	8,616.7	8,627.2	8,633.3	8,664.4	8,677.9	8,718.6	8,753.3	8,781.4
Other services	5,372	5,393	5,396	5,399	5,394	5,396	5,390	5,387	5,382	5,374	5,379	5,376	5,391	5,404	5,409
Repair and maintenance	1,246.9	1,236.2	1,235.2	1,238.9	1,238.7	1,242.4	1,240.4	1,237.6	1,234.4	1,228.5	1,233.5	1,230.5	1,239.4	1,238.2	1,238.3
Personal and laundry services	1,257.2	1,258.2	1,259.9	1,258.5	1,258.8	1,257.3	1,252.7	1,254.6	1,254.1	1,250.2	1,251.2	1,247.6	1,255.9	1,260.5	1,267.5
Membership associations and organizations	2,867.8	2,898.0	2,901.1	2,902.0	2,896.3	2,895.9	2,896.5	2,895.2	2,893.9	2,895.7	2,894.5	2,898.3	2,895.2	2,904.8	2,903.1
Government	21,513	21,575	21,541	21,567	21,561	21,580	21,539	21,560	21,544	21,544	21,527	21,539	21,553	21,572	21,544
Federal	2,767	2,756	2,769	2,763	2,758	2,750	2,747	2,736	2,723	2,720	2,715	2,716	2,710	2,727	2,706
Federal, except U.S. Postal Service	1,923.8	1,947.0	1,953.9	1,949.6	1,947.8	1,942.2	1,942.1	1,932.9	1,924.9	1,928.9	1,921.5	1,923.8	1,921.1	1,939.5	1,920.6
U.S. Postal Service	842.4	809.1	815.2	813.0	810.2	808.0	804.8	803.3	798.1	791.4	793.1	791.7	789.1	787.3	785.1
State	5,029	5,017	5,013	4,996	4,990	4,997	5,019	5,031	5,023	5,027	5,007	5,018	5,023	5,019	5,011
Education	2,242.8	2,266.4	2,256.5	2,247.9	2,249.0	2,258.7	2,278.8	2,290.4	2,282.5	2,285.7	2,268.0	2,279.6	2,283.2	2,278.3	2,267.9
Other State government	2,786.3	2,750.7	2,756.4	2,748.0	2,740.8	2,738.2	2,740.4	2,740.4	2,740.0	2,740.9	2,738.9	2,738.4	2,739.7	2,740.6	2,742.7
Local	13,718	13,802	13,759	13,808	13,813	13,833	13,773	13,793	13,798	13,797	13,805	13,805	13,820	13,826	13,827
Education	7,654.4	7,699.1	7,657.2	7,707.1	7,721.2	7,742.4	7,673.9	7,687.0	7,684.5	7,687.1	7,692.2	7,694.3	7,704.7	7,710.9	7,710.6
Other local government	6,063.2	6,104.0	6,102.0	6,101.1	6,091.5	6,090.1	6,099.3	6,105.9	6,113.1	6,109.7	6,112.7	6,110.8	6,114.8	6,115.4	6,116.0

[1] Includes other industries not shown separately.

p = preliminary.

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

13. Average weekly hours of production or nonsupervisory workers[1] on private nonfarm payrolls, by industry, monthly data seasonally adjusted

Industry	Annual average		2003								2004				
	2002	2003	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.[p]	May[p]
TOTAL PRIVATE	33.9	33.7	33.7	33.7	33.6	33.6	33.6	33.7	33.8	33.6	33.8	33.8	33.8	33.7	33.8
GOODS-PRODUCING	39.9	39.8	39.7	39.8	39.6	39.7	39.8	39.9	40.1	39.9	40.2	40.3	40.2	40.0	40.2
Natural resources and mining	43.2	43.6	43.8	43.6	43.3	43.6	43.6	43.7	43.9	43.6	44.5	44.1	44.2	44.3	44.2
Construction	38.4	38.4	38.5	38.4	38.3	38.5	38.4	38.4	38.5	38.1	38.5	38.5	38.6	38.2	38.3
Manufacturing	40.5	40.4	40.2	40.3	40.1	40.2	40.4	40.5	40.8	40.6	41.0	41.0	40.9	40.7	41.1
Overtime hours	4.2	4.2	4.1	4.1	4.1	4.1	4.2	4.3	4.5	4.5	4.5	4.6	4.6	4.5	4.6
Durable goods	40.8	40.8	40.5	40.7	40.5	40.5	40.8	40.9	41.3	41.2	41.5	41.5	41.4	41.2	41.5
Overtime hours	4.2	4.3	4.1	4.1	4.1	4.2	4.3	4.4	4.7	4.7	4.7	4.8	4.8	4.7	4.8
Wood products	39.9	40.4	39.9	40.3	40.7	40.4	40.4	40.6	41.2	41.0	40.9	41.1	41.0	41.0	41.4
Nonmetallic mineral products	42.0	42.2	42.3	42.1	41.8	42.1	41.9	42.1	42.4	42.3	42.5	42.5	42.9	42.3	41.6
Primary metals	42.4	42.3	42.3	42.0	41.7	41.9	42.2	42.3	42.7	42.7	43.1	43.0	43.2	43.1	43.5
Fabricated metal products	40.6	40.7	40.6	40.6	40.5	40.5	40.7	40.8	40.9	40.8	41.2	41.2	41.1	41.0	41.3
Machinery	40.5	40.8	40.6	40.9	40.4	40.7	41.0	40.9	41.1	41.1	41.8	41.8	41.7	41.6	42.2
Computer and electronic products	39.7	40.4	40.5	40.4	40.5	41.0	40.6	40.7	40.7	40.4	40.8	41.2	40.7	40.5	40.7
Electrical equipment and appliances	40.1	40.6	40.3	40.8	40.5	40.6	40.6	40.9	40.8	40.7	41.1	40.7	40.8	40.8	41.6
Transportation equipment	42.5	41.9	41.2	41.4	41.3	40.7	42.0	41.9	42.7	42.7	42.8	42.9	42.8	42.4	42.7
Furniture and related products	39.2	38.9	38.4	38.9	38.9	39.1	39.1	39.1	39.9	39.7	39.7	39.4	39.6	39.5	39.9
Miscellaneous manufacturing	38.6	38.4	38.1	38.4	38.3	38.1	38.3	38.3	38.9	38.5	39.0	38.7	38.7	38.3	38.8
Nondurable goods	40.1	39.8	39.6	39.7	39.4	39.6	39.8	39.9	40.1	39.9	40.2	40.3	40.1	40.0	40.3
Overtime hours	4.2	4.1	3.9	3.9	4.0	3.6	4.1	4.1	4.3	4.2	4.3	4.3	4.3	4.3	4.4
Food manufacturing	39.6	39.3	39.3	39.3	39.1	39.2	39.3	39.3	39.2	39.1	39.5	39.4	39.3	39.1	39.7
Beverage and tobacco products	39.4	39.1	39.0	38.8	38.4	38.8	39.1	38.8	39.9	39.1	39.6	40.3	39.4	39.6	39.2
Textile mills	40.6	39.1	38.5	38.8	37.7	38.7	39.0	39.1	40.0	39.7	40.0	40.0	40.2	39.5	40.1
Textile product mills	39.2	39.6	39.1	39.0	39.8	40.0	40.7	40.4	40.0	39.8	39.4	39.9	38.8	38.3	38.6
Apparel	36.7	35.6	35.4	35.1	34.6	34.8	35.1	35.8	36.2	35.8	35.7	36.2	36.3	35.9	36.1
Leather and allied products	37.5	39.3	39.2	38.8	39.7	38.9	38.4	38.9	39.3	40.3	39.8	39.5	39.4	39.1	38.5
Paper and paper products	41.8	42.1	41.3	41.4	41.2	41.2	41.2	41.5	41..9	41.8	41.9	42.0	41.8	41.9	42.5
Printing and related support activities	38.4	38.2	37.9	38.2	38.0	38.0	38.2	38.5	38.4	38.2	38.6	38.6	38.4	38.4	38.6
Petroleum and coal products	43.0	44.5	43.9	44.2	44.0	44.4	44.2	44.9	45.6	44.2	43.8	44.1	43.7	43.9	45.1
Chemicals	42.3	42.4	42.1	42.2	42.0	42.3	42.2	42.0	42.7	42.5	42.9	43.2	43.0	43.0	42.9
Plastics and rubber products	40.6	40.4	40.3	40.1	40.1	40.3	40.5	40.6	40.7	40.4	40.8	40.9	40.9	40.7	40.9
PRIVATE SERVICE-PROVIDING	32.5	32.4	32.4	32.3	32.2	32.3	32.3	32.3	32.4	32.2	32.4	32.4	32.4	32.3	32.4
Trade, transportation, and utilities	33.6	33.5	33.5	33.5	33.4	33.5	33.5	33.6	33.6	33.5	33.6	33.7	33.6	33.5	33.6
Wholesale trade	38.0	37.8	37.9	37.8	37.8	37.9	37.8	38.0	38.0	37.8	37.9	38.0	38.0	38.0	37.8
Retail trade	30.9	30.9	30.8	30.8	30.7	30.9	30.9	30.9	30.9	30.8	31.0	30.9	30.8	30.7	30.8
Transportation and warehousing	36.8	36.9	36.6	36.6	36.9	36.9	36.9	37.1	37.0	36.7	36.9	37.2	36.9	36.9	37.2
Utilities	40.9	41.1	40.9	41.0	41.0	41.0	40.4	41.0	41.4	40.8	40.8	41.0	41.2	41.2	41.4
Information	36.5	36.2	36.3	36.3	36.3	36.2	36.1	36.1	36.3	36.2	36.2	36.3	36.3	36.3	36.4
Financial activities	35.6	35.5	35.6	35.5	35.5	35.5	35.4	35.5	35.5	35.3	35.7	35.5	35.5	35.6	35.8
Professional and business services	34.2	34.1	34.2	34.1	34.1	33.9	33.9	34.0	34.1	33.8	34.1	34.2	34.1	34.1	34.2
Education and health services	32.4	32.3	32.3	32.3	32.3	32.4	32.3	32.3	32.4	32.4	32.4	32.4	32.4	32.4	32.4
Leisure and hospitality	25.8	25.6	25.7	25.5	25.4	25.5	25.5	25.6	25.7	25.6	25.7	25.8	25.7	25.7	25.7
Other services	32.0	31.4	31.4	31.4	31.3	31.3	31.2	31.3	31.2	31.0	31.1	31.1	31.2	31.1	31.1

[1] Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries.

p = preliminary.

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

14. Average hourly earnings of production or nonsupervisory workers[1] on private nonfarm payrolls, by industry, monthly data seasonally adjusted

Industry	Annual average		2003								2004				
	2002	2003	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.[p]	May[p]
TOTAL PRIVATE															
Current dollars	$14.95	$15.35	$15.31	$15.34	$15.40	$15.41	$15.41	$15.43	$15.46	$15.45	$15.49	$15.52	$15.55	$15.59	$15.63
Constant (1982) dollars	8.24	8.27	8.28	8.29	8.31	8.28	8.25	8.28	8.23	8.30	8.27	8.27	8.24	8.25	8.21
GOODS-PRODUCING	16.33	16.80	16.76	16.79	16.81	16.86	16.91	16.90	16.94	16.97	17.00	17.06	17.08	17.13	17.13
Natural resources and mining	17.19	17.58	17.47	17.52	17.57	17.62	17.66	17.72	17.79	17.91	17.95	18.01	18.10	18.08	18.10
Construction	18.52	18.95	18.95	18.97	15.97	19.01	19.05	19.06	19.06	19.04	19.11	19.18	19.17	19.20	19.20
Manufacturing	15.29	15.74	15.68	15.72	15.73	15.79	15.84	15.83	15.89	15.93	15.94	15.99	16.01	16.08	16.08
Excluding overtime	14.54	14.96	14.92	14.96	14.96	15.02	15.06	15.03	15.06	15.09	15.11	15.14	15.16	15.24	15.23
Durable goods	16.02	16.46	16.39	16.43	16.43	16.50	16.57	16.54	16.58	16.64	16.63	16.68	16.69	16.75	16.75
Nondurable goods	14.15	14.63	14.58	14.61	14.65	14.68	14.70	14.72	14.79	14.81	14.85	14.89	14.93	15.00	15.02
PRIVATE SERVICE-PROVIDING	14.56	14.96	14.92	14.95	15.02	15.02	15.01	15.03	15.06	15.05	15.08	15.10	15.13	15.17	15.22
Trade,transportation, and utilities	14.02	14.34	14.30	14.35	14.39	14.40	14.38	14.41	14.44	14.41	14.45	14.49	14.50	14.57	14.60
Wholesale trade	16.98	17.36	17.23	17.37	17.40	17.43	17.44	17.47	17.47	17.46	17.53	17.54	17.54	17.60	17.63
Retail trade	11.67	11.90	11.87	11.91	11.94	11.95	11.94	11.95	11.97	11.95	11.95	11.98	11.99	12.01	12.04
Transportation and warehousing	15.76	16.25	16.20	16.26	16.36	16.33	16.31	16.32	16.35	16.33	16.46	16.52	16.53	16.71	16. 76
Utilities	23.96	24.76	24.59	24.72	24.80	24.99	24.96	25.17	25.36	25.13	25.32	25.35	25.38	25.67	25.51
Information	20.20	21.01	21.01	20.98	21.18	21.22	21.21	21.21	21.10	20.99	21.15	21.24	21.25	21.29	21.36
Financial activities	16.17	17.13	17.02	17.16	17.41	17.39	17.27	17.29	17.30	17.30	17.35	17.32	17.41	17.46	17.53
Professional and business services	16.81	17.20	17.21	17.16	17.20	17.20	17.19	17.25	17.29	17.25	17.24	17.25	17.27	17.29	17.36
Education and health services	15.21	15.64	15.56	15.61	15.64	15.69	15.70	15.73	15.77	15.81	15.87	15.90	15.96	15.99	16.05
Leisure and hospitality	8.58	8.76	8.75	8.76	8.78	8.77	8.78	8.78	8.82	8.84	8.85	8.86	8.87	8.86	8.87
Other services	13.72	13.84	13.82	13.82	13.82	13.82	13.81	13.80	13.81	13.80	13.84	13.84	13.87	13.84	13.85

[1] Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries.

p = preliminary.

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

15. Average hourly earnings of production or nonsupervisory workers[1] on private nonfarm payrolls, by industry

Industry	Annual average		2003								2004				
	2002	2003	May	June	July	Aug	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.[P]	May.[P]
TOTAL PRIVATE	$14.95	$15.35	$15.27	$15.30	$15.29	$15.31	$15.44	$15.42	$15.52	$15.48	$15.56	$15.60	$15.55	$15.59	$15.63
Seasonally adjusted	15.18	15.47	15.31	15.34	15.40	15.41	15.41	15.41	15.43	15.45	15.49	15.52	15.55	15.59	15.63
GOODS-PRODUCING	16.33	16.8	16.72	16.78	16.85	16.92	17.01	16.95	16.98	17.03	16.94	16.95	17.00	17.09	17.10
Natural resources and mining	17.19	17.58	17.39	17.44	17.53	17.52	17.69	17.69	17.15	17.97	18.00	18.05	18.17	18.14	18.06
Construction	18.52	18.95	18.86	18.91	19.00	19.08	19.19	19.13	19.08	19.19	19.01	19.07	19.07	19.15	19.14
Manufacturing	15.29	15.74	15.64	15.69	15.68	15.76	15.87	15.81	15.92	16.05	15.98	15.99	16.01	16.07	16.04
Durable goods	16.02	16.46	16.35	16.41	16.32	16.48	16.62	16.55	16.64	16.78	16.66	16.68	16.69	16.72	16.70
Wood products	12.33	12.71	12.58	12.70	12.81	12.77	12.83	12.82	12.95	12.93	12.90	12.91	12.93	13.00	13.02
Nonmetallic mineral products	15.40	15.77	15.74	15.70	15.83	15.81	15.84	15.95	15.99	15.98	16.03	16.00	16.02	16.19	16.15
Primary metals	17.68	18.13	17.95	18.05	18.26	18.13	18.30	18.25	18.32	18.39	18.39	18.36	18.33	18.52	18.42
Fabricated metal products	14.68	15.01	14.93	14.92	15.00	15.04	15.09	15.03	15.06	15.23	15.20	15.18	15.25	15.21	15.19
Machinery	15.92	16.30	16.20	16.30	16.36	16.32	16.40	16.35	16.49	16.62	16.53	16.50	16.49	16.53	16.53
Computer and electronic products	16.20	16.68	16.58	16.78	16.79	16.81	16.77	16.77	16.78	16.85	16.81	16.92	16.93	17.01	17.11
Electrical equipment and appliances	13.98	14.35	14.21	14.29	14.31	14.45	14.49	14.37	14.54	14.68	14.50	14.58	14.68	14.80	14.82
Transportation equipment	20.64	21.25	21.08	21.21	20.76	21.29	21.56	21.35	21.48	21.74	21.38	21.37	21.34	21.36	21.27
Furniture and related products	12.61	12.98	12.89	12.95	12.97	13.04	13.10	13.01	13.08	13.08	12.95	12.92	12.96	13.09	13.05
Miscellaneous manufacturing	12.91	13.30	13.20	13.14	13.26	13.27	13.42	13.47	13.53	13.60	13.68	13.75	13.78	13.70	13.76
Nondurable goods	14.15	14.63	14.54	14.56	14.71	14.65	14.73	14.67	14.80	14.88	14.89	14.88	14.90	15.01	14.98
Food manufacturing	12.55	12.80	12.74	12.73	12.84	12.80	12.90	12.77	12.91	12.95	12.91	12.87	12.89	12.96	12.94
Beverages and tobacco products	17.73	17.96	18.09	17.70	17.86	17.75	17.73	18.05	18.64	18.58	18.88	18.76	19.13	19.60	19.53
Textile mills	11.73	12.00	11.95	11.93	11.97	11.95	12.07	12.02	12.08	12.21	12.11	12.13	12.09	12.23	12.09
Textile product mills	10.96	11.24	11.12	11.16	11.28	11.46	11.47	11.37	11.35	11.44	11.45	11.40	11.37	11.33	11.26
Apparel	9.10	9.56	9.49	9.47	9.68	9.75	9.77	9.69	9.71	9.80	9.74	9.58	9.60	9.71	9.54
Leather and allied products	11.00	11.67	11.66	11.55	11.52	11.67	11.63	11.83	11.87	11.90	11.94	11.76	11.64	11.65	11.50
Paper and paper products	16.85	17.32	17.25	17.20	17.45	17.33	17.41	17.44	17.58	17.60	17.63	17.55	17.59	17.84	17.91
Printing and related support activities	14.93	15.37	15.25	15.25	15.39	15.36	15.46	15.41	15.48	15.56	15.53	15.57	15.61	15.54	15.50
Petroleum and coal products	23.04	23.64	23.29	23.45	23.14	22.96	23.45	23.63	24.00	24.06	24.13	24.32	24.82	24.48	24.42
Chemicals	17.97	18.52	18.44	18.53	18.51	18.60	18.66	18.66	18.77	18.79	18.83	18.85	18.87	19.02	19.06
Plastics and rubber products	13.55	14.18	14.11	14.20	14.38	14.27	14.30	14.19	14.27	14.47	14.43	14.45	14.45	14.58	14.56
PRIVATE SERVICE-PROVIDING	14.56	14.96	14.88	14.90	14.87	14.88	15.00	15.01	15.13	15.07	15.19	15.24	15.16	15.20	15.24
Trade, transportation, and utilities	14.02	14.34	14.29	14.33	14.32	14.32	14.42	14.38	14.44	14.31	14.50	14.58	14.53	14.64	14.64
Wholesale trade	16.98	17.36	17.27	17.36	17.33	17.35	17.41	17.42	17.56	17.46	17.56	17.60	17.47	17.60	17.68
Retail trade	11.67	11.90	11.87	11.90	11.89	11.89	11.99	11.91	11.92	11.87	11.98	12.04	12.03	12.08	12.07
Transportation and warehousing	15.76	16.25	16.15	16.25	16.35	16.33	16.31	16.31	16.40	16.33	16.46	16.58	16.51	16.73	16.73
Utilities	23.96	24.76	24.59	24.63	24.64	24.81	25.15	25.23	25.50	25.26	25.38	25.29	25.36	25.69	25.56
	20.20	21.01	20.92	20.92	21.01	21.11	21.35	21.25	21.28	21.10	21.21	21.28	21.17	21.24	21.35
Financial activities	16.17	17.13	17.00	17.19	17.29	17.34	17.27	17.25	17.42	17.26	17.35	17.47	17.37	17.45	17.65
Professional and business services	16.81	17.20	17.15	17.20	17.07	17.00	17.11	17.13	17.41	17.29	17.38	17.47	17.28	17.26	17.45
Education and health services	15.21	15.64	15.51	15.54	15.62	15.68	15.71	15.73	15.79	15.86	15.94	15.95	15.94	15.99	15.99
Leisure and hospitality	8.58	8.76	8.74	8.71	8.68	8.68	8.78	8.78	8.83	8.94	8.89	8.92	8.89	8.84	8.86
Other services	13.72	13.84	13.82	13.80	13.72	13.75	13.82	13.78	13.85	13.88	13.89	13.90	13.85	13.87	13.90

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

16. Average weekly earnings of production or nonsupervisory workers[1] on private nonfarm payrolls, by industry

Industry	Annual average		2003								2004				
	2002	2003	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.[p]	May[p]
TOTAL PRIVATE	$506.07	$517.36	$513.07	$521.73	$515.27	$519.01	$520.33	$519.65	$527.68	$520.13	$518.15	$527.28	$520.93	$522.27	$531.42
Seasonally adjusted	–	–	515.95	516.96	517.44	517.78	517.78	519.99	522.55	519.12	523.56	524.58	525.59	525.38	528.29
GOODS-PRODUCING	651.61	669.23	665.46	672.88	665.58	678.49	685.50	681.39	684.29	682.90	674.21	674.61	681.70	678.47	690.84
Natural resources and mining	741.97	766.83	765.16	772.59	757.30	772.63	780.13	778.36	784.55	781.70	784.80	786.98	797.66	794.53	798.25
Construction	711.82	727.11	731.77	737.49	741.00	753.66	752.25	744.16	730.76	714.34	712.88	711.31	732.29	721.96	740.72
Manufacturing	618.75	636.07	628.73	635.45	620.93	633.55	647.50	643.47	655.90	662.87	650.39	652.39	653.21	652.44	659.24
Durable goods	652.97	671.53	663.81	672.81	651.17	669.09	684.74	680.21	692.22	703.08	688.06	688.88	690.97	687.19	694.72
Wood products	492.00	513.92	505.72	520.70	521.37	519.74	526.03	525.62	537.43	531.42	517.29	521.56	524.96	530.40	544.24
Nonmetallic mineral products	646.91	665.11	673.67	673.53	666.44	675.09	676.37	679.47	681.17	669.56	663.64	664.00	680.85	684.84	681.53
Primary metals	749.32	767.63	761.08	761.71	750.49	754.21	777.75	771.98	785.93	799.97	796.29	787.64	790.02	800.06	801.71
Fabricated metal products	596.38	610.33	606.16	608.74	598.50	609.12	617.18	616.23	621.98	635.09	626.24	623.90	625.25	620.27	627.35
Machinery	645.55	664.79	659.34	669.93	651.13	660.96	672.40	667.08	682.69	696.38	689.30	691.35	690.93	987.65	700.87
Computer and electronic products	642.87	674.68	668.17	681.27	669.92	685.85	684.22	684.22	693.01	695.91	680.81	695.41	690.74	683.80	694.67
Electrical equipment and appliances	560.24	582.68	569.82	587.32	568.11	582.34	588.29	592.04	601.96	616.56	594.50	591.95	596.01	599.40	613.55
Transportation equipment	877.87	890.32	874.82	888.70	824.17	870.76	918.46	905.24	925.79	950.04	915.06	916.77	917.62	905.66	914.61
Furniture and related products	494.01	505.23	491.11	505.05	504.53	513.78	518.76	508.69	523.20	528.43	510.23	505.17	510.62	517.06	518.09
Miscellaneous manufacturing	499.13	510.69	502.94	505.89	501.23	505.59	515.33	515.90	530.38	533.12	532.15	533.50	534.66	524.71	533.89
Nondurable goods	566.84	582.65	574.33	579.49	575.16	581.61	593.62	588.27	600.88	602.64	594.11	595.20	596.00	595.90	602.20
Food manufacturing	496.91	502.61	498.13	500.29	499.48	506.88	517.29	505.69	515.11	514.12	504.78	499.36	498.84	497.66	511.13
Beverages and tobacco products	698.39	702.75	710.94	699.15	692.97	694.03	707.43	707.56	751.19	722.76	728.77	737.27	744.16	780.08	771.44
Textile mills	476.52	469.47	461.27	464.08	440.50	462.47	475.56	469.98	485.62	490.84	485.61	486.41	490.85	484.31	486.02
Textile product mills	429.01	445.08	432.57	440.82	446.69	459.55	467.98	458.21	456.27	464.46	447.70	450.30	441.16	435.07	432.38
Apparel	333.66	340.22	336.90	337.13	332.02	339.30	341.95	348.84	356.36	352.80	343.82	345.84	350.40	347.76	346.30
Leather and allied products	412.99	458.26	457.07	452.76	449.28	451.63	445.43	462.55	465.30	485.52	471.63	464.52	464.44	460.18	441.60
Paper and paper products	705.62	719.21	707.25	712.08	713.71	710.53	726.00	727.25	743.63	751.52	738.70	731.84	731.74	745.71	755.80
Printing and related support activities	573.05	587.42	573.40	577.98	578.66	585.22	599.85	597.91	603.72	602.17	593.25	597.89	600.99	593.63	593.65
Petroleum and coal products	990.88	1,052.97	1,003.80	1,043.53	1,022.79	1,007.94	1,045.87	1,068.08	1,099.20	1,061.05	1,068.96	1,074.94	1,079.67	1,062.43	1,091.57
Chemicals	759.53	784.56	776.32	785.67	771.87	784.92	793.05	785.59	808.99	806.09	804.04	816.21	811.41	814.06	815.77
Plastics and rubber products	549.85	572.23	570.04	573.68	566.57	572.23	583.44	578.95	586.50	596.16	585.86	588.12	589.56	594.86	595.50
PRIVATE SERVICE-PROVIDING	472.88	484.00	479.14	487.23	481.79	485.09	483.00	484.82	493.24	485.25	484.56	496.82	486.64	487.92	496.82
Trade, transportation, and utilities	471.27	481.10	478.72	487.22	484.02	485.45	485.95	483.17	486.63	480.82	477.05	488.43	482.40	486.05	493.37
Wholesale trade	644.38	657.12	652.81	664.89	653.34	659.30	658.10	661.96	676.06	659.99	656.74	670.56	658.62	665.28	675.38
Retail trade	360.81	367.28	365.60	373.66	373.35	373.35	371.69	366.83	365.94	367.97	361.80	368.42	365.71	367.23	372.96
Transportation and warehousing	579.75	597.79	589.48	601.25	603.32	604.21	606.73	603.47	615.00	602.58	597.50	613.46	604.27	610.65	625.70
Utilities	979.09	1,016.94	1,003.27	1,012.29	1,007.78	1,017.21	1,026.12	1,039.48	1,068.45	1,028.08	1,032.97	1,039.42	1,039.76	1,053.29	1,055.63
Information	738.17	761.13	753.12	767.76	762.66	768.40	770.74	769.25	783.10	761.71	763.56	776.72	760.00	764.64	775.01
Financial activities	575.51	608.87	600.10	622.28	610.34	613.84	607.90	608.93	628.86	607.55	612.10	630.67	611.42	615.99	637.17
Professional and business services	574.66	586.68	584.82	596.84	580.38	579.70	578.32	580.71	597.16	582.67	583.97	602.72	587.52	588.57	603.77
Education and health services	492.74	505.76	497.87	505.05	504.53	508.03	505.86	506.51	516.33	512.28	514.86	519.97	513.27	516.48	519.68
Leisure and hospitality	221.26	224.35	222.87	227.33	226.55	228.28	222.13	223.89	226.05	225.29	221.36	230.14	225.80	224.81	224.54
Other services	439.76	434.49	431.18	436.08	430.81	433.13	431.18	431.31	434.89	430.28	429.20	433.68	428.73	428.58	435.07

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

Dash indicates data not available. p = preliminary.

17. Diffusion indexes of employment change, seasonally adjusted

[In percent]

Timespan and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Private nonfarm payrolls, 278 industries											
Over 1-month span:												
2000	61.9	62.9	63.3	59.5	46.9	61.7	63.1	52.5	51.5	53.4	56.8	53.8
2001	52.2	47.8	50.4	34.4	41.4	39.2	37.1	38.8	38.3	32.4	36.7	34.9
2002	40.1	35.1	41.0	41.5	41.7	47.8	44.1	44.1	42.8	39.0	38.7	34.5
2003	41.2	35.1	38.1	41.4	42.8	40.1	40.5	39.7	49.3	46.0	51.1	49.1
2004	52.3	56.1	68.7	67.6	64.6							
Over 3-month span:												
2000	69.2	66.2	67.8	68.3	60.1	58.1	56.3	61.5	56.5	53.2	52.9	56.8
2001	52.7	50.4	50.4	43.5	38.8	34.9	36.2	37.9	34.7	35.3	30.8	32.0
2002	34.0	37.4	35.1	36.2	36.7	39.4	39.9	40.8	38.7	37.1	34.4	34.7
2003	36.5	32.6	36.3	35.1	40.5	42.6	37.4	35.4	40.1	45.5	50.5	51.1
2004	54.0	55.2	62.8	70.0	74.8							
Over 6-month span:												
2000	67.3	69.1	75.2	72.5	67.4	67.8	66.7	60.8	59.0	55.0	59.7	54.0
2001	51.8	50.0	51.8	47.3	43.5	41.5	38.1	35.4	32.2	33.1	31.5	31.1
2002	29.5	30.0	31.1	31.1	31.7	37.1	37.2	39.0	34.7	36.5	35.3	33.3
2003	33.6	31.1	31.7	31.7	33.5	37.8	36.2	36.5	40.5	39.4	42.6	41.7
2004	48.9	54.1	59.6	64.7	68.3							
Over 12-month span:												
2000	70.9	69.2	73.2	71.0	69.8	71.0	70.0	70.3	70.3	65.6	63.8	62.1
2001	59.5	59.5	53.4	49.3	48.6	45.0	43.3	43.9	39.9	37.8	37.1	34.9
2002	33.6	31.7	30.2	30.4	30.2	29.1	32.0	31.3	30.0	29.5	32.9	34.7
2003	34.5	31.5	32.9	33.5	36.2	34.4	34.7	33.1	37.6	37.4	33.1	35.4
2004	37.8	43.2	47.3	50.7	54.3							
	Manufacturing payrolls, 84 industries											
Over 1-month span:												
2000	48.2	58.3	50.0	50.0	41.1	57.1	60.7	28.6	25.0	35.1	39.9	41.1
2001	22.6	22.0	21.4	16.1	15.5	23.2	13.7	14.3	19.0	17.9	14.9	10.1
2002	21.4	18.5	23.8	35.1	29.8	32.7	40.5	28.0	31.0	11.9	15.5	17.9
2003	26.2	15.5	22.6	13.7	26.2	25.0	28.0	26.2	27.4	28.6	51.2	45.8
2004	42.9	55.4	60.1	66.1	60.7							
Over 3-month span:												
2000	53.6	53.6	56.0	54.8	44.0	44.0	51.2	47.6	32.7	25.0	23.2	38.7
2001	35.7	21.4	16.1	14.3	13.1	13.7	11.9	8.9	8.3	13.1	8.9	10.1
2002	9.5	10.1	11.3	17.9	17.3	19.0	28.0	22.0	23.8	15.5	6.5	4.8
2003	13.7	13.1	16.7	10.1	13.1	14.9	16.1	16.1	16.1	24.4	27.4	41.7
2004	48.8	51.8	59.5	66.1	69.0							
Over 6-month span:												
2000	44.0	52.4	55.4	57.7	47.6	51.8	56.0	45.2	39.3	34.5	32.1	27.4
2001	22.0	23.8	22.0	20.8	14.3	13.7	14.3	10.1	10.7	5.4	7.1	4.8
2002	6.5	8.9	7.7	8.3	7.7	14.3	14.9	10.7	12.5	10.1	8.9	8.9
2003	11.3	9.5	6.0	7.1	8.9	13.1	8.9	13.1	13.1	16.7	19.0	19.6
2004	28.6	36.9	46.4	56.5	60.1							
Over 12-month span:												
2000	41.7	39.3	47.0	50.0	46.4	52.4	51.8	49.4	46.4	40.5	35.1	33.3
2001	29.8	32.1	20.8	19.0	13.1	12.5	10.7	11.9	11.9	10.1	8.3	6.0
2002	7.1	6.0	6.0	6.5	7.1	3.6	4.8	6.0	4.8	7.1	4.8	8.3
2003	10.7	6.0	6.5	5.4	8.3	9.5	9.5	9.5	10.7	11.9	9.5	11.3
2004	9.5	19.0	16.7	26.2	31.5							

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 (in thousands)							Rates						
	2003		2004					2003		2004				
	May	Dec.	Jan.	Feb.	Mar.	Apr.	May[P]	May	Dec.	Jan.	Feb.	Mar.	Apr.	May[P]
Total[2]	2,723	3,062	2,868	2,906	3,079	3,135	3,104	2.1	2.3	2.2	2.2	2.3	2.3	2.3
Industry														
Total private[2]	2,370	2,719	2,518	2,534	2,740	2,778	2,727	2.1	2.4	2.3	2.3	2.5	2.5	2.4
Construction	90	110	106	99	113	105	98	1.3	1.6	1.5	1.4	1.6	1.5	1.4
Manufacturing	180	234	233	226	232	251	231	1.2	1.6	1.6	1.6	1.6	1.7	1.6
Trade, transportation, and utilities	422	520	430	458	524	531	522	1.6	2.0	1.7	1.8	2.0	2.0	2.0
Professional and business services	461	594	501	491	502	518	521	2.8	3.5	3.0	2.9	3.0	3.1	3.1
Education and health services	563	520	549	551	559	576	556	3.3	3.0	3.2	3.2	3.2	3.3	3.2
Leisure and hospitality	326	399	368	383	370	376	387	2.6	3.2	2.9	3.0	2.9	3.0	3.0
Government	350	351	350	364	353	354	375	1.6	1.6	1.6	1.7	1.6	1.6	1.7
Region[3]														
Northeast	513	541	476	500	569	560	515	2.0	2.1	1.9	2.0	2.2	2.2	2.0
South	1,026	1,204	1,132	1,112	1,176	1,191	1,195	2.2	2.6	2.4	2.4	2.5	2.5	2.5
Midwest	591	666	679	680	663	692	6,679	1.9	2.1	2.2	2.2	2.1	2.2	2.1
West	607	649	586	632	655	694	734	2.1	2.2	2.0	2.2	2.2	2.4	2.5

[1] Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

[2] Includes natural resources and mining, information, financial activities, and other services, not shown separately.

[3] **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.

[P] = preliminary.

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

Industry and region	Levels (in thousands)							Rates						
	2003		2004					2003		2004				
	May	Dec.	Jan.	Feb.	Mar.	Apr.	May[P]	May	Dec.	Jan.	Feb.	Mar.	Apr.	May[P]
Total[2]	3,958	4,216	4,106	4,103	4,603	4,398	4,173	3.0	3.2	3.2	3.2	3.5	3.4	3.2
Industry														
Total private[2]	3,652	3,923	3,800	3,772	4,256	4,090	3,907	3.4	3.6	3.5	3.5	3.9	3.7	3.6
Construction	430	404	358	382	437	421	405	6.4	6.0	5.3	5.6	6.4	6.1	5.9
Manufacturing	305	340	349	355	361	354	332	2.1	2.4	2.4	2.5	2.5	2.5	2.3
Trade, transportation, and utilities	837	913	957	945	1,009	1,032	927	3.3	3.6	3.8	3.7	4.0	4.1	3.6
Professional and business services	527	650	708	529	713	609	624	3.3	4.0	4.4	3.3	4.4	3.7	3.8
Education and health services	425	427	416	447	444	460	452	2.6	2.5	2.5	2.7	2.6	2.7	2.7
Leisure and hospitality	686	753	715	766	810	766	725	5.7	6.2	5.9	6.3	6.6	6.2	5.9
Government	307	300	295	323	343	300	268	1.4	1.4	1.4	1.5	1.6	1.4	1.2
Region[3]														
Northeast	675	792	722	689	744	810	695	2.5	3.2	2.9	2.8	3.0	3.2	2.8
South	1,468	1,517	1,585	1,608	1,781	1,582	1,612	3.2	3.3	3.4	3.5	3.9	3.4	3.5
Midwest	881	897	921	953	1,040	991	941	2.9	2.9	3.0	3.1	3.4	3.2	3.0
West	927	992	883	876	1,029	1,093	944	3.3	3.5	3.1	3.1	3.6	3.8	3.3

[1] Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

[2] Includes natural resources and mining, information, financial activities, and other services, not shown separately.

[3] **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.

[P] = preliminary.

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

Industry and region	Levels (in thousands)							Rates						
	2003		2004					2003		2004				
	May	Dec.	Jan.	Feb.	Mar.	Apr.	May[P]	May	Dec.	Jan.	Feb.	Mar.	Apr	May[P]
Total[2]	3,736	4,022	3,968	4,073	4,134	4,088	4,003	2.9	3.1	3.0	3.1	3.2	3.1	3.1
Industry														
Total private[2]	3,456	3,723	3,716	3,807	3,868	3,843	3,745	3.2	3.4	3.4	3.5	3.5	3.5	3.4
Construction	364	391	436	400	392	391	360	5.4	5.8	6.4	5.9	5.7	5.7	5.7
Manufacturing	375	343	323	355	377	353	375	2.6	2.4	2.3	2.5	2.6	2.5	2.6
Trade, transportation, and utilities	784	968	936	899	978	1,013	903	3.1	3.8	3.7	3.5	3.8	4.0	3.5
Professional and business services	437	575	572	590	597	606	571	2.7	3.6	3.5	3.6	3.7	3.7	3.5
Education and health services	410	330	389	388	382	386	375	2.5	2.0	2.3	2.3	2.3	2.3	2.2
Leisure and hospitality	700	723	709	727	715	679	697	5.8	5.9	5.8	5.9	5.8	5.5	5.6
Government	267	269	258	268	284	245	257	1.2	1.2	1.2	1.2	1.3	1.1	1.2
Region[3]														
Northeast	697	687	712	688	666	716	644	2.8	2.8	2.9	2.8	2.7	2.9	2.6
South	1,337	1,518	1,505	1,499	1,612	1,524	1,483	2.9	3.3	3.3	3.3	3.5	3.3	3.2
Midwest	848	901	903	929	938	877	837	2.8	2.9	2.9	3.0	3.0	2.8	2.7
West	867	898	896	941	1,003	959	1,001	3.1	3.2	3.2	3.3	3.5	3.4	3.5

[1] Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

[2] Includes natural resources and mining, information, financial activities, and other services, not shown separately.

[3] **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 entir month; the total separations rate is the number of total separations during the entir month as a percent of total employment.

[P] = preliminary.

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

Industry and region	Levels[1] (in thousands)							Rates						
	2003		2004					2003		2004				
	May	Dec.	Jan.	Feb.	Mar.	Apr.	May[P]	May	Dec.	Jan.	Feb.	Mar.	Apr.	May[P]
Total[2]	2,014	2,131	2,118	2,178	2,271	2,278	2,152	1.5	1.6	1.6	1.7	1.7	1.7	1.6
Industry														
Total private[2]	1,889	2,010	2,002	2,051	2,144	2,151	2,014	1.7	1.9	1.8	1.9	2.0	2.0	1.8
Construction	134	171	148	133	154	149	139	2.0	2.5	2.2	2.0	2.3	2.2	2.0
Manufacturing	149	178	165	169	176	189	167	1.0	1.2	1.2	1.2	1.2	1.3	1.2
Trade, transportation, and utilities	475	534	530	493	530	563	520	1.9	2.1	2.1	1.9	2.1	2.2	2.0
Professional and business services	240	256	261	302	309	323	257	1.5	1.6	1.6	1.9	1.9	2.0	1.6
Education and health services	228	212	237	234	252	245	220	1.4	1.3	1.4	1.4	1.5	1.5	1.3
Leisure and hospitality	439	462	428	447	465	429	454	3.6	3.8	3.5	3.7	3.8	3.5	3.7
Government	120	119	116	126	129	129	130	.6	.6	.5	.6	.6	.6	.6
Region[3]														
Northeast	311	315	288	319	314	390	312	1.2	1.3	1.2	1.3	1.3	1.6	1.2
South	798	894	852	867	957	888	851	1.7	1.9	1.9	1.9	2.1	1.9	1.8
Midwest	459	465	513	455	474	479	473	1.5	1.5	1.7	1.5	1.5	1.5	1.5
West	426	436	475	520	565	524	518	1.5	1.5	1.7	1.8	2.0	1.8	1.8

[1] Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

[2] Includes natural resources and mining, information, financial activities, and other services, not shown separately.

[3] **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.

[P] = preliminary.

22. Quarterly Census of Employment and Wages: 10 largest counties, fourth quarter 2003.

County by NAICS supersector	Establishments, fourth quarter 2003 (thousands)	Employment		Average weekly wage[1]	
		December 2003 (thousands)	Percent change, December 2002-03[2]	Fourth quarter 2003	Percent change, fourth quarter 2002-03[2]
United States[3]	8,314.1	129,341.5	0.0	$767	3.6
Private industry	8,048.7	108,215.1	.0	769	3.9
Natural resources and mining	123.7	1,557.8	.1	703	4.9
Construction	804.9	6,689.5	1.2	837	2.3
Manufacturing	376.8	14,307.8	-4.2	943	6.7
Trade, transportation, and utilities	1,853.6	25,957.3	-.3	665	3.4
Information	145.2	3,165.9	-4.0	1,139	3.9
Financial activities	767.0	7,874.7	1.2	1,138	5.9
Professional and business services	1,329.4	16,113.2	.6	945	3.8
Education and health services	732.2	15,974.0	2.1	731	3.8
Leisure and hospitality	669.9	12,042.8	1.7	335	3.4
Other services	1,080.6	4,274.1	-.1	494	3.1
Government	265.3	21,126.3	-.2	757	2.4
Los Angeles, CA	356.0	4,075.3	-.5	903	4.2
Private industry	352.2	3,486.3	-.2	898	4.2
Natural resources and mining	.6	11.0	.7	955	16.9
Construction	12.9	133.9	-1.1	883	1.7
Manufacturing	17.8	485.2	-7.1	900	6.5
Trade, transportation, and utilities	53.9	794.6	-1.2	735	2.7
Information	9.2	194.9	-2.0	1,627	5.2
Financial activities	23.0	237.9	.9	1,258	7.0
Professional and business services	40.1	575.0	1.6	1,043	3.7
Education and health services	26.6	456.5	1.9	820	3.9
Leisure and hospitality	25.6	375.9	5.6	766	6.5
Other services	142.1	220.7	3.5	422	5.0
Government	3.8	589.0	-2.3	930	3.3
Cook, IL	126.7	2,539.8	-1.2	922	3.0
Private industry	125.5	2,221.9	-.9	929	3.2
Natural resources and mining	.1	1.3	-3.6	1,037	3.2
Construction	10.5	96.7	.0	1,169	-.8
Manufacturing	7.9	265.7	-5.1	975	6.3
Trade, transportation, and utilities	26.7	499.4	-.8	753	.4
Information	2.5	66.1	-4.1	1,164	.1
Financial activities	13.8	219.4	-.8	1,471	8.1
Professional and business services	26.1	405.5	-1.3	1,206	4.1
Education and health services	12.3	350.8	1.0	791	3.7
Leisure and hospitality	10.5	217.7	2.8	375	-.3
Other services	12.6	95.1	-2.0	655	3.0
Government	1.2	317.9	-3.1	871	.9
New York, NY	111.9	2,253.6	-1.0	1,480	7.2
Private industry	111.7	1,800.4	-.6	1,623	8.1
Natural resources and mining	.0	.1	.0	1,197	-6.5
Construction	2.2	30.0	-4.5	1,567	3.4
Manufacturing	3.5	46.6	-4.9	1,290	6.4
Trade, transportation, and utilities	22.1	247.6	-1.2	1,164	5.5
Information	4.3	130.6	-5.1	1,751	7.9
Financial activities	16.7	352.0	-2.0	3,034	16.1
Professional and business services	22.6	439.7	.5	1,702	2.6
Education and health services	7.8	273.8	2.4	918	7.6
Leisure and hospitality	10.1	188.2	.4	787	6.1
Other services	16.0	82.9	-1.1	871	6.1
Government	.2	453.2	-2.2	912	.1
Harris, TX	89.4	1,841.5	-.9	906	2.1
Private industry	89.0	1,595.2	-1.2	929	2.1
Natural resources and mining	1.2	62.5	8.7	2,185	-.9
Construction	6.3	135.5	-5.0	919	2.6
Manufacturing	4.7	164.0	-4.9	1,106	2.3
Trade, transportation, and utilities	21.1	403.2	-2.1	821	1.0
Information	1.4	33.8	-3.9	1,098	.4
Financial activities	9.7	113.1	1.7	1,181	4.9
Professional and business services	17.0	279.0	-1.7	1,073	3.2
Education and health services	8.8	188.3	1.5	812	1.8
Leisure and hospitality	6.5	155.2	.7	335	-.9
Other services	10.3	56.3	-3.1	539	.4
Government	.4	246.3	1.1	759	3.1
Maricopa, AZ	80.9	1,621.2	([4])	757	4.0
Private industry	80.5	1,401.8	2.2	755	3.9
Natural resources and mining	.5	9.8	-2.6	545	4.4
Construction	8.4	131.7	5.9	779	2.1
Manufacturing	3.3	128.0	-2.5	1,050	8.2
Trade, transportation, and utilities	18.6	336.4	1.5	712	3.2
Information	1.6	36.6	-4.1	872	.5
Financial activities	9.5	133.3	1.5	933	3.7
Professional and business services	18.1	261.5	4.2	776	3.5
Education and health services	7.6	160.5	5.6	842	5.0
Leisure and hospitality	5.6	155.8	.8	364	2.8
Other services	5.7	44.7	-2.6	500	2.2
Government	.5	219.4	1.6	766	3.7

See footnotes at end of table.

22. Continued—Quarterly Census of Employment and Wages: 10 largest counties, fourth quarter 2003.

County by NAICS supersector	Establishments, fourth quarter 2003 (thousands)	Employment		Average weekly wage[1]	
		December 2003 (thousands)	Percent change, December 2002-03[2]	Fourth quarter 2003	Percent change, fourth quarter 2002-03[2]
Dallas, TX	68.6	1,450.8	-1.4	$952	4.3
Private industry	68.2	1,294.6	-1.4	970	4.8
Natural resources and mining	.5	6.8	-20.5	2,680	22.7
Construction	4.5	73.0	-2.2	909	5.5
Manufacturing	3.5	144.9	-3.1	1,075	6.8
Trade, transportation, and utilities	15.8	326.1	-3.3	898	5.2
Information	1.9	64.0	-5.1	1,272	8.7
Financial activities	8.6	140.0	1.2	1,215	2.9
Professional and business services	14.0	237.7	.0	1,152	4.2
Education and health services	6.3	131.4	2.4	887	2.7
Leisure and hospitality	5.2	127.5	.0	432	4.3
Other services	6.7	40.5	-3.4	587	2.8
Government	.4	156.2	-1.8	800	-.1
Orange, CA	88.8	1,436.6	1.3	874	5.3
Private industry	87.4	1,305.5	2.1	875	5.2
Natural resources and mining	.3	6.1	8.3	579	.2
Construction	6.4	85.5	4.4	969	5.9
Manufacturing	6.1	179.9	-3.0	1,036	11.4
Trade, transportation, and utilities	17.3	278.8	.6	802	2.7
Information	1.5	33.8	-4.4	1,152	5.3
Financial activities	9.7	127.8	9.9	1,354	6.2
Professional and business services	17.4	261.0	1.0	942	2.8
Education and health services	9.1	126.6	6.1	849	3.7
Leisure and hospitality	6.6	159.9	2.5	358	3.8
Other services	12.9	46.0	6.3	518	3.0
Government	1.4	131.1	-5.7	859	6.0
San Diego, CA	85.3	1,278.2	1.3	815	2.6
Private industry	83.9	1,060.2	1.5	809	2.5
Natural resources and mining	.9	11.0	-5.4	491	1.0
Construction	6.4	81.1	4.7	869	.7
Manufacturing	3.6	105.4	-4.2	1,129	11.5
Trade, transportation, and utilities	14.2	220.4	2.2	655	.9
Information	1.4	36.7	-4.5	1,582	-2.0
Financial activities	8.8	81.6	4.8	1,058	.4
Professional and business services	14.9	208.1	1.5	989	2.8
Education and health services	7.6	122.6	1.6	778	5.7
Leisure and hospitality	6.5	141.5	3.5	346	2.4
Other services	19.5	51.6	1.8	449	2.7
Government	1.3	218.0	.1	843	2.9
King, WA	81.6	1,100.6	.2	935	.2
Private industry	81.0	945.5	.1	944	-.3
Natural resources and mining	.4	2.8	-11.3	1,109	.8
Construction	6.2	53.4	-.4	921	1.4
Manufacturing	2.7	101.9	-8.2	1,176	-2.1
Trade, transportation, and utilities	14.8	225.5	1.1	804	2.6
Information	1.5	69.2	.8	1,829	-15.7
Financial activities	6.1	77.5	2.4	1,114	3.5
Professional and business services	11.7	158.3	.7	1,160	8.4
Education and health services	5.9	108.3	1.5	746	4.8
Leisure and hospitality	5.4	100.5	2.9	390	3.7
Other services	26.4	48.1	1.2	463	.4
Government	.6	155.1	1.0	882	3.6
Miami-Dade, FL	80.2	980.8	-.5	765	3.5
Private industry	79.9	827.5	-.7	742	3.6
Natural resources and mining	.5	9.9	-1.8	421	4.0
Construction	4.9	40.7	.3	788	2.7
Manufacturing	2.8	49.4	-9.8	695	5.8
Trade, transportation, and utilities	23.2	247.2	-1.7	689	4.2
Information	1.7	28.5	-3.2	990	1.7
Financial activities	8.2	65.5	.7	1,062	-1.1
Professional and business services	15.9	132.0	-.2	948	5.2
Education and health services	7.8	123.4	1.4	748	2.3
Leisure and hospitality	5.3	92.8	2.1	432	9.9
Other services	7.5	34.5	-1.8	450	3.0
Government	.3	153.3	.5	886	2.8

[1] Average weekly wages were calculated using unrounded data.

[2] Percent changes were computed from quarterly employment and pay data adjusted for noneconomic county reclassifications. See Notes on Current Labor Statistics.

[3] Totals for the United States do not include data for Puerto Rico or the Virgin Islands.

[4] Data do not meet BLS or State agency disclosure standards.

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, fourth quarter 2003.

State	Establishments, fourth quarter 2003 (thousands)	Employment		Average weekly wage[1]	
		December 2003 (thousands)	Percent change, December 2002-03	Fourth quarter 2003	Percent change, fourth quarter 2002-03
United States[2]	8,314.1	129,341.5	0.0	$767	3.6
Alabama	111.8	1,838.1	-.1	657	4.0
Alaska	20.0	282.7	1.1	746	1.1
Arizona	126.9	2,352.1	2.2	710	3.8
Arkansas	75.2	1,133.6	.5	587	4.1
California	1,190.8	14,922.3	.0	869	3.8
Colorado	160.0	2,134.6	-1.1	784	2.0
Connecticut	109.1	1,648.9	-.7	992	3.8
Delaware	27.1	408.4	.5	825	5.0
District of Columbia	30.0	654.8	-.4	1,238	3.9
Florida	504.1	7,424.5	.8	685	3.8
Georgia	245.6	3,845.6	.2	734	2.8
Hawaii	37.4	583.0	1.3	678	3.7
Idaho	48.5	577.5	.6	579	1.8
Illinois	325.7	5,738.7	-1.2	827	3.2
Indiana	152.1	2,852.2	-.3	675	3.5
Iowa	90.6	1,418.5	.0	626	4.7
Kansas	82.2	1,298.3	-.9	631	2.8
Kentucky	105.7	1,740.6	.3	645	3.5
Louisiana	114.0	1,870.9	.5	628	2.4
Maine	47.4	595.8	.7	631	4.6
Maryland	150.4	2,466.4	.7	831	3.6
Massachusetts	206.6	3,154.6	-1.9	954	5.2
Michigan	251.3	4,365.8	-1.1	806	3.9
Minnesota	159.0	2,591.9	-.5	777	3.2
Mississippi	65.6	1,108.1	.4	559	3.7
Missouri	165.4	2,633.6	-.7	676	2.4
Montana	42.0	396.6	1.1	549	4.0
Nebraska	55.3	884.4	.6	613	3.2
Nevada	60.3	1,111.2	4.4	721	5.1
New Hampshire	47.0	614.9	.6	788	4.0
New Jersey	268.1	3,912.8	.1	945	3.4
New Mexico	50.4	757.1	1.4	612	4.1
New York	550.3	8,379.2	-.4	959	5.2
North Carolina	227.8	3,759.6	-.1	679	4.5
North Dakota	24.0	317.6	.9	563	4.3
Ohio	294.2	5,322.4	-.7	713	3.8
Oklahoma	91.6	1,423.4	-1.3	597	4.2
Oregon	118.8	1,579.8	.2	694	3.3
Pennsylvania	326.9	5,524.5	-.2	750	4.7
Rhode Island	34.7	480.5	1.2	738	5.1
South Carolina	108.4	1,781.0	.3	623	3.1
South Dakota	28.1	365.4	.3	559	4.1
Tennessee	128.4	2,648.0	.4	689	4.2
Texas	505.3	9,300.1	-.3	754	3.1
Utah	73.9	1,066.2	1.2	630	2.3
Vermont	24.1	300.7	.3	661	5.1
Virginia	202.6	3,477.5	1.2	786	5.2
Washington	222.7	2,654.7	1.0	759	1.3
West Virginia	47.2	685.2	.1	587	2.1
Wisconsin	157.6	2,715.4	.0	683	4.1
Wyoming	22.0	241.6	1.7	616	4.1
Puerto Rico	50.2	1,074.1	3.5	450	4.7
Virgin Islands	3.2	42.5	-.2	629	2.4

[1] Average weekly wages were calculated using unrounded data.

[2] Totals for the United States do not include data for Puerto Rico or the Virgin Islands.

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

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
	Total covered (UI and UCFE)				
1993	6,679,934	109,422,571	$2,884,472,282	$26,361	$507
1994	6,826,677	112,611,287	3,033,676,678	26,939	518
1995	7,040,677	115,487,841	3,215,921,236	27,846	536
1996	7,189,168	117,963,132	3,414,514,808	28,946	557
1997	7,369,473	121,044,432	3,674,031,718	30,353	584
1998	7,634,018	124,183,549	3,967,072,423	31,945	614
1999	7,820,860	127,042,282	4,235,579,204	33,340	641
2000	7,879,116	129,877,063	4,587,708,584	35,323	679
2001	7,984,529	129,635,800	4,695,225,123	36,219	697
2002	8,101,872	128,233,919	4,714,374,741	36,764	707
	UI covered				
1993	6,632,221	106,351,431	$2,771,023,411	$26,055	$501
1994	6,778,300	109,588,189	2,918,684,128	26,633	512
1995	6,990,594	112,539,795	3,102,353,355	27,567	530
1996	7,137,644	115,081,246	3,298,045,286	28,658	551
1997	7,317,363	118,233,942	3,553,933,885	30,058	578
1998	7,586,767	121,400,660	3,845,494,089	31,676	609
1999	7,771,198	124,255,714	4,112,169,533	33,094	636
2000	7,828,861	127,005,574	4,454,966,824	35,077	675
2001	7,933,536	126,883,182	4,560,511,280	35,943	691
2002	8,051,117	125,475,293	4,570,787,218	36,428	701
	Private industry covered				
1993	6,454,381	91,202,971	$2,365,301,493	$25,934	$499
1994	6,596,158	94,146,344	2,494,458,555	26,496	510
1995	6,803,454	96,894,844	2,658,927,216	27,441	528
1996	6,946,858	99,268,446	2,837,334,217	28,582	550
1997	7,121,182	102,175,161	3,071,807,287	30,064	578
1998	7,381,518	105,082,368	3,337,621,699	31,762	611
1999	7,560,567	107,619,457	3,577,738,557	33,244	639
2000	7,622,274	110,015,333	3,887,626,769	35,337	680
2001	7,724,965	109,304,802	3,952,152,155	36,157	695
2002	7,839,903	107,577,281	3,930,767,025	36,539	703
	State government covered				
1993	59,185	4,088,075	$117,095,062	$28,643	$551
1994	60,686	4,162,944	122,879,977	29,518	568
1995	60,763	4,201,836	128,143,491	30,497	586
1996	62,146	4,191,726	131,605,800	31,397	604
1997	65,352	4,214,451	137,057,432	32,521	625
1998	67,347	4,240,779	142,512,445	33,605	646
1999	70,538	4,296,673	149,011,194	34,681	667
2000	65,096	4,370,160	158,618,365	36,296	698
2001	64,583	4,452,237	168,358,331	37,814	727
2002	64,447	4,485,071	175,866,492	39,212	754
	Local government covered				
1993	118,626	11,059,500	$288,594,697	$26,095	$502
1994	121,425	11,278,080	301,315,857	26,717	514
1995	126,342	11,442,238	315,252,346	27,552	530
1996	128,640	11,621,074	329,105,269	28,320	545
1997	130,829	11,844,330	345,069,166	29,134	560
1998	137,902	12,077,513	365,359,945	30,251	582
1999	140,093	12,339,584	385,419,781	31,234	601
2000	141,491	12,620,081	408,721,690	32,387	623
2001	143,989	13,126,143	440,000,795	33,521	645
2002	146,767	13,412,941	464,153,701	34,605	665
	Federal Government covered (UCFE)				
1993	47,714	3,071,140	$113,448,871	$36,940	$710
1994	48,377	3,023,098	114,992,550	38,038	731
1995	50,083	2,948,046	113,567,881	38,523	741
1996	51,524	2,881,887	116,469,523	40,414	777
1997	52,110	2,810,489	120,097,833	42,732	822
1998	47,252	2,782,888	121,578,334	43,688	840
1999	49,661	2,786,567	123,409,672	44,287	852
2000	50,256	2,871,489	132,741,760	46,228	889
2001	50,993	2,752,619	134,713,843	48,940	941
2002	50,755	2,758,627	143,587,523	52,050	1,001

NOTE: Detail may not add to totals due to rounding. Data reflect the movement of Indian Tribal Council establishments from private industry to the public sector. See Notes on Current Labor Statistics.

25. Annual data: Quarterly Census of Employment and Wages, establishment size and employment, private ownership, by supersector, first quarter 2003

Industry, establishments, and employment	Total	Size of establishments								
		Fewer than 5 workers[1]	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
Total all industries[2]										
Establishments, first quarter	7,933,974	4,768,812	1,331,834	872,241	597,662	203,030	115,598	28,856	10,454	5,487
Employment, March	105,583,548	7,095,128	8,810,097	11,763,253	18,025,655	13,970,194	17,299,058	9,864,934	7,090,739	11,664,490
Natural resources and mining										
Establishments, first quarter	124,527	72,088	23,248	14,773	9,226	2,893	1,593	501	161	44
Employment, March	1,526,176	110,155	153,629	198,895	275,811	198,122	241,559	171,063	108,563	68,379
Construction										
Establishments, first quarter	795,029	523,747	129,201	76,215	46,096	12,837	5,604	1,006	262	61
Employment, March	6,285,841	746,296	846,521	1,021,722	1,371,071	872,274	823,846	338,107	172,944	93,060
Manufacturing										
Establishments, first quarter	381,159	148,469	65,027	57,354	54,261	25,927	19,813	6,506	2,565	1,237
Employment, March	14,606,928	252,443	436,028	788,581	1,685,563	1,815,385	3,043,444	2,245,183	1,732,368	2,607,933
Trade, transportation, and utilities										
Establishments, first quarter	1,851,662	992,180	378,157	239,637	149,960	51,507	31,351	6,681	1,619	570
Employment, March	24,683,356	1,646,304	2,514,548	3,204,840	4,527,709	3,564,316	4,661,898	2,277,121	1,070,141	1,216,479
Information										
Establishments, first quarter	147,062	84,906	20,744	16,130	13,539	5,920	3,773	1,223	575	252
Employment, March	3,208,667	112,409	138,076	220,618	416,670	410,513	576,674	418,113	399,366	516,228
Financial activities										
Establishments, first quarter	753,064	480,485	135,759	76,733	39,003	11,743	6,195	1,794	883	469
Employment, March	7,753,717	788,607	892,451	1,017,662	1,162,498	801,140	934,618	620,183	601,549	935,009
Professional and business services										
Establishments, first quarter	1,307,697	887,875	180,458	111,532	73,599	28,471	17,856	5,153	1,919	834
Employment, March	15,648,435	1,230,208	1,184,745	1,501,470	2,232,506	1,969,466	2,707,203	1,762,251	1,307,870	1,752,716
Education and health services										
Establishments, first quarter	720,207	338,139	164,622	103,683	65,173	24,086	17,122	3,929	1,761	1,692
Employment, March	15,680,834	629,968	1,092,329	1,392,099	1,955,861	1,679,708	2,558,300	1,337,188	1,220,921	3,814,460
Leisure and hospitality										
Establishments, first quarter	657,359	260,149	110,499	118,140	122,168	34,166	9,718	1,609	599	311
Employment, March	11,731,379	411,192	744,144	1,653,470	3,683,448	2,285,550	1,372,780	545,304	404,831	630,660
Other services										
Establishments, first quarter	1,057,236	851,231	116,940	56,238	24,235	5,451	2,561	454	109	17
Employment, March	4,243,633	1,037,360	761,518	740,752	703,957	371,774	376,832	150,421	71,453	29,566

[1] Includes establishments that reported no workers in March 2003.

[2] Includes data for unclassified establishments, not shown separately.

NOTE: Details may not add to totals due to rounding. Data are only produced for first quarter. Data are preliminary.

26. Annual data: Quarterly Census of Employment and Wages, by metropolitan area, 2001-02

Metropolitan area[1]	Average annual wage[2]		
	2001	2002	Percent change, 2001-02
Metropolitan areas[3]	$37,908	$38,423	1.4
Abilene, TX	25,141	25,517	1.5
Akron, OH	32,930	34,037	3.4
Albany, GA	28,877	29,913	3.6
Albany-Schenectady-Troy, NY	35,355	35,994	1.8
Albuquerque, NM	31,667	32,475	2.6
Alexandria, LA	26,296	27,300	3.8
Allentown-Bethlehem-Easton, PA	33,569	34,789	3.6
Altoona, PA	26,869	27,360	1.8
Amarillo, TX	27,422	28,274	3.1
Anchorage, AK	37,998	39,112	2.9
Ann Arbor, MI	37,582	39,220	4.4
Anniston, AL	26,486	27,547	4.0
Appleton-Oshkosh-Neenah, WI	32,652	33,020	1.1
Asheville, NC	28,511	28,771	.9
Athens, GA	28,966	29,942	3.4
Atlanta, GA	40,559	41,123	1.4
Atlantic-Cape May, NJ	31,268	32,201	3.0
Auburn-Opelika, AL	25,753	26,405	2.5
Augusta-Aiken, GA-SC	30,626	31,743	3.6
Austin-San Marcos, TX	40,831	39,540	-3.2
Bakersfield, CA	30,106	31,192	3.6
Baltimore, MD	37,495	38,718	3.3
Bangor, ME	27,850	28,446	2.1
Barnstable-Yarmouth, MA	31,025	32,028	3.2
Baton Rouge, LA	30,321	31,366	3.4
Beaumont-Port Arthur, TX	31,798	32,577	2.4
Bellingham, WA	27,724	28,284	2.0
Benton Harbor, MI	31,140	32,627	4.8
Bergen-Passaic, NJ	44,701	45,185	1.1
Billings, MT	27,889	28,553	2.4
Biloxi-Gulfport-Pascagoula, MS	28,351	28,515	.6
Binghamton, NY	31,187	31,832	2.1
Birmingham, AL	34,519	35,940	4.1
Bismarck, ND	27,116	27,993	3.2
Bloomington, IN	28,013	28,855	3.0
Bloomington-Normal, IL	35,111	36,133	2.9
Boise City, ID	31,624	31,955	1.0
Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH	45,766	45,685	-.2
Boulder-Longmont, CO	44,310	44,037	-.6
Brazoria, TX	35,655	36,253	1.7
Bremerton, WA	31,525	33,775	7.1
Brownsville-Harlingen-San Benito, TX	22,142	22,892	3.4
Bryan-College Station, TX	25,755	26,051	1.1
Buffalo-Niagara Falls, NY	32,054	32,777	2.3
Burlington, VT	34,363	35,169	2.3
Canton-Massillon, OH	29,020	29,689	2.3
Casper, WY	28,264	28,886	2.2
Cedar Rapids, IA	34,649	34,730	.2
Champaign-Urbana, IL	30,488	31,995	4.9
Charleston-North Charleston, SC	28,887	29,993	3.8
Charleston, WV	31,530	32,136	1.9
Charlotte-Gastonia-Rock Hill, NC-SC	37,267	38,413	3.1
Charlottesville, VA	32,427	33,328	2.8
Chattanooga, TN-GA	29,981	30,631	2.2
Cheyenne, WY	27,579	28,827	4.5
Chicago, IL	42,685	43,239	1.3
Chico-Paradise, CA	26,499	27,190	2.6
Cincinnati, OH-KY-IN	36,050	37,168	3.1
Clarksville-Hopkinsville, TN-KY	25,567	26,940	5.4
Cleveland-Lorain-Elyria, OH	35,514	36,102	1.7
Colorado Springs, CO	34,391	34,681	.8
Columbia, MO	28,490	29,135	2.3
Columbia, SC	29,904	30,721	2.7
Columbus, GA-AL	28,412	29,207	2.8
Columbus, OH	35,028	36,144	3.2
Corpus Christi, TX	29,361	30,168	2.7
Corvallis, OR	35,525	36,766	3.5
Cumberland, MD-WV	25,504	26,704	4.7
Dallas, TX	42,706	43,000	.7
Danville, VA	25,465	26,116	2.6

See footnotes at end of table.

26. Continued—Annual data: Quarterly Census of Employment and Wages, by metropolitan area, 2001-02

Metropolitan area[1]	Average annual wage[2]		
	2001	2002	Percent change, 2001-02
Davenport-Moline-Rock Island, IA-IL	$31,275	$32,118	2.7
Dayton-Springfield, OH	33,619	34,327	2.1
Daytona Beach, FL	25,953	26,898	3.6
Decatur, AL	30,891	30,370	-1.7
Decatur, IL	33,354	33,215	-.4
Denver, CO	42,351	42,133	-.5
Des Moines, IA	34,303	35,641	3.9
Detroit, MI	42,704	43,224	1.2
Dothan, AL	28,026	29,270	4.4
Dover, DE	27,754	29,818	7.4
Dubuque, IA	28,402	29,208	2.8
Duluth-Superior, MN-WI	29,415	30,581	4.0
Dutchess County, NY	38,748	38,221	-1.4
Eau Claire, WI	27,680	28,760	3.9
El Paso, TX	25,847	26,604	2.9
Elkhart-Goshen, IN	30,797	32,427	5.3
Elmira, NY	28,669	29,151	1.7
Enid, OK	24,836	25,507	2.7
Erie, PA	29,293	29,780	1.7
Eugene-Springfield, OR	28,983	29,427	1.5
Evansville-Henderson, IN-KY	31,042	31,977	3.0
Fargo-Moorhead, ND-MN	27,899	29,053	4.1
Fayetteville, NC	26,981	28,298	4.9
Fayetteville-Springdale-Rogers, AR	29,940	31,090	3.8
Flagstaff, AZ-UT	25,890	26,846	3.7
Flint, MI	35,995	36,507	1.4
Florence, AL	25,639	26,591	3.7
Florence, SC	28,800	29,563	2.6
Fort Collins-Loveland, CO	33,248	34,215	2.9
Fort Lauderdale, FL	33,966	34,475	1.5
Fort Myers-Cape Coral, FL	29,432	30,324	3.0
Fort Pierce-Port St. Lucie, FL	27,742	29,152	5.1
Fort Smith, AR-OK	26,755	27,075	1.2
Fort Walton Beach, FL	26,151	27,242	4.2
Fort Wayne, IN	31,400	32,053	2.1
Fort Worth-Arlington, TX	36,379	37,195	2.2
Fresno, CA	27,647	28,814	4.2
Gadsden, AL	25,760	26,214	1.8
Gainesville, FL	26,917	27,648	2.7
Galveston-Texas City, TX	31,067	31,920	2.7
Gary, IN	31,948	32,432	1.5
Glens Falls, NY	27,885	28,931	3.8
Goldsboro, NC	25,398	25,821	1.7
Grand Forks, ND-MN	24,959	25,710	3.0
Grand Junction, CO	27,426	28,331	3.3
Grand Rapids-Muskegon-Holland, MI	33,431	34,214	2.3
Great Falls, MT	24,211	25,035	3.4
Greeley, CO	30,066	31,104	3.5
Green Bay, WI	32,631	33,698	3.3
Greensboro--Winston-Salem--High Point, NC	31,730	32,369	2.0
Greenville, NC	28,289	29,055	2.7
Greenville-Spartanburg-Anderson, SC	30,940	31,726	2.5
Hagerstown, MD	29,020	30,034	3.5
Hamilton-Middletown, OH	32,325	32,985	2.0
Harrisburg-Lebanon-Carlisle, PA	33,408	34,497	3.3
Hartford, CT	43,880	44,387	1.2
Hattiesburg, MS	25,145	26,051	3.6
Hickory-Morganton-Lenoir, NC	27,305	27,996	2.5
Honolulu, HI	32,531	33,978	4.4
Houma, LA	30,343	30,758	1.4
Houston, TX	42,784	42,712	-.2
Huntington-Ashland, WV-KY-OH	27,478	28,321	3.1
Huntsville, AL	36,727	38,571	5.0
Indianapolis, IN	35,989	36,608	1.7
Iowa City, IA	31,663	32,567	2.9
Jackson, MI	32,454	33,251	2.5
Jackson, MS	29,813	30,537	2.4
Jackson, TN	29,414	30,443	3.5
Jacksonville, FL	32,367	33,722	4.2
Jacksonville, NC	21,395	22,269	4.1

See footnotes at end of table.

26. Continued—Annual data: Quarterly Census of Employment and Wages, by metropolitan area, 2001-02

Metropolitan area[1]	Average annual wage[2]		
	2001	2002	Percent change, 2001-02
Jamestown, NY	$25,913	$26,430	2.0
Janesville-Beloit, WI	31,482	32,837	4.3
Jersey City, NJ	47,638	49,562	4.0
Johnson City-Kingsport-Bristol, TN-VA	28,543	29,076	1.9
Johnstown, PA	25,569	26,161	2.3
Jonesboro, AR	25,337	26,165	3.3
Joplin, MO	26,011	26,594	2.2
Kalamazoo-Battle Creek, MI	32,905	34,237	4.0
Kankakee, IL	29,104	30,015	3.1
Kansas City, MO-KS	35,794	36,731	2.6
Kenosha, WI	31,562	32,473	2.9
Killeen-Temple, TX	26,193	27,299	4.2
Knoxville, TN	30,422	31,338	3.0
Kokomo, IN	39,599	40,778	3.0
La Crosse, WI-MN	27,774	28,719	3.4
Lafayette, LA	29,693	30,104	1.4
Lafayette, IN	31,484	31,700	.7
Lake Charles, LA	29,782	30,346	1.9
Lakeland-Winter Haven, FL	28,890	29,505	2.1
Lancaster, PA	31,493	32,197	2.2
Lansing-East Lansing, MI	34,724	35,785	3.1
Laredo, TX	24,128	24,739	2.5
Las Cruces, NM	24,310	25,256	3.9
Las Vegas, NV-AZ	32,239	33,280	3.2
Lawrence, KS	25,923	26,621	2.7
Lawton, OK	24,812	25,392	2.3
Lewiston-Auburn, ME	27,092	28,435	5.0
Lexington, KY	31,593	32,776	3.7
Lima, OH	29,644	30,379	2.5
Lincoln, NE	29,352	30,614	4.3
Little Rock-North Little Rock, AR	30,858	31,634	2.5
Longview-Marshall, TX	28,029	28,172	.5
Los Angeles-Long Beach, CA	40,891	41,709	2.0
Louisville, KY-IN	33,058	33,901	2.6
Lubbock, TX	26,577	27,625	3.9
Lynchburg, VA	28,859	29,444	2.0
Macon, GA	30,595	31,884	4.2
Madison, WI	34,097	35,410	3.9
Mansfield, OH	28,808	30,104	4.5
McAllen-Edinburg-Mission, TX	22,313	23,179	3.9
Medford-Ashland, OR	27,224	28,098	3.2
Melbourne-Titusville-Palm Bay, FL	32,798	33,913	3.4
Memphis, TN-AR-MS	34,603	35,922	3.8
Merced, CA	25,479	26,771	5.1
Miami, FL	34,524	35,694	3.4
Middlesex-Somerset-Hunterdon, NJ	49,950	50,457	1.0
Milwaukee-Waukesha, WI	35,617	36,523	2.5
Minneapolis-St. Paul, MN-WI	40,868	41,722	2.1
Missoula, MT	26,181	27,249	4.1
Mobile, AL	28,129	28,742	2.2
Modesto, CA	29,591	30,769	4.0
Monmouth-Ocean, NJ	37,056	37,710	1.8
Monroe, LA	26,578	27,614	3.9
Montgomery, AL	29,150	30,525	4.7
Muncie, IN	28,374	29,017	2.3
Myrtle Beach, SC	24,029	24,672	2.7
Naples, FL	30,839	31,507	2.2
Nashville, TN	33,989	35,036	3.1
Nassau-Suffolk, NY	39,662	40,396	1.9
New Haven-Bridgeport-Stamford-Waterbury-Danbury, CT	52,198	51,170	-2.0
New London-Norwich, CT	38,505	38,650	.4
New Orleans, LA	31,089	32,407	4.2
New York, NY	59,097	57,708	-2.4
Newark, NJ	47,715	48,781	2.2
Newburgh, NY-PA	29,827	30,920	3.7
Norfolk-Virginia Beach-Newport News, VA-NC	29,875	30,823	3.2
Oakland, CA	45,920	46,877	2.1
Ocala, FL	26,012	26,628	2.4
Odessa-Midland, TX	31,278	31,295	.1
Oklahoma City, OK	28,915	29,850	3.2

See footnotes at end of table.

26. Continued—Annual data: Quarterly Census of Employment and Wages, by metropolitan area, 2001-02

Metropolitan area[1]	Average annual wage[2]		
	2001	2002	Percent change, 2001-02
Olympia, WA	$32,772	$33,765	3.0
Omaha, NE-IA	31,856	33,107	3.9
Orange County, CA	40,252	41,219	2.4
Orlando, FL	31,276	32,461	3.8
Owensboro, KY	27,306	28,196	3.3
Panama City, FL	26,433	27,448	3.8
Parkersburg-Marietta, WV-OH	27,920	29,529	5.8
Pensacola, FL	28,059	28,189	.5
Peoria-Pekin, IL	33,293	34,261	2.9
Philadelphia, PA-NJ	40,231	41,121	2.2
Phoenix-Mesa, AZ	35,514	36,045	1.5
Pine Bluff, AR	27,561	28,698	4.1
Pittsburgh, PA	35,024	35,625	1.7
Pittsfield, MA	31,561	32,707	3.6
Pocatello, ID	24,621	25,219	2.4
Portland, ME	32,327	33,309	3.0
Portland-Vancouver, OR-WA	37,285	37,650	1.0
Providence-Warwick-Pawtucket, RI	33,403	34,610	3.6
Provo-Orem, UT	28,266	28,416	.5
Pueblo, CO	27,097	27,763	2.5
Punta Gorda, FL	25,404	26,119	2.8
Racine, WI	33,319	34,368	3.1
Raleigh-Durham-Chapel Hill, NC	38,691	39,056	.9
Rapid City, SD	25,508	26,434	3.6
Reading, PA	32,807	33,912	3.4
Redding, CA	28,129	28,961	3.0
Reno, NV	34,231	34,744	1.5
Richland-Kennewick-Pasco, WA	33,370	35,174	5.4
Richmond-Petersburg, VA	35,879	36,751	2.4
Riverside-San Bernardino, CA	30,510	31,591	3.5
Roanoke, VA	30,330	31,775	4.8
Rochester, MN	37,753	39,036	3.4
Rochester, NY	34,327	34,827	1.5
Rockford, IL	32,104	32,827	2.3
Rocky Mount, NC	28,770	28,893	.4
Sacramento, CA	38,016	39,354	3.5
Saginaw-Bay City-Midland, MI	35,429	35,444	.0
St. Cloud, MN	28,263	29,535	4.5
St. Joseph, MO	27,734	28,507	2.8
St. Louis, MO-IL	35,928	36,712	2.2
Salem, OR	28,336	29,210	3.1
Salinas, CA	31,735	32,463	2.3
Salt Lake City-Ogden, UT	31,965	32,600	2.0
San Angelo, TX	26,147	26,321	.7
San Antonio, TX	30,650	31,336	2.2
San Diego, CA	38,418	39,305	2.3
San Francisco, CA	59,654	56,602	-5.1
San Jose, CA	65,931	63,056	-4.4
San Luis Obispo-Atascadero-Paso Robles, CA	29,092	29,981	3.1
Santa Barbara-Santa Maria-Lompoc, CA	33,626	34,382	2.2
Santa Cruz-Watsonville, CA	35,022	35,721	2.0
Santa Fe, NM	30,671	32,269	5.2
Santa Rosa, CA	36,145	36,494	1.0
Sarasota-Bradenton, FL	27,958	28,950	3.5
Savannah, GA	30,176	30,796	2.1
Scranton--Wilkes-Barre--Hazleton, PA	28,642	29,336	2.4
Seattle-Bellevue-Everett, WA	45,299	46,093	1.8
Sharon, PA	26,707	27,872	4.4
Sheboygan, WI	30,840	32,148	4.2
Sherman-Denison, TX	30,397	30,085	-1.0
Shreveport-Bossier City, LA	27,856	28,769	3.3
Sioux City, IA-NE	26,755	27,543	2.9
Sioux Falls, SD	28,962	29,975	3.5
South Bend, IN	30,769	31,821	3.4
Spokane, WA	29,310	30,037	2.5
Springfield, IL	36,061	37,336	3.5
Springfield, MO	27,338	27,987	2.4
Springfield, MA	32,801	33,972	3.6
State College, PA	29,939	30,910	3.2
Steubenville-Weirton, OH-WV	28,483	29,129	2.3

See footnotes at end of table.

26. Continued—Annual data: Quarterly Census of Employment and Wages, by metropolitan area, 2001-02

Metropolitan area[1]	Average annual wage[2]		
	2001	2002	Percent change, 2001-02
Stockton-Lodi, CA	$30,818	$31,958	3.7
Sumter, SC	24,450	24,982	2.2
Syracuse, NY	32,254	33,752	4.6
Tacoma, WA	31,261	32,507	4.0
Tallahassee, FL	29,708	30,895	4.0
Tampa-St. Petersburg-Clearwater, FL	31,678	32,458	2.5
Terre Haute, IN	27,334	28,415	4.0
Texarkana, TX-Texarkana, AR	26,492	27,717	4.6
Toledo, OH	32,299	33,513	3.8
Topeka, KS	30,513	31,707	3.9
Trenton, NJ	46,831	47,969	2.4
Tucson, AZ	30,690	31,673	3.2
Tulsa, OK	31,904	32,241	1.1
Tuscaloosa, AL	29,972	30,745	2.6
Tyler, TX	30,551	31,050	1.6
Utica-Rome, NY	27,777	28,500	2.6
Vallejo-Fairfield-Napa, CA	33,903	34,543	1.9
Ventura, CA	37,783	38,195	1.1
Victoria, TX	29,068	29,168	.3
Vineland-Millville-Bridgeton, NJ	32,571	33,625	3.2
Visalia-Tulare-Porterville, CA	24,732	25,650	3.7
Waco, TX	28,245	28,885	2.3
Washington, DC-MD-VA-WV	47,589	48,430	1.8
Waterloo-Cedar Falls, IA	29,119	29,916	2.7
Wausau, WI	29,402	30,292	3.0
West Palm Beach-Boca Raton, FL	35,957	36,550	1.6
Wheeling, WV-OH	26,282	26,693	1.6
Wichita, KS	32,983	33,429	1.4
Wichita Falls, TX	25,557	26,387	3.2
Williamsport, PA	27,801	27,988	.7
Wilmington-Newark, DE-MD	42,177	43,401	2.9
Wilmington, NC	29,287	29,157	-.4
Yakima, WA	24,204	24,934	3.0
Yolo, CA	35,352	35,591	.7
York, PA	31,936	32,609	2.1
Youngstown-Warren, OH	28,789	29,799	3.5
Yuba City, CA	27,781	28,967	4.3
Yuma, AZ	22,415	23,429	4.5
Aguadilla, PR	18,061	19,283	6.8
Arecibo, PR	16,600	18,063	8.8
Caguas, PR	18,655	19,706	5.6
Mayaguez, PR	17,101	17,500	2.3
Ponce, PR	17,397	18,187	4.5
San Juan-Bayamon, PR	20,948	21,930	4.7

[1] Includes data for Metropolitan Statistical Areas (MSA) and Primary Metropolitan Statistical Areas (PMSA) as defined by OMB Bulletin No. 99-04. In the New England areas, the New England County Metropolitan Area (NECMA) definitions were used.

[2] Each year's total is based on the MSA definition for the specific year. Annual changes include differences resulting from changes in MSA definitions.

[3] Totals do not include the six MSAs within Puerto Rico.

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

27. Annual data: Employment status of the population

[Numbers in thousands]

Employment status	1993	1994[1]	1995	1996	1997[1]	1998[1]	1999[1]	2000[1]	2001	2002	2003
Civilian noninstitutional population	194,838	196,814	198,584	200,591	203,133	205,220	207,753	212,577	215,092	217,570	221,168
Civilian labor force	129,200	131,056	132,304	133,943	136,297	137,673	139,368	142,583	143,734	144,863	146,510
Labor force participation rate	66.3	66.6	66.6	66.8	67.1	67.1	67.1	67.1	66.8	66.6	66.2
Employed	120,259	123,060	124,900	126,708	129,558	131,463	133,488	136,891	136,933	136,485	137,736
Employment-population ratio	61.7	62.5	62.9	63.2	63.8	64.1	64.3	64.4	63.7	62.7	62.3
Unemployed	8,940	7,996	7,404	7,236	6,739	6,210	5,880	5,692	6,801	8,378	8,774
Unemployment rate	6.9	6.1	5.6	5.4	4.9	4.5	4.2	4.0	4.7	5.8	6.0
Not in the labor force	65,638	65,758	66,280	66,647	66,836	67,547	68,385	69,994	71,359	72,707	74,658

[1] Not strictly comparable with prior years.

28. Annual data: Employment levels by industry

[In thousands]

Industry	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total private employment	91,855	95,016	97,866	100,169	103,113	106,021	108,686	110,996	110,707	108,828	108,356
Total nonfarm employment	110,844	114,291	117,298	119,708	122,770	125,930	128,993	131,785	131,826	130,341	129,931
Goods-producing	22,219	22,774	23,156	23,410	23,886	24,354	24,465	24,649	23,873	22,557	21,817
Natural resources and mining	666	659	641	637	654	645	598	599	606	583	571
Construction	4,779	5,095	5,274	5,536	5,813	6,149	6,545	6,787	6,826	6,716	6,722
Manufacturing	16,744	17,021	17,241	17,237	17,419	17,560	17,322	17,263	16,441	15,259	14,525
Private service-providing	69,636	72,242	74,710	76,759	79,227	81,667	84,221	86,346	86,834	86,271	86,538
Trade, transportation, and utilities	22,378	23,128	23,834	24,239	24,700	25,186	25,771	26,225	25,983	25,497	25,275
Wholesale trade	5,093.2	5,247.3	5,433.1	5,522.0	5,663.9	5,795.2	5,892.5	5,933.2	5,772.7	5,652.3	5,605.6
Retail trade	13,020.5	13,490.8	13,896.7	14,142.5	14,388.9	14,609.3	14,970.1	15,279.8	15,238.6	15,025.1	14,911.5
Transportation and warehousing	3,553.8	3,701.0	3,837.8	3,935.3	4,026.5	4,168.0	4,300.3	4,410.3	4,372.0	4,223.6	4,176.7
Utilities	710.7	689.3	666.2	639.6	620.9	613.4	608.5	601.3	599.4	596.2	580.8
Information	2,668	2,738	2,843	2,940	3,084	3,218	3,419	3,631	3,629	3,395	3,198
Financial activities	6,709	6,867	6,827	6,969	7,178	7,462	7,648	7,687	7,807	7,847	7,974
Professional and business services	11,495	12,174	12,844	13,462	14,335	15,147	15,957	16,666	16,476	15,976	15,997
Education and health services	12,303	12,807	13,289	13,683	14,087	14,446	14,798	15,109	15,645	16,199	16,577
Leisure and hospitality	9,732	10,100	10,501	10,777	11,018	11,232	11,543	11,862	12,036	11,986	12,125
Other services	4,350	4,428	4,572	4,690	4,825	4,976	5,087	5,168	5,258	5,372	5,393
Government	18,989	19,275	19,432	19,539	19,664	19,909	20,307	20,790	21,118	21,513	21,575

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

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

Industry	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Private sector:											
Average weekly hours	34.3	34.5	34.3	34.3	34.5	34.5	34.3	34.3	34.0	33.9	33.7
Average hourly earnings (in dollars)	11.03	11.32	11.64	12.03	12.49	13.00	13.47	14.00	14.53	14.95	15.35
Average weekly earnings (in dollars)	378.40	390.73	399.53	412.74	431.25	448.04	462.49	480.41	493.20	506.07	517.36
Goods-producing:											
Average weekly hours	40.6	41.1	40.8	40.8	41.1	40.8	40.8	40.7	39.9	39.9	39.8
Average hourly earnings (in dollars)	12.28	12.63	12.96	13.38	13.82	14.23	14.71	15.27	15.78	16.33	16.80
Average weekly earnings (in dollars)	498.82	519.58	528.62	546.48	568.43	580.99	599.99	621.86	630.04	651.61	669.23
Natural resources and mining											
Average weekly hours	44.9	45.3	45.3	46.0	46.2	44.9	44.2	44.4	44.6	43.2	43.6
Average hourly earnings (in dollars)	14.12	14.41	14.78	15.10	15.57	16.20	16.33	16.55	17.00	17.19	17.58
Average weekly earnings (in dollars)	634.77	653.14	670.32	695.07	720.11	727.28	721.74	734.92	757.92	741.97	766.83
Construction:											
Average weekly hours	38.4	38.8	38.8	38.9	38.9	38.8	39.0	39.2	38.7	38.4	38.4
Average hourly earnings (in dollars)	14.04	14.38	14.73	15.11	15.67	16.23	16.80	17.48	18.00	18.52	18.95
Average weekly earnings (in dollars)	539.81	558.53	571.57	588.48	609.48	629.75	655.11	685.78	695.89	711.82	727.11
Manufacturing:											
Average weekly hours	41.1	41.7	41.3	41.3	41.7	41.4	41.4	41.3	40.3	40.5	40.4
Average hourly earnings (in dollars)	11.70	12.04	12.34	12.75	13.14	13.45	13.85	14.32	14.76	15.29	15.74
Average weekly earnings (in dollars)	480.80	502.12	509.26	526.55	548.22	557.12	573.17	590.65	595.19	618.75	636.07
Private service-providing:											
Average weekly hours	32.5	32.7	32.6	32.6	32.8	32.8	32.7	32.7	32.5	32.5	32.4
Average hourly earnings (in dollars)	10.60	10.87	11.19	11.57	12.05	12.59	13.07	13.60	14.16	14.56	14.96
Average weekly earnings (in dollars)	345.03	354.97	364.14	376.72	394.77	412.78	427.30	445.00	460.32	472.88	484.00
Trade, transportation, and utilities:											
Average weekly hours	34.1	34.3	34.1	34.1	34.3	34.2	33.9	33.8	33.5	33.6	33.6
Average hourly earnings (in dollars)	10.55	10.80	11.10	11.46	11.90	12.39	12.82	13.31	13.70	14.02	14.34
Average weekly earnings (in dollars)	359.33	370.38	378.79	390.64	407.57	423.30	434.31	449.88	459.53	471.27	481.10
Wholesale trade:											
Average weekly hours	38.5	38.8	38.6	38.6	38.8	38.6	38.6	38.8	38.4	38.0	37.8
Average hourly earnings (in dollars)	12.57	12.93	13.34	13.80	14.41	15.07	15.62	16.28	16.77	16.98	17.36
Average weekly earnings (in dollars)	484.46	501.17	515.14	533.29	559.39	582.21	602.77	631.40	643.45	644.38	657.12
Retail trade:											
Average weekly hours	30.7	30.9	30.8	30.7	30.9	30.9	30.8	30.7	30.7	30.9	30.9
Average hourly earnings (in dollars)	8.36	8.61	8.85	9.21	9.59	10.05	10.45	10.86	11.29	11.67	11.90
Average weekly earnings (in dollars)	484.46	501.17	515.14	533.29	559.39	582.21	602.77	631.40	643.45	644.38	657.12
Transportation and warehousing:											
Average weekly hours	38.9	39.5	38.9	39.1	39.4	38.7	37.6	37.4	36.7	36.8	36.8
Average hourly earnings (in dollars)	12.71	12.84	13.18	13.45	13.78	14.12	14.55	15.05	15.33	15.76	16.25
Average weekly earnings (in dollars)	494.36	507.27	513.37	525.60	542.55	546.86	547.97	562.31	562.70	579.75	597.79
Utilities:											
Average weekly hours	42.1	42.3	42.3	42.0	42.0	42.0	42.0	42.0	41.4	40.9	41.1
Average hourly earnings (in dollars)	17.95	18.66	19.19	19.78	20.59	21.48	22.03	22.75	23.58	23.96	24.76
Average weekly earnings (in dollars)	756.35	789.98	811.52	830.74	865.26	902.94	924.59	955.66	977.18	979.09	1,016.94
Information:											
Average weekly hours	36.0	36.0	36.0	36.4	36.3	36.6	36.7	36.8	36.9	36.5	36.2
Average hourly earnings (in dollars)	14.86	15.32	15.68	16.30	17.14	17.67	18.40	19.07	19.80	20.20	21.01
Average weekly earnings (in dollars)	535.25	551.28	564.98	592.68	622.40	646.52	675.32	700.89	731.11	738.17	761.13
Financial activities:											
Average weekly hours	35.5	35.5	35.5	35.5	35.7	36.0	35.8	35.9	35.8	35.6	35.5
Average hourly earnings (in dollars)	11.36	11.82	12.28	12.71	13.22	13.93	14.47	14.98	15.59	16.17	17.13
Average weekly earnings (in dollars)	403.02	419.20	436.12	451.49	472.37	500.95	517.57	537.37	558.02	575.51	608.87
Professional and business services:											
Average weekly hours	34.0	34.1	34.0	34.1	34.3	34.3	34.4	34.5	34.2	34.2	34.1
Average hourly earnings (in dollars)	11.96	12.15	12.53	13.00	13.57	14.27	14.85	15.52	16.33	16.81	17.20
Average weekly earnings (in dollars)	406.20	414.16	426.44	442.81	465.51	490.00	510.99	535.07	557.84	574.66	586.68
Education and health services:											
Average weekly hours	32.0	32.0	32.0	31.9	32.2	32.2	32.1	32.2	32.3	32.4	32.3
Average hourly earnings (in dollars)	11.21	11.50	11.80	12.17	12.56	13.00	13.44	13.95	14.64	15.21	15.64
Average weekly earnings (in dollars)	359.08	368.14	377.73	388.27	404.65	418.82	431.35	449.29	473.39	492.74	505.76
Leisure and hospitality:											
Average weekly hours	25.9	26.0	25.9	25.9	26.0	26.2	26.1	26.1	25.8	25.8	25.6
Average hourly earnings (in dollars)	6.32	6.46	6.62	6.82	7.13	7.48	7.76	8.11	8.35	8.58	8.76
Average weekly earnings (in dollars)	163.45	168.00	171.43	176.48	185.81	195.82	202.87	211.79	215.19	221.26	224.25
Other services:											
Average weekly hours	32.6	32.7	32.6	32.5	32.7	32.6	32.5	32.5	32.3	32.0	31.4
Average hourly earnings (in dollars)	9.90	10.18	10.51	10.85	11.29	11.79	12.26	12.73	13.27	13.72	13.84
Average weekly earnings (in dollars)	322.69	332.44	342.36	352.62	368.63	384.25	398.77	413.41	428.64	439.76	434.49

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,[1] by occupation and industry group

[June 1989 = 100]

Series	2002				2003				2004	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2004	
Civilian workers[2]	158.4	159.9	161.3	162.2	164.5	165.8	167.6	168.4	170.7	1.4	3.8
Workers, by occupational group:											
White-collar workers	160.5	162.1	163.5	164.3	166.7	167.9	169.9	170.7	172.7	1.2	3.6
Professional specialty and technical	158.5	159.3	161.4	162.4	164.1	165.0	167.0	168.0	170.2	1.3	3.7
Executive, administrative, and managerial	163.7	165.6	166.3	166.7	171.1	172.0	174.0	174.9	175.8	.5	2.7
Administrative support, including clerical	162.0	163.3	164.9	166.1	168.3	170.0	171.7	172.5	175.3	1.6	4.2
Blue-collar workers	153.7	155.1	156.4	157.5	159.8	161.4	162.9	163.7	166.9	2.0	4.4
Service occupations	158.4	159.4	161.3	162.2	164.1	165.0	166.8	167.9	169.7	1.1	3.4
Workers, by industry division:											
Goods-producing	156.3	157.7	158.7	169.2	163.1	164.6	165.8	166.8	170.4	2.3	4.5
Manufacturing	156.6	158.1	159.1	160.5	164.0	165.4	166.5	167.1	171.7	2.8	4.7
Service-producing	159.1	160.7	162.2	162.8	165.0	166.2	168.2	169.1	170.8	1.0	3.5
Services	160.2	161.1	163.2	163.9	165.3	166.3	168.5	169.5	171.2	1.0	3.6
Health services	160.5	161.8	163.1	164.5	166.4	167.6	169.3	170.7	173.0	1.3	4.0
Hospitals	162.3	163.8	165.7	167.6	169.9	170.8	173.1	174.8	176.8	1.1	4.1
Educational services	157.1	157.4	161.6	162.8	163.6	164.2	166.9	167.6	168.5	.5	3.0
Public administration[3]	156.5	157.5	160.2	161.7	163.4	164.3	167.3	168.1	170.1	1.2	4.1
Nonmanufacturing	158.7	160.2	161.7	162.4	164.5	165.8	167.8	168.6	170.4	1.1	3.6
Private industry workers	158.9	160.7	161.6	162.3	165.0	166.4	168.1	168.8	171.4	1.5	3.9
Excluding sales occupations	159.0	160.5	161.6	162.4	165.1	166.6	168.1	169.0	171.6	1.5	3.9
Workers, by occupational group:											
White-collar workers	161.9	163.8	164.6	165.2	168.1	169.4	171.2	172.0	174.2	1.3	3.6
Excluding sales occupations	162.8	164.3	165.3	165.9	169.1	170.4	172.1	173.0	175.3	1.3	3.7
Professional specialty and technical occupations	161.5	162.5	163.6	164.4	166.5	167.7	169.4	170.5	173.4	1.7	4.1
Executive, administrative, and managerial occupations	164.4	166.6	167.0	167.2	172.1	173.1	175.0	175.9	176.8	.5	2.7
Sales occupations	157.7	161.6	161.6	161.9	163.5	165.1	167.2	167.1	169.2	1.3	3.5
Administrative support occupations, including clerical	162.8	164.2	165.6	166.7	169.0	170.9	172.3	173.2	176.1	1.7	4.2
Blue-collar workers	153.6	155.1	156.3	157.3	159.7	161.4	162.8	163.6	166.9	2.0	4.5
Precision production, craft, and repair occupations	153.7	155.7	156.9	157.8	160.0	162.0	163.1	164.2	167.1	1.8	4.4
Machine operators, assemblers, and inspectors	153.6	154.7	155.4	156.7	159.9	161.1	162.6	163.2	168.7	3.4	5.5
Transportation and material moving occupations	148.7	149.6	151.0	151.8	153.2	155.1	156.7	156.9	158.5	1.0	3.5
Handlers, equipment cleaners, helpers, and laborers	158.7	159.9	161.4	162.9	164.9	166.8	168.6	169.5	171.7	1.3	4.1
Service occupations	156.4	157.4	159.0	159.8	161.7	162.6	163.8	164.3	166.9	1.2	3.2
Production and nonsupervisory occupations[4]	157.1	158.7	159.7	160.5	162.6	164.1	165.7	166.6	169.3	1.6	4.1
Workers, by industry division:											
Goods-producing	156.2	157.6	158.6	160.1	163.0	164.5	165.7	166.5	170.3	2.3	4.5
Excluding sales occupations	155.5	156.9	157.9	159.2	162.4	163.8	165.0	165.9	169.8	2.4	4.6
White-collar occupations	160.1	161.9	162.9	164.3	167.8	169.2	170.1	170.5	173.5	1.8	3.4
Excluding sales occupations	158.4	160.2	161.1	162.3	166.3	167.5	168.5	169.2	172.2	1.8	3.5
Blue-collar occupations	153.6	154.8	155.9	157.3	159.9	161.5	162.9	163.9	168.1	2.6	5.1
Construction	154.1	155.2	156.3	157.9	159.1	161.1	162.3	163.3	164.6	.8	3.5
Manufacturing	156.6	158.1	159.1	160.5	164.0	165.4	166.5	167.1	171.7	2.8	4.7
White-collar occupations	159.1	161.1	162.2	163.3	167.1	168.7	169.5	169.6	173.2	2.1	3.7
Excluding sales occupations	156.7	158.6	159.6	160.7	165.1	166.4	167.4	167.8	171.3	2.1	3.8
Blue-collar occupations	154.6	155.8	156.7	158.3	161.6	162.8	164.1	165.1	170.4	3.2	5.4
Durables	156.9	158.3	158.9	160.6	164.4	165.5	166.6	167.3	172.4	3.0	4.9
Nondurables	156.0	157.5	159.2	160.3	163.1	164.9	166.0	166.6	170.4	2.3	4.5
Service-producing	159.9	161.8	162.7	163.1	165.6	167.0	168.8	169.7	171.6	1.1	3.6
Excluding sales occupations	160.9	162.4	163.5	164.0	166.6	168.0	169.7	170.6	172.5	1.1	3.5
White-collar occupations	162.1	164.0	164.7	165.1	167.9	169.2	171.2	172.0	174.1	1.2	3.7
Excluding sales occupations	164.1	165.6	166.5	167.0	169.9	171.3	173.1	174.2	176.2	1.1	3.7
Blue-collar occupations	153.2	155.2	156.6	156.9	158.7	160.8	162.2	162.6	164.1	.9	3.4
Service occupations	155.9	157.0	158.5	159.3	161.1	162.0	163.2	164.3	166.1	1.1	3.1
Transportation and public utilities	157.3	158.9	160.8	161.7	163.2	165.4	166.5	167.0	169.8	1.7	4.0
Transportation	152.5	153.9	155.4	156.1	157.8	158.9	159.4	159.6	162.0	1.5	2.7
Public utilities	163.9	165.5	168.2	169.2	170.5	174.2	176.4	177.0	180.4	1.9	5.8
Communications	166.0	166.1	169.0	170.1	171.3	175.5	178.4	179.0	182.2	1.8	6.4
Electric, gas, and sanitary services	161.3	164.8	167.2	168.1	169.5	172.6	173.8	174.6	178.2	2.1	5.1
Wholesale and retail trade	156.5	159.5	159.6	159.7	161.3	162.5	164.3	165.0	166.3	.8	3.1
Excluding sales occupations	157.5	160.0	160.3	160.4	161.8	162.7	165.0	165.9	167.4	.9	3.5
Wholesale trade	161.9	166.3	165.9	166.7	169.5	171.3	172.0	172.0	173.8	1.0	2.5
Excluding sales occupations	162.3	164.4	166.1	167.2	168.4	169.9	171.2	171.3	173.7	1.4	3.1
Retail trade	153.5	155.6	156.0	155.8	156.6	157.4	159.9	161.0	162.1	.7	3.5
General merchandise stores	152.4	154.2	156.1	155.1	156.4	159.2	161.2	165.6	165.8	.1	6.0
Food stores	152.9	154.5	156.3	156.3	157.5	158.6	159.3	160.3	162.1	1.1	2.9

See footnotes at end of table.

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

[June 1989 = 100]

Series	2002				2003				2004	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2004	
Finance, insurance, and real estate	165.2	167.3	168.0	168.5	176.7	178.3	180.2	180.9	182.5	0.9	3.3
Excluding sales occupations	169.8	171.3	172.1	173.1	182.0	184.0	1,853.0	186.1	186.6	.3	2.5
Banking, savings and loan, and other credit agencies	182.1	184.2	184.6	185.3	204.3	206.3	207.6	209.0	207.2	–.9	1.4
Insurance	164.0	166.1	167.1	167.9	172.1	173.9	175.1	176.2	177.8	.9	3.3
Services	162.6	163.7	164.9	165.4	167.1	168.4	170.4	171.4	173.5	1.2	3.8
Business services	166.3	166.6	167.2	167.5	168.5	169.2	171.9	172.6	174.8	1.3	3.7
Health services	160.6	162.0	163.2	164.4	166.5	167.9	169.4	170.8	173.3	1.5	4.1
Hospitals	162.8	164.5	166.2	168.1	170.8	171.9	173.9	175.9	178.1	1.3	4.3
Educational services	168.5	169.0	173.5	175.2	176.3	177.1	180.2	181.3	183.1	1.0	3.9
Colleges and universities	168.1	168.4	172.0	173.7	174.5	175.4	178.4	179.4	181.2	1.0	3.8
Nonmanufacturing	159.3	161.1	162.0	162.5	164.9	166.4	168.1	169.0	170.9	1.1	3.6
White-collar workers	162.2	164.1	164.8	165.3	168.0	169.3	171.2	172.1	174.1	1.2	3.6
Excluding sales occupations	164.2	165.7	166.6	167.1	170.0	171.4	173.2	174.2	176.2	1.1	3.6
Blue-collar occupations	152.2	154.0	155.4	155.9	157.5	159.7	161.1	161.7	163.4	1.1	3.7
Service occupations	155.9	156.9	158.4	159.2	161.1	162.0	163.2	162.4	166.0	1.1	3.0
State and local government workers	156.1	156.7	160.1	161.5	162.6	163.2	165.9	166.8	168.0	.7	3.3
Workers, by occupational group:											
White-collar workers	155.2	155.7	159.3	160.7	161.7	162.2	164.9	165.7	166.8	.7	3.2
Professional specialty and technical	153.6	154.1	158.1	159.4	160.2	160.8	163.4	164.1	165.1	.6	3.1
Executive, administrative, and managerial	159.5	159.6	162.3	163.8	165.3	165.7	168.0	169.1	170.1	.6	2.9
Administrative support, including clerical	156.9	158.0	161.0	162.4	163.8	164.4	167.9	168.5	170.4	1.1	4.0
Blue-collar workers	154.0	154.7	158.4	159.8	161.3	161.7	163.6	165.2	166.7	.9	3.3
Workers, by industry division:											
Services	155.5	155.9	159.7	160.9	161.8	162.3	164.9	165.7	166.5	.5	2.9
Services excluding schools[5]	157.9	158.7	161.0	162.8	164.0	164.2	166.8	168.2	169.4	.7	3.3
Health services	160.4	161.4	163.5	165.5	166.4	166.7	169.5	171.0	172.2	.7	3.5
Hospitals	160.7	161.8	164.1	166.2	167.0	167.3	170.3	171.4	172.4	.6	3.2
Educational services	154.8	155.1	159.2	160.3	161.1	161.7	164.3	165.0	165.7	.4	2.9
Schools	155.1	155.4	159.6	160.7	161.4	162.0	164.7	165.3	166.0	.4	2.9
Elementary and secondary	153.4	153.6	157.7	158.8	159.4	160.0	163.0	163.7	164.4	.4	3.1
Colleges and universities	160.0	160.4	164.7	165.8	167.0	167.5	169.2	170.0	170.7	.4	2.2
Public administration[3]	156.5	157.9	160.2	161.7	163.4	164.3	167.3	168.1	170.1	1.2	4.1

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

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

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

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

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

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

[June 1989 = 100]

Series	2002				2003				2004	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2004	
Civilian workers[1]	154.8	156.1	157.2	157.8	159.3	160.3	161.8	162.3	163.3	0.6	2.5
Workers, by occupational group:											
White-collar workers	157.0	158.4	159.6	160.1	161.9	162.9	164.5	165.1	166.1	.6	2.6
Professional specialty and technical	155.6	156.2	158.0	158.6	159.3	160.1	161.8	162.5	163.8	.8	2.8
Executive, administrative, and managerial	160.7	162.6	163.5	163.8	167.9	169.0	170.5	171.2	171.4	.1	2.1
Administrative support, including clerical	157.3	158.4	159.6	160.6	161.8	163.1	164.3	164.9	166.3	.8	2.8
Blue-collar workers	149.7	151.0	151.9	152.6	153.8	154.8	155.8	156.3	157.3	.6	2.3
Service occupations	154.2	155.1	`56.2	156.9	158.0	158.7	159.8	160.6	161.2	.4	2.0
Workers, by industry division:											
Goods-producing	151.8	153.1	153.9	155.1	156.3	157.5	158.3	160.6	159.9	.8	2.3
Manufacturing	153.1	154.5	155.4	156.5	158.0	159.0	159.7	160.1	161.3	.7	2.1
Service-producing	155.9	157.2	156.4	158.8	160.5	161.4	163.0	163.6	164.6	.6	2.6
Services	158.1	158.8	160.7	161.1	161.9	162.8	164.7	165.4	166.5	.7	2.8
Health services	157.3	158.5	159.6	160.9	162.0	163.2	164.7	165.9	167.7	1.1	3.5
Hospitals	157.2	158.6	160.3	162.2	163.5	164.4	166.3	167.7	169.0	.8	3.4
Educational services	155.3	155.6	159.3	160.1	160.4	160.7	162.7	163.2	163.6	.2	2.0
Public administration[2]	152.5	153.4	154.8	155.8	157.2	158.0	159.4	160.0	161.1	.7	2.5
Nonmanufacturing	155.0	156.4	157.5	158.0	159.6	160.5	162.1	162.7	163.7	.6	2.6
Private industry workers	154.7	156.3	157.0	157.5	159.3	160.4	161.7	162.3	163.4	.7	2.6
Excluding sales occupations	154.9	156.1	157.0	157.9	159.4	160.5	161.7	162.4	163.5	.7	2.6
Workers, by occupational group:											
White-collar workers	157.7	159.4	160.0	160.4	162.6	163.8	165.3	165.9	167.1	.7	2.8
Excluding sales occupations	158.6	160.0	169.8	160.8	163.6	164.8	166.2	167.0	168.1	.7	2.8
Professional specialty and technical occupations	156.7	157.4	158.2	158.5	159.5	160.5	162.1	163.0	164.7	1.0	3.3
Executive, administrative, and managerial occupations	161.3	163.6	164.3	164.5	169.1	170.3	171.8	172.5	172.7	.1	2.1
Sales occupations	153.6	157.0	156.9	156.8	158.1	159.3	161.6	161.1	162.6	.9	2.8
Administrative support occupations, including clerical	158.2	159.2	160.3	161.3	162.6	164.0	165.1	165.7	167.2	.9	2.8
Blue-collar workers	149.6	150.9	151.7	152.4	153.6	154.6	155.6	156.1	157.2	.7	2.3
Precision production, craft, and repair occupations	149.2	151.0	151.8	152.3	153.4	154.7	155.5	156.2	157.1	.6	2.4
Machine operators, assemblers, and inspectors	150.5	151.6	152.0	153.2	154.7	155.3	156.8	156.9	158.6	1.1	2.5
Transportation and material moving occupations	144.8	145.2	146.3	146.9	147.8	149.0	149.8	149.8	150.4	.4	1.8
Handlers, equipment cleaners, helpers, and laborers	154.2	155.1	156.0	157.2	158.4	159.0	159.9	160.6	161.8	.7	2.1
Service occupations	152.0	152.8	153.9	154.4	155.5	156.1	157.1	157.8	158.4	.4	1.9
Production and nonsupervisory occupations[3]	152.7	154.0	154.7	155.2	156.4	157.4	158.8	159.4	160.7	.8	2.7
Workers, by industry division:											
Goods-producing	151.7	153.1	153.9	155.0	156.3	157.4	158.3	158.7	159.9	.8	2.3
Excluding sales occupations	150.9	152.2	153.0	154.0	155.4	156.5	157.4	158.0	159.2	.8	2.4
White-collar occupations	155.0	156.6	157.9	158.6	160.0	161.4	161.9	162.1	163.2	.7	2.0
Excluding sales occupations	152.9	154.5	155.4	156.3	158.0	159.2	159.9	160.4	161.5	.7	2.2
Blue-collar occupations	149.6	150.7	151.5	152.6	153.8	154.8	155.9	156.4	157.7	.8	2.5
Construction	147.0	148.2	149.0	150.2	150.6	152.4	153.6	154.0	155.1	.7	3.0
Manufacturing	153.1	154.4	155.4	156.5	158.0	159.0	159.7	160.1	161.3	.7	2.1
White-collar occupations	154.9	156.6	157.7	158.6	160.1	161.6	162.0	162.1	163.3	.7	2.0
Excluding sales occupations	152.3	153.9	155.0	155.9	157.7	158.9	159.5	160.0	161.2	.8	2.2
Blue-collar occupations	151.7	152.8	153.5	154.7	156.3	156.9	157.9	158.5	159.8	.8	2.2
Durables	153.9	155.3	156.0	157.3	158.8	159.7	160.6	160.9	161.9	.6	2.0
Nondurables	151.9	153.1	154.4	155.2	156.6	157.8	158.3	158.7	160.4	1.1	2.4
Service-producing	156.1	157.7	158.4	158.6	160.6	161.7	163.3	163.9	165.0	.7	2.7
Excluding sales occupations	157.2	158.5	159.3	159.6	161.7	162.8	164.2	165.0	166.0	.6	2.7
White-collar occupations	158.2	159.9	160.5	160.7	163.0	164.1	166.0	166.6	167.8	.7	2.9
Excluding sales occupations	160.4	161.6	162.5	162.8	165.3	166.5	168.2	169.0	170.2	.7	3.0
Blue-collar occupations	149.4	151.1	151.8	152.0	153.2	154.3	155.1	155.4	156.2	.5	2.0
Service occupations	151.6	152.4	153.5	154.1	155.1	155.6	156.6	157.4	158.0	.4	1.9
Transportation and public utilities	150.5	152.1	153.4	154.1	154.8	155.6	156.0	156.5	157.6	.7	1.8
Transportation	147.4	148.6	149.6	150.1	150.5	150.6	150.4	150.8	151.7	.6	.8
Public utilities	154.3	156.4	158.2	159.3	160.4	162.1	163.4	164.1	165.3	.7	3.1
Communications	155.3	157.1	159.6	160.7	161.9	163.4	165.4	165.9	167.0	.7	3.2
Electric, gas, and sanitary services	153.0	155.5	156.5	157.4	158.6	160.4	161.0	161.8	163.3	.9	3.0
Wholesale and retail trade	153.0	155.7	155.5	155.5	156.7	157.5	159.2	159.5	160.3	.5	2.3
Excluding sales occupations	–	–	–	–	–	–	–	–	–	–	–
Wholesale trade	157.2	161.3	160.4	161.0	163.4	164.7	164.8	165.3	166.2	.5	1.7
Excluding sales occupations	159.4	161.2	162.6	163.7	163.9	165.2	165.7	166.3	167.8	.9	2.4
Retail trade	150.9	152.7	152.9	152.7	153.1	153.8	156.3	156.5	157.3	.5	2.7
General merchandise stores	147.9	148.9	150.1	149.2	149.8	152.0	153.1	153.6	154.1	.3	2.9
Food stores	148.0	148.9	150.1	150.3	151.0	151.6	152.2	152.8	153.8	.7	1.9

See footnotes at end of table.

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

[June 1989 = 100]

Series	2002				2003				2004	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2004	
Finance, insurance, and real estate	160.3	162.0	162.4	162.6	171.1	172.4	174.1	174.5	175.2	0.4	2.4
Excluding sales occupations	164.5	165.7	166.1	167.3	176.7	178.5	179.2	210.2	179.2	–.3	1.4
Banking, savings and loan, and other credit agencies	181.2	182.8	182.7	183.9	206.4	208.7	209.1	164.5	206.7	–1.7	.1
Insurance	157.1	158.6	159.6	159.1	161.6	163.0	163.9	164.5	165.1	.4	2.2
Services	159.5	160.3	161.5	161.7	162.8	164.0	165.9	166.7	168.1	.8	3.3
Business services	164.0	164.0	164.6	164.8	165.6	166.4	169.1	169.8	171.0	.7	3.3
Health services	157.3	158.4	159.9	160.7	161.9	163.2	164.6	135.8	167.8	1.2	3.6
Hospitals	157.1	158.6	160.2	162.1	163.6	164.6	166.5	167.9	169.4	.9	3.5
Educational services	161.2	161.2	165.2	166.5	167.1	167.5	170.3	171.0	171.9	.5	2.9
Colleges and universities	159.9	159.9	163.1	164.3	164.4	165.1	167.6	168.4	169.5	.7	3.1
Nonmanufacturing	155.0	156.5	157.2	157.5	159.4	160.5	162.1	162.6	163.7	.7	2.7
White-collar workers	158.0	159.6	160.2	160.5	162.8	163.9	165.7	166.3	167.5	.7	2.9
Excluding sales occupations	160.1	161.3	162.1	162.5	164.9	166.1	167.7	168.5	169.7	.7	2.9
Blue-collar occupations	147.5	149.0	149.8	150.2	151.1	152.4	153.4	153.8	154.7	.6	2.4
Service occupations	151.4	152.3	153.4	154.0	155.0	155.5	156.5	157.3	157.9	.4	1.9
State and local government workers	156.1	156.7	160.1	161.5	162.6	163.2	165.9	166.8	168.0	.4	2.1
Workers, by occupational group:											
White-collar workers	153.9	154.4	157.4	158.4	158.9	159.2	161.0	161.5	162.1	.4	2.0
Professional specialty and technical	153.6	154.1	157.5	158.4	158.8	159.1	161.0	161.4	162.1	.4	2.1
Executive, administrative, and managerial	156.6	156.8	159.0	160.1	160.9	161.0	162.5	163.3	163.5	.1	1.6
Administrative support, including clerical	151.9	152.8	155.1	156.0	156.9	157.2	159.1	159.5	160.4	.6	2.2
Blue-collar workers	151.6	152.1	154.5	155.1	156.2	156.5	157.6	158.3	158.9	.4	1.7
Workers, by industry division:											
Services	154.6	155.0	158.4	159.2	159.5	159.8	161.6	162.1	162.6	.3	1.9
Services excluding schools[4]	156.7	157.3	159.1	160.3	161.4	161.8	163.2	164.5	165.1	.4	2.3
Health services	157.8	158.6	160.5	162.2	162.9	163.5	165.1	166.7	167.4	.4	2.8
Hospitals	157.7	158.8	160.6	162.5	163.1	163.8	165.5	166.7	167.4	.4	2.6
Educational services	154.2	154.5	158.1	158.9	159.1	159.3	161.2	161.6	162.0	.2	1.8
Schools	154.3	154.6	158.3	159.0	159.2	159.5	161.4	161.8	162.1	.2	1.8
Elementary and secondary	153.4	153.6	157.4	158.1	158.2	158.5	160.6	160.9	161.3	.2	2.0
Colleges and universities	156.8	157.3	160.7	161.6	162.1	162.1	163.5	164.0	164.3	.2	1.4
Public administration[2]	152.5	153.4	154.8	155.8	157.2	158.0	159.4	160.0	161.1	.7	2.5

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

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

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

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

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

[June 1989 = 100]

Series	2002				2003				2004	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2004	
Private industry workers	169.3	171.6	173.1	174.6	179.6	182.0	184.3	185.8	192.2	3.4	7.0
Workers, by occupational group:											
White-collar workers	173.5	176.1	177.2	178.5	183.6	185.5	187.7	189.2	194.4	2.7	5.9
Blue-collar workers	162.2	164.0	166.2	167.8	172.7	176.1	178.4	179.9	188.3	4.7	9.0
Workers, by industry division:											
Goods-producing	165.8	167.4	168.8	171.0	178.0	180.2	182.3	183.8	193.7	5.4	8.8
Service-producing	170.7	173.3	174.9	175.9	179.9	182.3	184.7	186.2	190.6	2.4	5.9
Manufacturing	163.7	165.5	166.8	168.9	176.9	179.0	181.1	182.3	194.4	6.6	9.9
Nonmanufacturing	171.1	173.5	175.2	176.3	180.3	182.8	185.1	186.7	190.9	2.2	5.9

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

[June 1989 = 100]

Series	2002				2003				2004	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2004	
COMPENSATION											
Workers, by bargaining status[1]											
Union	154.8	156.3	158.1	159.5	162.1	164.1	165.7	166.8	171.4	2.8	5.7
Goods-producing	153.4	154.7	156.2	157.8	161.4	163.4	164.7	165.9	172.3	3.9	6.8
Service-producing	156.0	157.6	159.9	161.1	162.6	164.6	166.5	167.5	170.2	1.6	4.7
Manufacturing	153.4	154.6	155.9	157.9	162.3	163.8	165.0	166.3	175.0	5.2	7.8
Nonmanufacturing	155.0	156.6	158.8	159.9	161.4	163.7	165.5	166.5	168.8	1.4	4.6
Nonunion	159.6	161.4	162.5	162.8	165.4	166.8	168.4	169.1	171.3	1.3	3.6
Goods-producing	157.2	158.6	159.5	160.8	163.6	164.9	166.1	166.7	169.7	1.8	3.7
Service-producing	160.3	162.2	162.9	163.3	165.9	167.2	169.0	169.8	171.6	1.1	3.4
Manufacturing	157.6	159.1	160.1	161.3	164.5	165.8	166.9	167.3	170.6	2.0	3.7
Nonmanufacturing	159.9	161.7	162.4	162.9	165.4	166.7	168.5	139.3	171.1	1.1	3.4
Workers, by region[1]											
Northeast	158.3	159.9	160.5	161.3	163.8	165.2	166.9	167.9	170.2	1.4	3.9
South	156.2	157.6	158.9	159.0	160.6	161.6	163.2	163.9	166.4	1.5	3.6
Midwest (formerly North Central)	161.1	162.2	163.5	164.6	169.0	170.4	171.7	172.5	174.7	1.3	3.4
West	160.4	162.9	163.8	165.0	167.3	169.5	171.4	172.2	175.3	1.8	4.8
Workers, by area size[1]											
Metropolitan areas	159.1	160.9	161.8	162.5	165.2	166.6	168.3	169.1	171.5	1.4	3.8
Other areas	157.5	158.5	160.0	169.8	163.5	165.0	166.1	166.9	170.2	2.0	4.1
WAGES AND SALARIES											
Workers, by bargaining status[1]											
Union	148.4	149.8	151.3	152.5	153.3	154.3	155.3	156.2	157.2	.6	2.5
Goods-producing	147.2	158.6	150.0	151.2	152.4	153.9	154.8	155.4	156.3	.6	2.6
Service-producing	150.0	151.4	152.9	154.1	154.6	155.1	156.3	157.3	158.5	.8	2.5
Manufacturing	149.0	150.2	151.6	153.1	154.6	155.9	156.7	157.1	158.1	.6	2.3
Nonmanufacturing	148.1	149.6	151.1	152.1	152.5	153.5	154.6	155.6	156.6	.6	2.7
Nonunion	155.9	157.5	158.1	158.5	160.4	161.5	163.0	163.4	164.6	.7	2.6
Goods-producing	153.5	154.8	155.5	156.6	157.8	158.9	159.7	160.1	161.4	.8	2.3
Service-producing	156.7	158.3	158.9	159.0	161.2	162.3	164.0	164.5	165.6	.7	2.7
Manufacturing	154.7	156.1	156.8	157.8	159.3	160.2	160.9	161.3	162.6	.8	2.1
Nonmanufacturing	155.9	157.5	158.1	158.3	160.4	161.5	163.1	163.7	164.7	.6	2.7
Workers, by region[1]											
Northeast	153.5	154.9	155.1	155.7	157.3	158.4	160.0	160.9	162.0	.7	3.0
South	152.5	153.6	154.7	154.6	155.3	156.1	157.4	157.9	159.1	.8	2.4
Midwest (formerly North Central)	157.1	158.5	159.2	160.2	164.1	165.0	166.1	166.5	166.9	.2	1.7
West	156.4	158.7	159.3	160.1	161.3	163.1	164.7	165.2	166.8	1.0	3.4
Workers, by area size[1]											
Metropolitan areas	155.1	156.7	157.4	157.9	159.6	160.7	162.2	162.7	163.8	.7	2.6
Other areas	151.7	152.6	153.8	154.8	156.8	158.0	158.9	159.5	160.8	.8	2.6

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

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

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

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

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

NOTE: Dash indicates data not available.

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

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

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

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

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

NOTE: Dash indicates data not available.

36. Work stoppages involving 1,000 workers or more

Measure	Annual totals		2003[P]								2004[P]				
	2002	2003[P]	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Number of stoppages:															
Beginning in period	19	14	1	1	0	3	0	5	0	0	0	1	1	0	2
In effect during period	20	15	1	1	1	3	2	5	3	2	1	2	1	1	2
Workers involved:															
Beginning in period (in thousands)	46	129.2	1.3	4.0	.0	8.2	.0	82.2	8.0	.0	.0	6.5	2.2	.0	103.0
In effect during period (in thousands)	47	130.5	1.3	4.0	4.0	8.2	3.2	82.2	76.7	70.5	61.3	66.5	2.2	2.2	103.0
Days idle:															
Number (in thousands)	6,596	4,091.2	7.8	16.0	12.0	35.9	51.3	1,168.5	1,219.0	1,473.4	1,203.9	1,146.5	44.0	26.4	204.0
Percent of estimated working time[1]	([2])	.01	.00	([2])	([2])	([2])	.04	.04	.05	.05	.05	.05	.00	.00	.01

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

[2] Less than 0.005.

NOTE: Dash indicates data not available. P = preliminary.

37. 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		2003							2004				
	2002	2003	May	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May
CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS														
All items	179.9	184.0	183.5	183.9	184.6	185.2	185.0	184.5	184.3	184.2	186.2	187.4	188.0	189.1
All items (1967 = 100)	538.8	551.1	549.7	550.9	553.0	554.7	554.3	552.7	552.1	554.9	557.9	561.5	563.2	566.4
Food and beverages	176.8	180.5	179.4	180.3	180.9	181.3	182.2	182.9	184.7	184.3	184.5	184.9	185.0	186.5
Food	176.2	180.0	178.8	179.7	180.4	180.7	181.7	182.4	180.0	183.8	184.1	184.4	184.5	186.1
Food at home	175.6	179.4	177.8	178.9	179.7	180.1	181.5	182.4	184.1	184.0	184.0	184.3	184.1	186.6
Cereals and bakery products	198.0	202.8	203.0	204.5	204.5	203.5	203.1	202.5	202.9	203.9	204.4	204.8	205.5	206.1
Meats, poultry, fish, and eggs	162.1	169.3	164.7	168.2	169.7	171.1	174.0	179.3	181.1	179.9	179.7	179.5	179.2	181.1
Dairy and related products[1]	168.1	167.9	165.4	164.7	167.5	170.3	171.8	171.2	173.0	172.4	172.1	171.9	174.0	185.9
Fruits and vegetables	220.9	225.9	226.2	226.6	224.9	224.4	226.3	227.5	232.4	232.4	229.7	230.1	228.3	231.7
Nonalcoholic beverages and beverage materials	139.2	139.8	140.3	138.4	139.7	139.2	140.5	137.9	139.3	140.7	141.4	140.8	139.7	169.9
Other foods at home	160.8	162.6	162.1	167.7	163.2	163.1	163.0	162.0	163.0	162.8	163.7	165.1	165.0	165.4
Sugar and sweets	159.0	162.0	162.3	162.7	162.5	162.3	162.5	161.7	161.0	163.0	163.9	163.3	162.6	163.5
Fats and oils	155.4	157.4	157.6	156.3	157.7	157.6	159.7	157.3	157.7	160.7	162.3	166.2	166.2	169.4
Other foods	177.1	178.8	177.8	179.0	179.4	179.4	178.7	177.9	179.6	178.0	178.9	180.4	180.4	180.1
Other miscellaneous foods[1,2]	109.2	110.3	110.1	111.3	109.9	111.0	110.7	109.0	109.8	109.1	109.5	111.7	110.5	110.8
Food away from home[1]	178.3	182.1	181.5	182.2	182.6	182.8	183.3	183.8	184.3	184.9	185.5	185.8	186.2	186.7
Other food away from home[1,2]	117.7	121.3	120.5	121.3	121.4	121.8	122.3	122.7	122.9	123.9	124.0	124.1	124.7	124.8
Alcoholic beverages	183.6	187.2	186.7	187.2	187.1	187.9	188.1	188.6	188.7	189.4	189.9	190.8	191.8	191.7
Housing	180.3	184.8	184.5	185.9	186.1	185.8	185.7	185.1	185.1	186.3	187.0	187.9	188.4	188.9
Shelter	208.1	213.1	212.8	213.8	214.3	213.8	214.7	214.2	213.1	215.2	216.0	217.8	218.4	218.7
Rent of primary residence	199.7	205.5	204.9	205.6	206.1	206.6	206.9	207.5	205.5	208.3	208.8	209.2	209.7	210.2
Lodging away from home	118.3	119.3	121.4	124.8	125.1	118.5	120.9	115.0	119.3	117.2	120.0	128.1	129.1	128.2
Owners' equivalent rent of primary residence[3]	214.7	219.9	219.1	219.6	220.1	220.7	221.4	221.9	219.9	222.6	222.9	223.3	223.9	224.3
Tenants' and household insurance[1,2]	108.7	114.8	114.3	115.6	115.8	115.9	116.0	114.3	114.8	114.8	115.0	115.1	115.7	116.1
Fuels and utilities	143.6	154.5	153.7	159.4	159.2	159.6	155.0	152.9	154.5	156.3	156.9	155.2	155.6	158.1
Fuels	127.2	138.2	137.5	143.6	143.0	143.4	138.2	135.7	138.7	139.2	139.5	137.6	138.0	140.4
Fuel oil and other fuels	115.5	139.5	137.0	130.5	130.7	130.5	131.4	134.8	139.1	149.9	155.1	152.5	149.6	150.4
Gas (piped) and electricity	134.4	145.0	144.5	151.6	151.0	151.5	145.6	142.6	145.0	145.5	145.5	143.5	144.2	146.8
Household furnishings and operations	128.3	126.1	126.3	126.1	125.5	125.2	125.1	124.9	124.7	125.3	125.7	125.7	125.6	125.4
Apparel	124.0	120.9	122.5	116.2	117.2	122.0	124.8	123.1	119.0	115.8	118.6	123.5	124.3	123.4
Men's and boys' apparel	121.7	118.0	119.5	113.8	113.4	117.3	120.8	121.4	118.0	115.5	117.1	119.8	120.3	120.3
Women's and girls' apparel	115.8	113.1	115.5	106.1	107.9	115.5	118.8	115.7	110.9	105.7	110.3	117.6	118.7	116.9
Infants' and toddlers' apparel[1]	126.4	122.1	123.6	117.9	120.8	124.1	125.2	123.0	119.2	117.7	119.3	121.9	120.5	118.1
Footwear	121.4	119.6	119.7	117.5	117.8	120.3	121.8	121.0	118.5	115.9	117.0	120.1	121.0	120.3
Transportation	152.9	157.6	157.2	156.8	158.3	159.4	157.1	155.7	154.7	157.0	158.8	160.5	161.8	165.2
Private transportation	148.8	153.6	153.1	152.4	154.1	155.4	153.0	151.7	150.8	153.2	154.9	156.6	157.9	161.5
New and used motor vehicles[2]	99.2	96.5	97.4	96.5	96.0	95.1	94.6	94.6	94.4	94.3	94.4	94.2	94.1	94.0
New vehicles	140.0	137.9	138.1	137.7	136.8	136.4	136.5	137.5	138.0	138.0	138.3	137.9	137.6	137.4
Used cars and trucks[1]	152.0	142.9	147.9	145.7	143.3	139.0	135.1	132.0	131.0	130.8	131.0	131.2	131.3	131.8
Motor fuel	116.6	135.8	131.3	130.6	139.0	147.1	136.6	131.2	127.8	136.7	143.1	150.5	155.9	170.5
Gasoline (all types)	116.0	135.1	130.6	130.0	138.4	146.5	136.0	130.6	127.2	136.1	142.5	149.8	155.3	169.8
Motor vehicle parts and equipment	106.9	107.8	107.8	107.6	107.9	107.7	107.9	107.9	107.8	108.0	108.0	107.8	107.9	107.9
Motor vehicle maintenance and repair	190.2	195.6	194.9	196.0	195.7	196.2	196.9	197.2	198.0	198.2	198.2	198.5	198.6	199.0
Public transportation	207.4	209.3	211.6	216.7	213.8	211.2	211.3	207.9	205.6	206.3	208.1	209.9	211.5	210.7
Medical care	285.6	297.1	295.5	297.6	298.4	299.2	299.9	300.8	302.1	303.6	306.0	307.5	308.3	309.0
Medical care commodities	256.4	262.8	261.8	263.6	264.1	264.9	264.7	264.0	265.0	265.5	266.7	267.3	268.5	269.1
Medical care services	292.9	306.0	304.2	306.4	307.2	308.2	309.1	310.6	311.9	313.8	316.6	318.4	319.2	319.8
Professional services	253.9	261.2	261.1	260.9	261.7	262.2	263.0	263.0	261.2	262.5	268.0	269.7	270.6	270.9
Hospital and related services	367.8	394.8	388.9	394.7	398.6	399.6	400.7	405.6	407.0	409.7	412.5	413.8	413.6	414.6
Recreation[2]	106.2	107.5	107.6	107.7	107.7	107.7	107.6	107.8	107.7	107.9	108.4	108.8	109.0	108.8
Video and audio[1,2]	102.6	103.6	103.8	103.7	103.7	103.5	103.5	103.8	103.3	103.6	104.1	104.3	104.7	104.6
Education and communication[2]	107.9	109.8	108.6	108.9	110.1	110.9	110.9	110.8	110.9	111.1	111.2	111.1	110.9	110.6
Education[2]	126.0	134.4	131.4	132.6	136.2	138.7	139.1	139.0	139.4	140.1	140.4	140.6	140.7	140.9
Educational books and supplies	317.6	335.4	332.5	335.0	338.5	338.2	339.7	336.0	342.8	345.4	348.6	348.9	349.5	349.6
Tuition, other school fees, and child care	362.1	362.1	377.7	381.2	392.1	400.0	401.1	401.2	401.7	403.6	404.2	404.7	404.9	405.6
Communication[1,2]	92.3	89.7	89.8	89.4	89.0	88.6	88.4	88.2	88.2	88.1	88.1	87.7	87.4	86.9
Information and information processing[1,2]	90.8	87.8	87.9	87.5	87.0	86.7	86.4	86.2	86.2	86.1	86.1	85.7	85.4	84.8
Telephone services[1,2]	99.7	98.3	98.1	98.1	97.8	97.4	97.1	97.2	97.2	97.0	97.1	96.7	96.5	95.9
Information and information processing other than telephone services[1,4]	18.3	16.1	16.4	16.0	15.7	15.6	15.6	15.4	15.3	15.3	15.2	15.2	15.0	14.9
Personal computers and peripheral equipment[1,2]	22.2	17.6	18.0	17.2	16.7	16.3	16.5	16.3	16.2	16.2	16.0	15.8	15.9	15.7
Other goods and services	293.2	298.7	298.1	299.2	299.6	299.9	300.2	300.0	300.2	301.4	302.3	303.1	303.6	303.8
Tobacco and smoking products	461.5	469.0	465.6	469.1	471.8	468.7	469.5	469.1	470.4	473.0	472.6	473.6	473.3	473.5
Personal care[1]	174.7	178.0	177.9	178.4	178.4	179.0	179.1	179.0	179.0	179.7	180.4	180.9	181.3	181.4
Personal care products[1]	154.7	153.5	153.6	154.2	153.5	153.4	153.6	153.2	153.4	153.8	154.5	154.5	154.5	154.6
Personal care services[1]	188.4	193.2	193.0	193.2	193.9	195.4	195.6	194.2	194.3	194.6	195.2	195.8	196.1	196.6

See footnotes at end of table.

37. 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		2003								2004				
	2002	2003	Apr.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Miscellaneous personal services	274.4	283.5	282.0	283.8	284.1	284.3	285.3	285.8	287.0	287.1	288.8	290.4	291.6	292.7	293.1
Commodity and service group:															
Commodities	149.7	151.2	152.2	150.4	150.0	150.9	152.0	151.4	150.9	150.4	151.1	152.3	153.7	154.3	156.0
Food and beverages	176.8	180.5	179.0	180.2	180.3	180.9	181.3	182.2	182.9	184.1	184.3	184.5	184.9	185.0	186.5
Commodities less food and beverages	134.2	134.5	136.7	133.6	132.9	133.9	135.4	134.1	132.9	131.7	132.6	134.2	136.0	136.9	138.6
Nondurables less food and beverages	145.1	149.7	152.3	147.4	146.6	149.2	153.1	151.2	149.0	146.7	148.4	151.4	155.3	157.2	160.9
Apparel	124.0	120.9	123.9	119.5	116.2	117.2	122.0	124.8	123.1	119.0	115.8	118.6	123.5	124.3	123.4
Nondurables less food, beverages, and apparel	162.2	171.5	173.9	168.6	169.2	173.0	176.4	171.6	169.1	167.7	172.3	175.6	179.1	181.7	188.2
Durables	121.4	117.5	119.2	118.0	117.4	116.7	115.7	115.2	115.1	115.0	115.1	115.3	115.1	115.0	114.8
Services	209.8	216.5	215.1	216.8	217.6	218.0	218.1	218.4	217.9	217.9	219.1	219.9	221.0	221.5	221.9
Rent of shelter[3]	216.7	221.9	220.8	221.7	222.6	223.1	222.6	223.5	223.0	222.9	224.1	224.9	226.8	227.4	227.7
Transporatation services	209.1	216.3	215.3	217.1	218.0	217.2	216.8	218.9	218.6	217.7	218.7	219.3	219.7	220.0	220.0
Other services	246.4	254.4	252.5	253.0	253.7	255.5	257.0	257.2	257.3	257.4	258.4	259.2	259.5	259.7	259.6
Special indexes:															
All items less food	180.5	184.7	184.7	184.5	184.6	185.3	186.0	185.6	184.9	184.4	185.5	186.6	188.0	188.6	189.6
All items less shelter	170.8	174.6	174.7	174.3	174.2	175.0	176.0	175.5	174.9	174.7	175.6	176.7	177.6	178.2	179.6
All items less medical care	174.3	178.1	178.0	177.9	178.0	178.7	179.2	179.1	178.5	178.2	179.1	180.1	181.3	181.8	182.9
Commodities less food	136.0	136.5	138.6	135.5	134.9	135.9	137.3	136.1	135.0	133.8	134.7	136.3	138.0	138.9	140.6
Nondurables less food	147.4	151.9	154.3	151.1	149.0	151.5	155.2	153.3	151.3	149.2	150.8	153.7	157.5	159.3	162.8
Nondurables less food and apparel	163.3	172.1	174.2	169.4	170.0	173.4	176.6	172.2	170.0	168.8	173.0	176.1	179.4	181.7	187.7
Nondurables	161.1	165.3	165.9	163.9	163.5	165.2	167.4	166.8	166.1	165.4	166.4	168.1	170.3	171.4	174.1
Services less rent of shelter[3]	217.5	226.4	224.6	227.2	228.0	228.4	229.2	228.7	228.2	228.4	229.7	230.6	230.7	231.1	231.7
Services less medical care services	202.5	208.7	207.5	209.1	209.8	210.3	210.3	210.5	209.9	209.9	211.0	211.7	212.7	213.2	213.6
Energy	121.7	136.5	138.1	136.5	136.8	140.6	144.6	136.9	133.1	131.8	137.4	140.6	143.1	145.9	154.1
All items less energy	187.7	190.6	190.2	190.3	190.5	190.8	191.0	191.7	191.6	191.5	191.9	192.7	193.7	194.1	194.3
All items less food and energy	190.5	193.2	193.1	193.0	193.2	193.5	193.6	194.3	193.9	193.6	194.0	194.9	196.1	196.5	196.5
Commodities less food and energy	143.7	140.9	142.5	140.8	139.9	139.7	140.2	140.4	139.9	139.0	138.5	139.3	140.3	140.5	140.2
Energy commodities	117.1	136.7	141.7	130.9	131.3	139.2	146.9	137.0	132.1	129.0	138.2	144.6	151.3	156.3	170.1
Services less energy	217.5	223.8	222.5	223.5	224.3	224.9	224.9	225.8	225.6	225.5	226.6	227.5	228.9	229.4	229.6
CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS															
All items	175.9	179.8	179.8	179.6	179.6	180.6	181.0	180.7	180.2	179.9	180.9	181.9	182.9	183.5	184.7
All items (1967 = 100)	523.9	535.6	535.5	534.3	535.0	537.1	539.2	538.2	536.7	536.0	538.7	541.7	544.8	546.5	550.2
Food and beverages	176.1	179.9	178.3	179.5	179.6	180.2	180.7	181.7	182.4	183.6	183.8	184.0	184.4	184.5	186.0
Food	176.5	179.4	177.7	178.9	179.1	179.7	180.2	181.2	181.9	183.1	183.3	183.5	183.8	183.9	185.6
Food at home	175.1	178.5	176.4	177.9	178.0	178.8	179.4	180.7	181.6	183.3	183.2	183.2	183.5	183.3	185.8
Cereals and bakery products	198.0	202.8	201.8	203.7	204.4	204.5	203.5	203.2	202.4	202.4	203.8	204.4	204.9	205.5	206.0
Meats, poultry, fish, and eggs	162.0	169.2	165.2	167.0	168.2	169.5	170.9	173.8	179.2	181.0	179.9	179.7	179.6	179.1	181.1
Dairy and related products[1]	167.2	167.6	165.6	163.5	164.4	167.0	170.2	171.7	171.0	172.7	172.2	171.7	171.3	173.6	186.1
Fruits and vegetables	222.9	224.3	220.0	225.7	225.3	223.8	223.4	224.9	225.3	229.7	229.7	227.5	227.8	225.5	228.9
Nonalcoholic beverages and beverage materials	138.6	139.1	139.6	139.6	137.5	138.9	138.5	139.8	137.3	138.6	140.0	140.8	140.1	139.1	139.3
Other foods at home	160.4	162.2	161.7	163.0	162.3	162.6	162.8	162.5	161.6	162.5	162.3	163.3	164.7	164.6	165.1
Sugar and sweets	158.8	161.6	160.9	162.4	162.3	162.1	162.1	162.1	161.4	160.5	162.4	163.2	162.6	161.9	162.9
Fats and oils	155.3	157.4	156.2	156.5	156.2	157.7	157.6	159.6	157.3	157.7	160.7	162.2	166.0	166.1	169.4
Other foods	177.6	179.2	179.0	180.5	179.4	179.7	180.0	179.0	178.3	180.0	178.4	179.4	180.8	180.8	180.5
Other miscellaneous foods[1,2]	109.7	110.8	110.9	112.1	111.6	110.0	111.3	111.2	109.5	110.3	109.6	110.1	112.2	111.0	111.2
Food away from home[1]	178.2	182.0	181.0	181.7	182.1	182.4	182.7	183.3	183.7	184.2	184.8	185.3	185.6	186.1	186.6
Other food away from home[1,2]	118.1	121.5	120.8	121.3	121.4	121.6	122.0	122.5	122.9	123.1	123.6	123.8	123.8	124.3	124.6
Alcoholic beverages	183.3	187.1	186.6	186.8	187.0	186.9	187.7	188.1	188.8	188.9	189.5	190.0	191.2	192.1	192.0
Housing	175.7	180.4	179.7	180.9	181.4	181.6	181.6	181.3	180.9	181.0	182.1	182.6	183.2	183.6	184.1
Shelter	201.9	206.9	205.9	206.5	207.2	207.7	207.6	208.3	208.2	208.2	209.2	209.8	211.0	211.5	211.8
Rent of primary residence	199.0	204.7	203.7	204.4	204.8	205.3	205.8	206.1	206.6	207.0	207.4	208.0	208.4	208.9	209.4
Lodging away from home[2]	118.4	119.8	119.0	122.6	125.0	125.2	119.8	121.7	116.2	113.4	118.5	121.1	128.8	129.8	128.2
Owners' equivalent rent of primary residence[3]	195.1	199.7	198.8	199.0	199.4	199.9	200.4	201.0	201.4	201.7	202.1	202.3	202.7	203.1	203.6
Tenants' and household insurance[1,2]	108.7	114.7	114.0	115.0	115.4	115.7	115.8	116.0	114.4	114.4	114.9	115.1	115.2	116.0	116.4
Fuels and utilities	142.9	153.9	152.4	158.6	158.9	158.7	159.1	154.3	152.3	153.0	155.6	156.2	154.7	155.1	157.4
Fuels	126.1	137.0	135.7	142.2	142.4	141.9	142.3	137.0	134.7	135.4	138.0	138.3	136.6	137.0	139.3
Fuel oil and other fuels	115.0	138.7	146.9	131.6	129.6	129.6	129.4	130.7	134.4	136.2	149.6	154.5	152.0	148.9	149.6
Gas (piped) and electricity	133.4	144.1	142.3	150.3	150.6	150.1	150.6	144.6	141.9	142.5	144.7	144.7	142.9	143.5	146.1
Household furnishings and operations	124.4	121.9	122.8	121.9	121.9	121.4	121.0	120.9	120.7	120.4	121.0	121.4	121.4	121.3	121.1
Apparel	123.1	120.0	122.8	118.7	115.2	116.1	121.0	123.9	122.6	118.7	115.7	118.3	122.9	123.8	122.8
Men's and boys' apparel	121.7	117.5	120.4	116.2	113.4	112.9	116.5	120.0	121.1	117.8	115.6	117.4	120.0	120.6	120.3
Women's and girls' apparel	114.6	112.1	116.4	110.4	105.0	106.9	114.5	118.2	115.3	110.5	105.5	109.8	117.4	118.4	116.7
Infants' and toddlers' apparel[1]	128.6	124.1	125.5	122.9	120.3	122.9	126.5	127.7	125.0	121.4	120.1	122.2	125.2	123.4	120.9
Footwear	121.2	119.1	119.8	118.5	116.9	117.2	119.6	121.1	120.4	117.8	115.6	116.4	118.6	119.6	119.0
Transportation	151.8	156.3	158.5	155.7	155.5	157.1	158.1	155.4	153.6	152.5	154.9	156.8	158.5	159.9	163.6
Private transportation	149.0	153.5	155.9	152.8	152.5	154.2	155.3	152.5	150.8	149.7	152.2	154.0	155.7	157.1	160.9
New and used motor vehicles[2]	99.4	96.0	97.7	96.9	96.3	95.7	94.4	93.5	93.1	92.8	92.7	92.8	92.6	92.6	92.5

See footnotes at end of table.

37. 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		2003								2004				
	2002	2003	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
New vehicles	141.1	139.0	139.1	138.4	137.7	137.9	137.6	137.8	138.7	139.2	139.2	139.5	139.0	138.7	138.5
Used cars and trucks[1]	152.8	143.7	148.7	148.1	146.4	144.0	139.8	135.9	132.8	131.7	131.6	131.7	132.0	132.1	132.6
Motor fuel	117.0	136.1	131.5	130.4	130.9	139.4	147.5	136.9	131.5	128.1	137.1	143.6	150.9	156.5	171.1
Gasoline (all types)	116.4	135.5	130.9	129.8	130.4	138.9	147.0	136.4	130.9	127.6	136.6	143.0	150.3	155.8	170.4
Motor vehicle parts and equipment	106.1	107.3	107.2	107.1	107.0	107.3	107.2	107.5	107.5	107.3	107.6	107.6	107.4	107.5	107.5
Motor vehicle maintenance and repair	191.7	197.3	196.5	196.8	197.7	197.3	197.9	198.6	198.9	199.8	199.9	200.1	200.3	200.4	200.8
Public transportation	202.6	206.0	208.5	210.8	212.8	210.5	208.4	208.7	205.8	203.6	204.6	206.2	208.0	209.4	208.8
Medical care	284.6	296.3	294.6	295.5	296.7	297.4	298.3	299.1	300.1	301.4	302.8	305.4	306.9	307.7	308.4
Medical care commodities	251.1	257.4	256.4	256.7	258.2	258.6	259.4	259.2	258.5	259.4	259.8	260.9	261.5	262.5	263.3
Medical care services	292.5	305.9	304.1	305.1	306.3	307.0	307.9	309.1	310.6	311.9	313.8	316.8	318.6	319.4	320.0
Professional services	256.0	263.4	263.3	263.5	264.1	263.9	264.4	265.2	265.2	266.5	267.8	270.6	272.3	273.2	273.5
Hospital and related services	363.2	391.2	385.0	388.1	390.9	394.2	395.8	397.5	402.4	403.4	405.9	408.7	409.9	409.8	410.7
Recreation[2]	104.6	105.5	105.5	105.5	105.6	105.7	105.5	105.4	105.6	105.5	105.6	106.2	106.5	106.7	106.6
Video and audio[1,2]	102.0	102.9	103.0	102.9	102.9	102.9	102.7	102.8	103.0	102.5	102.7	103.2	103.5	103.9	103.9
Education and communication[2]	107.6	109.0	108.0	107.8	108.2	109.1	109.7	109.7	109.6	109.7	109.8	110.0	109.8	109.6	109.2
Education[2]	125.9	133.8	131.1	131.8	132.3	135.5	137.8	138.1	138.0	138.0	139.1	139.4	139.6	139.7	139.9
Educational books and supplies	318.5	336.5	333.6	335.5	336.3	339.6	339.6	340.6	337.5	343.8	346.1	349.5	349.9	350.4	350.4
Tuition, other school fees, and child care	354.8	377.3	369.3	371.1	372.6	382.1	389.2	390.1	390.2	390.7	392.8	393.3	393.8	394.1	394.6
Communication[1,2]	93.7	91.2	91.3	90.7	90.9	90.5	90.2	89.9	89.8	89.7	89.6	89.6	89.3	89.0	88..4
Information and information processing[1,2]	92.7	89.9	90.0	89.6	89.6	89.1	89.1	88.5	88.4	88.3	88.2	88.2	87.9	87.5	87.0
Telephone services[1,2]	99.9	98.5	98.3	97.7	98.3	98.0	97.6	97.3	97.4	97.4	97.2	97.3	96.9	96.7	96.1
Information and information processing other than telephone services[1,4]	19.0	16.7	17.0	16.8	16.5	16.3	16.1	16.2	15.9	15.8	15.8	15.8	15.7	15.5	15.4
Personal computers and peripheral equipment[1,2]	21.8	17.3	17.8	16.9	16.9	16.3	16.0	16.2	16.0	15.9	15.8	15.7	15.5	15.6	15.4
Other goods and services	302.0	307.0	306.0	306.0	307.5	308.0	307.9	308.2	307.7	308.1	309.3	310.0	310.8	311.3	311.5
Tobacco and smoking products	463.2	470.5	464.8	464.8	470.5	473.2	469.9	470.7	470.2	471.5	473.8	473.2	474.2	474.1	474.4
Personal care[1]	174.1	177.0	176.9	177.2	177.5	177.4	177.9	178.0	177.7	177.8	177.4	179.1	179.7	180.1	180.2
Personal care products[1]	155.5	154.2	154.2	154.4	154.8	154.3	154.0	154.1	153.8	154. 2	154.3	155.0	155.0	155.1	155.1
Personal care services[1]	189.1	193.9	193.6	193.5	193.9	194.6	196.1	196.3	194.8	194.9	195.1	195.7	196.3	196.6	197.1
Miscellaneous personal services	274.0	283.3	282.4	283.9	284.0	284.4	285.2	285.6	286.7	286.6	288.4	290.2	291.6	292.9	293.1
Commodity and service group:															
Commodities	150.4	151.8	151.6	151.1	150.7	151.6	152.7	151.9	151.3	150.7	151.5	152.7	154.1	154.8	156.7
Food and beverages	176.1	179.9	178.7	179.5	179.6	180.2	180.7	181.7	182.4	183.6	183.8	184.0	184.4	184.5	186.0
Commodities less food and beverages	135.5	135.8	136.0	135.0	134.2	135.4	136.7	135.2	133.8	132.5	133.5	135.2	137.0	138.0	140.0
Nondurables less food and beverages	147.0	152.1	151.1	149.6	148.7	151.7	155.9	153.6	151.4	149.0	151.0	154.3	158.4	160.5	164.7
Apparel	123.1	120.0	121.5	118.7	115.2	116.1	121.0	123.9	122.6	118.7	115.7	118.3	122.9	123.8	122.8
Nondurables less food, beverages, and apparel	165.3	175.6	173.0	172.3	173.0	177.4	181.2	175.7	172.9	171.6	176.5	180.2	184.1	187.0	194.5
Durables	121.8	117.4	118.8	118.3	117.6	116.9	115.5	114.7	114.2	114.0	114.0	1142.0	114.0	113.9	113.9
Services	205.9	212.6	212.0	212.9	213.6	214.0	214.3	214.4	214.1	214.2	215.3	216.0	216.7	217.1	217.6
Rent of shelter[3]	194.5	199.2	198.8	198.9	199.5	200.0	199.9	200.6	200.5	200.6	201.4	202.0	203.2	203.7	203.9
Transporatation services	207.7	216.2	216.1	216.7	217.4	216.8	216.8	219.0	218.8	218.0	219.1	219.7	220.0	220.2	220.3
Other services	241.6	248.5	246.8	247.2	247.9	249.3	250.6	250.7	250.7	250.9	251.8	252.6	252.9	253.0	252.7
Special indexes:															
All items less food	175.8	179.7	179.5	179.5	179.6	180.3	181.0	180.4	179.7	179.2	180.2	181.4	182.6	183.2	184.4
All items less shelter	168.3	171.9	171.4	171.7	171.5	172.3	173.3	172.6	171.9	171.6	172.5	173.7	174.7	175.3	176.8
All items less medical care	171.1	174.8	174.4	174.5	174.5	175.2	176.0	175.6	175.0	174.7	175.6	176.6	177.6	178.2	179.4
Commodities less food	137.3	137.7	137.9	136.9	136.1	137.2	138.6	137.0	135.8	134.5	135.5	137.1	138.9	139.9	141.8
Nondurables less food	149.2	154.2	153.2	151.8	151.0	151.0	157.9	155.7	153.7	151.4	153.3	156.4	160.4	162.4	166.4
Nondurables less food and apparel	166.1	175.9	173.5	172.8	173.5	177.5	181.1	176.1	173.6	172.1	176.9	180.2	184.0	186.6	193.5
Nondurables	161.4	166.4	165.3	164.9	164.6	166.4	168.8	168.1	167.3	166.6	167.8	169.5	171.8	173.0	175.9
Services less rent of shelter[3]	193.1	201.3	200.4	202.2	202.8	203.1	203.7	203.2	202.7	202.9	204.1	204.9	204.9	205.2	205.8
Services less medical care services	198.9	205.2	204.7	205.2	206.2	206.6	206.8	206.9	206.5	206.6	207.6	208.2	208.8	209.2	209.7
Energy	120.9	135.9	133.2	135.6	135.9	140.0	144.2	136.3	132.4	131.1	136.9	140.2	143.0	146.0	154.5
All items less energy	183.6	186.1	185.9	185.9	185.9	186.2	186.4	187.0	187.0	186.9	187.2	187.9	188.7	189.0	189.3
All items less food and energy	185.6	187.9	188.0	187.7	187.7	187.9	188.1	188.6	188.4	188.0	188.3	189.1	190.1	190.4	190.4
Commodities less food and energy	144.4	141.1	142.2	141.3	140.3	140.1	140.2	140.3	139.7	141.1	138.2	139.0	140.0	140.1	139.9
Energy commodities	17.3	136.8	132.3	131.0	131.4	139.5	147.2	137.2	132.1	136.8	138.3	144.7	151.5	156.7	170.7
Services less energy	213.9	220.2	219.6	219.8	220.5	221.0	221.3	222.1	222.1	222.1	223.1	223.9	224.9	225.3	225.5

[1] Not seasonally adjusted.

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

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

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

Dash indicates data not available.

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

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

[1982–84 = 100, unless otherwise indicated]

	Pricing schedule[1]	All Urban Consumers						Urban Wage Earners					
		2003	2004					2003	2004				
		Dec.	Jan.	Feb.	Mar.	Apr.	May	Dec.	Jan.	Feb.	Mar.	Apr.	May
U.S. city average	M	184.3	185.2	186.2	187.4	188.0	189.1	179.9	180.9	181.9	182.9	183.5	184.7
Region and area size[2]													
Northeast urban	M	194.9	195.9	196.8	198.6	199.4	199.9	191.7	192.6	193.6	195.1	195.7	196.4
Size A—More than 1,500,000	M	197.1	197.9	198.6	200.7	201.4	202.0	192.7	193.3	194.3	195.9	196.3	197.1
Size B/C—50,000 to 1,500,000[3]	M	115.0	116.0	116.6	117.4	118.1	118.3	115.2	116.1	116.7	117.5	118.1	118.4
Midwest urban[4]	M	178.4	179.4	180.2	181.0	181.5	182.9	173 .4	174.5	175.3	175.8	176.3	177.8
Size A—More than 1,500,000	M	180.9	181.8	182.5	183.1	183.7	185.0	175.1	176.2	176.9	177.2	177.9	179.4
Size B/C—50,000 to 1,500,000[3]	M	113.3	114.1	114.7	115.2	115.6	116.4	112.4	113.3	113.8	114.2	114.6	115.5
Size D—Nonmetropolitan (less than 50,000)	M	171.5	171.8	173.0	174.1	173.9	176.0	169.1	169.4	170.6	171.4	171.2	173.2
South urban	M	177.5	178.2	179.1	180.1	180.9	182.0	174.2	178.2	179.1	180.1	180.9	178.9
Size A—More than 1,500,000	M	179.2	179.8	180.8	181.8	182.5	183.4	176.4	177.1	178.0	178.9	179.7	180.8
Size B/C—50,000 to 1,500,000[3]	M	113.3	113.8	114.3	114.9	115.6	116.4	111.8	112.3	112.7	113.4	114.0	114.8
Size D—Nonmetropolitan (less than 50,000)	M	175.1	175.3	176.8	177.7	178.7	179.4	174.2	174.6	176	176.9	177.8	179
West urban	M	188.3	189.4	190.8	192.2	192.3	193.4	183.3	184.3	185.7	187.1	187.3	188.6
Size A—More than 1,500,000	M	190.6	191.7	193.2	194.5	194.6	195.9	183.9	185.0	186.5	187.9	188.2	189.6
Size B/C—50,000 to 1,500,000[3]	M	115.2	116.0	117.0	117.9	117.8	118.2	114.8	115.4	116.4	117.2	117.2	117.8
Size classes:													
A[5]	M	168.7	169.4	170.4	171.5	172.0	172.9	166.8	167.6	168.6	169.6	170.0	171.2
B/C[3]	M	113.8	114.6	115.2	115.9	116.3	117.0	112.9	113.6	114.2	114.9	115.3	116.0
D	M	176.5	176.9	177.9	178.9	179.3	180.9	174.3	174.8	175.8	176.7	177.2	178.8
Selected local areas[6]													
Chicago–Gary–Kenosha, IL–IN–WI	M	185.5	185.4	186.4	186.3	187.2	188.7	178.8	179.0	179.9	179.7	180.6	182.2
Los Angeles–Riverside–Orange County, CA	M	187.0	188.5	190.1	191.5	191.9	193.3	180.2	181.7	186.4	184.9	185.2	186.8
New York, NY–Northern NJ–Long Island, NY–NJ–CT–PA	M	199.3	199.9	201.1	203.4	204.0	204.4	194.6	194.9	196.3	198.2	198.5	199.1
Boston–Brockton–Nashua, MA–NH–ME–CT	1	–	208.4	–	208.7	–	181.3	–	206.8	–	207.4	–	207.9
Cleveland–Akron, OH	1	–	178.4	–	180.0	–	179.1	–	169.8	–	171.0	–	172.6
Dallas–Ft Worth, TX	1	–	175.7	–	177.7	–	118.9	–	175.7	–	177.6	–	179.5
Washington–Baltimore, DC–MD–VA–WV[7]	1	–	117.1	–	118.1	–	118.9	–	116.5	–	117.6	–	118.4
Atlanta, GA	2	179.0	–	180.8	–	182.3	–	176.6	–	178.7	–	180.0	–
Detroit–Ann Arbor–Flint, MI	2	181.3	–	183.4	–	184.7	–	175.9	–	178.1	–	179.3	–
Houston–Galveston–Brazoria, TX	2	164.1	–	168.5	–	169.7	–	162.2	–	165.7	–	166.8	–
Miami–Ft. Lauderdale, FL	2	181.6	–	183.6	–	185.2	–	178.9	–	180.8	–	182.6	–
Philadelphia–Wilmington–Atlantic City, PA–NJ–DE–MD	2	189.0	–	191.4	–	194.8	–	189.0	–	191.2	–	194.0	–
San Francisco–Oakland–San Jose, CA	2	195.3	–	198.1	–	198.3	–	191.1	–	194.1	–	194.7	–
Seattle–Tacoma–Bremerton, WA	2	191.0	–	193.5	–	194.3	–	185.3	–	187.8	–	189.1	–

[1] Foods, fuels, and several other items priced every month in all areas; most other goods and services priced as indicated:

M—Every month.

1—January, March, May, July, September, and November.

2—February, April, June, August, October, and December.

[2] Regions defined as the four Census regions.

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

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

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

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

[7] 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.

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

[1982–84 = 100]

Series	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Consumer Price Index for All Urban Consumers:											
All items:											
Index	144.5	148.2	152.4	156.9	160.5	163.0	166.6	172.2	177.1	179.9	184.0
Percent change	3.0	2.6	2.8	3.0	2.3	1.6	2.2	3.4	2.8	1.6	2.3
Food and beverages:											
Index	141.6	144.9	148.9	153.7	157.7	161.1	164.6	168.4	173.6	176.8	180.5
Percent change	2.1	2.3	2.8	3.2	2.6	2.2	2.2	2.3	3.1	1.8	2.1
Housing:											
Index	141.2	144.8	148.5	152.8	156.8	160.4	163.9	169.6	176.4	180.3	184.8
Percent change	2.7	2.5	2.6	2.9	2.6	2.3	2.2	3.5	4.0	2.2	2.5
Apparel:											
Index	133.7	133.4	132.0	131.7	132.9	133.0	131.3	129.6	127.3	124.0	120.9
Percent change	1.4	–.2	–1.0	–.2	.9	.1	–1.3	–1.3	–1.8	–2.6	–2.5
Transportation:											
Index	130.4	134.3	139.1	143.0	144.3	141.6	144.4	153.3	154.3	152.9	157.6
Percent change	3.1	3.0	3.6	2.8	0.9	–1.9	2.0	6.2	0.7	–.9	3.1
Medical care:											
Index	201.4	211.0	220.5	228.2	234.6	242.1	250.6	260.8	272.8	285.6	297.1
Percent change	5.9	4.8	4.5	3.5	2.8	3.2	3.5	4.1	4.6	4.7	4.0
Other goods and services:											
Index	192.9	198.5	206.9	215.4	224.8	237.7	258.3	271.1	282.6	293.2	298.7
Percent change	5.2	2.9	4.2	4.1	4.4	5.7	8.7	5.0	4.2	3.8	1.9
Consumer Price Index for Urban Wage Earners and Clerical Workers:											
All items:											
Index	142.1	145.6	149.8	154.1	157.6	159.7	163.2	168.9	173.5	175.9	179.8
Percent change	2.8	2.5	2.9	2.9	2.3	1.3	2.2	3.5	2.7	1.4	2.2

40. Producer Price Indexes, by stage of processing

[1982 = 100]

Grouping	Annual average		2003								2004				
	2002	2003	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.[P]	Feb.[P]	Mar.[P]	Apr.[P]	May[P]
Finished goods	138.9	143.3	142.0	143.0	143.0	143.7	144.0	145.5	144.5	144.5	145.4	145.3	146.2	147.3	149.1
Finished consumer goods	139.4	145.3	143.7	145.0	145.1	145.9	146.4	147.7	146.5	146.7	147.8	147.6	148.7	150.2	152.6
Finished consumer foods	140.1	145.9	144.6	145.2	144.9	146.3	148.0	151.0	150.1	150.3	148.1	148.0	150.3	152.5	155.3
Finshed consumer goods excluding foods	138.8	144.7	143.0	144.6	144.8	145.4	145.5	146.2	144.8	145.0	147.4	147.1	147.7	148.9	151.1
Nondurable goods less food	139.8	148.4	146.3	148.9	149.2	150.0	150.4	149.4	147.6	148.2	151.7	151.3	152.0	154.0	157.0
Durable goods	133.0	133.1	132.4	131.8	131.7	131.8	131.1	135.6	135.0	134.3	134.3	134.3	134.8	134.3	134.8
Capital equipment	139.1	139.5	139.0	138.9	138.9	139.2	138.9	140.8	140.5	140.2	140.5	140.8	141.1	141.0	141.1
Intermediate materials, supplies, and components	127.8	133.7	132.5	133.5	133.7	134.1	134.1	134.1	134.1	134.5	136.2	137.1	137.9	139.8	141.9
Materials and components for manufacturing	126.1	129.7	129.3	129.6	129.2	129.8	129.8	130.5	130.7	130.9	131.9	133.2	134.1	135.9	137.3
Materials for food manufacturing	123.2	134.4	130.8	134.2	133.3	135.5	137.4	141.8	141.6	140.7	138.4	138.9	141.1	146.1	151.6
Materials for nondurable manufacturing	129.2	137.2	137.0	137.4	136.3	137.5	136.4	137.5	137.2	137.9	140.2	141.1	141.7	143.2	144.5
Materials for durable manufacturing	124.7	127.9	128.8	126.8	127.1	127.5	128.6	129.5	130.5	131.2	132.9	137.0	170.0	143.5	146.2
Components for manufacturing	126.1	125.9	126.1	126.0	125.8	125.8	125.8	125.8	125.8	125.8	125.9	126.2	126.2	127.0	127.4
Materials and components for construction	151.3	153.6	152.9	153.0	153.6	153.7	155.0	155.2	155.6	155.6	156.2	158.3	160.7	163.6	166.2
Processed fuels and lubricants	96.3	112.6	108.0	112.1	113.7	114.5	113.7	111.5	110.3	111.7	116.8	116.3	116.3	118.1	122.1
Containers	152.1	153.7	153.9	154.1	153.8	153.6	153.5	153.2	153.4	153.5	153.9	153.8	154.1	154.3	156.8
Supplies	138.9	141.5	141.5	141.5	141.5	141.2	141.7	141.9	142.6	142.8	143.2	143.8	144.8	146.4	147.2
Crude materials for further processing	108.1	135.3	130.9	136.5	132.6	131.3	134.7	138.3	137.0	141.1	147.8	148.3	149.7	154.1	159.6
Foodstuffs and feedstuffs	99.5	113.5	111.0	110.4	107.6	111.5	119.0	128.1	125.7	124.7	117.1	121.0	130.8	135.1	142.1
Crude nonfood materials	111.4	148.2	142.4	152.8	148.2	142.7	142.8	141.1	141.4	149.5	167.3	164.9	159.8	164.1	168.3
Special groupings:															
Finished goods, excluding foods	138.3	142.4	141.1	142.2	142.2	142.7	142.7	143.8	142.8	142.8	144.5	144.4	144.9	145.7	147.2
Finished energy goods	88.8	102.0	98.9	103.1	103.4	104.7	105.2	103.2	100.4	101.0	106.0	105.7	107.0	109.3	113.7
Finished goods less energy	147.3	149.0	148.3	148.3	148.2	148.7	149.0	151.4	151.0	150.9	150.6	150.6	151.3	152.0	152.9
Finished consumer goods less energy	150.8	153.1	152.3	152.4	152.3	152.8	153.3	156.1	155.5	155.5	154.9	154.7	155.7	156.7	158.1
Finished goods less food and energy	150.2	150.5	150.0	149.8	149.8	149.9	149.7	152.0	151.7	151.4	151.8	151.7	152.0	152.2	152.5
Finished consumer goods less food and energy	157.6	157.9	157.4	157.1	157.1	157.2	157.0	159.5	159.2	159.0	159.4	159.1	159.3	159.7	160.1
Consumer nondurable goods less food and energy	177.5	177.9	177.6	177.7	177.8	178.0	177.8	178.6	178.5	178.9	179.7	179.1	179.0	180.2	180.6
Intermediate materials less foods and feeds	128.5	134.2	133.1	134.0	134.2	134.6	134.5	134.4	134.2	134.7	136.5	137.4	138.2	139.8	141.7
Intermediate foods and feeds	115.5	125.9	122.8	125.1	124.4	125.0	128.4	131.9	134.8	134.1	132.2	132.5	136.4	143.0	147.6
Intermediate energy goods	95.9	111.9	107.1	111.3	113.0	114.3	112.8	110.7	109.5	110.9	115.8	115.3	115.3	117.1	121.1
Intermediate goods less energy	134.5	137.7	137.5	137.6	137.4	137.5	138.0	138.5	138.8	139.0	169.8	141.0	142.1	144.0	145.5
Intermediate materials less foods and energy	135.8	138.5	138.5	138.4	138.3	138.4	138.7	139.0	139.2	139.5	140.4	141.6	142.6	144.2	145.5
Crude energy materials	102.0	147.2	141.4	156.2	148.7	139.7	138.2	134.3	132.5	141.8	163.5	156.7	147.1	156.3	165.3
Crude materials less energy	108.7	123.4	120.0	119.4	118.0	121.7	128.2	135.9	135.5	136.2	133.3	138.2	146.6	147.8	151.0
Crude nonfood materials less energy	135.7	152.5	146.5	146.3	148.8	151.8	155.5	159.5	164.8	170.1	179.3	187.2	192.2	185.3	178.3

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

[December 2003 = 100, unless otherwise indicated]

NAICS	Industry	2003	2004				
		Dec.	Jan.	Feb.[p]	Mar.[p]	Apr.[p]	May[p]
–	**Total mining industries (December 1984=100)**	129.0	144.6	139.5	133.9	138.5	145.0
211	Oil and gas extraction(December 1985=100)	155.1	181.1	172.4	161.3	168.6	180.1
212	Mining, except oil and gas	100.0	103.3	103.6	105.0	107.1	107.5
213	Mining support activities	100.0	101.2	100.6	100.9	99.9	100.5
–	**Total manufacturing industries (December 1984=100)**	137.7	138.9	139.3	140.2	141.8	143.4
311	Food manufacturing (December 1984=100)	141.1	139.3	139.9	142.1	145.8	148.9
312	Beverage and tobacco manufacturing	100.0	101.4	100.9	100.4	101.7	101.2
313	Textile mills	100.0	100.4	100.3	100.3	100.5	100.8
315	Apparel manufacturing	100.0	99.9	99.9	99.9	100.0	100.0
316	Leather and allied product manufacturing (December 1984=100)	143.4	143.3	143.2	143.8	143.5	143.6
321	Wood products manufacturing	100.0	99.3	102.5	105.7	108.1	110.2
322	Paper manufacturing	100.0	99.3	99.6	99.4	100.0	100.9
323	Printing and related support activities	100.0	100.2	100.3	100.6	101.1	100.9
324	Petroleum and coal products manufacturing (December 1984=100)	117.5	131.5	130.7	134.3	141.5	152.3
325	Chemical manufacturing (December 1984=100)	165.3	167.0	167.7	168.6	169.2	170.1
326	Plastics and rubber products manufacturing (December 1984=100)	128.8	128.9	129.9	129.7	130.1	130.6
331	Primary metal manufacturing (December 1984=100)	121.4	124.0	128.1	131.7	136.9	141.3
332	Fabricated metal product manufacturing (December 1984=100)	133.7	134.6	135.3	136.6	138.6	140.7
333	Machinery manufacturing	100.0	100.3	100.6	101.0	101.3	101.6
334	Computer and electronic products manufacturing	100.0	99.8	99.9	99.8	100.1	99.9
335	Electrical equipment, appliance, and components manufacturing	100.0	100.2	100.8	101.6	102.7	103.5
336	Transportation equipment manufacturing	100.0	100.2	100.1	100.3	100.1	100.4
337	Furniture and related product manufacturing(December 1984=100)	147.6	147.4	147.8	148.5	149.1	150.9
339	Miscellaneous manufacturing	100.0	100.5	100.9	100.8	101.1	100.9
	Retail trade						
441	Motor vehicle and parts dealers	100.0	101.6	100.4	101.4	101.7	103.3
442	Furniture and home furnishings stores	100.0	99.5	99.9	100.2	100.6	101.1
443	Electronics and appliance stores	100.0	101.4	102.7	103.4	94.1	95.8
446	Health and personal care stores	100.0	99.6	99.2	99.1	98.7	98.3
447	Gasoline stations (June 2001=100)	47.9	45.5	43.3	55.1	52.6	50.3
454	Nonstore retailers	100.0	102.9	102.7	119.1	108.6	106.3
	Transportation and warehousing						
481	Air transportation (December 1992=100)	162.7	163.3	163.7	162.8	162.1	162.2
483	Water transportation	100.0	99.0	98.7	98.9	99.7	100.3
491	Postal service (June 1989=100)	155.0	155.0	155.0	155.0	155.0	155.0
	Utilities						
221	Utilities	100.0	101.7	102.0	101.1	102.0	103.3
	Health care and social assistance						
6211	Office of physicians (December 1996=100)	112.8	114.1	114.1	114.0	114.3	114.2
6215	Medical and diagnostic laboratories	100.0	100.3	99.8	99.9	100.0	99.8
6216	Home health care services (December 1996=100)	119.0	119.5	119.5	119.6	119.7	119.7
622	Hospitals (December 1992=100)	137.6	139.5	139.5	139.7	140.3	140.7
6231	Nursing care facilities	100.0	101.2	101.5	101.8	101.6	101.6
62321	Residential mental retardation facilities	100.0	100.1	99.9	99.9	99.9	100.6
	Other services industries						
511	Publishing industries, except Internet	100.0	100.9	101.1	101.2	101.5	101.4
515	Broadcasting, except Internet	100.0	97.8	98.4	100.0	100.8	102.4
517	Telecommunications	100.0	100.4	100.0	99.8	100.2	99.9
5182	Data processing and related services	100.0	99.9	100.2	100.1	100.2	100.7
523	Security, commodity contracts, and like activity	100.0	101.8	101.7	101.5	101.8	102.3
53112	Lessors or nonresidental buildings (except miniwarehouse)	100.0	99.1	99.4	99.0	101.8	102.3
5312	Offices of real estate agents and brokers	100.0	100.0	100.2	100.3	100.9	100.9
5313	Real estate support activities	100.0	100.1	100.3	101.6	101.6	102.0
5321	Automotive equipment rental and leasing (June 2001=100)	109.1	107.9	110.5	106.7	105.4	104.4
5411	Legal services (December 1996=100)	126.5	131.4	132.1	131.8	131.9	131.8
541211	Offices of certified public accountants	100.0	100.8	101.3	101.1	101.2	101.3
5413	Architectural, engineering, and related services (December 1996=100)	125.3	125.7	126.6	126.7	126.6	126.3
54181	Advertising agencies	100.0	99.6	99.5	99.8	99.9	100.1
5613	Employment services (December 1996=100)	112.1	112.1	112.0	112.5	114.0	113.4
56151	Travel agencies	100.0	99.0	100.7	100.5	98.6	98.3
56172	Janitorial services	100.0	100.3	100.4	100.6	100.5	100.5
5621	Waste collection	100.0	100.8	100.8	100.8	101.9	101.9
721	Accommodation (December 1996=100)	120.5	122.2	121.5	125.2	124.0	125.0

NOTE: Data reflect the conversion to the 2002 version of the North American Industry Classification System (NAICS), replacing the Standard Industrial Classification (SIC) system.

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

[1982 = 100]

Index	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Finished goods											
Total	124.7	125.5	127.9	131.3	131.8	130.7	133.0	138.0	140.7	138.9	143.3
Foods	125.7	126.8	129.0	133.6	134.5	134.3	135.1	137.2	141.3	140.1	146.0
Energy	78.0	77.0	78.1	83.2	83.4	75.1	78.8	94.1	96.8	88.8	102.0
Other	135.8	137.1	140.0	142.0	142.4	143.7	146.1	148.0	150.0	150.2	150.5
Intermediate materials, supplies, and components											
Total	116.2	118.5	124.9	125.7	125.6	123.0	123.2	129.2	129.7	127.8	133.7
Foods	115.6	118.5	119.5	125.3	123.2	123.2	120.8	119.2	124.3	123.3	134.4
Energy	84.6	83.0	84.1	89.8	89.0	80.8	84.3	101.7	104.1	95.9	111.9
Other	123.8	127.1	135.2	134.0	134.2	133.5	133.1	136.6	136.4	135.8	138.5
Crude materials for further processing											
Total	102.4	101.8	102.7	113.8	111.1	96.8	98.2	120.6	121.3	108.1	135.3
Foods	108.4	106.5	105.8	121.5	112.2	103.9	98.7	100.2	106.2	99.5	113.5
Energy	76.7	72.1	69.4	85.0	87.3	68.6	78.5	122.1	122.8	102.0	147.5
Other	94.1	97.0	105.8	105.7	103.5	84.5	91.1	118.0	101.8	101.0	116.8

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

[2000 = 100]

SITC Rev. 3	Industry	2003								2004				
		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
0	**Food and live animals**	108.0	107.5	107.1	107.6	112.1	112.2	115.2	116.5	117.0	119.9	122.5	125.4	125.9
01	Meat and meat preparations	101.6	102.9	104.6	108.9	117.2	123.5	125.6	123.0	122.8	125.0	126.1	124.1	123.1
04	Cereals and cereal preparations	124.2	118.5	115.4	115.7	124.2	119.4	125.6	130.8	131.6	135.2	139.6	147.7	146.0
05	Vegetables, fruit, and nuts, prepared fresh or dry	96.9	99.6	101.2	99.7	101.4	103.2	102.8	103.2	103.1	108.4	110.1	109.1	112.7
2	**Crude materials, inedible, except fuels**	104.5	103.9	103.9	102.3	106.2	111.2	116.3	116.9	120.2	122.3	128.7	132.9	131.7
22	Oilseeds and oleaginous fruits	127.4	122.7	124.8	109.2	121.1	136.7	150.9	152.5	157.2	160.9	181.6	197.1	199.0
24	Cork and wood	91.0	90.4	90.6	90.9	91.6	92.0	92.5	93.7	94.5	95.6	96.5	97.7	98.3
25	Pulp and waste paper	89.9	90.1	85.5	85.3	88.8	90.8	91.9	91.7	91.7	92.5	94.2	98.8	100.0
26	Textile fibers and their waste	104.2	103.2	106.2	107.0	109.6	121.4	128.5	121.2	123.7	122.2	121.9	115.9	115.0
28	Metalliferous ores and metal scrap	105.8	109.0	112.3	117.8	119.9	121.1	129.6	136.6	148.9	156.8	169.7	177.3	166.0
3	**Mineral fuels, lubricants, and related products**	102.5	107.6	109.8	114.9	108.7	108.2	106.3	110.7	120.5	119.3	123.0	123.1	134.8
32	Coal, coke, and briquettes	111.9	112.1	111.2	111.2	111.6	111.6	111.6	112.9	–	–	–	–	–
33	Petroleum, petroleum products, and related materials	96.4	102.7	105.9	113.0	104.2	104.1	101.2	106.2	116.8	114.7	120.1	119.8	135.0
5	**Chemicals and related products, n.e.s.**	100.9	100.8	99.6	100.0	100.3	100.7	100.9	101.4	102.9	104.0	104.9	105.6	105.8
54	Medicinal and pharmaceutical products	103.9	104.8	105.8	105.5	105.4	105.9	106.5	105.8	105.4	105.3	105.3	105.4	105.4
55	Essential oils; polishing and cleaning preparations	95.2	97.3	97.5	97.6	98.2	98.9	99.4	100.1	104.3	104.2	104.3	104.2	104.2
57	Plastics in primary forms	97.6	96.6	95.1	94.8	95.4	95.5	95.8	96.5	98.3	100.9	102.1	102.1	103.1
58	Plastics in nonprimary forms	98.5	98.8	98.4	98.4	98.2	98.3	97.1	97.2	96.8	97.2	97.8	97.5	96.9
59	Chemical materials and products, n.e.s.	100.9	101.6	102.0	101.9	101.9	102.4	102.5	102.6	105.0	105.2	104.9	105.3	106.0
6	**Manufactured goods classified chiefly by materials**	99.7	100.0	99.9	100.0	100.2	100.3	100.7	100.8	101.7	103.0	104.1	105.7	106.6
62	Rubber manufactures, n.e.s.	108.9	110.1	110.1	109.5	109.2	109.2	109.5	109.9	110.4	110.9	110.4	110.7	110.4
64	Paper, paperboard, and articles of paper, pulp, and paperboard	97.3	98.3	98.5	98.3	98.3	97.4	97.9	97.6	97.9	97.8	97.9	98.5	99.1
66	Nonmetallic mineral manufactures, n.e.s.	100.3	100.4	100.4	100.2	99.5	99.5	99.7	99.8	99.7	99.6	99.7	99.5	99.1
68	Nonferrous metals	79.4	80.3	79.8	80.9	81.6	81.9	83.4	84.5	85.9	90.9	94.1	98.5	98.7
7	**Machinery and transport equipment**	98.5	97.8	98.0	97.9	97.9	97.7	97.7	97.8	97.9	98.1	98.3	98.4	98.4
71	Power generating machinery and equipment	107.1	107.2	107.4	107.4	107.5	107.9	108.5	108.7	109.3	109.4	109.4	108.6	108.6
72	Machinery specialized for particular industries	102.4	102.6	103.2	103.2	103.1	103.1	103.3	103.4	103.9	104.0	104.2	105.2	105.6
74	General industrial machines and parts, n.e.s., and machine parts	102.2	102.4	102.5	102.5	102.6	102.6	102.8	102.8	103.3	103.5	104.0	104.5	104.6
75	Computer equipment and office machines	88.9	88.1	88.2	88.0	87.8	87.9	88.0	88.6	87.7	88.2	88.4	88.6	88.5
76	Telecommunications and sound recording and reproducing apparatus and equipment	94.1	93.8	93.4	93.4	93.3	92.8	92.2	92.0	92.6	92.5	92.5	92.6	92.5
77	Electrical machinery and equipment	92.0	89.7	89.8	89.8	89.4	88.6	88.2	88.1	88.0	88.3	88.6	88.5	88.5
78	Road vehicles	101.0	101.1	101.3	101.3	101.4	101.5	101.6	101.5	101.7	101.9	101.8	102.2	102.2
87	**Professional, scientific, and controlling instruments and apparatus**	101.9	102.2	102.4	102.3	102.2	102.1	102.3	102.3	102.2	102.3	102.3	102.0	101.9

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

[2000 = 100]

SITC Rev. 3	Industry	2003								2004				
		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
0	**Food and live animals**	99.8	99.4	100.2	99.5	100.0	100.3	100.0	101.0	102.2	104.7	105.4	106.4	106.2
01	Meat and meat preparations	110.3	102.9	106.6	108.2	112.8	115.2	117.2	120.4	117.7	118.0	120.5	121.8	125.4
03	Fish and crustaceans, mollusks, and other aquatic invertebrates	83.4	81.3	83.5	82.3	82.2	79.8	79.3	79.2	78.2	80.0	83.3	85.0	83.9
05	Vegetables, fruit, and nuts, prepared fresh or dry	103.9	108.9	106.9	105.5	105.0	106.4	108.9	109.4	112.3	115.7	111.3	109.4	106.2
07	Coffee, tea, cocoa, spices, and manufactures thereof	99.1	94.8	95.3	96.6	98.6	95.5	93.1	96.0	100.1	101.9	101.7	103.5	102.5
1	**Beverages and tobacco**	104.6	103.9	104.1	104.0	104.0	104.3	104.4	104.4	104.7	105.0	105.3	105.3	105.5
11	Beverages	103.8	103.7	104.0	103.9	103.9	104.2	104.2	104.3	104.9	105.2	105.5	105.5	105.8
2	**Crude materials, inedible, except fuels**	98.8	99.5	100.7	100.5	106.1	104.2	104.5	107.9	109.5	114.1	119.9	122.6	126.7
24	Cork and wood	94.0	94.4	100.1	99.3	113.0	106.2	103.2	108.0	108.9	115.7	123.3	127.8	139.0
25	Pulp and waste paper	95.3	95.3	93.6	91.9	90.4	90.8	91.9	92.8	93.3	91.9	95.4	100.8	103.4
28	Metalliferous ores and metal scrap	99.3	99.7	100.3	102.9	103.7	104.3	108.7	115.3	124.2	134.6	147.9	147.8	143.1
29	Crude animal and vegetable materials, n.e.s.	103.5	104.9	99.4	96.8	95.7	95.1	94.8	99.6	98.9	99.5	99.7	99.3	102.1
3	**Mineral fuels, lubricants, and related products**	96.0	101.7	106.0	106.5	101.5	101.3	103.3	108.2	117.3	117.7	120.6	120.6	132.3
33	Petroleum, petroleum products, and related materials	92.6	97.6	103.4	105.6	99.4	100.1	102.3	106.9	114.0	114.5	119.9	119.7	132.2
34	Gas, natural and manufactured	119.0	130.1	121.5	108.8	114.4	106.2	106.6	113.9	138.0	137.1	122.9	123.3	129.3
5	**Chemicals and related products, n.e.s.**	99.0	100.1	100.0	99.2	99.2	100.2	100.8	101.1	103.0	103.4	103.8	103.4	103.1
52	Inorganic chemicals	105.8	106.4	105.4	106.0	105.4	108.8	111.9	114.0	119.3	120.6	120.5	115.9	114.7
53	Dying, tanning, and coloring materials	98.0	98.0	98.0	98.3	97.7	98.1	99.0	99.6	99.9	99.7	99.5	100.3	100.3
54	Medicinal and pharmaceutical products	101.2	102.5	103.1	102.5	101.9	102.3	103.4	103.4	107.2	107.7	107.8	107.1	106.7
55	Essential oils; polishing and cleaning preparations	98.9	99.4	99.0	91.8	91.6	91.2	91.6	91.6	92.7	93.3	93.7	93.5	93.4
57	Plastics in primary forms	101.7	106.1	104.3	103.1	102.7	105.6	105.6	105.5	104.4	105.2	106.9	105.5	105.7
58	Plastics in nonprimary forms	100.8	100.8	101.3	101.4	101.4	101.7	101.7	101.8	102.1	102.4	102.9	102.7	102.5
59	Chemical materials and products, n.e.s.	93.2	92.3	93.3	91.9	91.8	92.3	93.1	93.3	94.3	94.9	95.8	995.5	95.2
6	**Manufactured goods classified chiefly by materials**	93.7	94.4	94.9	95.4	95.7	96.5	97.4	97.8	98.9	101.4	103.5	105.6	107.1
62	Rubber manufactures, n.e.s.	99.1	99.2	98.6	98.5	98.5	98.5	98.6	98.8	99.0	99.2	99.7	99.9	99.8
64	Paper, paperboard, and articles of paper, pulp, and paperboard	93.2	93.5	93.2	94.9	94.5	94.7	94.2	93.7	94.1	94.5	94.9	94.6	95.7
66	Nonmetallic mineral manufactures, n.e.s.	97.5	97.9	97.9	97.8	97.8	97.9	98.1	98.1	98.5	98.9	99.0	99.3	99.4
68	Nonferrous metals	75.8	78.1	78.0	79.1	80.7	82.0	85.1	87.7	92.3	97.0	102.6	105.8	107.3
69	Manufactures of metals, n.e.s.	97.6	98.3	98.2	98.4	98.5	98.7	99.1	99.5	99.7	100.3	101.1	102.3	102.5
7	**Machinery and transport equipment**	95.7	95.8	95.7	95.6	95.5	95.3	95.4	95.3	95.4	95.5	95.5	95.3	95.3
72	Machinery specialized for particular industries	100.6	101.4	102.6	102.5	102.2	102.4	103.3	103.6	104.9	106.4	106.7	106.5	106.7
74	General industrial machines and parts, n.e.s., and machine parts	100.0	100.8	100.8	100.4	100.2	100.4	100.9	101.2	101.8	102.5	103.1	103.3	103.1
75	Computer equipment and office machines	82.1	81.8	80.6	80.6	80.5	78.6	78.5	78.2	78.0	78.0	77.7	76.3	76.3
76	Telecommunications and sound recording and reproducing apparatus and equipment	89.4	89.3	88.7	88.8	88.6	87.7	87.5	86.7	86.4	85.4	85.1	85.0	85.0
77	Electrical machinery and equipment	95.2	95.4	96.1	96.0	96.0	95.9	96.0	95.3	95.4	95.7	95.7	95.2	95.4
78	Road vehicles	100.7	100.7	100.7	100.7	100.6	101.3	101.4	101.6	101.9	101.9	102.0	102.2	102.3
85	Footwear	99.7	100.0	99.9	99.8	99.9	100.0	100.1	100.1	100.5	100.5	100.6	100.6	100.5
88	Photographic apparatus, equipment, and supplies, and optical goods, n.e.s.	99.3	100.0	100.1	99.6	99.2	99.3	99.8	99.9	99.9	100.3	100.0	99.4	99.4

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

[2000 = 100]

Category	2003								2004				
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
ALL COMMODITIES	99.7	99.5	99.4	99.4	99.8	100.0	100.5	100.8	101.5	102.2	103.0	103.7	104.0
Foods, feeds, and beverages	111.8	111.3	110.8	109.4	115.3	117.2	121.4	122.4	123.1	125.6	130.4	134.8	135.8
Agricultural foods, feeds, and beverages	112.1	111.2	111.0	109.5	116.3	118.4	122.8	123.8	124.6	127.2	132.3	137.0	138.0
Nonagricultural (fish, beverages) food products	110.2	113.1	109.3	109.5	106.5	105.6	107.5	108.5	109.5	110.7	111.7	113.4	113.9
Industrial supplies and materials	99.4	100.1	99.6	100.0	100.2	101.0	101.7	102.5	105.1	106.4	108.1	109.3	110.2
Agricultural industrial supplies and materials	103.5	104.4	104.7	105.5	107.3	113.3	119.0	117.5	118.6	116.6	117.2	114.9	114.1
Fuels and lubricants	94.5	97.0	97.0	100.4	97.6	97.5	96.4	99.0	106.1	106.5	108.9	110.4	118.5
Nonagricultural supplies and materials, excluding fuel and building materials	100.2	100.7	100.0	100.1	100.5	101.1	101.7	102.5	104.7	106.4	108.1	109.5	109.6
Selected building materials	96.5	96.3	97.5	98.0	98.4	98.8	99.1	99.5	98.7	100.9	102.3	103.2	103.5
Capital goods	98.3	97.6	97.7	97.7	97.5	97.3	97.3	97.5	97.5	97.8	98.0	98.1	98.1
Electric and electrical generating equipment	101.5	101.6	101.8	101.6	101.7	101.7	101.7	101.7	102.0	101.9	102.0	101.5	101.3
Nonelectrical machinery	95.5	94.5	94.6	94.5	94.3	93.9	93.9	94.1	93.9	94.3	94.5	94.6	94.6
Automotive vehicles, parts, and engines	101.5	101.6	101.8	101.8	101.8	101.9	101.9	101.8	101.9	102.0	101.9	102.1	102.1
Consumer goods, excluding automotive	99.4	99.6	99.6	99.4	99.4	99.8	100.0	99.9	100.2	100.1	100.1	100.3	100.3
Nondurables, manufactured	98.5	98.8	98.8	98.7	98.5	99.0	99.4	99.2	99.9	99.9	99.8	99.9	99.9
Durables, manufactured	99.9	100.1	100.2	99.9	100.1	100.3	100.3	100.3	100.1	100.0	100.1	100.5	100.7
Agricultural commodities	110.6	110.0	109.9	108.8	114.7	117.5	122.2	122.7	123.5	125.3	129.6	133.1	133.7
Nonagricultural commodities	98.8	98.7	98.6	98.7	98.6	98.7	98.8	99.1	99.8	100.4	100.9	101.4	101.6

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

[2000 = 100]

Category	2003								2004				
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
ALL COMMODITIES	95.3	96.2	96.7	96.7	96.2	96.3	96.8	97.5	99.0	99.4	100.2	100.4	102.0
Foods, feeds, and beverages	101.3	100.7	101.5	101.3	101.8	101.9	102.4	103.2	103.7	105.3	105.9	107.2	106.9
Agricultural foods, feeds, and beverages	107.5	107.1	107.7	107.6	108.3	109.0	109.7	110.9	112.0	113.4	112.9	114.2	114.3
Nonagricultural (fish, beverages) food products	87.7	86.6	88.0	87.4	87.6	86.3	86.0	86.0	85.1	87.2	90.1	91.6	90.4
Industrial supplies and materials	95.3	98.2	100.2	100.5	98.9	99.5	100.7	103.6	108.5	110.0	112.7	113.8	120.2
Fuels and lubricants	94.9	100.3	103.9	104.2	99.4	100.1	102.0	107.2	116.5	117.0	120.1	120.0	131.6
Petroleum and petroleum products	91.5	96.4	101.4	103.2	97.2	98.8	100.9	106.0	113.7	114.3	119.9	119.4	131.7
Paper and paper base stocks	94.1	94.1	93.6	94.7	94.0	94.0	93.9	93.9	94.1	94.2	95.5	96.5	98.3
Materials associated with nondurable supplies and materials	102.5	103.0	102.9	102.3	102.5	103.4	104.2	104.4	104.7	104.8	105.4	105.0	104.8
Selected building materials	96.2	96.7	101.8	102.7	110.3	109.5	108.1	108.0	106.8	113.7	118.5	120.3	123.7
Unfinished metals associated with durable goods	89.9	92.2	92.2	92.9	93.4	94.4	96.4	99.2	104.5	109.5	114.8	122.8	129.0
Nonmetals associated with durable goods	97.3	98.2	97.9	97.3	97.5	97.7	98.1	98.2	98.5	99.2	99.3	99.4	99.7
Capital goods	93.6	93.8	93.8	93.6	93.5	93.0	93.3	92.9	93.1	93.1	93.1	92.6	92.7
Electric and electrical generating equipment	96.1	96.6	96.8	96.6	95.8	96.2	96.5	96.8	97.4	97.9	98.0	97.5	97.6
Nonelectrical machinery	92.2	92.3	92.3	92.1	92.1	91.4	91.6	91.1	91.2	91.2	91.2	90.5	90.6
Automotive vehicles, parts, and engines	100.6	100.6	100.6	100.6	100.5	101.2	101.2	101.4	101.6	101.7	101.8	101.9	101.9
Consumer goods, excluding automotive	97.9	98.1	98.1	97.9	97.9	97.9	98.1	98.1	98.6	98.7	98.7	98.6	98.5
Nondurables, manufactured	99.8	99.8	99.9	99.8	99.7	99.8	100.0	100.1	101.1	101.2	101.2	101.0	100.9
Durables, manufactured	96.2	96.5	96.3	96.2	96.2	96.1	96.2	96.2	96.3	96.3	96.3	96.3	96.2
Nonmanufactured consumer goods	95.6	95.2	95.7	95.6	95.7	95.8	95.8	96.2	95.9	96.2	96.4	96.4	97.3

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

[2000 = 100, unless indicated otherwise]

Category	2001	2002				2003				2004
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.
Air freight (inbound)	95.1	93.9	98.3	100.3	105.9	108.8	109.4	112.5	112.9	116.2
Air freight (outbound)	97.8	95.9	98.4	97.3	95.4	97.2	95.4	95.5	94.9	96.2
Inbound air passenger fares (Dec. 2003 = 100)	–	–	–	–	–	–	–	–	100.0	105.1
Outbound air passenger fares (Dec. 2003 = 100))	–	–	–	–	–	–	–	–	100.0	99.3
Ocean liner freight (inbound)	92.8	91.7	90.3	93.5	93.3	94.0	116.1	116.2	117.7	118.9

NOTE: Dash indicates data not available.

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

[1992 = 100]

Item	2001				2002				2003				2004
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I
Business													
Output per hour of all persons	116.8	117.7	118.2	120.4	122.8	123.3	124.7	125.4	126.4	128.6	131.3	131.9	133.5
Compensation per hour	138.2	139.1	140.1	141.5	121.8	142.6	143.1	143.8	145.5	147.4	148.9	150.3	152.4
Real compensation per hour	112.5	112.4	112.9	114.2	114.1	113.7	113.5	113.5	113.8	115.1	115.6	116.4	117.1
Unit labor costs	118.2	118.2	118.6	117.6	115.5	115.7	114.7	114.7	115.1	114.6	113.4	113.9	114.2
Unit nonlabor payments	107.1	109.6	109.5	112.0	115.0	115.8	117.9	119.3	120.0	121.5	124.6	124.8	125.9
Implicit price deflator	114.1	115.0	115.2	115.5	115.3	115.7	115.9	116.5	116.9	117.2	117.6	118.0	118.6
Nonfarm business													
Output per hour of all persons	116.4	117.3	117.8	119.8	122.6	122.8	124.2	124.9	126.0	127.9	130.8	131.6	132.8
Compensation per hour	137.5	138.3	139.3	140.7	141.1	141.9	142.4	143.2	144.6	146.3	148.0	149.5	151.2
Real compensation per hour	111.9	111.7	112.3	113.5	113.5	113.2	112.9	113.0	113.1	114.2	114.9	115.9	116.1
Unit labor costs	118.1	117.9	118.3	117.5	115.1	115.6	114.6	114.6	114.8	114.4	112.8	113.6	113.9
Unit nonlabor payments	108.6	111.2	111.0	113.4	116.9	117.6	119.9	121.3	122.2	123.4	126.5	126.1	127.4
Implicit price deflator	114.6	115.5	115.6	116.0	115.8	116.3	116.6	117.1	117.5	117.7	118.1	118.2	118.9
Nonfinancial corporations													
Output per hour of all employees	121.3	121.9	122.7	125.0	126.4	128.3	129.8	131.4	132.2	135.3	138.4	139.8	140.6
Compensation per hour	135.0	136.2	137.7	139.0	138.1	139.6	140.6	142.0	143.3	145.3	147.1	148.5	150.3
Real compensation per hour	109.9	110.1	111.0	112.1	111.1	111.3	111.6	112.1	112.1	113.5	114.1	115.0	115.4
Total unit costs	110.5	111.3	112.0	111.3	111.0	109.6	109.2	109.0	109.0	107.6	106.6	106.5	107.1
Unit labor costs	111.3	111.8	112.2	111.2	109.3	108.8	108.3	108.1	108.4	107.4	106.3	106.2	106.9
Unit nonlabor costs	108.2	109.8	111.3	111.4	111.9	111.5	111.5	111.3	110.7	108.0	107.4	107.5	107.8
Unit profits	90.9	91.2	87.2	96.4	105.3	112.3	111.8	116.2	114.0	130.7	143.4	147.4	147.1
Unit nonlabor payments	103.6	104.8	104.9	107.4	110.1	111.7	111.6	112.6	111.6	114.1	117.0	118.2	118.3
Implicit price deflator	108.7	109.5	109.8	109.9	109.5	109.8	109.4	109.6	109.5	109.6	109.9	110.2	110.7
Manufacturing													
Output per hour of all persons	135.0	136.0	137.3	140.5	144.0	146.3	148.5	149.5	151.4	152.6	156.4	158.2	159.3
Compensation per hour	138.6	137.4	137.5	139.7	141.1	143.3	144.6	146.5	149.0	151.2	153.2	155.8	158.1
Real compensation per hour	112.9	111.0	110.8	112.7	113.5	114.3	114.7	115.7	116.5	118.0	118.8	119.6	121.4
Unit labor costs	102.7	101.0	100.1	99.4	98.0	97.9	97.4	98.0	98.4	99.0	98.0	98.5	99.2

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

[1996 = 100]

Item	1980	1990	1991	1992	1993	1994	1995	1997	1998	1999	2000	2001
Private business												
Productivity:												
Output per hour of all persons	75.8	90.2	91.3	94.8	95.4	96.6	97.3	102.2	105.0	107.7	111.0	112.4
Output per unit of capital services	103.3	99.7	96.5	98.0	98.7	100.4	99.8	100.3	99.3	98.2	96.6	92.8
Multifactor productivity	88.8	95.5	94.5	96.7	97.1	98.2	98.4	101.2	102.5	103.4	105.0	103.9
Output	59.4	83.6	82.6	85.7	88.5	92.8	95.8	105.2	110.5	115.7	120.4	120.2
Inputs:												
Labor input	71.9	89.4	88.3	89.3	91.8	95.6	98.0	103.5	106.1	109.0	110.1	109.5
Capital services	57.6	83.8	85.7	87.5	89.7	92.5	96.0	104.9	111.3	117.9	124.5	129.6
Combined units of labor and capital input	67.0	87.5	87.4	88.7	91.1	94.6	97.3	104.0	107.9	110.9	114.7	115.7
Capital per hour of all persons	73.4	90.4	94.6	96.8	96.6	96.2	97.5	101.9	105.8	109.7	114.8	121.1
Private nonfarm business												
Productivity:												
Output per hour of all persons	77.3	90.3	91.4	94.8	95.3	96.5	97.5	102.0	104.7	107.1	110.3	111.6
Output per unit of capital services	107.6	100.4	97.0	98.2	99.0	100.4	100.0	100.0	99.0	97.6	95.9	92.0
Multifactor productivity	91.0	95.8	94.8	96.7	97.2	98.2	98.6	101.0	102.2	102.9	104.4	103.3
Output	59.6	83.5	82.5	85.5	88.4	92.6	95.8	105.1	110.5	115.7	120.2	120.1
Inputs:												
Labor input	70.7	89.2	87.9	89.0	91.8	95.4	97.8	103.6	106.4	109.5	110.6	110.1
Capital services	55.4	83.2	85.1	87.0	89.4	92.2	95.8	105.1	111.7	118.5	125.4	130.5
Combined units of labor and capital input	65.5	87.2	87.0	88.4	91.0	94.3	97.2	104.1	108.1	112.4	115.2	116.3
Capital per hour of all persons	71.8	89.9	94.3	96.5	96.3	96.1	97.6	101.9	105.8	109.7	115.0	121.3
Manufacturing												
Productivity:												
Output per hour of all persons	62.0	82.2	84.1	88.6	90.2	93.0	96.5	103.8	108.9	114.0	118.3	119.7
Output per unit of capital services	97.2	97.5	93.6	95.9	96.9	99.7	100.6	101.4	101.7	101.7	101.0	95.1
Multifactor productivity	81.2	93.3	92.4	94.0	95.1	97.3	99.2	103.1	105.7	108.7	111.3	110.3
Output	64.3	83.2	81.5	85.5	88.3	92.9	96.9	105.6	110.5	114.7	117.4	112.1
Inputs:												
Hours of all persons	103.7	101.1	96.9	96.5	97.8	99.9	100.4	101.7	101.5	100.7	99.2	99.6
Capital services	66.1	85.3	87.1	89.1	91.1	93.2	96.4	104.1	108.7	112.8	116.2	117.9
Energy	86.1	93.1	93.2	93.1	96.6	99.9	102.3	97.5	100.6	102.9	104.3	98.9
Nonenergy materials	63.9	77.5	78.5	83.5	86.5	90.3	93.1	101.9	107.5	107.9	106.9	105.5
Purchased business services	65.8	84.7	84.6	92.0	92.9	96.0	100.4	103.9	103.1	105.4	106.5	97.7
Combined units of all factor inputs	79.2	89.1	88.3	90.9	92.8	95.5	97.7	102.4	104.6	105.5	105.5	101.6

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

[1992 = 100]

Item	1960	1970	1980	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003
Business													
Output per hour of all persons	48.7	66.0	79.0	94.4	101.7	104.5	106.5	109.3	112.4	115.7	118.3	124.0	129.6
Compensation per hour	13.8	23.5	54.0	90.5	106.0	109.5	113.0	119.7	125.4	134.2	139.7	147.8	147.9
Real compensation per hour	60.5	78.4	88.9	96.1	98.9	99.5	100.5	105.0	107.8	111.6	113.0	113.7	115.1
Unit labor costs	28.4	35.6	68.4	95.9	104.3	104.8	106.1	109.5	111.6	116.0	118.1	115.2	114.1
Unit nonlabor payments	24.9	31.5	61.3	93.9	108.2	111.9	113.9	109.9	109.2	107.2	109.5	117.0	123.0
Implicit price deflator	27.1	34.1	65.8	95.1	105.7	107.4	109.0	109.7	110.7	112.7	114.9	115.8	117.4
Nonfarm business													
Output per hour of all persons	51.6	67.7	80.3	94.4	102.1	104.7	106.4	109.2	112.2	115.3	117.8	123.6	129.1
Compensation per hour	14.4	23.6	54.2	90.3	106.0	109.4	112.8	119.4	124.9	133.7	138.9	142.1	147.0
Real compensation per hour	63.0	78.8	89.2	95.9	98.9	99.4	100.3	104.7	107.3	111.2	112.4	113.2	114.4
Unit labor costs	27.9	34.9	67.5	95.6	103.8	104.5	106.0	109.3	111.3	116.0	118.0	115.0	113.9
Unit nonlabor payments	24.3	31.1	60.4	93.6	109.2	112.1	114.6	110.9	110.8	108.8	111.1	119.0	124.8
Implicit price deflator	26.6	33.5	64.9	94.9	105.8	107.3	109.1	109.9	111.1	113.3	115.4	116.4	117.9
Nonfinancial corporations													
Output per hour of all employees	56.6	70.4	81.0	95.5	103.4	107.1	109.8	112.8	116.4	120.6	122.7	128.9	136.3
Compensation per hour	16.1	25.6	57.0	91.0	105.4	108.4	111.7	117.9	123.3	131.7	137.0	140.1	145.9
Real compensation per hour	70.3	85.3	93.8	96.7	98.3	98.5	99.3	103.4	105.9	109.5	110.8	111.5	113.5
Total unit costs	26.9	35.1	68.8	95.4	101.8	100.9	101.2	103.2	104.6	108.0	111.2	109.4	107.4
Unit labor costs	28.4	36.3	70.4	95.3	102.0	101.2	101.7	104.5	106.0	109.2	111.6	108.6	107.0
Unit nonlabor costs	23.0	31.7	64.5	97.1	101.3	99.9	99.8	99.9	101.0	104.8	110.2	111.5	108.4
Unit profits	49.5	43.7	66.5	96.7	136.9	149.9	154.4	137.5	129.8	109.3	91.4	111.4	134.2
Unit nonlabor payments	30.1	34.9	65.1	97.0	110.8	113.3	114.4	109.9	108.7	106.1	105.2	111.5	115.3
Implicit price deflator	28.9	35.9	68.6	95.9	104.9	105.3	105.9	106.3	106.9	108.1	109.5	109.6	109.8
Manufacturing													
Output per hour of all persons	41.8	54.2	70.1	92.9	110.1	113.9	117.9	123.5	128.2	134.2	137.1	147.1	154.6
Compensation per hour	14.9	23.7	55.6	90.1	107.7	109.9	112.0	118.8	123.8	135.0	138.3	143. 8	151.9
Real compensation per hour	65.0	79.2	91.4	95.7	100.5	99.8	99.7	104.2	106.3	112.3	111.8	114.5	118.2
Unit labor costs	35.6	43.8	79.3	97.0	97.8	96.5	95.0	96.2	96.6	100.6	100.8	97.8	98.2
Unit nonlabor payments	26.8	29.3	80.2	101.1	107.6	110.4	110.5	104.1	105.0	107.0	105.8	–	–
Implicit price deflator	30.2	35.0	79.9	99.5	103.9	105.2	104.6	101.1	101.8	104.6	103.9	–	–

Dash indicates data not available.

51. Annual indexes of output per hour for selected NAICS industries, 1990-2002

[1997=100]

NAICS	Industry	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
	Mining													
21	Mining	86.0	86.8	95.2	96.2	99.6	101.8	101.7	100.0	103.4	111.1	109.5	107.7	112.3
211	Oil and gas extraction	78.4	78.8	81.9	85.1	90.3	95.5	98.9	100.0	101.6	107.9	115.2	117.4	119.3
212	Mining, except oil and gas	79.3	80.0	86.8	89.9	93.0	94.0	96.0	100.0	104.6	105.9	106.8	109.0	111.7
2121	Coal mining	68.1	69.3	75.3	79.9	83.9	88.2	94.9	100.0	106.5	110.3	115.8	114.4	112.2
2122	Metal ore mining	79.9	82.7	91.7	102.2	104.1	98.5	95.3	100.0	109.5	112.7	124.4	131.8	143.9
2123	Nonmetallic mineral mining and quarrying	92.3	89.5	96.1	93.6	96.9	97.3	97.1	100.0	101.3	101.2	96.2	99.3	103.8
	Utilities													
2211	Power generation and supply	71.2	73.8	74.2	78.7	83.0	88.6	95.5	100.0	103.8	104.1	107.0	106.4	102.4
2212	Natural gas distribution	71.4	72.7	75.8	79.8	82.1	89.0	96.1	100.0	99.1	103.1	113.1	110.0	114.9
	Manufacturing													
3111	Animal food	90.1	89.3	90.2	90.2	87.3	94.0	87.5	100.0	109.4	109.5	109.7	127.2	–
3112	Grain and oilseed milling	89.0	91.2	91.1	93.8	94.7	99.1	91.3	100.0	107.5	114.2	112.5	117.3	–
3113	Sugar and confectionery products	91.0	93.8	90.5	92.5	94.0	94.3	98.2	100.0	104.0	107.1	111.9	109.9	–
3114	Fruit and vegetable preserving and specialty	86.4	89.7	90.7	93.8	94.9	97.1	98.2	100.0	106.8	108.4	109.8	117.0	–
3115	Dairy products	90.8	92.1	95.4	93.9	95.4	98.7	98.0	100.0	99.1	94.5	96.0	96.2	–
3116	Animal slaughtering and processing	94.5	96.8	101.5	100.9	97.4	98.5	94.3	100.0	99.9	100.3	101.9	102.7	–
3117	Seafood product preparation and packaging	117.5	112.0	115.3	113.9	114.1	108.4	116.2	100.0	117.0	130.2	137.6	147.3	–
3118	Bakeries and tortilla manufacturing	92.6	92.3	95.6	96.0	96.7	99.7	97.7	100.0	103.8	105.4	105.3	106.3	–
3119	Other food products	91.9	93.5	95.9	102.8	100.3	101.3	103.0	100.0	106.9	108.8	110.2	103.2	–
3121	Beverages	86.5	90.1	93.8	93.2	97.7	99.6	101.1	100.0	98.5	92.4	90.6	91.7	–
3122	Tobacco and tobacco products	81.4	77.3	79.6	73.7	89.8	97.5	99.4	100.0	98.1	92.1	98.0	100.0	–
3131	Fiber, yarn, and thread mills	73.9	74.7	80.1	84.6	87.2	92.0	98.7	100.0	102.2	104.6	102.6	110.5	–
3132	Fabric mills	75.0	77.7	81.5	85.0	91.9	95.8	98.0	100.0	103.9	109.8	110.2	109.1	–
3133	Textile and fabric finishing mills	81.7	80.4	83.7	86.0	87.8	84.5	85.0	100.0	100.6	101.7	104.0	109.7	–
3141	Textile furnishings mills	88.2	88.6	93.0	93.7	90.1	92.5	93.3	100.0	99.9	101.2	106.8	106.9	–
3149	Other textile product millsv	91.1	90.0	92.0	90.3	94.5	95.9	96.3	100.0	97.0	110.4	110.4	105.0	–
3151	Apparel knitting mills	85.6	88.7	93.2	102.5	104.3	109.5	121.9	100.0	96.6	102.0	110.2	108.4	–
3152	Cut and sew apparel	70.1	72.0	73.1	76.6	80.5	85.5	90.5	100.0	104.0	118.8	127.7	131.7	–
3159	Accessories and other apparel	100.9	97.3	98.7	99.0	104.6	112.4	112.6	100.0	110.8	103.3	104.9	114.8	–
3161	Leather and hide tanning and finishing	60.8	56.6	76.7	83.1	75.9	78.6	91.5	100.0	98.0	101.6	110.0	109.7	–
3162	Footwear	77.1	74.7	83.1	81.7	90.4	95.6	103.4	100.0	100.9	116.8	124.1	142.7	–
3169	Other leather products	102.5	100.2	97.0	94.3	80.0	73.2	79.7	100.0	109.2	100.4	107.6	114.1	–
3211	Sawmills and wood preservation	79.2	81.6	86.1	82.6	85.1	91.0	96.2	100.0	100.8	105.4	106.5	109.0	–
3212	Plywood and engineered wood products	102.3	107.4	114.7	108.9	105.8	101.8	101.2	100.0	105.6	99.9	100.5	105.0	–
3219	Other wood products	105.4	104.7	104.0	103.0	99.3	100.4	100.8	100.0	101.5	105.4	104.0	104.6	–
3221	Pulp, paper, and paperboard mills	88.5	88.1	92.3	92.9	97.6	102.0	97.6	100.0	103.1	111.4	115.7	117.5	–
3222	Converted paper products	90.5	93.5	93.7	96.3	97.6	97.2	98.3	100.0	102.7	101.5	101.9	101.0	–
3231	Printing and related support activities	96.6	95.4	101.3	100.1	98.3	98.8	99.6	100.0	100.5	103.5	104.9	105.6	–
3241	Petroleum and coal products	76.7	75.8	78.9	84.5	85.6	90.1	94.8	100.0	102.1	107.8	113.2	112.2	–
3251	Basic chemicals	91.4	90.1	89.4	89.9	95.1	92.3	90.0	100.0	102.5	114.7	118.4	111.0	–
3252	Resin, rubber, and artificial fibers	75.8	74.7	80.6	83.8	93.5	95.9	93.3	100.0	105.5	108.8	108.1	103.8	–
3253	Agricultural chemicals	84.6	81.0	81.3	85.6	87.4	90.7	92.1	100.0	98.8	87.6	91.4	91.1	–
3254	Pharmaceuticals and medicines	91.4	92.6	88.2	88.1	92.4	96.3	99.9	100.0	92.9	94.6	93.4	97.4	–
3255	Paints, coatings, and adhesives	85.1	85.9	87.6	90.9	94.1	92.7	98.3	100.0	99.1	98.8	98.5	102.1	–
3256	Soap, cleaning compounds, and toiletries	83.2	84.2	83.4	86.9	88.6	93.9	95.6	100.0	96.6	91.1	99.2	102.7	–
3259	Other chemical products and preparations	76.6	78.0	84.7	90.6	92.6	94.4	94.2	100.0	99.4	109.2	120.0	111.3	–
3261	Plastics products	84.7	86.3	90.3	91.9	94.4	94.5	97.0	100.0	103.5	109.3	111.2	113.3	–
3262	Rubber products	83.0	83.8	84.9	90.4	90.3	92.8	94.4	100.0	100.5	101.4	103.9	104.2	–
3271	Clay products and refractories	89.2	87.5	91.5	91.9	96.6	97.4	102.6	100.0	101.3	103.5	103.6	97.6	–
3272	Glass and glass products	80.0	79.1	84.3	86.1	87.5	88.8	96.5	100.0	102.7	108.6	109.7	105.2	–
3273	Cement and concrete products	94.8	93.7	94.8	96.5	95.0	98.2	100.6	100.0	103.5	104.1	100.4	97.1	–
3274	Lime and gypsum products	84.1	82.7	88.5	90.1	87.8	88.8	92.4	100.0	113.1	102.7	97.0	100.1	–
3279	Other nonmetallic mineral products	79.8	81.4	90.2	89.3	90.5	91.7	96.5	100.0	98.8	95.5	95.6	96.8	–
3311	Iron and steel mills and ferroalloy production	69.6	67.2	74.1	81.7	87.2	89.7	94.1	100.0	101.7	106.5	108.5	106.7	–
3312	Steel products from purchased steel	83.8	86.4	89.9	95.9	100.0	100.5	100.5	100.0	100.3	94.2	96.4	97.1	–
3313	Alumina and aluminum production	91.9	93.3	96.8	96.0	100.3	96.8	95.9	100.0	101.1	104.3	97.8	96.9	–
3314	Other nonferrous metal production	95.6	95.8	98.8	101.8	105.1	102.9	105.7	100.0	111.2	108.9	103.1	100.5	–
3315	Foundries	85.3	84.5	85.8	89.8	91.4	93.1	96.2	100.0	101.6	104.9	104.0	109.3	–
3321	Forging and stamping	88.6	86.5	91.7	94.6	93.7	94.2	97.6	100.0	103.7	110.9	121.3	121.8	–
3322	Cutlery and hand tools	85.1	85.4	87.2	91.7	94.4	97.8	104.4	100.0	100.0	107.8	105.8	110.2	–
3323	Architectural and structural metals	87.8	89.1	92.5	93.4	95.1	93.9	94.2	100.0	101.1	101.8	101.0	100.7	–
3324	Boilers, tanks, and shipping containers	90.4	92.6	95.3	94.8	100.5	97.8	100.7	100.0	101.3	98.9	97.7	98.2	–
3325	Hardware	84.4	83.8	86.9	89.6	95.7	97.3	102.6	100.0	101.0	106.5	115.8	114.6	–
3326	Spring and wire products	85.2	88.4	90.9	95.3	91.5	99.5	102.8	100.0	111.6	112.9	114.6	110.6	–
3327	Machine shops and threaded products	78.8	79.8	87.2	86.9	91.6	98.7	100.0	100.0	99.3	103.9	107.2	107.2	–

51. Continued—Annual indexes of output per hour for selected NAICS industries, 1990-2002

[1997=100]

NAICS	Industry	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
3328	Coating, engraving, and heat treating metals	81.6	78.1	86.9	91.9	96.5	102.8	102.9	100.0	101.7	101.5	105.9	105.1	-
3329	Other fabricated metal products	86.7	85.9	90.6	92.1	95.0	97.1	98.9	100.0	102.3	100.2	100.8	98.2	-
3331	Agriculture, construction, and mining machinery	82.8	77.2	79.6	84.1	91.0	95.6	95.9	100.0	104.2	95.0	101.0	99.5	-
3332	Industrial machinery	80.6	81.1	79.5	84.9	90.0	97.9	98.8	100.0	94.4	105.2	129.7	104.6	-
3333	Commercial and service industry machinery	91.4	89.6	96.5	101.7	101.2	103.0	106.3	100.0	107.5	111.2	101.4	94.4	-
3334	HVAC and commercial refrigeration equipment	88.8	88.2	90.8	93.8	97.3	96.6	97.8	100.0	106.6	110.4	108.3	110.8	-
3335	Metalworking machinery	85.3	82.3	89.3	89.3	94.0	99.1	98.1	100.0	99.1	100.5	106.4	102.0	-
3336	Turbine and power transmission equipment	85.1	84.6	81.2	84.8	93.3	92.1	97.9	100.0	106.4	113.3	117.1	130.2	-
3339	Other general purpose machinery	85.9	85.2	85.1	89.8	91.5	94.6	95.1	100.0	103.2	105.6	113.0	109.4	-
3341	Computer and peripheral equipment	14.3	15.8	20.6	27.9	35.9	51.3	72.6	100.0	138.6	190.3	225.4	237.0	-
3342	Communications equipment	47.3	49.3	59.3	62.1	70.1	74.6	84.3	100.0	102.7	134.0	165.5	155.2	-
3343	Audio and video equipment	75.5	82.8	92.1	98.8	108.5	140.0	104.7	100.0	103.1	116.2	123.3	126.3	-
3344	Semiconductors and electronic components	21.4	24.5	29.6	34.1	43.1	63.4	81.8	100.0	125.2	174.5	233.3	231.6	-
3345	Electronic instruments	76.0	80.5	83.1	85.8	88.8	96.8	97.7	100.0	101.3	105.1	114.3	116.1	-
3346	Magnetic media manufacturing and reproduction	86.6	91.2	93.0	96.8	106.1	106.7	103.8	100.0	105.4	106.8	104.0	98.6	-
3351	Electric lighting equipment	87.3	88.5	93.6	90.8	94.5	92.2	95.6	100.0	103.8	102.5	101.9	105.4	-
3352	Household appliances	76.4	76.4	82.4	88.9	95.0	92.7	93.1	100.0	105.1	104.3	117.5	122.6	-
3353	Electrical equipment	73.6	72.7	78.9	85.8	89.0	98.1	100.2	100.0	99.8	98.9	100.6	101.0	-
3359	Other electrical equipment and components	75.3	74.2	81.6	86.8	89.4	92.0	96.0	100.0	105.5	114.8	120.5	113.5	-
3361	Motor vehicles	86.0	82.4	91.2	89.8	90.3	88.6	91.0	100.0	113.3	123.3	110.4	108.7	-
3362	Motor vehicle bodies and trailers	75.8	71.8	88.3	96.3	97.7	97.3	98.4	100.0	102.7	103.1	98.4	99.4	-
3363	Motor vehicle parts	75.7	74.5	82.4	88.5	91.8	92.3	93.1	100.0	104.8	110.4	112.7	114.8	-
3364	Aerospace products and parts	87.7	92.1	94.1	98.2	93.8	93.7	98.1	100.0	118.5	118.0	101.0	114.7	-
3365	Railroad rolling stock	77.2	80.0	81.1	82.3	83.1	82.0	80.9	100.0	102.9	116.0	117.7	124.7	-
3366	Ship and boat building	99.6	92.6	98.5	101.3	99.0	93.1	94.1	100.0	100.3	112.2	120.1	119.8	-
3369	Other transportation equipment	62.6	62.0	88.4	99.8	93.4	93.1	99.8	100.0	110.8	113.3	130.9	146.9	-
3371	Household and institutional furniture	87.6	88.2	92.9	93.8	94.1	97.1	99.5	100.0	102.7	103.7	102.5	106.1	-
3372	Office furniture and fixtures	80.8	78.8	86.2	87.9	83.4	84.3	85.6	100.0	100.1	98.5	100.2	97.1	-
3379	Other furniture-related products	88.1	88.6	88.4	90.5	93.6	94.5	96.7	100.0	107.2	102.5	100.1	105.3	-
3391	Medical equipment and supplies	81.2	83.1	88.1	91.1	90.8	95.0	100.0	100.0	108.9	109.6	114.2	119.0	-
3399	Other miscellaneous manufacturing	90.1	90.6	90.0	92.3	93.0	96.0	99.6	100.0	101.9	105.2	112.9	110.9	-
	Wholesale trade													
42	Wholesale trade	77.8	79.1	86.2	89.5	91.3	93.3	96.2	100.0	104.4	110.9	114.1	117.1	123.6
423	Durable goods	65.7	66.1	75.0	80.5	84.5	88.9	94.0	100.0	105.6	115.3	119.6	120.3	127.7
4231	Motor vehicles and parts	76.6	73.3	82.2	88.0	94.1	93.6	94.9	100.0	104.7	119.8	114.0	114.1	121.7
4232	Furniture and furnishings	82.4	87.2	92.0	95.8	93.3	96.8	97.0	100.0	97.5	100.8	105.5	105.4	101.8
4233	Lumber and construction supplies	115.0	113.2	119.6	113.9	111.9	103.6	103.0	100.0	102.9	104.8	101.7	108.6	119.2
4234	Commercial equipment	33.8	37.3	48.2	56.2	60.5	74.7	88.4	100.0	118.2	141.1	148.9	164.9	189.4
4235	Metals and minerals	101.6	102.6	109.1	111.7	110.1	101.2	102.7	100.0	102.4	96.0	99.2	102.2	102.2
4236	Electric goods	46.8	47.6	51.4	59.1	68.2	79.3	87.8	100.0	105.9	126.2	151.7	148.1	161.2
4237	Hardware and plumbing	88.8	86.5	95.6	94.3	101.3	98.0	99.1	100.0	103.5	107.8	111.1	102.6	107.9
4238	Machinery and supplies	78.9	74.2	79.7	84.3	85.4	89.7	93.9	100.0	104.2	101.4	104.1	102.7	100.2
4239	Miscellaneous durable goods	89.5	96.6	112.1	113.2	106.1	99.2	101.0	100.0	101.8	112.6	116.7	116.1	125.5
424	Nondurable goods	98.4	99.8	103.2	103.0	101.8	99.7	99.2	100.0	102.8	104.1	103.5	106.9	112.6
4241	Paper and paper products	81.0	85.5	96.5	97.2	101.5	99.0	96.5	100.0	100.4	105.5	105.5	109.0	120.2
4242	Druggists' goods	81.8	86.6	91.8	89.3	92.8	95.4	98.3	100.0	99.6	101.7	96.8	101.2	116.0
4243	Apparel and piece goods	103.9	103.3	100.1	97.7	103.8	92.2	99.0	100.0	104.1	103.5	102.7	102.4	111.5
4244	Grocery and related products	96.4	98.2	103.6	105.1	103.3	103.0	99.8	100.0	101.9	103.6	105.2	109.4	111.8
4245	Farm product raw materials	80.6	85.9	85.9	84.0	80.4	87.7	90.6	100.0	100.4	114.2	119.0	120.0	135.4
4246	Chemicals	107.3	106.6	112.5	110.0	110.5	102.1	100.0	100.0	99.3	98.0	95.8	93.6	96.9
4247	Petroleum	97.3	107.0	118.3	119.1	115.8	108.7	105.9	100.0	115.0	112.0	112.5	116.5	126.0
4248	Alcoholic beverages	109.4	111.2	107.4	105.6	105.9	102.5	104.5	100.0	109.7	110.1	111.0	111.6	117.3
4249	Miscellaneous nondurable goods	107.3	98.2	93.9	97.5	94.8	96.2	98.7	100.0	101.7	99.6	106.2	104.2	97.0
425	Electronic markets and agents and brokers	70.7	73.6	81.5	85.9	88.0	91.1	95.7	100.0	104.6	114.4	124.1	131.3	132.6
42511	Business to business electronic markets	70.4	72.6	80.3	84.8	88.3	90.5	95.3	100.0	103.5	121.7	141.3	169.4	205.0
42512	Wholesale trade agents and brokers	70.8	74.0	82.3	86.8	88.4	91.8	96.1	100.0	104.8	110.5	115.7	114.2	109.3
	Retail trade													
44-45	Retail trade	83.2	83.3	86.8	89.4	92.8	94.7	97.7	100.0	104.3	110.3	114.2	117.4	122.7
441	Motor vehicle and parts dealers	89.7	88.3	92.6	94.0	96.9	97.0	98.8	100.0	102.7	106.4	107.2	110.0	109.7
4411	Automobile dealers	92.1	90.8	94.8	96.0	98.0	97.2	98.9	100.0	102.7	106.4	106.6	109.1	106.0
4412	Other motor vehicle dealers	69.0	71.7	78.3	84.1	90.2	91.0	97.7	100.0	105.9	113.0	108.6	112.6	116.4
4413	Auto parts, accessories, and tire stores	85.0	84.0	89.1	90.6	95.4	97.9	98.3	100.0	105.7	110.0	112.0	109.3	115.8
442	Furniture and home furnishings stores	80.7	81.1	88.1	88.3	90.4	94.1	99.4	100.0	101.7	109.6	115.7	118.5	125.1
4421	Furniture stores	82.1	83.5	89.0	89.0	88.9	92.5	97.8	100.0	102.1	108.2	114.8	121.1	128.6
4422	Home furnishings stores	78.5	77.6	86.8	87.2	92.1	95.9	101.3	100.0	101.3	111.4	116.8	115.6	121.4
443	Electronics and appliance stores	46.0	49.2	56.9	65.5	77.6	89.2	95.0	100.0	122.9	152.2	177.7	199.1	240.0
444	Building material and garden supply stores	81.8	80.2	84.0	88.0	93.7	93.7	97.5	100.0	106.7	112.3	113.1	115.8	119.9

51. Continued - Annual indexes of output per hour for selected NAICS industries, 1990-2002

[1997=100]

NAICS	Industry	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
4441	Building material and supplies dealers	83.2	80.7	84.7	89.1	94.8	94.8	97.6	100.0	107.6	113.7	113.8	115.3	119.8
4442	Lawn and garden equipment and supplies stores	74.5	77.5	80.2	81.5	86.9	87.0	97.1	100.0	101.2	103.5	108.2	119.4	121.2
445	Food and beverage stores	107.1	106.6	106.9	105.4	104.3	102.5	100.3	100.0	99.9	103.7	105.1	107.6	110.3
4451	Grocery stores	106.5	106.6	106.7	105.9	104.9	103.0	100.8	100.0	100.3	104.3	104.9	107.5	110.3
4452	Specialty food stores	122.9	115.0	111.4	107.6	104.5	101.1	95.5	100.0	95.0	99.6	105.6	110.8	114.2
4453	Beer, wine and liquor stores	100.1	100.2	101.0	94.4	92.9	96.2	103.1	100.0	105.8	99.8	111.1	110.4	111.8
446	Health and personal care stores	92.0	91.6	90.7	91.9	91.8	93.0	95.7	100.0	104.1	106.9	111.4	112.7	118.8
447	Gasoline stations	84.8	85.7	88.5	92.8	96.8	99.7	99.4	100.0	105.6	110.6	106.5	109.8	117.5
448	Clothing and clothing accessories stores	69.5	70.5	75.3	78.9	83.3	91.2	97.9	100.0	105.4	112.8	120.3	123.5	129.0
4481	Clothing stores	68.9	71.4	77.1	79.2	81.9	90.1	97.1	100.0	106.7	113.3	120.9	125.2	132.7
4482	Shoe stores	73.7	73.1	78.2	79.2	88.3	93.7	102.4	100.0	97.8	104.9	109.6	115.8	120.0
4483	Jewelry, luggage, and leather goods stores	68.6	64.5	65.0	77.1	85.0	94.1	97.3	100.0	107.0	118.3	128.0	122.5	121.5
451	Sporting goods, hobby, book, and music stores	80.8	85.6	83.8	84.0	87.2	93.0	94.7	100.0	108.7	114.9	121.1	125.4	132.9
4511	Sporting goods and musical instrument stores	77.1	82.8	79.8	80.6	83.9	92.3	92.5	100.0	112.9	120.4	128.3	130.4	137.9
4512	Book, periodical, and music stores	89.0	91.8	92.5	91.6	94.5	94.5	99.3	100.0	101.0	104.7	108.0	116.0	123.8
452	General merchandise stores	75.3	79.0	83.0	88.5	90.6	92.2	96.9	100.0	105.0	113.1	119.9	124.2	130.5
4521	Department stores	84.0	88.3	91.6	95.0	95.1	94.7	98.4	100.0	100.6	104.5	106.3	104.0	104.7
4529	Other general merchandise stores	61.4	64.8	69.7	77.8	82.6	87.6	94.3	100.0	113.4	129.8	145.9	162.1	177.5
453	Miscellaneous store retailers	70.6	68.0	74.2	79.1	87.0	89.5	95.0	100.0	108.3	109.8	111.3	108.4	115.6
4531	Florists	75.1	75.9	85.1	91.4	85.4	83.5	96.1	100.0	101.2	117.3	116.0	108.6	120.7
4532	Office supplies, stationery and gift stores	64.6	66.3	71.5	75.8	87.5	90.9	91.8	100.0	113.0	118.0	124.1	125.1	140.3
4533	Used merchandise stores	84.9	83.1	89.7	88.9	87.3	90.2	97.4	100.0	113.5	109.8	115.7	115.0	121.4
4539	Other miscellaneous store retailers	79.6	69.2	74.7	80.5	89.7	90.5	98.0	100.0	105.0	101.6	99.6	93.2	92.8
454	Nonstore retailers	54.4	55.0	63.4	66.7	73.8	80.9	91.6	100.0	111.3	125.4	142.8	146.9	169.6
4541	Electronic shopping and mail-order houses	43.5	46.7	50.6	58.3	62.9	71.9	84.4	100.0	118.2	141.5	159.8	177.5	209.8
4542	Vending machine operators	97.1	95.4	95.1	92.8	94.1	89.3	96.9	100.0	114.1	118.1	127.1	110.4	113.3
4543	Direct selling establishments	70.0	67.6	82.1	79.7	89.2	94.7	102.2	100.0	96.2	96.3	104.3	98.7	110.2
	Transportation and warehousing													
481	Air transportation	77.5	78.2	81.4	84.7	90.8	95.3	98.8	100.0	97.6	98.2	98.2	91.9	103.2
482111	Line-haul railroads	69.8	75.3	82.3	85.7	88.6	92.0	98.4	100.0	102.1	105.5	114.3	121.9	131.9
48412	General freight trucking, long-distance	88.5	92.4	97.5	95.6	98.1	95.4	95.7	100.0	99.1	102.0	105.5	104.2	109.4
491	U.S. Postal service	96.1	95.8	96.5	99.0	98.5	98.3	96.7	100.0	101.4	102.4	104.9	106.1	107.0
	Information													
5111	Newspaper, book, and directory publishers	97.4	96.1	95.8	95.3	93.0	93.5	92.7	100.0	104.5	108.5	110.1	106.4	108.1
5112	Software publishers	28.6	30.6	42.7	51.7	64.6	73.0	88.0	100.0	115.9	113.0	103.9	101.9	106.7
51213	Motion picture and video exhibition	109.4	108.9	104.1	104.6	103.4	99.9	100.0	100.0	99.9	102.0	106.5	104.7	104.4
5151	Radio and television broadcasting	96.1	97.8	102.8	101.4	106.0	106.1	104.1	100.0	99.1	99.4	98.4	94.3	100.4
5152	Cable and other subscription programming	98.8	94.3	96.0	93.6	92.0	94.4	93.7	100.0	129.3	133.2	135.7	125.3	131.4
5171	Wired telecommunications carriers	64.8	68.4	74.5	79.7	85.1	90.6	97.5	100.0	105.5	112.7	119.9	121.0	130.6
5172	Wireless telecommunications carriers	76.3	73.8	85.6	94.8	97.1	98.3	103.0	100.0	114.2	134.3	139.0	172.7	192.0
5175	Cable and other program distribution	99.1	94.3	95.9	93.5	91.9	94.2	93.5	100.0	95.7	94.5	90.4	87.6	93.5
	Finance and insurance													
52211	Commercial banking	80.5	83.2	83.3	90.3	92.9	96.0	99.3	100.0	98.0	101.5	104.2	101.6	103.8
	Real estate and rental and leasing													
532111	Passenger car rental	89.8	97.8	104.4	106.1	107.9	101.1	108.9	100.0	101.2	113.1	112.0	112.1	113.3
53212	Truck, trailer and RV rental and leasing	70.7	71.7	69.5	75.8	82.0	90.3	96.7	100.0	93.7	97.8	95.9	93.6	91.4
	Professional, scientific, and technical services													
541213	Tax preparation services	92.4	84.7	99.5	119.1	119.9	96.2	92.1	100.0	105.1	99.2	91.8	78.2	92.1
54181	Advertising agencies	105.0	99.7	111.9	111.3	106.8	101.4	102.1	100.0	95.8	110.1	116.6	116.7	123.9
	Accomodation and food services													
7211	Traveler accommodations	82.9	85.4	92.9	93.0	97.0	99.2	100.1	100.0	100.0	103.6	107.7	102.0	104.1
722	Food services and drinking places	102.9	102.3	101.7	102.3	100.8	100.6	99.2	100.0	101.2	101.1	103.5	103.7	104.9
7221	Full-service restaurants	99.1	98.3	97.5	97.7	97.8	96.6	96.3	100.0	100.0	99.2	100.8	100.8	102.0
7222	Limited-service eating places	103.3	103.3	102.7	105.6	103.6	104.7	102.2	100.0	102.4	102.5	105.1	106.6	107.1
7223	Special food services	107.2	106.9	106.4	103.8	101.1	99.3	97.6	100.0	102.1	106.0	111.7	108.4	108.1
7224	Drinking places, alcoholic beverages	125.7	121.2	121.5	112.7	102.6	104.4	102.4	100.0	100.0	99.4	100.4	98.2	107.2
	Other services (except public administration)													
8111	Automotive repair and maintenance	92.8	86.5	90.0	91.2	96.7	102.9	98.9	100.0	105.0	106.9	108.6	109.3	103.7
81211	Hair, nail and skin care services	81.6	79.8	85.6	84.3	88.7	92.4	97.1	100.0	102.7	103.6	103.0	109.5	104.2
81221	Funeral homes and funeral services	96.1	94.3	104.7	100.4	103.6	100.4	97.9	100.0	103.8	100.4	94.5	93.9	90.9
8123	Drycleaning and laundry services	95.6	93.2	94.9	93.8	95.9	98.8	101.6	100.0	105.0	109.5	113.7	121.1	120.2
81292	Photofinishing	117.3	115.6	116.2	123.6	124.9	114.7	103.2	100.0	99.4	106.9	107.6	115.0	133.6

NOTE: Dash indicates data are not available.

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

Country	Annual average		2002			2003				2004
	2002	2003	II	III	IV	I	II	III	IV	I
United States	5.8	6.0	5.8	5.7	5.9	5.8	6.1	6.1	5.9	5.6
Canada	7.0	6.9	6.9	7.0	6.9	6.7	6.9	7.2	6.8	6.7
Australia	6.4	6.1	6.4	6.3	6.2	6.2	6.2	6.1	5.8	5.7
Japan	5.4	5.3	5.4	5.5	5.4	5.4	5.4	5.2	5.1	5.0
France	8.7	9.3	8.6	8.7	8.9	9.0	9.2	9.4	9.4	9.4
Germany	8.6	9.3	8.5	8.7	8.9	9.2	9.4	9.4	9.3	9.2
Italy[1]	9.1	8.8	9.2	9.1	9.0	9.0	8.8	8.7	8.6	8.6
Sweden[2]	5.1	5.8	5.0	5.1	5.2	5.2	5.6	5.8	6.2	6.6
United Kingdom	5.2	5.0	5.2	5.2	5.1	5.1	5.0	5.0	4.9	4.8

[1] Preliminary data for 2003.

[2] Preliminary data for 2003. Quarterly rates are for the first month of the quarter.

NOTE: Quarterly figures for France and Germany are calculated by applying annual adjustment factors to current published data, and therefore should be viewed as less precise indicators of unemployment under U.S. concepts than the annual figures. See "Notes on the data" for information on breaks in series. For further qualifications and historical data, see *Comparative Civilian Labor Force Statistics, Ten Countries, 1959-2003* (Bureau of Labor Statistics, Feb. 11, 2004), on the Internet at

http://www.bls.gov/fls/home.htm

Monthly and quarterly unemployment rates, updated monthly, are also on this site.

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

[Numbers in thousands]

Employment status and country	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Civilian labor force											
United States	128,105	129,200	131,056	132,304	133,943	136,297	137,673	139,368	142,583	143,734	144,863
Canada	14,177	14,308	14,400	14,517	14,669	14,958	15,237	15,536	15,789	16,027	16,475
Australia	8,557	8,613	8,770	8,995	9,115	9,204	9,339	9,414	9,590	9,752	9,907
Japan	65,040	65,470	65,780	65,990	66,450	67,200	67,240	67,090	66,990	66,870	66,240
France	24,440	24,480	24,760	24,750	25,010	25,130	25,460	25,790	26,070	26,350	26,590
Germany	39,010	39,102	39,074	38,980	39,142	39,415	39,754	39,375	39,302	39,459	39,413
Italy	22,910	22,570	22,450	22,460	22,570	22,680	22,960	23,130	23,340	23,540	23,750
Netherlands	6,920	7,010	7,150	7,210	7,300	7,540	7,620	7,850	8,150	8,340	8,300
Sweden	4,520	4,444	4,418	4,460	4,459	4,418	4,402	4,430	4,489	4,530	4,544
United Kingdom	28,336	28,165	28,149	28,157	28,260	28,417	28,479	28,769	28,930	29,053	29,288
Participation rate[1]											
United States	66.4	66.3	66.6	66.6	66.8	67.1	67.1	67.1	67.1	66.8	66.6
Canada	65.9	65.5	65.2	64.9	64.7	65.0	65.4	65.8	65.9	66.0	66.8
Australia	63.9	63.5	63.9	64.5	64.6	64.3	64.3	64.0	64.4	64.4	64.4
Japan	63.4	63.3	63.1	62.9	63.0	63.2	62.8	62.4	62.0	61.6	60.8
France	55.6	55.4	55.5	55.4	55.6	55.5	55.9	56.3	56.6	56.8	57.0
Germany	58.2	57.8	57.4	57.1	57.1	57.3	57.7	56.8	56.6	56.6	56.3
Italy	47.5	47.9	47.3	47.1	47.1	47.2	47.6	47.8	48.1	48.3	48.6
Netherlands	57.5	57.9	58.6	58.8	59.2	60.8	61.1	62.6	64.5	65.8	65.0
Sweden	65.7	64.5	63.7	64.1	64.0	63.3	62.8	62.8	63.8	63.7	64.0
United Kingdom	63.1	62.7	62.6	62.4	62.4	62.6	62.5	62.8	62.9	62.7	62.9
Employed											
United States	118,492	120,259	123,060	124,900	126,708	129,558	131,463	133,488	136,891	136,933	136,485
Canada	12,672	12,770	13,027	13,271	13,380	13,705	14,068	14,456	14,827	14,997	15,325
Australia	7,660	7,699	7,942	8,256	8,364	8,444	8,618	8,762	8,989	9,091	9,271
Japan	63,620	63,810	63,860	63,890	64,200	64,900	64,450	63,920	63,790	63,470	62,650
France	22,000	21,710	21,750	21,960	22,040	22,170	22,600	23,050	23,690	24,140	24,280
Germany	36,390	35,989	35,756	35,780	35,637	35,508	36,061	36,042	36,236	36,350	36,018
Italy	21,230	20,270	19,940	19,820	19,920	19,990	20,210	20,460	20,840	21,270	21,580
Netherlands	6,550	6,570	6,660	6,730	6,860	7,160	7,320	7,600	7,910	8,130	8,070
Sweden	4,265	4,028	3,992	4,056	4,019	3,973	4,034	4,117	4,229	4,303	4,310
United Kingdom	25,570	25,242	25,429	25,718	25,964	26,433	26,696	27,048	27,350	27,570	27,768
Employment-population ratio[2]											
United States	61.5	61.7	62.5	62.9	63.2	63.8	64.1	64.3	64.4	63.7	62.7
Canada	58.9	58.5	59.0	59.4	59.1	59.7	60.4	61.3	62.1	61.9	62.4
Australia	57.2	56.8	57.8	59.2	59.3	59.0	59.3	59.6	60.3	60.1	60.3
Japan	62.0	61.7	61.3	60.9	60.9	61.0	60.2	59.4	59.0	58.4	57.5
France	50.1	49.1	49.0	49.1	49.0	49.0	49.7	50.3	51.4	52.0	52.0
Germany	54.2	53.2	52.6	52.4	52.0	51.6	52.3	52.0	52.2	52.2	51.5
Italy	44.0	43.0	42.0	41.5	41.6	41.6	41.9	42.3	42.9	43.6	44.1
Netherlands	54.5	54.2	54.6	54.9	55.7	57.8	58.7	59.9	62.6	64.2	63.2
Sweden	62.0	58.5	57.6	58.3	57.7	56.9	57.6	58.4	60.1	60.5	60.7
United Kingdom	57.0	56.2	56.5	57.0	57.4	58.2	58.6	59.1	59.4	59.5	59.6
Unemployed											
United States	9,613	8,940	7,996	7,404	7,236	6,739	6,210	5,880	5,692	6,801	8,378
Canada	1,505	1,539	1,373	1,246	1,289	1,252	1,169	1,080	962	1,031	1,150
Australia	897	914	829	739	751	759	721	652	602	661	636
Japan	1,420	1,660	1,920	2,100	2,250	2,300	2,790	3,170	3,200	3,400	3,590
France	2,430	2,770	2,920	2,800	2,970	2,960	2,870	2,740	2,380	2,210	2,310
Germany	2,620	3,113	3,318	3,200	3,505	3,907	3,693	3,333	3,065	3,110	3,396
Italy	1,680	2,300	2,510	2,640	2,650	2,690	2,750	2,670	2,500	2,270	2,160
Netherlands	370	440	490	480	440	370	300	250	240	210	230
Sweden	255	416	426	404	440	445	368	313	260	227	234
United Kingdom	2,762	2,916	2,716	2,439	2,297	1,985	1,783	1,721	1,580	1,483	1,520
Unemployment rate											
United States	7.5	6.9	6.1	5.6	5.4	4.9	4.5	4.2	4.0	4.7	5.8
Canada	10.6	10.8	9.5	8.6	8.8	8.4	7.7	7.0	6.1	6.4	7.0
Australia	10.5	10.6	9.4	8.2	8.2	8.3	7.7	6.9	6.3	6.8	6.3
Japan	2.2	2.5	2.9	3.2	3.4	3.4	4.1	4.7	4.8	5.1	5.4
France	9.9	11.3	11.8	11.3	11.9	11.8	11.3	10.6	9.1	8.4	8.7
Germany	6.7	8.0	8.5	8.2	9.0	9.9	9.3	8.5	7.8	7.9	8.6
Italy	7.3	10.2	11.2	11.8	11.7	11.9	12.0	11.5	10.7	9.6	9.1
Netherlands	5.3	6.3	6.9	6.7	6.0	4.9	3.9	3.2	2.9	2.5	2.7
Sweden	5.6	9.4	9.6	9.1	9.9	10.1	8.4	7.1	5.8	5.0	5.1
United Kingdom	9.7	10.4	9.6	8.7	8.1	7.0	6.3	6.0	5.5	5.1	5.2

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

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

NOTE: See notes on the data for information on breaks in series.

For further qualifications and historical data, see *Comparative Civilian Labor Force Statistics, Ten Countries, 1959-2003* (Bureau of Labor Statistics, 1959–2002 (Bureau of Labor Statistics, June 23, 2004), on the Internet at **http://www.bls.gov/fls/home.htm**

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

[1992 = 100]

Item and country	1960	1970	1980	1990	1991	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Output per hour															
United States	–	–	70.5	96.9	97.9	102.1	107.3	113.8	117.0	121.3	126.5	133.7	142.1	142.7	155.9
Canada	37.8	54.9	72.9	93.4	95.3	105.8	110.8	112.4	109.7	113.5	115.5	122.1	129.3	127.0	130.5
Japan	13.8	37.5	63.2	94.4	99.0	101.7	103.3	111.0	116.1	121.0	121.2	126.7	135.9	135.9	139.5
Belgium	18.0	32.9	65.4	96.8	99.1	102.5	108.4	113.2	116.3	125.5	126.9	125.5	130.8	132.6	141.7
Denmark	28.1	49.4	86.2	99.1	99.5	99.3	–	–	–	–	–	–	–	–	–
France	19.9	39.0	61.6	93.9	97.0	101.0	108.9	114.4	114.7	121.7	127.9	133.0	143.2	148.0	152.1
Germany	29.2	52.0	77.2	99.0	98.3	101.8	109.6	112.3	114.7	120.4	122.0	121.4	127.0	127.8	131.0
Italy	24.6	46.2	78.6	96.6	96.1	101.2	104.8	107.9	108.3	110.3	110.8	110.6	113.6	115.9	114.3
Netherlands	18.8	38.5	69.1	98.7	99.0	102.0	113.1	117.3	119.3	121.4	124.1	127.0	132.7	132.3	133.1
Norway	37.6	59.1	77.9	98.1	98.2	99.6	99.6	100.7	102.5	102.0	99.9	103.6	106.6	108.9	110.9
Sweden	27.3	52.2	73.1	94.6	95.5	107.3	117.8	124.5	129.5	141.0	149.5	162.7	175.5	170.3	184.3
United Kingdom	30.0	43.2	54.4	89.2	93.8	103.9	108.5	106.5	105.8	107.7	109.2	114.4	121.9	126.4	127.6
Output															
United States	–	–	75.8	101.6	98.3	103.5	111.1	118.4	121.3	127.9	133.1	139.5	146.1	137.3	139.8
Canada	33.4	58.9	83.6	106.0	99.0	105.9	114.1	119.6	119.6	127.7	133.9	144.9	159.2	153.6	158.0
Japan	10.7	39.2	60.4	97.1	102.0	96.3	94.9	98.9	103.0	106.5	100.2	101.9	109.2	105.5	103.4
Belgium	30.7	57.6	78.2	101.0	100.7	97.0	101.4	104.2	105.9	112.7	114.4	114.4	119.9	120.4	121.6
Denmark	44.4	73.9	94.4	102.8	101.5	95.6	105.6	111.6	106.7	115.2	115.7	117.7	122.1	127.5	127.8
France	30.0	57.7	81.6	99.1	99.8	95.7	100.3	104.9	104.6	109.7	115.0	118.7	124.3	128.0	128.1
Germany	41.5	70.9	85.3	99.1	102.3	92.4	95.1	95.2	92.5	95.7	97.7	95.8	100.1	99.9	99.6
Italy	23.0	48.1	84.4	99.4	99.3	96.5	102.4	107.2	105.4	108.8	110.7	110.3	113.7	114.6	113.8
Netherlands	31.9	59.8	76.9	99.0	99.8	97.7	104.5	108.2	108.9	111.6	114.9	117.6	122.8	121.7	119.7
Norway	57.7	91.0	104.9	101.4	99.0	101.7	104.6	107.3	110.3	114.2	113.7	113.6	112.8	113.4	112.6
Sweden	45.9	80.7	90.7	110.1	104.1	101.9	117.0	131.9	136.4	146.5	158.3	172.5	188.3	183.1	189.3
United Kingdom	67.5	90.2	87.2	105.4	100.1	101.5	106.2	107.8	108.7	110.7	111.4	112.2	114.9	1134.0	109.4
Total hours															
United States	92.1	104.4	107.5	104.8	100.4	101.4	103.6	104.0	103.6	105.4	105.2	104.4	102.8	96.3	89.7
Canada	88.3	107.1	114.6	113.5	103.9	100.1	103.0	106.4	109.0	112.4	115.9	118.7	123.1	120.9	121.1
Japan	77.8	104.4	95.6	102.9	103.1	94.7	91.9	89.1	88.7	88.0	82.7	80.4	80.3	77.7	74.2
Belgium	170.7	174.7	119.7	104.3	101.5	94.7	93.6	92.0	91.0	89.8	90.2	91.2	91.7	90.8	85.8
Denmark	157.8	149.5	109.6	103.7	102.1	96.2	–	–	–	–	–	–	–	–	–
France	140.3	147.8	132.5	105.6	102.9	94.7	92.1	91.7	91.2	90.2	89.9	89.2	86.8	86.5	84.2
Germany	142.3	136.3	110.5	100.1	104.1	90.8	86.8	84.8	80.6	79.5	80.1	78.9	78.8	78.2	76.1
Italy	93.5	104.0	107.4	102.9	103.3	95.4	97.7	99.4	97.3	98.6	99.9	99.8	100.1	98.9	99.5
Netherlands	169.8	155.5	111.2	100.3	100.8	95.8	92.4	92.3	91.2	91.9	92.6	92.6	92.5	91.9	89.9
Norway	153.6	153.9	134.7	103.4	100.8	102.1	105.0	106.6	107.6	112.0	113.7	109.6	105.9	104.1	101.6
Sweden	168.3	154.7	124.0	116.4	109.0	94.9	99.4	105.9	105.3	103.9	105.9	106.0	107.3	107.5	102.7
United Kingdom	224.6	208.8	160.5	118.1	106.6	92.7	97.9	101.2	102.8	102.8	101.9	98.1	94.3	89.8	85.7
Compensation per hour															
United States	14.9	23.7	55.6	90.8	95.6	102.7	105.6	107.9	109.4	111.5	117.4	122.1	131.1	134.3	140.6
Canada	10.0	17.1	47.5	88.3	95.0	102.0	103.7	106.0	107.0	109.3	111.7	115.8	119.6	123.8	126.8
Japan	4.3	16.4	58.5	90.6	96.5	102.7	104.7	108.3	109.1	112.6	115.4	114.8	113.7	114.5	122.8
Belgium	5.4	13.7	52.5	90.1	97.3	104.8	106.1	109.2	111.1	115.2	117.0	118.5	120.6	127.2	136.5
Denmark	3.8	11.1	45.0	92.7	96.0	103.0	–	–	–	–	–	–	–	–	–
France	4.3	10.5	41.2	90.9	96.4	103.1	106.5	110.4	112.2	111.8	112.7	116.6	123.4	128.2	132.4
Germany	8.1	20.7	53.6	89.4	91.5	106.4	111.8	117.6	123.3	125.7	127.6	130.6	137.4	142.0	145.5
Italy	1.8	5.3	30.4	87.6	94.2	105.7	106.8	111.3	119.0	123.0	122.2	124.2	127.8	132.4	135.6
Netherlands	6.2	19.4	60.5	89.8	94.8	104.5	109.0	112.1	114.4	117.2	122.0	126.0	132.0	138.9	146.0
Norway	4.7	11.8	39.0	92.3	97.5	101.5	104.4	109.2	113.6	118.7	125.7	133.0	140.5	148.2	157.2
Sweden	4.1	10.7	37.3	87.8	95.5	97.4	99.8	106.8	115.2	121.0	125.6	130.3	136.8	143.8	149.2
United Kingdom	2.9	6.1	32.1	82.9	93.8	105.1	108.0	109.5	111.3	116.1	123.1	130.4	137.7	144.2	149.2
Unit labor costs: National currency basis															
United States	–	–	78.8	93.7	97.6	100.6	98.5	94.8	93.5	91.9	92.8	91.3	92.3	94.1	90.2
Canada	26.4	31.1	65.2	94.6	99.6	96.4	93.6	94.3	97.5	96.2	96.7	94.9	92.5	97.4	97.1
Japan	31.3	43.8	92.6	95.9	97.5	101.0	101.4	97.5	94.0	93.0	95.2	90.6	83.6	84.4	88.0
Belgium	30.1	41.7	80.3	93.0	98.1	102.3	97.9	96.4	95.5	91.8	92.2	94.4	92.2	95.9	96.4
Denmark	13.6	22.4	52.2	93.5	96.5	103.7	96.2	96.4	103.2	99.4	102.8	103.7	101.8	101.3	102.1
France	21.7	26.8	67.0	96.8	99.3	102.0	97.8	96.5	97.8	91.9	88.1	87.6	86.2	86.6	87.1
Germany	27.8	39.8	69.4	90.3	93.1	104.5	102.0	104.7	107.5	104.5	104.6	107.6	108.1	111.2	111.1
Italy	7.5	11.9	38.7	90.7	98.0	104.5	101.9	103.2	109.8	111.4	110.3	112.3	112.5	114.2	118.7
Netherlands	32.9	50.4	87.6	91.1	95.7	102.4	96.4	95.6	95.9	96.5	98.3	99.1	99.5	105.0	109.7
Norway	12.6	20.0	50.0	94.2	99.2	101.9	104.8	108.4	110.8	116.4	125.7	128.4	131.9	136.1	141.8
Sweden	15.0	20.6	51.0	92.9	100.0	90.8	84.7	85.8	89.0	85.8	84.0	80.1	77.9	84.4	80.9
United Kingdom	9.8	14.1	59.0	92.9	99.9	100.6	99.6	102.8	105.2	107.8	112.7	114.0	113.0	114.2	116.9
Unit labor costs: U.S. dollar basis															
United States	–	–	78.8	93.7	97.6	100.6	98.5	94.8	93.5	91.9	92.8	91.3	92.3	94.1	90.2
Canada	32.9	36.0	67.4	98.0	105.1	90.3	82.8	83.0	86.4	84.0	78.8	77.2	75.3	76.0	74.8
Japan	11.0	15.5	51.8	83.9	91.8	115.3	125.8	131.6	109.5	97.4	92.2	101.0	98.4	88.0	89.1
Belgium	19.4	27.0	88.3	89.5	92.3	95.1	94.2	105.2	99.1	82.4	81.6	80.2	67.8	68.4	72.6
Denmark	12.0	18.0	55.9	91.2	91.0	96.5	91.4	104.0	107.5	90.8	92.6	89.5	76.0	73.4	78.2
France	23.4	25.7	83.9	94.1	93.1	95.3	93.4	102.5	101.2	83.3	79.1	75.3	64.2	62.6	66.4
Germany	10.4	17.1	59.6	87.3	87.5	98.7	98.2	114.2	111.6	94.0	92.9	91.5	79.7	79.5	83.9
Italy	14.3	22.3	55.7	93.3	97.3	81.8	77.9	78.0	87.7	80.6	78.2	76.2	66.1	65.1	71.4
Netherlands	15.3	24.5	77.5	87.9	90.0	96.9	93.2	104.8	100.0	87.0	87.2	84.3	73.3	75.0	82.8
Norway	11.0	17.4	62.9	93.6	95.0	89.2	92.3	106.4	106.6	102.1	103.5	102.2	93.0	94.0	110.3
Sweden	16.9	23.1	70.2	91.3	96.3	67.8	64.0	70.0	77.3	65.4	61.5	56.4	49.5	47.6	48.5
United Kingdom	15.6	19.1	77.7	93.8	100.0	85.6	86.3	91.8	93.0	99.9	105.7	104.4	96.9	93.0	99.4

NOTE: Data for Germany for years before 1991 are for the former West Germany. Data for 1991 onward are for unified Germany. Dash indicates data not available.

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

Industry and type of case[2]	Incidence rates per 100 full-time workers[3]												
	1989[1]	1990	1991	1992	1993[4]	1994[4]	1995[4]	1996[4]	1997[4]	1998[4]	1999[4]	2000[4]	2001[4]
PRIVATE SECTOR[5]													
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	–	–	–	–	–	–	–	–	–
Agriculture, forestry, and fishing[5]													
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	–	–	–	–	–	–	–	–	–
Mining													
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	–	–	–	–	–	–	–	–	–
Construction													
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	–	–	–	–	–	–	–	–	–
Manufacturing													
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.

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

Industry and type of case[2]	Incidence rates per 100 workers[3]												
	1989[1]	1990	1991	1992	1993[4]	1994[4]	1995[4]	1996[4]	1997[4]	1998[4]	1999[4]	2000[4]	2001[4]
Nondurable goods:													
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	–	–	–	–	–	–	–	–	–
Food and kindred products:													
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	–	–	–	–	–	–	–	–	–
Tobacco products:													
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	–	–	–	–	–	–	–	–	–
Textile mill products:													
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	–	–	–	–	–	–	–	–	–
Apparel and other textile products:													
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	–	–	–	–	–	–	–	–	–
Paper and allied products:													
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	–	–	–	–	–	–	–	–	–
Printing and publishing:													
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	–	–	–	–	–	–	–	–	–
Chemicals and allied products:													
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	–	–	–	–	–	–	–	–	–
Petroleum and coal products:													
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	–	–	–	–	–	–	–	–	–
Rubber and miscellaneous plastics products:													
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	–	–	–	–	–	–	–	–	–
Leather and leather products:													
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	–	–	–	–	–	–	–	–	–
Transportation and public utilities													
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	–	–	–	–	–	–	–	–	–
Wholesale and retail trade													
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	–	–	–	–	–	–	–	–	–
Wholesale trade:													
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	–	–	–	–	–	–	–	–	–
Retail trade:													
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	–	–	–	–	–	–	–	–	–
Finance, insurance, and real estate													
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	–	–	–	–	–	–	–	–	–
Services													
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	–	–	–	–	–	–	–	–	–

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

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

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

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

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

NOTE: Dash indicates data not available.

56. Fatal occupational injuries by event or exposure, 1997-2002

Event or exposure[1]	Fatalities			
	1997-2001 average	2001[2]	2002	
		Number	Number	Percent
Total	6,036	5,915	5,524	100
Transportation incidents	2,593	2,524	2,381	43
Highway incident	1,421	1,409	1,372	25
Collision between vehicles, mobile equipment	697	727	635	11
Moving in same direction	126	142	155	3
Moving in opposite directions, oncoming	254	257	202	4
Moving in intersection	148	138	145	3
Vehicle struck stationary object or equipment	300	297	326	6
Noncollision incident	369	339	373	7
Jackknifed or overturned—no collision	300	273	312	6
Nonhighway (farm, industrial premises) incident	368	326	322	6
Overturned	202	158	164	3
Aircraft	248	247	192	3
Worker struck by a vehicle	382	383	356	6
Water vehicle	99	90	71	1
Rail vehicle	68	62	64	1
Assaults and violent acts	964	908	840	15
Homicides	709	643	609	11
Shooting	567	509	469	8
Stabbing	64	58	58	1
Other, including bombing	78	76	82	1
Self-inflicted injuries	221	230	199	4
Contact with objects and equipment	995	962	873	16
Struck by object	562	553	506	9
Struck by falling object	352	343	303	5
Struck by flying object	58	60	38	1
Caught in or compressed by equipment or objects	290	266	231	4
Caught in running equipment or machinery	156	144	110	2
Caught in or crushed in collapsing materials	126	122	116	2
Falls	737	810	714	13
Fall to lower level	654	700	634	11
Fall from ladder	111	123	126	2
Fall from roof	155	159	143	3
Fall from scaffold, staging	91	91	87	2
Fall on same level	61	84	63	1
Exposure to harmful substances or environments	529	499	538	10
Contact with electric current	291	285	289	5
Contact with overhead power lines	134	124	122	2
Contact with temperature extremes	41	35	60	1
Exposure to caustic, noxious, or allergenic substances	106	96	98	2
Inhalation of substances	52	49	49	1
Oxygen deficiency	89	83	90	2
Drowning, submersion	71	59	60	1
Fires and explosions	197	188	165	3
Other events or exposures[3]	21	24	13	–

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

[2] The BLS news release issued Sept. 25, 2002, reported a total of 5,900 fatal work injuries for calendar year 2001. Since then, an additional 15 job-related fatalities were identified, bringing the total job-related fatality count for 2001 to 5,915.

[3] Totals for 2001 exclude fatalities from the September 11 terrorist attacks.

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

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

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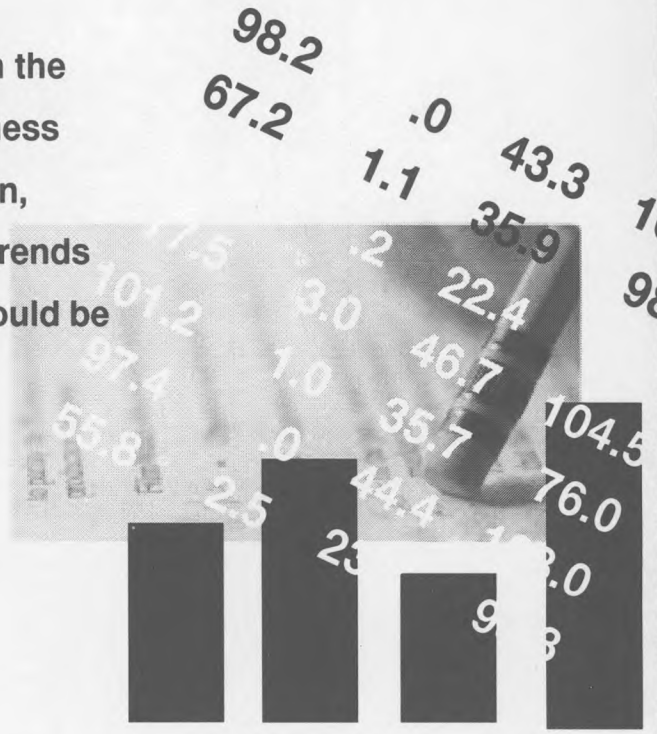

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