EMPLOYMENT OUTLOOK:
2010–2020

Schedule of Economic News Releases, February 2012

Date	Time	Release
Wednesday, February 01, 2012	10:00 AM	Employment Projections: 2010–2020
Wednesday, February 01, 2012	10:00 AM	Metropolitan Area Employment and Unemployment for December 2011
Wednesday, February 01, 2012	10:00 AM	Quarterly Data Series on Business Employment Dynamics for Second Quarter 2011
Thursday, February 02, 2012	8:30 AM	Productivity and Costs for Fourth Quarter 2011
Friday, February 03, 2012	8:30 AM	Employment Situation for January 2012
Tuesday, February 07, 2012	10:00 AM	Job Openings and Labor Turnover Survey for December 2011
Wednesday, February 08, 2012	10:00 AM	Major Work Stoppages for 2011
Thursday, February 09, 2012	10:00 AM	School Enrollment, Training, and Work Activity for America's Youth at 24
Friday, February 10, 2012	10:00 AM	Extended Mass Layoffs for Fourth Quarter 2011
Tuesday, February 14, 2012	8:30 AM	U.S. Import and Export Price Indexes for January 2012
Thursday, February 16, 2012	8:30 AM	Producer Price Index for January 2012
Friday, February 17, 2012	8:30 AM	Consumer Price Index for January 2012
Friday, February 17, 2012	8:30 AM	Real Earnings for January 2012
Wednesday, February 22, 2012	10:00 AM	Volunteering in the United States for 2011
Thursday, February 23, 2012	10:00 AM	Mass Layoffs for January 2012
Wednesday, February 29, 2012	10:00 AM	Regional and State Unemployment for 2011

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

Employment outlook: 2010–2020

The January *Review*

The *Review* opens 2012 by presenting five articles showcasing the newest set of projections, which cover the 2010–2020 period. These five articles take an in-depth look at how the projections are formed and provide analysis of the results of those projections. Dixie Sommers and James C. Franklin note, in the initial article this month, the customer base for the BLS projections—which are updated every 2 years—has widened substantially. High school and college students, adult jobseekers and career changers, guidance counselors, career development specialists, and others are now routine users of the information. The *Review* serves as the principal vehicle for a detailed look at the various components of the projections, including projected changes in the labor force and in the industrial and occupational mix of employment.

In the second article, Kathryn Byun and Christopher Frey discuss the projected data on output, productivity, personal savings, and other macroeconomic variables. Byun and Frey caution that because of the severity of the 2007–2009 recession, the 2010 starting point is quite low, thus some of the projected growth represents a climb out from the deep recession.

Mitra Toossi explains in the third article that, with the aging of the baby-boom generation (those born between 1946 and 1964), the labor force is projected to grow more slowly in the 2010–2020 period. Toossi notes that by 2020 all the baby boomers will be older than age 55; this demographic shift is expected to put downward pressure on the overall labor force participation rate and on the growth of the labor force in the future.

With the foundation for the macroeconomic and labor force projections laid, BLS develops industry employment and output projections at a detailed level. Richard Henderson points out in the fourth article that total employment in the United States is expected to increase by 20.5 million over the 2010–2020 period, rising to more than 163 million. The annual growth rate of 1.3 percent reverses the 0.2-percent annual rate of decline that occurred during the 2000–2010 period, in which 3.2 million jobs were lost. The professional and business services sector and the health care and social assistance sector account for nearly half of the projected job growth. Construction also is expected to add jobs, whereas manufacturing and agricultural employment are expected to decline, although at more moderate rates than seen historically. With regard to industry employment changes at a more detailed level, the home health care services industry is projected to have the most rapid growth in the economy, adding more than 870,000 jobs by 2020—an average annual growth rate of 6.1 percent.

In the final article, C. Brett Lockard and Michael Wolf review each of the 22 major occupational groups to present data on projected job openings from both employment growth and replacement needs. Heath care, personal care, and community and social service occupations are expected to grow the fastest. Lockard and Wolf also introduce a new education and training classification system. This system helps describe what mix of education, work experience, or on-the-job training is needed for entry into a particular occupation.

In addition to the articles found in this issue of the *Review*, the *Occupational Outlook Quarterly* has a special projections issue, "Charting the Projections," which can be found at **http://www.bls.gov/opub/ooq/2011/winter/home.htm**.

Union membership in 2011

The union membership rate was 11.8 percent in 2011, according to data from the Current Population Survey (CPS). The rate, which is the percentage of wage and salary workers who were members of a union, was essentially unchanged from 11.9 percent in 2010.

Public-sector workers had a union membership rate (37.0 percent) more than 5 times higher than that of private-sector workers (6.9 percent). Within the public sector, local government workers had the highest union membership rate, 43.2 percent. Private-sector industries with high unionization rates included transportation and utilities (21.1 percent) and construction (14.0 percent), while low unionization rates occurred in agriculture and related industries (1.4 percent) and in financial activities (1.6 percent).

The union membership rate for men (12.4 percent) was higher than that for women (11.2 percent). Among major race and ethnicity groups, black workers were more likely to be union members (13.5 percent) than workers who were white (11.6 percent), Asian (10.1 percent), or Hispanic (9.7 percent).

For a look at the full report on union members in 2010 published by BLS, go to **http://www.bls.gov/news.release/archives/union2_01272012.htm**. □

Employment outlook: 2010–2020

Overview of projections to 2020

Slow labor force growth and a gross domestic product growth of 3.0 percent annually are projected to result in a gain of 20.5 million jobs between 2010 and 2020; the fastest job growth is projected for industries and occupations related to healthcare and construction, although the construction industry is not expected to regain all the jobs it lost since its annual average peak employment in 2006

Dixie Sommers
and
James C. Franklin

This issue of the *Monthly Labor Review* features the Bureau of Labor Statistics (BLS) 2010–2020 employment projections, providing a detailed picture of the expected size and structure of the U.S. economy in 2020 and the change over the decade. This overview article presents highlights from these projections and summarizes results set forth in the four articles that follow.

The BLS projections are built on the assumption of a full-employment economy in 2020. Given the sharp downturn experienced in the 2007–2009 recession and the subsequent slow recovery, especially in the labor market, the path from 2010 to 2020 is from a relative low point to a robust target year. As discussed in the next section, this situation results in projected rapid growth rates for some measures that reflect recovery from the recession and, with some important exceptions, growth beyond recovery.

Here are some highlights from the 2010–2020 projections:

- The labor force will grow slowly and become much older as the baby-boom generation moves entirely into the 55-years-and-older age group, whose labor force participation rates are significantly lower.

- The labor force will continue to become more diverse, with Hispanics making up 18.6 percent of the total by 2020.

- Consistent with slow labor force growth and assumptions concerning a full-employment economy in 2020, gross domestic product (GDP) is projected to grow by 3.0 percent annually. Productivity growth is projected at an annual rate of 2.0 percent, similar to its long-term trend.

- Nonfarm payroll employment is projected to increase by 1.4 percent annually, regaining the jobs lost during the 2007–2009 recession and expanding further, to reach 149.5 million by 2020. Total employment, including agriculture and self-employed and unpaid family workers, is projected to increase by 20.5 million over the decade.

- The health care and social assistance industry is expected to be the most rapidly growing sector in terms of employment, followed by the construction sector. Despite rapid growth, the construction sector is not projected to return to its prerecession peak employment level.

- Occupation groups related to health care, personal care services, social ser-

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vices, and construction are expected to be the most rapidly growing; however, office and administrative support occupations are projected to add the largest number of new jobs.

- Employment in the construction and extraction, production, and transportation and material moving occupation groups fell by 10 percent or more from 2006 to 2010. Although all three groups are expected to grow between 2010 and 2020, none is projected to regain its 2006 employment level.

- Occupations in which a master's degree is typically needed for entry are expected to grow by 21.7 percent, faster than the growth rate for any other education category. Among occupations in which a high school diploma or the equivalent is typically needed for entry, occupations that have apprenticeships as the typical kind of on-the-job training are projected to be the fastest growing and to have higher pay. These two results are based on the new education and training system introduced with the 2010–2020 projections.[1]

Since the 1960s, BLS has produced long-term economic and employment projections every other year. These projections are used in career exploration by high school students and their teachers and parents, college students, career changers, and career development and guidance specialists. The projections are the foundation of the BLS *Occupational Outlook Handbook*, the nation's most widely used career information resource.[2] The projections also are used by state workforce agencies as a starting point for developing state and area projections that, together with the national projections, are widely used by policymakers and education and training officials to make decisions about education and training policy, funding, and program offerings. In addition, other federal agencies, researchers, and academics use the projections to understand trends in the economy and labor market.

Because the 2010–2020 projections were prepared as the U.S. economy was emerging from the deepest recession since the 1930s, this article begins with a discussion of the impact of the recession on the projections and a consideration of the way to understand them in the context of recession and recovery. The next section presents a brief review of the BLS projection methods. Finally, the article provides an overview of the projection results, summarizing the four subsequent articles in this issue of the *Monthly Labor Review*.

Interpreting the projections after recession

Because of the uncertainty of shocks and of the state of the business cycle at a 10-year time horizon, long-term models are generally predicated on the assumption that the economy will converge back to long-term trends. In this sense, the recession does not have as much of an influence on the BLS projections as some might expect. The United States has a history of recoveries from recessions, and the BLS assumes that the coming decade will exhibit similar behavior. More fundamentally, the projections assume that the U.S. economy will be at or near full employment. Thus, GDP is expected to recover to somewhere near the level of its potential by 2020. But this possibility is not a certainty and therefore presents a risk to the projections. Further, the severity of the 2007–2009 recession can affect the interpretation of the projections, particularly the projected growth rates. Both the interpretation problem and risks to the projections are explored next.

Interpreting projected growth rates

Depending upon which industry or occupation is being considered, one should keep in mind that "growth" may mean either recovery growth or growth beyond recovery, or both. The recession affected industry and occupation groups differently: some were severely affected, some mildly so, and others seem not to have been affected at all. Not all industries or occupations are expected to recover completely; others are expected to recover and have continued growth. Industries and occupations that maintained growth through the recession are generally expected to continue to grow. In contrast, industries and occupations with a long-term trend of declining employment that accelerated during the recession may exhibit projected rates of decline that are slower than otherwise expected.

Because levels of many variables are low in 2010 relative to their historical behavior, projected growth rates may appear more robust than they would otherwise be. Users of the 2010–2020 projections should keep this possibility in mind when they take projected employment trends into account in making decisions. For example, consider the projected value of 149.5 million[3] for total nonfarm payroll employment, shown in chart 1. From the 2007 peak of 137.6 million, the projected annual growth rate to 2020 is 0.6 percent, while from the 2010 level of 129.8 million, the growth rate to 2020 is 1.4 percent, or more than twice as fast.

For one key sector, construction, growth is expected

Chart 1. Total nonfarm payroll employment, 2000–2010 and projected to 2020
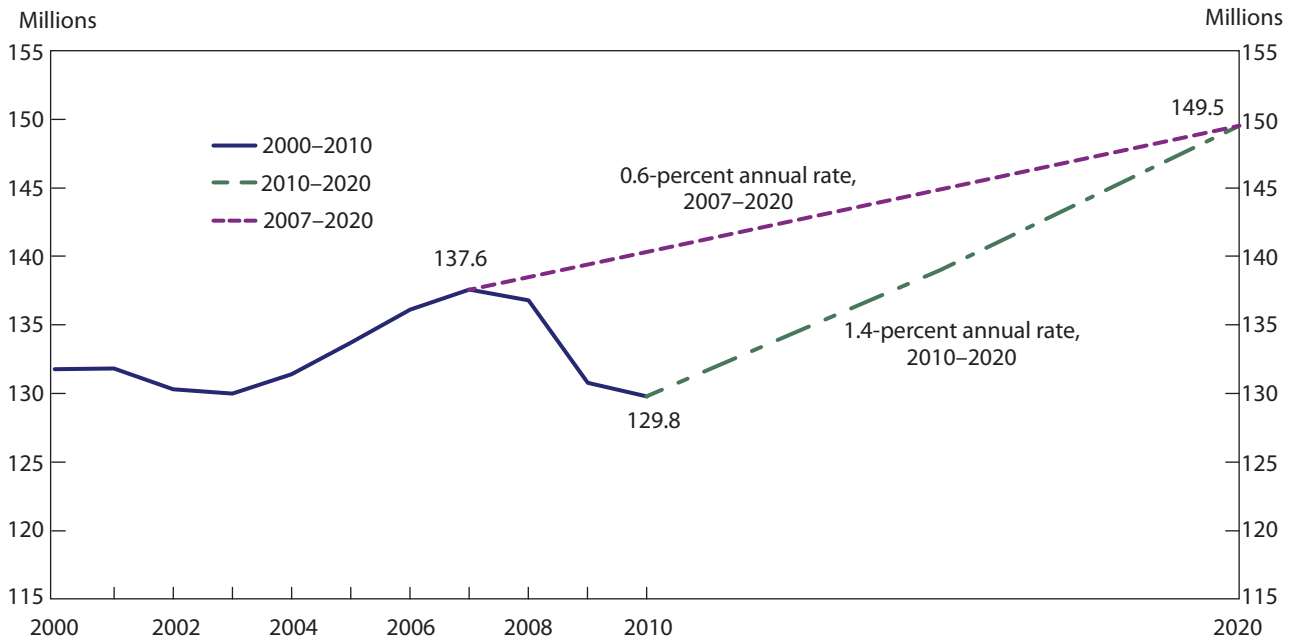
NOTE: BLS does not project specific data for each of the years between 2010 and 2020. Interim years to the 2020 projection point are expressed by a dashed straight line only.

SOURCE: U.S. Bureau of Labor Statistics, Current Employment Statistics (historical data), and Employment Projections Program (2020 data).

to be rapid over the next decade, but projected levels for 2020 are generally lower than peaks experienced during 2005 and 2006. Housing starts are expected to increase by 10 percent annually, to 1.5 million units.[4] Although this annual growth rate is high, the projection for 2020 housing starts is still more than a half million lower than the peak of 2.1 million units built in 2005. Similarly, construction wage and salary employment is projected to grow at a 2.9-percent annual rate from the 2010 level of 5.5 million to 7.4 million in 2020. (See chart 2.) However, even this employment growth is not sufficient for construction to return to its peak, the 2006 figure of 7.7 million. In contrast, the health care and social assistance major industry sector had wage and salary employment of 14.9 million in 2006 and grew through the recession, to 16.4 million in 2010, a 2.4-percent annual growth rate. This sector is projected to grow by 3.0 percent annually, to a level of 22 million in 2020.

The situation with the construction sector carries over to the occupational projections, as discussed by C. Brett Lockard and Michael Wolf in their article.[5] Comparing the construction and extraction occupation group with the computer and mathematical occupation group, Lockard and Wolf find that both groups have projected growth of about 22 percent over the decade. The two

groups had dramatically different experiences during the recession, however. Employment in computer and mathematical occupations grew by 7.0 percent between 2006 and 2010, while the construction and extraction occupations declined nearly 24 percent. (See chart 3.) As a result, the 2010 unemployment rates for these groups were 5.2 percent and 20.1 percent, respectively.[6] The strong projected employment growth has a different meaning for each group. In the computer and mathematics group, robust growth is expected to provide opportunities for new workers; in the construction and extraction group, all of the projected rapid growth represents the partial recovery of jobs lost during the recession and the potential reabsorption of many workers who were displaced.

Risks to the projections

Compiling 10-year projections always involves considerable uncertainty. All econometric models and analytical frameworks abstract from reality and make simplifying assumptions that may not hold in the future. But, given the severity of the most recent recession and the slowness of recovery to date, BLS recognizes that the current set of projections faces more uncertainty than usual. Among the most uncertain factors are fiscal policy, recovery of the

Chart 2. **Employment trends for selected major industry sectors, 2006, 2010, and projected 2020**
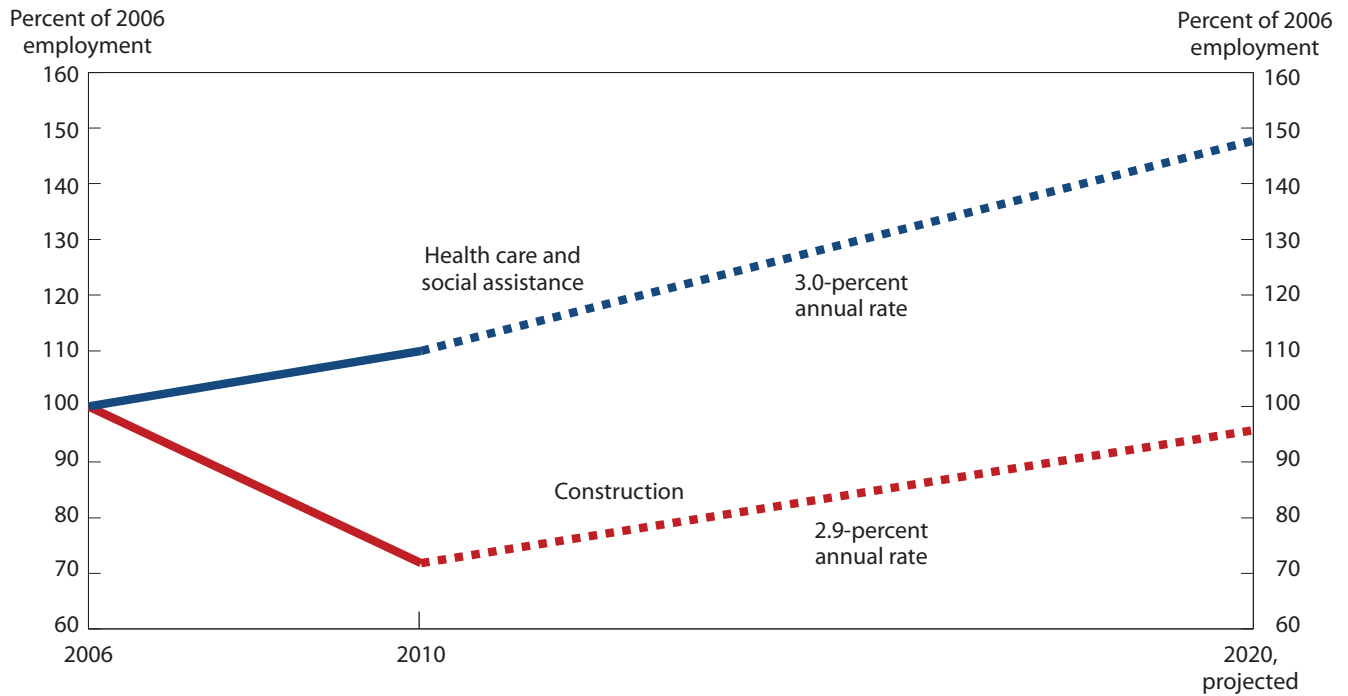
Percent of 2006
employment

Percent of 2006
employment

160

160

150

150

140

140

130

130

Health care and
social assistance

120

120

3.0-percent
annual rate

110

110

100

100

90

90

Construction

80

80

2.9-percent
annual rate

70

70

60

60

2006

2010

2020,
projected

NOTE: BLS does not project specific data for each of the years between 2010 and 2020. Interim years to the 2020 projection point are expressed by a dashed straight line only.

SOURCE: U.S. Bureau of Labor Statistics, Current Employment Statistics (historical data), and Employment Projections Program (2020 data).

Chart 3. **Employment trends in two selected occupation groups, 2006, 2010, and projected 2020**
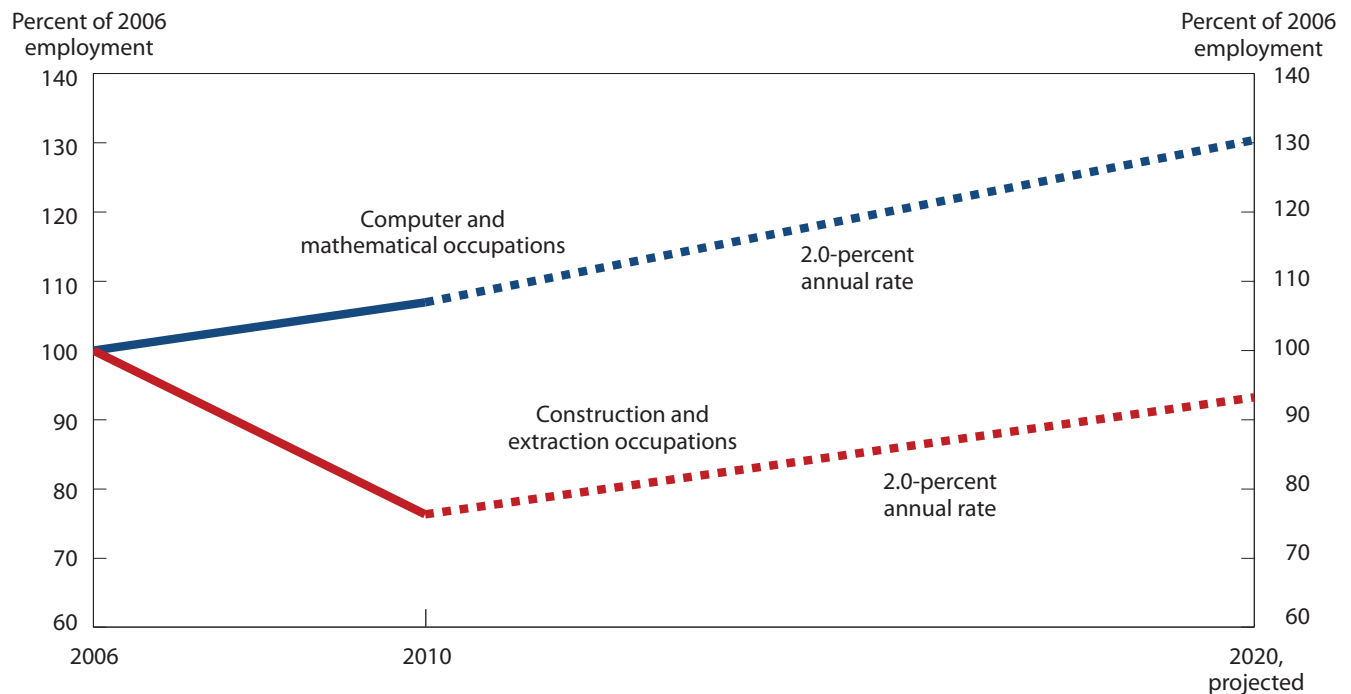
Percent of 2006
employment

Percent of 2006
employment

140

140

130

130

120

120

Computer and
mathematical occupations

110

110

2.0-percent
annual rate

100

100

Construction and
extraction occupations

90

90

80

80

2.0-percent
annual rate

70

70

60

60

2006

2010

2020,
projected

NOTE: BLS does not project specific data for each of the years between 2010 and 2020. Interim years to the 2020 projection point are expressed by a dashed straight line only.

SOURCE: U.S. Bureau of Labor Statistics, Employment Projections Program.

housing market, residual effects of the 2007–2009 recession, and the resolution of the sovereign debt crisis in Europe.

Fiscal policy. U.S. fiscal policy covers both tax and spending policies at the federal level. Generally, BLS assumes that the policy enacted at the time of the development of the projections will be in effect during the projection period. However, the Budget Control Act of 2011 made significant reductions in federal government discretionary spending over the coming decade without stipulating the details of how the spending cuts will be implemented. These cuts had not yet been decided upon when the BLS 2020 macroeconomic projections were finalized. The course of fiscal policy from 2010 to 2020 presents an increased underlying risk to the projections.

Housing market. The timing and magnitude of the housing recovery are uncertain. The recession was precipitated by the financial crisis, which was in turn driven by defaults in the subprime mortgage market. The housing market and the construction industry suffered severely. As the recession unfolded, many additional homeowners were forced into default through the loss of their jobs. Substantial home equity declines caused many homeowners to curtail spending as their wealth declined. The low number of private housing starts in both 2009 and 2010—less than 600,000—was unprecedented: from 1959 to 2006, the figure never fell below 1 million. Given the nature of the recession, recovery in the markets for both existing and new homes is critical to overall economic recovery. Although BLS expects eventual recovery in the housing market, the timing and magnitude remain uncertain.

Residual impacts. BLS considers two aspects of the 2007–2009 recession to be sources of risk to the projections: first, the potential for a prolonged recovery, given the nature of the recession; and second, the possibility of a considerable structural change in the labor market. These events are not necessarily exclusive and they may interact.

The depth and financial nature of the last recession give rise to an uncertain expectation of a recovery period that is longer than history otherwise suggests. In a multicountry study of the decade following financial crises that were preceded by a period of credit expansion and leverage, Carmen Reinhart and Vincent Reinhart found that unemployment rates were significantly higher in the decade that followed.[7] U.S. data so far bear out this point for the 2007–2009 recession. The unemployment rate peaked at 10.0 percent in October 2009, 4 months after the end of the recession, in June 2009.[8] As of December 2011, 30 months following the end of the recession, the unemployment rate was 8.5 percent. (See chart 4.) Over the 74 months from the trough of the 2001 recession in November 2001 to the peak of the cycle in December 2007, the beginning of the most recent recession, unemployment averaged 5.3 percent, with a maximum of 6.3 percent and a minimum of 4.4 percent. Over the 30 months since the end of the last recession in June 2009, through December 2011, unemployment has averaged 9.4 percent, peaked at 10.0, and been as low as 8.5 percent. The long-term unemployed, those unemployed 27 or more weeks, increased to above 40 percent as a percentage of the unemployed in December 2009 and has remained there since, reaching as much as 45.4 percent of the unemployed in April 2010. (See chart 5.) Previously, the high had been 26.0 percent, in June 1983.

In terms of employment loss and recovery, the recent recession was both deep and long. With regard to the recessions of 1973, 1981, and 1990, employment recovered to the level it had at the beginning of the recession in 25,[9] 28, and 31 months, respectively, after the recession began. (See chart 6.)[10] As regards the 2001 recession, employment recovered 47 months after the start. In sharp contrast to all these recessions, 4 years since the beginning of the 2007–2009 recession employment is about 5 percent below the level it had at the start of the recession.

There is also some debate over whether the slow employment recovery is the result of structural changes in the economy or is due to a slow recovery in cyclical demand.[11] In this context, cyclical unemployment refers to a worker's being laid off by his or her firm because of weak demand, but who expects to go back to work when demand picks up, typically for the same firm, but generally in the same occupation or industry. Structural unemployment also may be precipitated by weak demand, but is rooted in some other element that hinders a worker's ability to return to work as demand revives. For example, recessions may accelerate the adoption of new technologies or practices by firms in their struggle to survive, and those technologies and practices may require fewer workers. Workers who are unemployed for structural reasons will likely face a longer period of unemployment than those who are unemployed for cyclical reasons. To find new employment, the worker who is unemployed for structural reasons may have to consider a new occupation or industry and may need to seek retraining. Recessions produce unemployment from both causes, and the character of the recession may stimulate either or both causes.

Taken together, the data show that the recession of 2007–2009 was unusual in its employment impacts.

Chart 4. **Unemployment rate, January 2000 to December 2011**
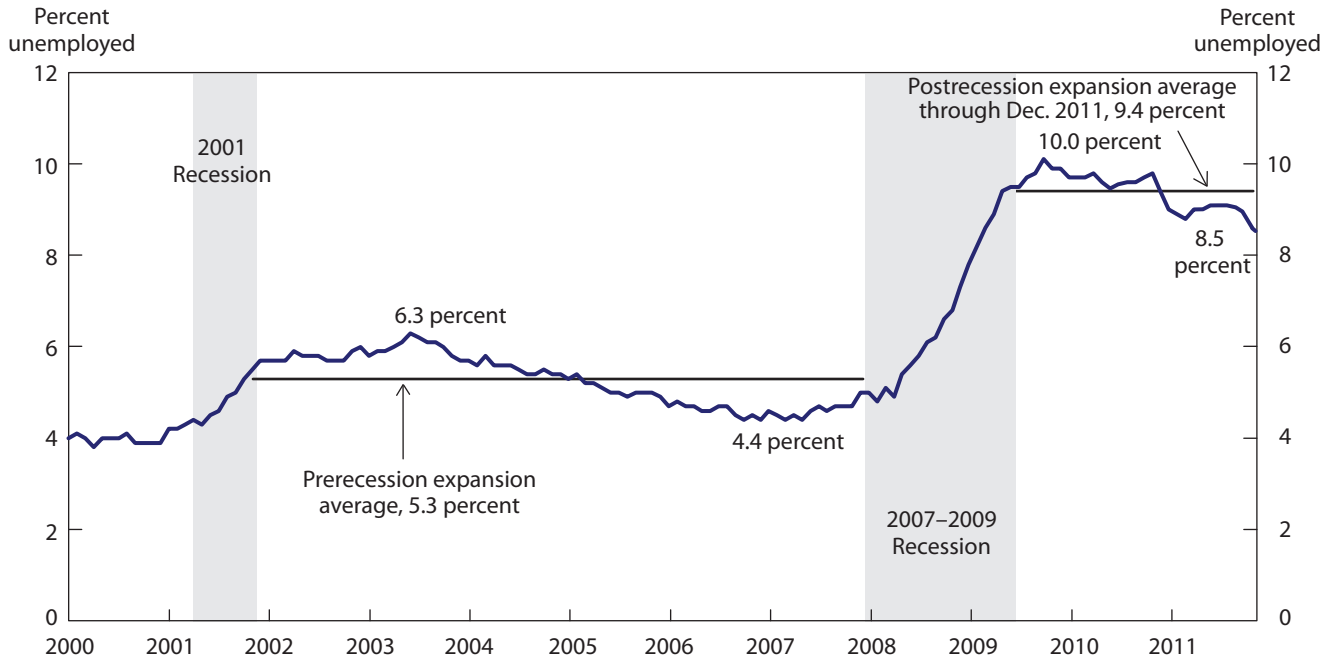
Percent
unemployed

Percent
unemployed

2001
Recession

Postrecession expansion average
through Dec. 2011, 9.4 percent

10.0 percent

6.3 percent

8.5
percent

Prerecession expansion
average, 5.3 percent

4.4 percent

2007–2009
Recession

NOTE: Shaded areas denote recessions as determined by the National Bureau of Economic Research.
SOURCE: U.S. Bureau of Labor Statistics, Current Population Survey.

Chart 5. **Long-term unemployed as a percentage of total unemployed, January 1960 to December 2011**
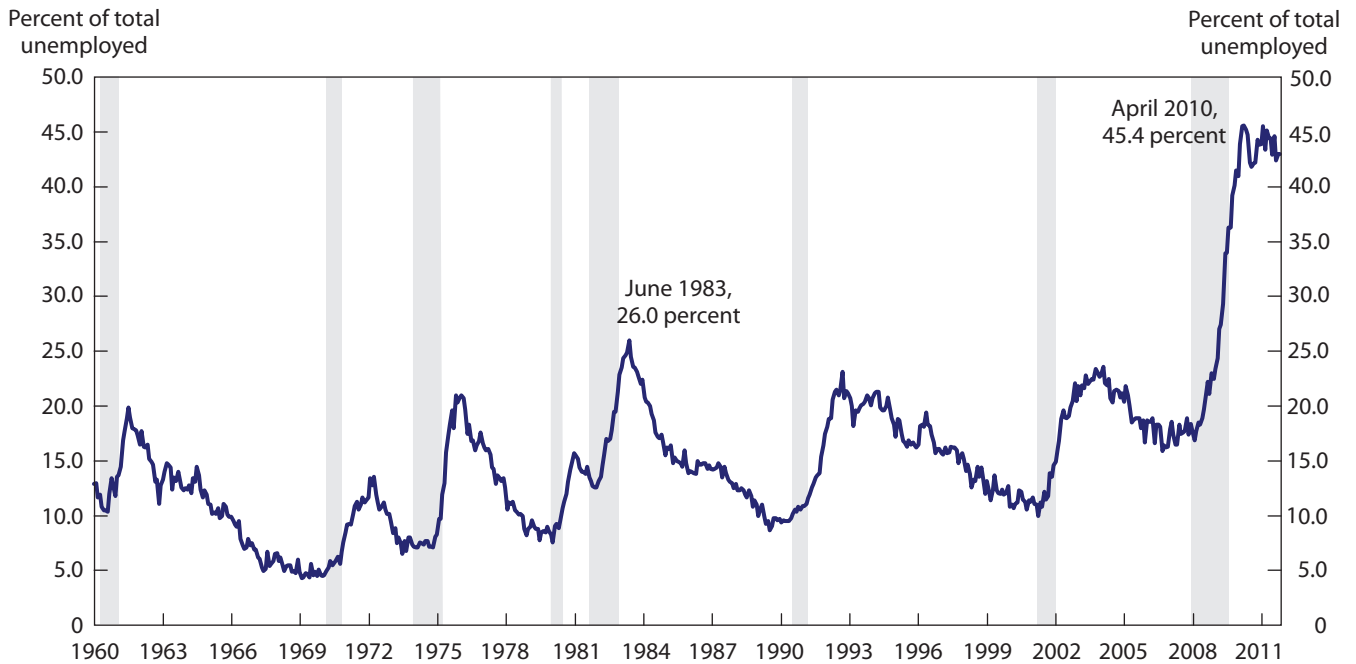
Percent of total
unemployed

Percent of total
unemployed

April 2010,
45.4 percent

June 1983,
26.0 percent

NOTE: Shaded areas denote recessions as determined by the National Bureau of Economic Research.
SOURCE: U.S. Bureau of Labor Statistics, Current Population Survey.

Chart 6. Indexes of nonfarm payroll employment during five recessions

Index
(Starting month = 100)

Index
(Starting month = 100)

Recovery to level
at start of recession

End of recession

Months from start of recession
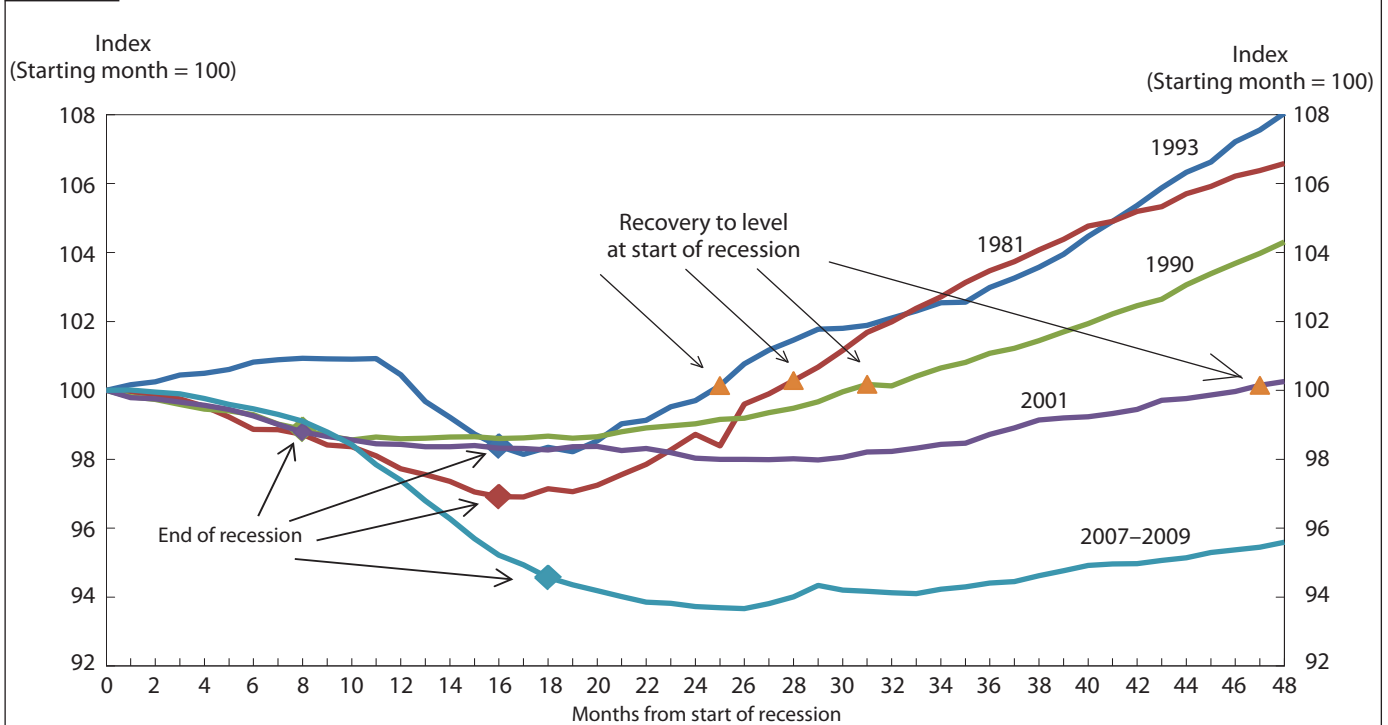
SOURCE: U.S. Bureau of Labor Statistics, Current Employment Statistics.

Much discussion has ensued among economists as to the underlying dynamics of the recession and the implications for recovery, including the likelihood of an extended period being required to reduce debt and rebuild the balance sheets of both consumers and businesses, and the extent to which the employment impacts are structural or cyclical. The main concern is that the long-term natural rate of unemployment has increased above expectations. BLS projections are predicated on a natural rate of unemployment of about 5.2 percent,[12] and although employment is expected to recover, BLS also recognizes that the character of the recent recession creates an underlying risk to the projections.

European sovereign debt crisis. The resolution of the European sovereign debt crisis is uncertain. The global aspects of the financial crisis and subsequent recession contributed directly to the current situation in Europe. The resolution of the debt crisis will require addressing both unresolved political integration issues in the management of a common currency[13] and the demographic and political institutional realities that inhibit economic growth.[14] The risk for the U.S. economy is that the situation will deteriorate, creating increased international financial

stress with spillover effects on the U.S. financial markets, reduced European demand for U.S. goods and services, and a general worldwide economic contraction.

BLS projection methods

To produce its long-term projections, BLS begins with projections of the labor force, which then become an input to the next step, the macroeconomic projections. In turn, macroeconomic projections are the starting point for the industry output and employment projections. In the final component, the industry projections are translated to occupational employment projections and replacement rates are applied to generate estimates of replacement needs.[15]

Projecting the labor force begins with adjusting the resident population projections from the U.S. Census Bureau to the civilian noninstitutional population[16]— the population concept used in labor force measurement—and benchmarking this population to the annual average from the Current Population Survey, in this case for 2010. Time series extrapolation procedures are used to project labor force participation rates. The population and labor force participation rate projections are created for 136 age, gender, and race or ethnicity groups. For

each of these groups, the projected participation rates are applied to the projected population and the results are summed across all groups, resulting in the total labor force projection.

The size of the projected labor force serves as a labor supply constraint on economic growth and is therefore an input to the macroeconomic projections. BLS uses a macroeconomic model provided by Macroeconomic Advisers, LLC, to prepare projections of GDP and its components. The macroeconomic projections also yield projections of total household employment and total nonfarm payroll employment. In addition to producing the labor force projection, BLS develops assumptions and target values for other variables in the model, including the unemployment rate.[17]

In the industry projections process, estimates of GDP obtained from the macroeconomic projections are disaggregated into commodity-level demand and entered into an input–output model to derive output by industry. This output is then translated to industry employment on the basis of labor productivity trends.

The BLS National Employment Matrix is used to translate industry employment to occupational employment. The matrix is a set of tables, one for each detailed industry, depicting the 2010 percent distribution of industry employment by occupation—the staffing pattern—and the 2020 projected staffing patterns developed by BLS staff.[18] Projected staffing patterns reflect past trends, as well as expectations regarding changes in occupational usage resulting from changes in technology, business practices, product mixes, and other factors. The 2020 staffing patterns are applied to the 2020 industry employment projections, and the results are summed across industries to produce projected employment by occupation. Replacement rates are developed from age cohort data for each occupation and are applied to derive projected job openings from replacement needs.

The final employment levels for 2010 and 2020 are measures of total employment as a count of jobs, not a count of individual workers. This concept is different from that used by other measures that are familiar to many readers, including the Current Population Survey's total employment as a count of the number of workers and the BLS Current Employment Statistics' count of nonfarm payroll jobs.

Overview of the 2010–2020 projections

Each of the four subsequent articles in this issue of the *Review* presents the results for one of the components of

the BLS projections process. These results are summarized here, starting with the labor force and the macroeconomic projections, followed by the industry output and employment projections, and, finally, the occupational employment projections.

Labor force highlights

Mitra Toossi's article "Labor force projections to 2020: a more slowly growing workforce"[19] presents a picture of the U.S. labor force, one of the driving forces of growth in the economy, continuing to grow over the 2010–2020 decade, although at a slower rate than in past decades. The labor force is projected to grow by 0.7 percent annually, a rate slightly slower than the 0.8-percent growth exhibited in 2000–2010, and to add 10.5 million persons by 2020. (See table 1.) This slower growth results from the combination of two trends: slightly slower growth in the civilian noninstitutional population and a continuing decline in the total labor force participation rate. The labor force is projected to get older, become racially and ethnically more diverse, and show a small increase in women as a share of the total. (See table 2.)

The civilian noninstitutional population grew by 1.1 percent annually between 2000 and 2010, adding 25.3 million people. Over the 2010–2020 period, the civilian noninstitutional population is projected to show an annual growth of 1.0 percent and an increase of 25.2 million, reaching a total of 263.0 million in 2020. Toossi describes how growth rates are expected to vary considerably across age and race or ethnicity groups. In particular, the Hispanic population is projected to rise rapidly, growing 3.2 percent annually and by 12.4 million people, reflecting immigration and relatively high fertility rates among Hispanics.

The declining total labor force participation rate reflects the aging of the baby-boomer generation as these 77 million Americans move entirely from the "prime age" for labor force participation to the 55-years-and-older group, with lower participation rates. This effect is somewhat offset by rising labor force participation among older workers, a trend that Toossi observes began in the late 1990s. The participation rate for those 55 years and older rose from 32.4 percent in 2000 to 40.2 percent in 2010 and is projected to reach 43.0 percent in 2020. Toossi projects continued declining labor force participation rates for the youngest and the prime age groups. Participation rates for those 16–24 years old are projected to decline by 7.0 percentage points, from 55.2 percent to 48.2 percent; for the prime age group, participation is projected to decline

Projections component	Level			Change		Percent change	
Key labor force, macroeconomic, output, and employment variables, 2006, 2010, and projected 2020 [Numbers in thousands]							
	2006	**2010**	**Projected 2020**	**2006–2010**	**Projected 2010–2020**	**2006–2010**	**Projected 2010–2020**
Labor force							
Civilian noninstitutional population	228,815	237,830	263,009	9,015	25,179	3.9	10.6
Labor force participation rate (percent)	66.2	64.7	62.5	−1.5	−2.2	−2.3	−3.4
Labor force	151,428	153,889	164,360	2,461	10,471	1.6	6.8
Unemployment rate (percent)	4.6	9.6	5.2	5.0	−4.4	108.7	−45.8
Macroeconomic variables							
Real gross domestic product (billions of chained 2005 dollars)	$12,958	$13,088	$17,513	$130	$4,425	1.0	33.8
Industry output							
Output (gross duplicated output, billions of chained 2005 dollars)	$23,625	$23,171	$30,876	−$453	$7,705	−1.9	33.3
Employment (thousands)							
Household employment	144,427	139,064	155,901	−5,363	16,837	−3.7	12.1
Nonfarm payroll employment	136,086	129,818	149,530	−6,268	19,712	−4.6	15.2

SOURCES: Historical GDP data, Bureau of Economic Analysis; historical labor force and employment data, Bureau of Labor Statistics; historical industry output estimates, Bureau of Labor Statistics; projected data, Bureau of Labor Statistics.

slowly, from 82.2 percent to 81.3 percent.

Total participation rates for both men and women are projected to decline from 2010 to 2020. For both genders, participation rates are projected to decline among the youngest and the prime age groups and to increase among those 55 years and older. Although participation rates for men will fall somewhat faster than those for women, by 2020 men are expected to have a higher overall participation rate (68.2 percent) than women (57.1 percent) and to continue to be the majority of the labor force. Women's share of the labor force is projected to rise from 46.7 percent in 2010 to 47.0 percent by 2020. Labor force participation rates are expected to decline for all race groups and for Hispanics.[20]

As the baby-boomer generation, born between 1946 and 1964, moves entirely into the 55-years-and-older age group by 2020, the labor force in this age group will grow rapidly, by a projected 3.3 percent annually, representing a gain of 11.4 million people. (See table 2.) Labor force growth in the 25-to-54-year-old prime age group, which has the highest labor force participation rates, will be very slow, 0.2 percent annually. The group is expected to add 1.7 million people, as the baby boomers are replaced by members of the "baby bust" generation, born during a period of lower birthrates. The labor force for the youngest age group, those 16 to 24 years old, is projected to decline, falling 1.3 percent annually and by 2.6 million individuals. (See table 2.)

Toossi also projects rapid growth in the Hispanic labor force, by 3.0 percent annually and 7.7 million people, reflecting the rapid population growth for this group, even though its labor force participation rate is expected to fall slightly. By contrast, the White non-Hispanic labor force is projected to decline slightly, by 0.2 percent annually, or 1.6 million by 2020. Projected annual labor force growth rates for the racial groups are 0.4 percent for Whites, 1.0 percent for Blacks, 2.7 percent for Asians, and 2.5 percent for all other racial groups. (See table 2.)

Macroeconomic highlights

Kathryn J. Byun and Christopher Frey describe the projected macroeconomy for 2020, building on the labor force projections and assumptions and the target variables consistent with a full-employment economy. They project GDP growth averaging 3.0 percent annually between 2010 and 2020, much faster than the 1.6 percent exhibited over the previous decade, during which the United States experienced two recessions, including the severe 2007–2009 downturn. Household employment is projected to grow by 1.1 percent annually, adding 16.8 million workers, to reach 155.9 million by 2020, consistent with the labor force projection and the target unemployment rate of 5.2 percent. Nonfarm payroll employment is projected to grow somewhat faster, at 1.4 percent annually, reaching 149.5 million, a gain of 19.7 million jobs since 2010.[21]

Table 2. Summary of labor force projections, 2010 and projected 2020
[Numbers in thousands]

Projections component	Level		Projected change, 2010–2020			Percent distribution	
	2010	Projected 2020	Number	Percent change	Annual percent change	2010	Projected 2020
Civilian noninstitutional population	237,830	263,009	25,179	10.6	1.0	...	...
Labor force participation rate (percent)	64.7	62.5	–2.2	–3.4	–.3	...	...
Labor force (thousands)							
Total	153,889	164,360	10,471	6.8	.7	100.0	100.0
Age, years							
16 to 24	20,934	18,330	–2,604	–12.4	–1.3	13.6	11.2
25 to 54	102,940	104,619	1,679	1.6	.2	66.9	63.7
55 and older	30,014	41,411	11,397	38.0	3.3	19.5	25.2
Gender							
Men	81,985	87,128	5,143	6.3	.6	53.3	53.0
Women	71,904	77,232	5,328	7.4	.7	46.7	47.0
Race							
White	125,084	130,516	5,432	4.3	.4	81.3	79.4
Black	17,862	19,676	1,814	10.2	1.0	11.6	12.0
Asian	7,248	9,430	2,182	30.1	2.7	4.7	5.7
All other groups[1]	3,694	4,738	1,044	28.3	2.5	2.4	2.9
Ethnicity							
Hispanic origin	22,748	30,493	7,745	34.0	3.0	14.8	18.6
Other than Hispanic origin	131,141	133,867	2,726	2.1	.2	85.2	81.4
White non-Hispanic	103,947	102,371	–1,576	–1.5	–.2	67.5	62.3

[1] The "all other groups" category includes (1) those classified as being of multiple racial origin and (2) the racial categories of (2a) American Indian and Alaska Native and (2b) Native Hawaiian and Other Pacific Islanders.

NOTE: Details may not sum to totals because of rounding.

SOURCE: U.S. Bureau of Labor Statistics.

(See table 1.) Labor productivity is projected to grow by 2.0 percent annually, more similar to the long-run historical trend than the faster growth seen in the 2000–2010 decade.

Projected GDP and employment growth figures are consistent with recovery in the housing market, increased consumer confidence, renewed business investment, and expanding exports. At the same time, the economy is facing the challenges of an aging population, rising demand and costs for medical care, and uncertainties surrounding housing and consumer demand.

Byun and Frey caution that the 2010 starting point of the projections is a low point, with GDP, employment, and other factors below historical trends because of the severity of the 2007–2009 recession and the slow recovery through 2010. Thus, although the projected growth rates may appear strong, much of the projected growth is regaining ground lost in the recession.

Viewing GDP growth from the demand side, Byun and Frey examine each GDP component. (See table 3.) Personal consumption expenditures (PCE) are by far the largest demand component, accounting for 70.5 percent of nominal GDP in 2010. Real PCE is projected to grow by 2.7 percent annually over the 2010–2020 decade, compared with 1.9 percent for 2000–2010. Expenditures on durable goods are projected to be the fastest growing component of PCE, rising at a 4.4-percent annual rate, followed by 2.7 percent on services and 2.0 percent on nondurable goods.

Gross private domestic investment is projected to increase by 5.6 percent annually, led by residential investment growth, at 7.0 percent annually. Residential investment growth is based on an expected recovery of the housing market, reversing declines during 2000–2010 that resulted from the bursting of the housing bubble.[22] Housing investment, key to economic recovery and projected growth, is one of the areas of greatest uncertainty in the 2010–2020 projections. Nonresidential investment is projected to grow at a 5.4-percent annual rate, with stronger growth for equipment and software (6.2 percent) than for nonresidential buildings and other structures (3.2 percent).

Table 3.

Table 3.	**Real gross domestic product, by major demand category, 2010 and projected 2020**								
	[Thousands of dollars]								
Projections component	**Billions of chained 2005 dollars**		**Projected change, 2010–2020**			**Billions of dollars**		**Percent distribution**	
	2010	**Projected 2020**	**Number**	**Percent change**	**Annual percent change**	**2010**	**Projected 2020**	**2010**	**Projected 2020**
Gross domestic product, total[1]	$13,088.0	$17,512.9	$4,424.9	33.8	3.0	$14,526.5	$23,669.5	100.0	100.0
Personal consumption expenditures	9,220.9	12,063.4	2,842.5	30.8	2.7	10,245.5	16,600.5	70.5	70.1
Gross private domestic investment	1,714.9	2,945.1	1,230.2	71.7	5.6	1,795.1	3,604.3	12.4	15.2
Exports	1,663.3	3,065.1	1,401.8	84.3	6.3	1,839.8	4,257.9	12.7	18.0
Imports[2]	2,085.0	3,258.4	1,173.4	56.3	4.6	2,356.7	5,034.6	16.2	21.3
Federal defense consumption expenditures and gross investment	718.2	692.6	−25.6	−3.6	−.4	819.2	980.5	5.6	4.1
Federal nondefense consumption expenditures and gross investment	357.7	314.3	−43.4	−12.1	−1.3	403.6	451.8	2.8	1.9
State and local consumption expenditures and gross investment	1,487.0	1,779.4	292.4	19.7	1.8	1,780.0	2,809.0	12.3	11.9

[1] Real GDP components do not necessarily add to the total as a by-product of chain-weighting.

[2] Imports are subtracted from the other components of GDP because imports are not produced in the United States.

SOURCES: Historical GDP data, Bureau of Economic Analysis; projected data, Bureau of Labor Statistics.

BLS projects that exports will grow by 6.3 percent annually, more rapidly than the 4.6-percent growth in imports, resulting in a reduction in the trade deficit. Byun and Frey note, however, that because trade is dependent on highly unpredictable events in the world market, the trade component is often considered the most uncertain part of macroeconomic projections. Volatile oil prices and the European sovereign debt crisis are examples of this unpredictability. Although exports of services are expected to increase slightly faster than exports of goods, at 6.7 percent and 6.1 percent annually, respectively, goods will still account for the majority of exports.

Government consumption expenditures and gross investment represent another area of uncertainty in the macroeconomic projections, given current uncertainty at the federal level. Medicare and Social Security expenditures are expected to increase with the aging of the population and increases in the cost of health care, although Medicare reimbursement rates are being reduced over the coming decade. Real defense expenditures are projected to decline somewhat with the U.S. troop departure from Iraq, but the war in Afghanistan continues and worn equipment needs to be replaced. BLS projects the federal budget deficit to decline by 4.0 percent annually, dropping to $846.1 billion in 2020 compared with $1,273.7 billion in 2010. The deficit is projected to fall from 8.8 percent of nominal GDP in 2010 to 3.6 percent by 2020.

At the State and local levels, government consumption expenditures and investment are expected to grow by 1.8 percent annually between 2010 and 2020, despite budget constraints that many States are currently facing. Increased Medicaid and similar social benefit expenses are expected to lead to reductions in other state programs in order to operate within these budgetary constraints in the near term.

Byun and Frey also discuss GDP projections from the income side. They project that personal income will resume growing, averaging 5.2 percent annually after slow growth from 2000 to 2010, largely accounted for by a 4.3-percent decline between 2008 and 2009. Real per capita disposable income is projected to grow by 1.5 percent annually, while the personal savings rate is expected to decline.[23]

Industry output and employment highlights

In his article "Industry employment and output projections to 2020,"[24] Richard Henderson describes the results of translating the GDP projections into industry terms. The patterns of growth—which industries are growing faster or slower or are declining—differ somewhat between output and employment, because productivity trends differ

across industries.

Real total output is projected to grow by 2.9 percent annually, adding $7.7 trillion (in chained 2005 dollars) to the level seen in 2010. Output growth is expected to be much faster than the 1.4-percent annual increase during the 2000–2010 decade, when the rate was pulled down considerably by the 2007–2009 recession. The fastest rate of annual output growth, 4.7 percent, is projected for the information sector, followed by construction (3.8 percent), retail trade (3.7 percent), and business and professional services (also 3.7 percent). (See table 4.)

Total employment is projected to grow at a 1.4-percent annual rate, resulting in 20.4 million new jobs. (See table 4.) The fastest growth, 3.0 percent per year, is expected in the health care and social assistance sector, resulting in 5.6 million new wage and salary jobs. Employment in this industry continued to grow during the 2007–2009 recession. The construction sector is projected to have the second-fastest rate of job growth, 2.9 percent per year, adding 1.8 million jobs between 2010 and 2020. This sector suffered severe job losses during the recession, and, despite projected rapid job growth, is anticipated to remain below its prerecession employment level in 2020.

Chart 7 depicts industry sector projected change in real output versus change in employment.[25] Where each sector falls on this chart indicates the impact of labor productivity growth on the employment growth (or decline) associated with a particular projected change in output in that sector. Industries falling into the upper right quadrant are projected to have both employment growth

Table 4. **Summary of industry output and employment projections, 2010–2020**
[Numbers in thousands]

Industry sector	Employment						
	Jobs		Projected change, 2010–2020			Percent distribution	
	2010	Projected 2020	Number	Percent change	Annual percent change	2010	Projected 2020
Total [1,2]	143,068.2	163,537.1	20,468.9	14.3	1.4	100.0	100.0
Nonagriculture wage and salary [3]	130,435.6	150,176.8	19,741.2	15.1	1.4	92.2	92.8
Goods-producing, excluding agriculture	17,705.5	19,496.8	1,791.3	10.1	1.0	12.5	12.0
Mining	655.9	680.7	24.8	3.8	.4	.5	.4
Construction	5,525.6	7,365.1	1,839.5	33.3	2.9	3.9	4.5
Manufacturing	11,524.0	11,450.9	−73.1	−.6	−.1	8.1	7.1
Service-providing	112,730.1	130,680.1	17,950.0	15.9	1.5	79.7	80.7
Utilities	551.8	516.1	−35.7	−6.5	−.7	.4	.3
Wholesale trade.	5,456.1	6,200.2	744.1	13.6	1.3	3.9	3.8
Retail trade	14,413.7	16,182.2	1,768.5	12.3	1.2	10.2	10.0
Transportation and warehousing	4,183.3	5,036.2	852.9	20.4	1.9	3.0	3.1
Information	2,710.9	2,851.2	140.3	5.2	.5	1.9	1.8
Financial activities	7,630.2	8,410.6	780.4	10.2	1.0	5.4	5.2
Professional and business services	16,688.0	20,497.0	3,809.0	22.8	2.1	11.8	12.7
Educational services	3,149.6	3,968.8	819.2	26.0	2.3	2.2	2.5
Health care and social assistance	16,414.5	22,053.9	5,639.4	34.4	3.0	11.6	13.6
Leisure and hospitality	13,019.6	14,362.3	1,342.7	10.3	1.0	9.2	8.9
Other services	6,031.3	6,850.7	819.4	13.6	1.3	4.3	4.2
Federal government	2,968.0	2,596.0	−372.0	−12.5	−1.3	2.1	1.6
State and local government	19,513.1	21,154.8	1,641.7	8.4	.8	13.8	13.1
Special industries [4]	–	–	–	–	–	–	–
Agriculture, forestry, fishing, and hunting [5,6]	2,135.5	2,005.3	−130.2	−6.1	−.6	1.5	1.2
Agriculture wage and salary	1,282.1	1,236.1	−46.0	−3.6	−.4	.9	.8
Agriculture self-employed and unpaid family workers	853.4	769.3	−84.1	−9.9	−1.0	.6	.5
Nonagriculture self-employed and unpaid family worker [7]	8,943.8	9,720.6	776.8	8.7	.8	6.3	6.0
Secondary wage and salary jobs in agriculture and private household industries [8,9]	111.6	112.2	.6	.5	.1	.1	.1
Secondary jobs as a self-employed or unpaid family worker [10]	1,441.7	1,522.2	80.5	5.6	.5	1.0	.9
See notes at end of table.							

Table 4.	Continued—Summary of industry output and employment projections, 2010 and projected 2020							
[Numbers in thousands]								
	Output							
	Billions of chained 2005 dollars		**Projected change, 2010–2020**		**Billions of dollars**		**Percent distribution**	
Industry sector	**2010**	**Projected 2020**	**Number**	**Annual percent change**	**2010**	**Projected 2020**	**2010**	**Projected 2020**
Total [1,2]	23,171.3	30,876.3	7,705.0	2.9	26,273.7	43,000.3	100.0	100.0
Nonagriculture wage and salary [3]	22,869.9	30,507.3	7,637.4	2.9	24,632.9	40,332.4	93.8	93.8
Goods-producing, excluding agriculture	5,565.8	7,385.6	1,819.8	2.9	6,390.9	9,769.0	24.3	22.7
Mining	388.1	441.0	52.9	1.3	417.9	641.1	1.6	1.5
Construction	814.7	1,183.3	368.6	3.8	932.5	1,540.2	3.5	3.6
Manufacturing	4,363.0	5,723.3	1,360.3	2.8	5,040.6	7,587.6	19.2	17.6
Service-providing	16,165.8	21,600.5	5,434.7	2.9	18,242.0	30,563.4	69.4	71.1
Utilities	354.2	431.7	77.5	2.0	429.0	644.0	1.6	1.5
Wholesale trade	1,176.4	1,648.9	472.5	3.4	1,213.5	1,836.6	4.6	4.3
Retail trade	1,165.0	1,671.0	506.0	3.7	1,208.1	2,029.3	4.6	4.7
Transportation and warehousing	709.4	977.6	268.2	3.3	820.4	1,365.6	3.1	3.2
Information	1,196.4	1,893.0	696.6	4.7	1,281.2	2,407.4	4.9	5.6
Financial activities	3,329.5	4,568.5	1,239.0	3.2	3,761.4	6,489.4	14.3	15.1
Professional and business services	2,355.0	3,372.1	1,017.1	3.7	2,667.4	5,056.6	10.2	11.8
Educational services	198.5	235.5	37.0	1.7	260.7	387.8	1.0	.9
Health care and social assistance	1,525.9	2,025.9	500.0	2.9	1,763.2	3,145.1	6.7	7.3
Leisure and hospitality	870.2	1,123.9	253.7	2.6	996.4	1,664.6	3.8	3.9
Other services	514.5	652.3	137.8	2.4	591.7	947.5	2.3	2.2
Federal government	1,012.1	938.9	−73.2	−.7	1,158.6	1,345.8	4.4	3.1
State and local government	1,758.6	2,120.4	361.8	1.9	2,090.3	3,243.7	8.0	7.5
Special industries [4]	1,138.3	1,521.1	382.8	2.9	1,272.6	2,182.2	4.8	5.1
Agriculture, forestry, fishing, and hunting [5,6]	301.4	365.1	63.7	1.9	368.2	485.7	1.4	1.1
Agriculture wage and salary	–	–	–	–	–	–	–	–
Agriculture self-employed and unpaid family workers	–	–	–	–	–	–	–	–
Nonagriculture self-employed and unpaid family workers [7]	–	–	–	–	–	–	–	–
Secondary wage and salary jobs in agriculture and private household industries [8,9]	–	–	–	–	–	–	–	–
Secondary jobs as a self-employed or unpaid family worker [10]	–	–	–	–	–	–	–	–

[1] Output subcategories do not necessarily add to higher categories as a by-product of chain-weighting.

[2] Employment data for wage and salary workers are from the BLS Current Employment Statistics survey, which counts jobs, whereas self-employed, unpaid family workers, and agriculture, forestry, fishing, and hunting are from the Current Population Survey (household survey), which counts workers.

[3] Includes wage and salary data from the Current Employment Statistics survey, except private households, which is from the Current Populations Survey. Logging workers are excluded.

[4] Consists of accounting categories to reconcile the input-output system with NIPA accounts.

[5] Includes agriculture, forestry, fishing, and hunting data from the Current Population Survey, except logging, which is from Current Employment Statistics survey. Government wage and salary workers are excluded.

[6] Estimate of output not available separately by employment class.

[7] Comparable estimate of output growth is not available.

[8] Due to methodological changes, these data are not comparable to previously published numbers for these categories of secondary workers.

[9] Workers who hold a secondary wage and salary job in agricultural production, forestry, fishing, and private household industries.

[10] Wage and salary workers who hold a secondary job as a self-employed or unpaid family worker.

NOTE: Dash indicates data not available.

and output growth. The chart shows a 45-degree line on which projected output and employment growth rates are identical, meaning zero productivity growth.[26] Any sector in the upper right quadrant that falls above the line is expected to have positive productivity growth, support-

ing more rapid growth in output than in employment. The farther each sector appears above the 45-degree line, the faster is its projected rate of productivity growth. Any sector in the upper right quadrant that falls below the 45-degree line is projected to have declining productivity,

Chart 7. Projected annual percent change: employment versus output by industry sector, 2010–2020

Annual average rate
of change of output

Annual average rate
of change of output

Annual average rate of change of employment
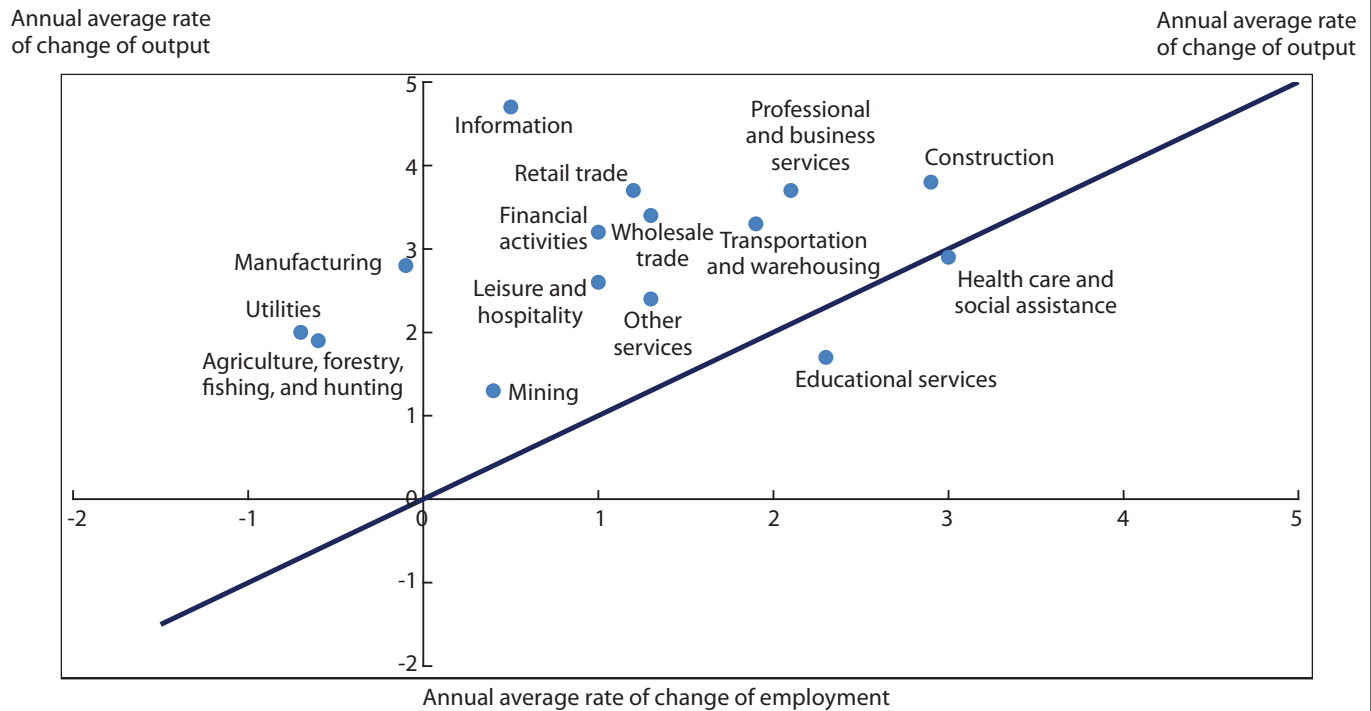
SOURCE: U.S. Bureau of Labor Statistics.

resulting in more rapid growth in employment than in output. Any sector falling into the upper left quadrant of the chart is projected to have output growth, but because of productivity growth, employment in that sector is projected to decline.

Ten of the fifteen industry sectors shown in chart 7 fall above the 45-degree line in the upper right quadrant, indicating that their productivity growth is allowing projected output to grow faster than employment but job gains are still expected. Because it has the fastest projected productivity growth, the information sector appears farthest above the line. Real output in this sector is projected to grow at 4.7 percent annually, but projected employment growth is a very slow 0.5 percent per year. Other industry sectors with above-average productivity growth and both output and job gains are retail trade, financial activities, and wholesale trade.

Chart 7 shows two industry sectors falling below the 45-degree line in the upper right quadrant: education services and health care and social assistance. Both industries have projected output growth, but productivity is expected to decline somewhat, resulting in slower growth for output than for employment.

Three industry sectors fall into the upper left quadrant

of chart 7: manufacturing, utilities, and the agriculture sector. These sectors are projected to grow in output, but lose jobs, between 2010 and 2020 because productivity growth is outstripping output growth. Manufacturing real output is projected to grow by 2.8 percent annually, close to the 2.9-percent rate for the overall economy. However, manufacturing employment is projected to continue its long-term decline, although at a very slow rate of 0.1 percent per year, but still resulting in 73,100 fewer jobs than in 2010. The utilities and agriculture sectors present a similar picture: utilities are projected to see real output grow by 2.0 percent per year, but a slow 0.7-percent annual rate of job decline, while the agriculture, forestry, fishing, and hunting industry is projected to have 1.9 percent annual growth in output and a 0.6-percent rate of job loss.

Occupational projections

In their article "Occupational employment projections to 2020,"[27] C. Brett Lockard and Michael Wolf examine how the overall projected 14.3-percent growth in employment to a full-employment economy will affect occupations. The fastest growth is expected in health care, per-

sonal care, and community and social service occupations. Lockard and Wolf review each of the 22 major occupation groups and present data on projected job openings resulting from both employment growth and the need to replace workers who are expected to leave the occupation over the coming decade. Finally, they introduce some results from a new BLS education and training system that depicts (1) the education and work experience in a related occupation typically needed for entry into a given occupation and (2) the postemployment or on-the-job training typically needed to attain competency in a given occupation.

Lockard and Wolf also discuss the impact of the recession on the 22 major occupation groups and show that, for some groups, projected growth from 2010 to 2020 will consist largely of the recovery of jobs lost between 2006 and 2010. (Their analysis is discussed, in part, in the previous section on the impact of the recession on the projections.) Further, employment in three occupation groups—construction and extraction, production, and transportation and material moving occupations—fell by 10 percent or more from 2006 to 2010. Although all three groups are expected to grow between 2010 and 2020, none is expected to regain its 2006 employment level. In contrast, six major groups grew by at least 2.0 percent between 2006 and 2010; all are projected to continue to grow to 2020, and all but one at rates above the 14.3-percent average for all occupations. (See table 5.)

Major occupation groups. Major occupation groups provide a summary view of the impact on occupational demand from industry employment growth and expected changes in the occupational composition of industry staffing patterns.

Employment is projected to grow rapidly, 20.0 percent or more, in 6 major occupation groups, with the fastest growth found in healthcare support occupations (34.5 percent), personal care and service occupations (26.8 percent), and healthcare practitioners and technical occupations (25.9 percent). Below-average growth is expected in 10 major groups, with the slowest growth projected for food preparation and serving related occupations (9.8 percent), management occupations (7.0 percent), and production occupations (4.2 percent). One major group—farming, forestry, and fishing occupations—is projected to continue its long-term decline, with a projected 2.0-percent employment decrease.

Projected growth rates tell only part of the story, however, because rapid growth may not result in large numbers of new jobs if the occupation (or occupation group) is not large to start with. Thus, the office and administrative support occupations group is projected to add the most

new jobs, 2.3 million, but is expected to grow at a below-average rate of 10.3 percent. Other major groups adding the largest numbers of new jobs are healthcare practitioners and technical occupations (2.0 million) and sales and related occupations (1.9 million).

Detailed occupations. Lockard and Wolf find that employment in 657 of the 749 detailed occupations is projected to grow, while 92 occupations are expected to decline. They summarize the projections for detailed occupations through lists showing the most rapidly growing occupations, those adding the most new jobs, those declining most rapidly, and those losing the most jobs. As with the major occupation groups, these lists reflect the changing demand for workers in each occupation, as driven by industry change and the changing occupational composition of industries. Thus, the 30 fastest growing detailed occupations include 10 from either the healthcare practitioner and technical occupations group or the healthcare support occupations group, reflecting the rapid growth in demand for health care for the aging population.

The list of the fastest growing occupations also includes eight construction occupations, a result of rapid job gains as the construction industry partially recovers from the 2007–2009 recession. As noted earlier, the construction and extraction occupations group, to which these eight occupations belong, is not projected to regain enough jobs to return to its prerecession employment level.

Among the 30 occupations expected to generate the largest numbers of new jobs, healthcare occupations are prominent. Six of these occupations are in either the healthcare practitioner and technical occupations group or the healthcare support occupations group, including registered nurses, the occupation projected to add the most new jobs. Medical secretaries, an occupation concentrated in health care industries, appears on this list, as does personal care aides, an occupation that is in demand because of the aging population. The list also includes several large office and administrative support occupations that are employed across many industries and will gain jobs as the economy recovers.

The lists of declining occupations—the 10 fastest declining and the 10 losing the most jobs—include 4 unique occupations, that appear on both lists. Five of the occupations listed are for textile, apparel, or furnishings workers, concentrated in apparel- and textile-manufacturing industries that are declining rapidly due to increased imports, and four are Postal Service occupations. Farmers, ranchers, and other agricultural managers are expected to lose 96,100 jobs, more than any other occupation, as pro-

Table 5.   **Employment by major occupational groups, 2006, 2010, and projected 2020**

[Numbers in thousands]

Matrix code	2010 National Employment Matrix title	Employment			Change, 2006–2010		Projected change, 2010–2020		Median annual wage, May 2010
		2006	2010	Projected 2020	Number	Percent	Number	Percent	
00–0000	Total, all occupations	150,620.0	143,068.2	163,537.1	−7,551.8	−5.0	20,468.9	14.3	$33,840
11–0000	Management occupations	8,771.9	8,776.1	9,391.9	4.2	.0	615.8	7.0	91,440
13–0000	Business and financial operations occupations	6,831.9	6,789.2	7,961.7	−42.7	−.6	1,172.5	17.3	60,670
15–0000	Computer and mathematical occupations.	3,313.2	3,542.8	4,321.1	229.6	6.9	778.3	22.0	73,720
17–0000	Architecture and engineering occupations	2,583.2	2,433.4	2,686.2	−149.8	−5.8	252.8	10.4	70,610
19–0000	Life, physical, and social science occupations	1,172.6	1,228.8	1,419.6	56.2	4.8	190.8	15.5	58,530
21–0000	Community and social service occupations	2,385.5	2,402.7	2,985.0	17.2	.7	582.3	24.2	39,280
23–0000	Legal occupations	1,222.2	1,211.9	1,342.9	−10.3	−.8	131.0	10.8	74,580
25–0000	Education, training, and library occupations	9,033.7	9,193.6	10,597.3	159.9	1.8	1,403.7	15.3	45,690
27–0000	Arts, design, entertainment, sports, and media occupations	2,677.0	2,708.5	3,051.0	31.5	1.2	342.5	12.6	42,870
29–0000	Healthcare practitioners and technical occupations	7,197.6	7,799.3	9,819.0	601.7	8.4	2,019.7	25.9	58,490
31–0000	Healthcare support occupations	3,723.5	4,190.0	5,633.7	466.5	12.5	1,443.7	34.5	24,760
33–0000	Protective service occupations	3,162.9	3,302.5	3,667.0	139.6	4.4	364.5	11.0	36,660
35–0000	Food preparation and serving related occupations	11,352.4	11,150.3	12,242.8	−202.1	−1.8	1,092.5	9.8	18,770
37–0000	Building and grounds cleaning and maintenance occupations	5,744.6	5,498.5	6,162.5	−246.1	−4.3	664.0	12.1	22,490
39–0000	Personal care and service occupations.	4,877.6	4,994.7	6,331.4	117.1	2.4	1,336.6	26.8	20,640
41–0000	Sales and related occupations	15,985.4	14,915.6	16,784.7	−1,069.8	−6.7	1,869.1	12.5	24,370
43–0000	Office and administrative support occupations	24,344.0	22,602.5	24,938.2	−1,741.5	−7.2	2,335.7	10.3	30,710
45–0000	Farming, fishing, and forestry occupations	1,037.8	972.1	952.6	−65.7	−6.3	−19.4	−2.0	19,630
47–0000	Construction and extraction occupations	8,294.5	6,328.0	7,735.2	−1,966.5	−23.7	1,407.2	22.2	39,080
49–0000	Installation, maintenance, and repair occupations	5,883.3	5,428.6	6,228.7	−454.7	−7.7	800.2	14.7	40,120
51–0000	Production occupations	10,674.6	8,594.4	8,951.2	−2,080.2	−19.5	356.8	4.2	30,330
53–0000	Transportation and material moving occupations	10,350.8	9,004.8	10,333.4	−1,346.0	−13.0	1,328.7	14.8	28,400

SOURCE: C. Brett Lockard and Michael Wolf, "Occupational employment projections to 2020," this issue, pp. 84–108, table 1.

ductivity gains continue to reduce the number of workers needed despite projected output growth in the agriculture sector.

Job openings from replacement needs. In addition to job openings from employment growth, openings will occur because some workers leave the occupation over the decade, either to retire, to leave the labor force for other reasons, or to move to other occupations. Openings from replacements generally are much larger in number than openings from the creation of new jobs; Lockard and Wolf find that, of the 54.8 million total job openings expected from 2010 to 2020, 61.5 percent are from replacement needs and 38.5 percent are from growth. Because of replacement needs, even occupations with projected declining employment are expected to have some openings.

Table 6. Employment and total job openings, by education category, 2010 and projected 2020 and median annual wage, May 2010

[Numbers in thousands]

Typical education needed for entry	Employment				Projected change, 2010–2020		Job openings due to growth and replacement needs, 2010–2020		Median Annual wage, May 2010
	Number		Percent distribution						
	2010	Projected 2020	2010	Projected 2020	Number	Percent	Number	Percent distribution	
Total, all occupations	143,068.2	163,537.1	100.0	100.0	20,468.9	14.3	54,787.4	100.0	$33,840
Doctoral or professional degree	4,409.7	5,286.3	3.1	3.2	876.6	19.9	1,701.8	3.1	87,500
Master's degree	1,986.0	2,417.2	1.4	1.5	431.2	21.7	903.9	1.6	60,240
Bachelor's degree	22,171.1	25,827.2	15.5	15.8	3,656.1	16.5	8,562.4	15.6	63,430
Associate's degree	7,994.6	9,434.6	5.6	5.8	1,440.0	18.0	2,941.0	5.4	61,590
Postsecondary nondegree award	6,524.0	7,624.9	4.6	4.7	1,100.9	16.9	2,389.6	4.4	34,220
Some college, no degree	811.6	953.8	.6	.6	142.2	17.5	362.0	.7	44,350
High school diploma or equivalent	62,089.6	69,665.7	43.4	42.6	7,576.1	12.2	21,745.9	39.7	34,180
Less than high school	37,081.7	42,327.4	25.9	25.9	5,245.7	14.1	16,180.8	29.5	20,070

SOURCE: C. Brett Lockard and Michael Wolf, "Occupational employment projections to 2020," this issue, pp. 84–108, table 6.

Lockard and Wolf cite the example of farmers, ranchers, and other agricultural managers, an occupation that is projected to decline in employment yet have 234,500 job openings that are due to replacement needs.

New education, work experience, and on-the-job training information. With the 2010–2020 projections, BLS is introducing a new way of depicting the entry-level education, experience, and training needed for the various occupations. Each occupation is assigned a level for each of three dimensions: typical education needed for entry into the occupation, work experience in a related occupation, and typical on-the-job training. Compared with the old BLS education and training categories, this new system presents a more complete picture of the education, related work experience, and training needed for entry into a given occupation and to become competent in the occupation.[28]

Lockard and Wolf present the first analysis of employment and projections data for these new categories, beginning with employment and projected job openings in each of the eight categories indicating the typical education needed for entry. Note that these data are the sum of employment and job openings for the occupations assigned to each education category; the data are *not* counts of workers who have the particular level of education attainment.

Occupations assigned to the education category of master's degree are projected, as a group, to grow by 21.7 percent between 2010 and 2020, faster than any other education category. These occupations, however, make up a small share, 1.5 percent, of projected total employment. (See table 6.)

The slowest growth, 12.2 percent, is projected for occupations in which a high school diploma or the equivalent is typically needed for entry. The occupations assigned to this education category account for 42.6 percent of total projected employment.

The new BLS education and training system allows for a fuller understanding of the preparation needed for entry into, and competency in, a given occupation by examining the work experience in related occupations and the on-the-job training, along with education needed. For example, among occupations assigned to the high school education category, those in which apprenticeship is the typical on-the-job training are projected to grow by 22.5 percent over the decade and have higher wages than the high school group as a whole.[29] Further analysis will be presented in a forthcoming article in the *Review*.   □

Notes

[1] See "Employment Projections: Education and Training Assignments" (U.S. Bureau of Labor Statistics, Dec. 6, 2011), **http://www.bls.gov/emp/ep_education_training_system.htm**.

[2] The 2010–2011 *Occupational Outlook Handbook* appears online at **http://www.bls.gov/oco**. The forthcoming 2012–2013 edition will use a new format and provide new search tools.

[3] This figure is equivalent to the nonfarm payroll employment measure published by the BLS Current Employment Statistics program. It includes the wage and salary employment in all industries, less private households and the agricultural sector, but also includes logging.

[4] See Kathryn J. Byun and Christopher Frey, "The U.S. economy in 2020: recovery in uncertain times," this issue, pp. 21–42.

[5] C.Brett Lockard and Michael Wolf, "Occupational employment projections to 2020," this issue, pp. 84–108.

[6] See "Household data annual averages, table 25, Unemployed persons by occupation and sex" (Bureau of Labor Statistics, Current Population Survey,) **ftp://ftp.bls.gov/pub/special.requests/lf/aat25. txt**.

[7] Carmen Reinhart and Vincent Reinhart, "After the Fall," NBER working paper 16334 (Cambridge, MA, National Bureau of Economic Research, September 2010).

[8] The National Bureau of Economic Research is the official U.S. arbiter of the beginning and ending dates of recessions. (See "U.S. Business Cycle Expansions and Contractions" (Cambridge, MA, National Bureau of Economic Research, Jan. 6, 2012), **http://www. nber.org/cycles/cyclesmain.html**.)

[9] After the start of the 1973 recession, employment continued to increase for 11 months before beginning to decline. Employment regained its postrecession starting high point 27 months after the recession began, or, alternatively, 16 months from the peak of employment after the recession began.

[10] The recession of 1980 is not shown in the chart for reasons of visual clarity. Employment recovered to the level it had at the beginning of the 1980 recession 11 months later.

[11] See, for example, Christina D. Romer, "Jobless Rate Is Not the New Normal," *The New York Times*, Apr. 9, 2011, **http://www. nytimes.com/2011/04/10/business/10view.html**.

[12] See Byun and Frey, "The U.S. economy in 2020: recovery in uncertain times," for further discussion.

[13] See, for example, Austan Goolsbee, "Europe's Currency Road to Nowhere," *The Wall Street Journal*, Nov. 29, 2011, **http://online. wsj.com/article/SB10001424052970203611404577046532948487236.html**, and Sebastian Mallaby, "Germany Is the Real Winner in a Transfer Union," Council on Foreign Relations, Nov. 25, 2011, **http://www.cfr.org/financial-crises/germany-real-winner-transfer-union/p26585**.

[14] See, for example, Fareed Zakaria, "Europe's real problem: a lack of growth," *The Washington Post*, Oct. 12, 2011, **http://www. washingtonpost.com/opinions/europes-real-problem-a-lack-of-growth/2011/10/12/gIQAUKkDgL_story.html**.

[15] Detailed descriptions of the projection methodology for each of these stages are found at the BLS website, **http://www.bls.gov/emp/ ep_tech_documentation.htm**.

[16] The civilian noninstitutional population comprises all persons 16 years and older who are not in the Armed Forces and who are neither inmates of penal or mental institutions nor residents of sanitariums or homes for the aged.

[17] Values for assumed variables are presented in Byun and Frey, "The U.S. economy in 2020: recovery in uncertain times," table 1, p. 23. The authors also discuss assumptions and target variables.

[18] For most industries, the National Employment Matrix uses data from the Occupational Employment Statistics (OES) survey as the source of the staffing patterns for wage and salary workers. Current Population Survey (CPS) data are used when OES data are not available—for example, for the agriculture production and private household industries. BLS treats self-employed workers and unpaid family workers as industries, using data from the CPS.

[19] This issue, pp. 43–64; see especially table 3, pp. 50–51.

[20] *Ibid*.

[21] In the macroeconomic model, nonfarm payroll employment is as defined in the BLS Current Employment Statistics program. In the industry projections component of the BLS Employment Projections program, this definition is adjusted to remove the logging industry and add the private households industry to derive the alternative measure nonagriculture wage and salary employment. Thus, the nonfarm payroll employment projection of 149.5 million in the macroeconomic model is different from the projection of 150.2 million presented in the industry output and employment projection results.

[22] See Kathryn J. Byun, "The U.S. housing bubble and bust: impacts on employment," *Monthly Labor Review*, December 2010, pp. 3–17, **http://www.bls.gov/opub/mlr/2010/12/art1full.pdf**.

[23] Byun and Frey, "The U.S. economy in 2020: recovery in uncertain times."

[24] This issue, pp. 65–83.

[25] The government sectors are excluded, because output is measured in terms of compensation and, under this measure, productivity change is difficult to interpret.

[26] The line roughly indicates zero labor productivity in terms of output per job. The BLS projections model, however, uses a more precise measure of labor productivity, namely, output per hour worked.

[27] This issue, pp. 84–108.

[28] See "Employment Projections: Education and Training Assignments" (U.S. Bureau of Labor Statistics, Dec. 6, 2011), **http://www. bls.gov/emp/ep_education_training_system.htm**.

[29] Lockard and Wolf present additional examples as well. For tables of education and training assignments and attainment, as well as more detailed summary data, see "Employment Projections: Education and Training Assignments (U.S. Bureau of Labor Statistics, Dec. 6, 2011), **http://www.bls.gov/emp/ep_education_ training_system.htm**.

Employment outlook: 2010–2020

The U.S. economy in 2020: recovery in uncertain times

Real GDP is expected to grow 3.0 percent annually over the next decade, faster than the 1.6–percent–per–year growth experienced over the 2000–2010 period, but slower than the 3.4–percent growth from 1990 to 2000; recovery of the housing market, improved consumer confidence, strong business investment, rising medical expenses, and narrowing of the trade deficit also characterize the outlook

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More than two-and-a-half years after the official end of the longest and deepest recession since World War II,[1] the United States is continuing to undergo a slower-than-average recovery, similar to the experience of other countries facing financial crises.[2] The recovery started strong, with growth in the nation's gross domestic product (GDP) averaging 3.0 percent over the first six quarters after the official end of the recession, but slowed considerably in the first half of 2011.[3] Many analysts have referred to the recovery to date as "modest" or "disappointing."[4] The unemployment rate fell from a peak of 10.0 percent in late 2009 to 8.5 percent by December 2011. The slow recovery of the unemployment rate has been accompanied by a 2-percentage-point decline in the labor force participation rate since the onset of the recession. The long-term unemployed, those out of work for 27 or more weeks, account for an unprecedented share of the unemployed. Home prices, as measured by the Case-Shiller Home Price Indexes, declined by more than 30 percent from their peak in early 2006, and housing starts remain at or very near record lows.

The recovery is expected to take a stronger hold over the coming decade, with GDP growth registering 3.0 percent annually from 2010 to 2020, faster than the 1.6-percent annual growth over the 2000–2010 period, but slower than the 3.4-percent growth experienced from 1990 to 2000. The projected growth rate reflects both the relatively low starting point of GDP in 2010, still below its 2007 peak, as well as the projected behavior of the labor force and the assumption of a full-employment economy in 2020, the projection year. Real GDP is projected to increase by nearly $4.4 trillion, reaching $17.5 trillion in 2020. Recovery in the housing market, increased consumer confidence, renewed business investment in both capital and labor, and expansion of exports are expected to support the projected GDP growth.

After 6 years of steep decline in the U.S. housing market, a sizable recovery is expected over the coming decade, though not to levels experienced during the peak of the housing boom. Improvement within the construction sector is anticipated to have reverberating effects throughout the economy. Building homes requires substantial inputs of goods and services, such as carpets, granite countertops, lumber, and the trucking of materials to the construction site. Moreover, home buyers stimulate economic growth when they furnish their homes. Home values are expected to increase somewhat over

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the next decade, contributing to improved consumer confidence and spending over 2010–2020, compared with the 2000–2010 period.

Corporate profits fell by more than 20 percent from 2006 to 2008, but were fully recovered by 2010, surpassing the previous peak by 12 percent.[5] To date, businesses have generally held onto these earnings rather than expanding their payrolls through hiring or by increasing wages. An improved housing market, increased consumer spending, and the easing of uncertainty are expected to contribute to a 5.7-percent annual growth in business fixed investment between 2010 and 2020. This growth rate represents an impressive recovery from a loss of 1.4 percent annually over the previous decade, but is slower than the 6.8-percent annual growth experienced from 1990 to 2000. The trade deficit is projected to narrow considerably between 2010 and 2020 as the United States experiences a strong export growth rate, in line with that exhibited in the 1990s. Increased consumption will stimulate imports over the coming decade, although the growth in imports will be somewhat dampened by the declining dollar and an increasing portion of consumer expenses devoted to health care.

The labor force growth rate slowed considerably, from 1.3 percent yearly over the 1990s to 0.8 percent during 2000–2010. This slowdown is explained by the aging baby boomers moving into cohorts with lower participation rates as well as by the impact of the 2007–2009 recession. As the nation continues to age and youths stay out of the labor force for longer than they used to, the labor force is projected to continue to grow more slowly, by 0.7 percent annually from 2010 to 2020. Household employment[6] increased by only 2.2 million during 2000–2010, with the slowdown in growth attributable to the elevated unemployment rate and slower growth of the labor force. Given the labor force projection and an assumed 5.2-percent rate of unemployment in the projection year, BLS projects that household employment will increase by 16.8 million from 2010 to 2020. This increase represents annual growth of 1.1 percent, a considerable improvement over the 0.2-percent annual growth between 2000 and 2010, and more in line with the growth of 1.4 percent per year experienced over the 1990–2000 period.

Meanwhile, after years of higher-than-average growth from the 1990s through about 2005, and a couple of rapid growth years after the 2007–2009 recession, labor productivity, as measured by output per hour, is expected to settle down from 2.5-percent annual growth over 2000–2010 to a rate more in line with its long-run historical behavior, growing by 2.0 percent annually over 2010–2020. Employment growth over the coming decade

is expected to be concentrated in construction, home health care, and business services. Because these industries tend to be labor intensive, this trend is expected to hold back productivity growth somewhat in comparison to that experienced from 1996 to 2004.

BLS develops a set of 10-year projections biennially that analyzes long-term economic growth and its implications for the structure of employment by industry and occupation. The macroeconomic projections provide aggregate solutions for more detailed projections of output and employment discussed in later articles within this issue of the *Review*. Because of the level of detail required of the projections and the caveat that macroeconomic projections provide constraints on aggregate quantities arrived at in later steps, it was necessary for the macromodel solution to be largely completed by the summer of 2011. By the time the results are published, events will have occurred that were not incorporated into the projections.

The severity of the 2007–2009 recession and the relatively slow recovery to date have rendered the data for 2010, the jumping-off point for the 2020 projections, low in comparison to historical trend behavior. Analysis of the BLS projections focuses on a comparison of the projection of the upcoming decade relative to the nation's economic behavior over the past one or two 10-year periods. Growth rates exhibited over 2000–2010 are generally lower than average, oftentimes much lower, because of the impact of the recession on the 2010 data. Therefore, projected growth rates for the upcoming decade are frequently higher owing to the relatively low starting point.[7]

The macroeconomic model

In order to arrive at the economic projections presented herein, BLS employs a macroeconomic model provided by Macroeconomic Advisers, LLC, a St. Louis, Missouri, based forecasting group.[8] The model comprises 744 variables, 543 of which are estimated through equations that describe the U.S. economy. The remaining 201 variables are exogenous: their values must be provided to the model in order to calculate a solution for the period in question. Relatively few of the exogenous variables have a major impact on the long-term projections of the value of GDP and its demand makeup, as well as on the level of employment necessary to produce that value of GDP. This article discusses critical exogenous and target variables, such as monetary and fiscal policy, future energy prices, and demographics, including population growth. The exogenous data are provided to the model, which is subsequently solved for the 134 behavioral equations and the remaining

409 identities. Key BLS assumptions are listed in table 1.

Main assumptions

To arrive at a 10-year projection of the U.S. economy, the values of certain variables are explicitly assumed because the outcomes of those variables are greatly dependent on unforeseeable behavior. Business cycle dynamics, government legislation, and the exchange rate are examples of variables that are considered highly unpredictable, especially over the longer run. The values assumed for these variables are made explicit within the BLS macroeconomic projections and are discussed in detail next.

Unemployment assumptions. The unemployment rate more than doubled over the most recent recession, peaking at 10.0 percent in October 2009 from 4.7 percent in November 2007. The recovery to date has been slower than usual, with the unemployment rate falling only as low as 8.5 percent in December 2011. The slow recovery in employment has been accompanied by a decline in the labor force participation rate, with many long-term unemployed workers having grown discouraged and dropping out of the labor force.

Because of the unpredictability of the business cycle over a 10-year period, BLS has long assumed that the economy will be at full employment in the given projection

Table 1.	Major assumptions affecting aggregate projections, 1990, 2000, 2010, and projected 2020						
Exogenous variables	**Billions of chained 2005 dollars (unless otherwise noted)**				**Annual rate of change**		
	1990	**2000**	**2010**	**2020**	**1990–2000**	**2000–2010**	**2010–2020**
Monetary policy related:							
Federal funds rate (percent)	8.1	6.2	0.2	4.5	−2.6	−30.0	38.4
Ninety–day Treasury bill rate (percent)	7.5	5.8	.1	4.2	−2.5	−31.3	41.0
Yields on 10–year Treasury notes (percent)	8.6	6.0	3.2	5.5	−3.4	−6.1	5.5
Fiscal policy, tax related:							
Effective federal marginal tax rate on wages and salaries (percent)	20.8	23.3	21.4	21.4	1.1	−.8	.0
Effective federal marginal tax rate on interest income (percent)	21.1	25.3	23.0	23.0	1.8	−1.0	.0
Effective federal marginal tax rate on dividend income (percent)	23.7	28.9	22.5	22.5	2.0	−2.4	.0
Effective federal marginal tax rate on capital gains (percent)	25.7	18.8	15.0	15.0	−3.1	−2.2	.0
Maximum federal corporate tax rate (percent)	34.0	35.0	35.0	35.0	.3	.0	.0
Fiscal policy, government outlays related:							
Defense intermediate goods and services purchased	174.0	147.2	289.8	224.4	−1.7	7.0	−2.5
Defense gross investment	75.0	50.3	110.2	131.5	−3.9	8.2	1.8
Nondefense Intermediate goods and services purchased	65.4	74.5	137.8	93.9	1.3	6.3	−3.8
Nondefense gross investment	23.9	31.7	50.5	46.4	2.8	4.8	−.8
Federal grants–in–aid, Medicaid and other (billions of current dollars)	111.4	247.3	531.5	614.4	8.3	8.0	1.5
Federal transfer payments, Medicare (billions of current dollars)	107.6	219.1	518.5	987.0	7.4	9.0	6.7
Energy related:							
Refiners' acquisition cost of imported oil (nominal dollars per barrel)	22.2	27.7	75.9	119.4	2.2	10.6	4.6
Domestic oil product	31.9	29.3	26.5	24.0	−.8	−1.0	−1.0
Demographic related:							
Total population, including overseas Armed Forces (millions)	250.1	282.5	310.4	341.8	1.2	.9	1.0
Population ages 16 and older (millions)	189.2	212.6	237.8	263.0	1.2	1.1	1.0

SOURCE: Historical data, U.S. Federal Reserve Board, Bureau of Economic Analysis, Energy Information Administration, Census Bureau; projected data, U.S. Bureau of Labor Statistics, Energy Information Administration, Census Bureau.

year. Labor supply that year is assumed to be equivalent to labor demand, except for a small amount of frictional unemployment, generally estimated by the nonaccelerating inflation rate of unemployment. Given the severity of labor market impacts related to the recent recession, there has been much discussion regarding the impact on the nonaccelerating rate. On the basis of literature reviews and forecasts by other agencies and firms, BLS set the unemployment rate associated with a full-employment economy in 2020 at 5.2 percent.[9]

Monetary policy assumptions. At the onset of the recent financial crisis, the Federal Reserve Board (the Fed) responded aggressively, loosening the federal funds rate in order to stimulate economic activity through lowering the cost of borrowing.[10] The federal funds rate fell from about 5.25 percent in mid-2007 to 0.16 percent in December 2008.[11] A Federal Open Market Committee meeting statement issued at that time informed readers that "economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time."[12] In August 2011, shortly after Standard & Poor's downgraded the U.S. credit rating from AAA to AA+, the Fed modified the statement as follows: "economic conditions . . . are likely to warrant exceptionally low levels for the federal funds rate at least through mid-2013."[13]

As the unemployment rate remained elevated, and with the funds rate already at its lower bound, the Fed responded by implementing several other unconventional measures to stabilize financial markets and increase the availability of credit to businesses and consumers. In response to the distress in the housing and financial markets, the Fed embarked on two large-scale asset purchase programs, or "quantitative easing efforts," driving down mortgage rates to the lowest levels since the 1940s. As a result, the Fed's reserve holdings grew from less than $1 trillion in September 2008 to $2.7 trillion in May 2011.[14] The BLS macroeconomic projections assume that no additional large-scale monetary initiatives, such as quantitative easing efforts, will occur over the projection period and that programs in place will end as planned.

In developing its projections, BLS assumes that, in the long term, the Fed will continue to set monetary policy to fulfill its dual mandate of price stability and maximum employment.[15] On the one hand, if inflation falls below the target range, the Fed is expected to loosen monetary policy until it anticipates that inflation will rise back into the range. On the other hand, if prices rise faster than the target range, the Fed is expected to tighten monetary policy. Accordingly, over the coming decade, as the labor mar-

ket and economy recover, the Fed is expected to tighten the federal funds rate back up to levels that eventually will be more consistent with historical norms. The funds rate is assumed to be 4.5 percent in 2020. Yields on 10-year Treasury notes are projected to grow from 3.2 percent in 2010 to 5.5 percent in 2020. Improvement in the economy and lower perceived risk in financial markets are together expected to result in a narrowing spread as yields on 10-year notes grow more slowly than the Fed funds rate.

Fiscal policy assumptions. The fiscal policy of the federal government encompasses activities in two arenas: spending and tax policy. Tax-related assumptions largely affect estimates of federal government revenues. In this regard, effective marginal tax rates—the percentage of an additional dollar of income that will have to be paid in taxes—are assumed to be constant at their 2010 levels over the 2010–2020 timeframe. (See table 1.) In contrast, the average federal tax rate is projected to rise considerably over the decade, as a cyclical response to the recovery from a relatively deep recession. As incomes rise, individuals are expected to move into higher tax brackets, generating additional revenue for the federal government.

Discretionary spending is generally assumed to be at a peak in the near term, giving way to fiscal restraint over the coming decade. In response to the recent recession, several fiscal stimulus programs were enacted, including the Troubled Asset Relief Program (TARP) and the American Recovery and Reinvestment Act (ARRA).[16] In 2010, Congress voted to delay the expiration of the Bush-era tax cuts, extend unemployment benefits, and temporarily reduce the payroll tax. Current fiscal programs are expected to end as enacted, with no new major programs announced. The only exception to this expectation is the Bush-era tax cuts, which, according to the model, are assumed to remain in place over the 2010–2020 period, except for a sunset provision on the top tax bracket. Under the Budget Control Act of 2011, Congress agreed to make substantial reductions in federal government discretionary spending over the coming decade. Details of how the spending cuts will be implemented have not yet been decided upon and are not included in the BLS 2020 macroeconomic projections.

Trade. The broad trade-weighted exchange rate for the U.S. dollar more than doubled from the mid-1980s through 2002, but has since fallen by nearly 20 percent as of 2010.[17] As the dollar bought relatively more imported goods, the trade deficit and current account balance widened notably. Even as the exchange rate began to fall, the strength of the U.S. economy, foreign demand for U.S. se-

curities, and heightened consumption all contributed to a further widening of the trade deficit through 2006. Since then, through the recessionary period and subsequent slow recovery, the real trade deficit has fallen by more than 40 percent and the current account balance has declined from roughly 6 percent of GDP in 2006 to closer to 3 percent in 2009 and 2010.

Underlying the macroeconomic projections, the exchange rate is assumed to continue falling, although at a rate slower than that experienced between 2002 and 2010. Foreign ownership of U.S. securities is expected to put downward pressure on the value of the dollar over the long run. Foreign output growth is generally expected to follow its long-run path. The falling exchange rate is anticipated to accompany strong export growth over the coming decade, as discussed in further detail later.

Analysis of other key variables

In addition to explicit assumptions made for the variables discussed in the previous section, other key variables are solved through external models. Although their solutions are supplied as exogenous data to the macromodel, these variables are explicitly modeled rather than assumed to follow a given path from 2010 to 2020. Demographic variables, for example, are estimated through external BLS models and supplied as exogenous variables to the macromodel. Other data within the macromodel, such as oil prices, are provided by projections from other government agencies. Moreover, the BLS projections generally are prepared with certain selected endogenous variables more carefully evaluated than others within the model. Foreign trade and housing starts were two of the key variables that were carefully analyzed for the projections presented in this article. Target ranges for these variables are determined through consultation with other analysts and through external model analysis. Determining target ranges for key variables helps BLS economists define the parameters around which the aggregate projections are evaluated.

Demographics. Demographic factors play a key role in determining the growth potential of the economy over the long term. Population and labor force projections are among the most critical exogenous variables supplied to the macromodel. The growth rate of the population, changes in the composition of the population, and changes to labor force participation affect key model results, including the unemployment rate, housing starts, prices, income-related measures, and many other variables. BLS projections in these areas are based on the Census Bureau's middle-series

population projection, including Armed Forces overseas.[18] The U.S. population is projected to reach 341.8 million in 2020, up from 310.4 million in 2010, an annual growth rate of 1.0 percent over the decade.

Given the Census Bureau's population projection, adjusted by BLS to reflect the civilian noninstitutional population, BLS expects that the labor force will grow at 0.7 percent annually, from 153.9 million in 2010 to 164.4 million in 2020. The 77 million baby boomers constituted nearly a quarter of the U.S. population in 2010. As the boomers move out of prime working-age groups and into brackets with substantially lower participation rates, downward pressure is expected on the overall labor force participation rate. From the onset of the 2007–2009 recession, in December 2007, the rate has declined from 66.0 percent to 64.0 percent in December 2011. Prior to the recession, the 64.0-percent figure was the lowest labor force participation rate since January 1984. For the projections presented here, BLS posits that the decline was largely structural in nature and expects that it will persist over the coming decade, with the labor force participation rate projected to fall further, to 62.5 percent in 2020.

Energy prices. Projections of nominal oil prices are consistent with those published in the reference case scenario of the Energy Information Administration's 2011 *Annual Energy Outlook.*[19] Assuming no changes in current laws and regulations, no major supply shocks, and higher production costs associated with unconventional liquid fuels, the Energy Information Administration expects that oil prices will increase to about $119 per barrel in 2020, from $76 per barrel in 2010.

From 1986 through 2003, oil prices remained under $40 per barrel.[20] Prices then increased dramatically, reaching $133.88 per barrel in June 2008. As the economic downturn became global in scope, demand for oil, and subsequently the price, fell, bottoming at $39.09 in February 2009. Since then, the price has increased again, to $98.53 in December 2011. Although oil prices have tended to be volatile in the short run, over the next 10 years they are expected to be determined largely on the basis of long-run trends in consumption and production. The Energy Information Administration projects that world demand for oil will continue growing, with much of the increase concentrated in countries such as China, India, and Brazil. Growing demand will require increased dependence on more costly resources, putting upward pressure on prices. As world oil prices rise, the United States is expected to increase its consumption of alternative fuels and supply a higher share of its oils domestically—for example, by

producing more biofuels.

Inflation. Between the early 1990s and the early 2000s, inflation, as measured by the chain-weighted GDP price index, remained relatively low, between 1 percent and 2.5 percent. Rising home, health care, and oil prices played a part in inflation, growing by more than 3 percent in 2005 and 2006. Since then, inflation, again as measured by GDP, has slowed to about 1 percent annually, in both 2009 and 2010. Over the long run, inflation is a monetary phenomenon, and BLS expects, as mentioned previously, that the Fed will attempt to keep inflation within a targeted range consistent with the Federal Open Market Committee's dual mandate of maximum employment and price stability.[21] As measured by the chain-weighted GDP price index, inflation is expected to grow at a moderate rate of 2.0 percent annually over 2010–2020, in line with the 2.1-percent growth registered between 1990 and 2000 and only slightly slower than the 2.3-percent annual growth exhibited between 2000 and 2010.

Housing starts. Private housing starts are the key determinant in residential investment and are expected to play an important role in GDP growth over the coming decade. In 2005, housing starts peaked at more than 2 million units; since then they have plummeted to the lowest levels since at least 1959, when the Census Bureau started publishing this data series. In fact, according to the Census Bureau's estimates, housing starts had never been less than 1 million units before 2009 and 2010, when they fell below 600,000 in each of those years. (See chart 1.) The "shadow" inventory market (including foreclosures, homes in serious delinquency, and bank-owned properties), tight mortgage credit terms, and limited demand for, and availability of, builder financing are all contributing to considerably fewer private housing starts than is consistent with long-run trends.

BLS projects that the excess supply of housing, including the overhang of shadow inventory, will clear by 2020, with the market expected to be based once again largely on demographics and overall economic trends. Recovery in the housing market—not just new housing as measured by starts, but also sales of existing homes—is anticipated to play a critical role in the overall recovery of the economy. The loss of wealth due to home price declines in recent years has weighed heavily on consumer psychology, as has the inability to access credit. As home prices appreciate, consumers are expected to lower their savings

Chart 1. Housing starts, 1959–2010 and projected 2020
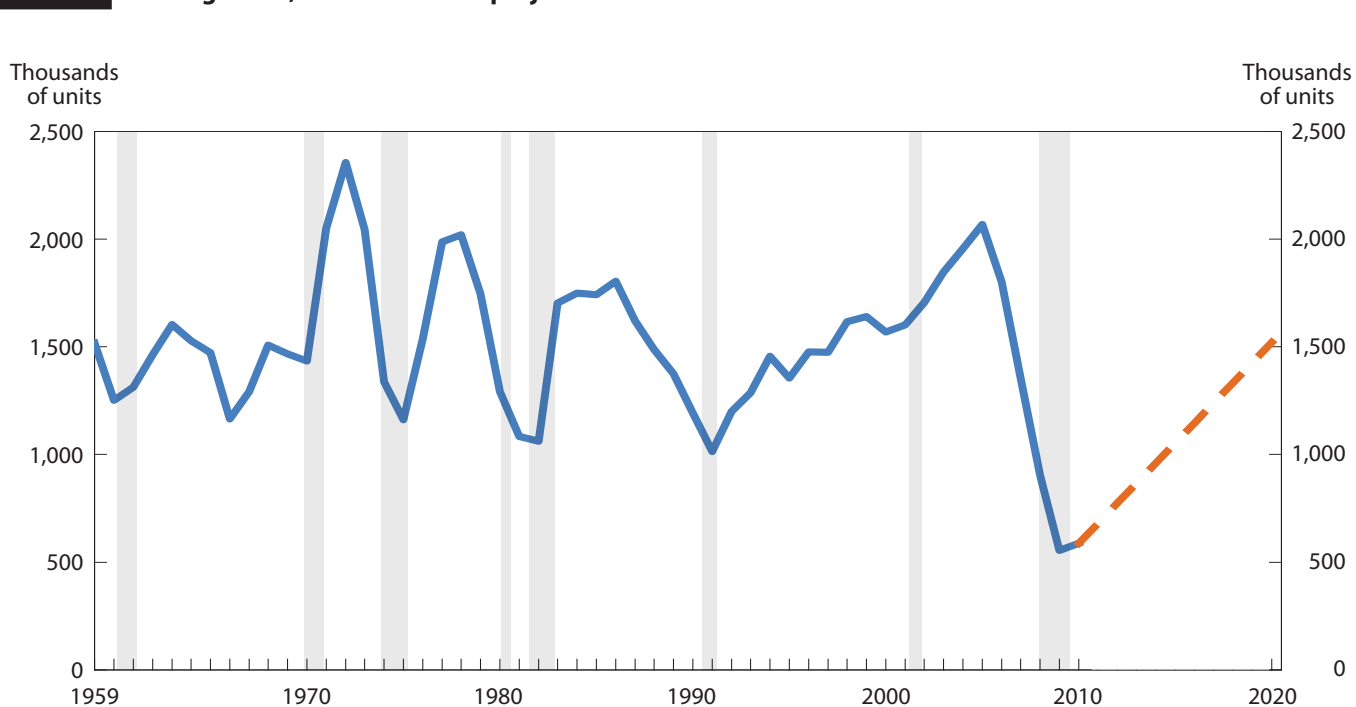
NOTE: BLS does not project specific data for each of the years between 2010 and 2020. Interim years to the 2020 projection point are expressed by a dashed straight line only. Shaded areas denote recessions as determined by the National Bureau of Economic Research.

SOURCE: Historical data, U.S. Census Bureau; projected data, U.S. Bureau of Labor Statistics.

rate, stimulating demand and overall economic recovery. Housing starts are projected to reach 1.5 million units in 2020, much higher than the 584,900 posted in 2010, but still considerably lower than the peak of 2.1 million starts reported in 2005.

GDP from the demand side

Although the recent recession lasted from December 2007 until June 2009, sustained economic weakness stemming from the most severe economic contraction in more than a generation has continued to pose the same challenges to the 2020 projections that persisted during the release of the 2018 projections: an aging population, rising demand and costs for medical care, low housing investment, and reduced consumer demand. Consumers remain hesitant to return to the previous level of high consumption, focusing instead primarily on reducing debt and continuing the recent slowdown in the consumption of discretionary items.[22] Housing investment is seen as a key element of a full economic recovery during the 2010–2020 period. Trade, in both exports and imports, is likely to grow more

rapidly than in the previous decade. Export growth is expected to be larger than import growth from 2010 to 2020, contributing to a narrowing of the trade deficit. Real federal government expenditures in consumption and investment are projected to decline as the cost of social benefit programs continues to rise. The legacy effects of debt accumulated during and after the 2007–2009 recession are seen as contributing to the slowing expenditure rates over the next 10 years. State and local government consumption and investment expenditures are projected to rise over the next decade, although some downward pressures may remain.

BLS projects GDP growth of 3.0 percent per year from 2010 to 2020, returning to a level more consistent with its long-run trend. (See chart 2.) This rate is faster than the 1.6-percent growth experienced during 2000–2010, but slower than the 3.4-percent growth witnessed from 1990 to 2000. (See table 2.) On a per capita basis, BLS projects that GDP will grow at an annual rate of 2.0 percent, much higher than the 0.6-percent growth seen during the 2000–2010 period and on a par with the 2.1-percent growth exhibited between 1990 and 2000. Although GDP

Chart 2. Gross domestic product, 1990–2010 and projected 2020
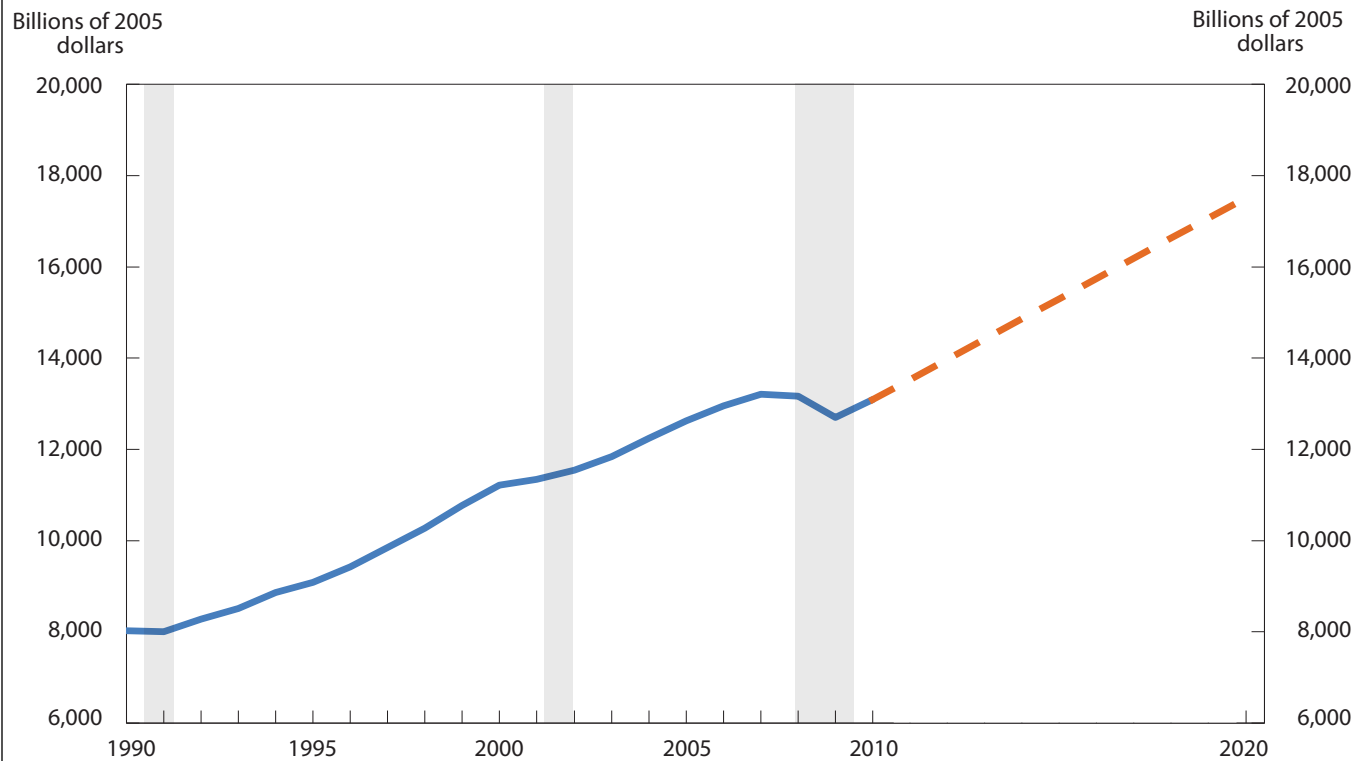
NOTE: BLS does not project specific data for each of the years between 2010 and 2020. Interim years to the 2020 projection point are expressed by a dashed straight line only. Shaded areas denote recessions as determined by the National Bureau of Economic Research.

SOURCE: Historical data, U.S. Bureau of Economic Analysis, projected data, U.S. Bureau of Labor Statistics.

Table 2. Real gross domestic product, by major demand category, 1990, 2000, 2010, and projected 2020

Category	Billions of chained 2005 dollars				Annual rate of change			Contribution to percent change in real GDP		
	1990	2000	2010	2020	1990–2000	2000–2010	2010–2020	1990–2000	2000–2010	2010–2020
Gross domestic product	$8,027.1	$11,216.5	$13,088.0	$17,512.9	3.4	1.6	3.0	3.4	1.6	3.0
Personal consumption expenditures	5,313.7	7,604.6	9,220.9	12,063.4	3.6	1.9	2.7	2.6	1.4	1.9
Gross private domestic investment	989.9	1,963.1	1,714.9	2,945.1	7.1	–1.3	5.6	1.1	–.2	.8
Exports	599.7	1,187.4	1,663.3	3,065.1	7.1	3.4	6.3	.8	.4	.9
Imports[1]	672.6	1,638.7	2,085.0	3,258.4	9.3	2.4	4.6	–1.1	–.4	–.8
Federal defense consumption expenditures and gross investment	584.9	453.5	718.2	692.6	–2.5	4.7	–.4	–.1	.2	.0
Federal nondefense consumption expenditures and gross investment	213.9	244.4	357.7	314.3	1.3	3.9	–1.3	.0	.1	.0
State and local consumption expenditures and gross investment	1,062.1	1,400.2	1,487.0	1,779.4	2.8	.6	1.8	.4	.1	.2
Residual[2]	–64.7	2.0	11.1	–88.5	...	...	...	...	...	...
Addendum:										
GDP per capita, chained 2005 dollars	32,098	39,701	42,163	51,232	2.1	.6	2.0	—	—	—

[1] Imports are subtracted from the other components of GDP because they are not produced in the United States.

[2] The residual is calculated as real gross domestic product, plus imports, less other components.

NOTE: Dash indicates data not applicable.

SOURCE: Historical data, U.S. Bureau of Economic Analysis; projected data, U.S. Bureau of Labor Statistics.

by itself focuses on the country's output, GDP per capita measures output per person and is seen as a different option for measuring the purchasing power of various goods and services within the economy.

Personal consumption expenditures. Comprising approximately two-thirds of GDP, personal consumption expenditures (PCE) make up the largest component of demand in the U.S. economy. (See table 3.) Annual growth in PCE during 1990–2000 was a robust 3.6 percent. The 2000–2010 period saw similar growth in the first several years that was later countered by decline in 2008 and 2009, resulting in growth of a weaker 1.9 percent annually over the decade. Households that had seen substantial financial and real estate losses, including reduced income from job losses, changed their spending habits to build up their savings while reducing their debt and their consumption of discretionary goods and services.

BLS projects a modest improvement in PCE growth, with an annual rate of 2.7 percent during 2010–2020. (Such a rate does not match that of either the 1990s or the early 2000s; see table 2.) PCE contributed 2.6 percent of the 3.4-percent annual GDP growth from 1990 to 2000, or 75.7 percent of economic activity. Consumer purchases

accounted for 1.4 percent of the 1.6-percent annual GDP growth from 2000 to 2010, or 87.4 percent of economic activity. The 87.4-percent figure is a change from previous patterns of consumers' use of perceived wealth in assets to drive spending; consumer purchases are seen declining to just 63.8 percent of GDP growth by 2020, accounting for 1.9 percent of the 3.0-percent annual growth in the economy over the 2010–2020 period.[23]

BLS generally divides PCE into three main categories, to reflect the type of consumption each represents: services, nondurable goods, and durable goods. Of these three, services make up the majority of PCE. Spending on services grew 1.6 percent annually from 2000 to 2010, but is projected to return to a more trendlike 2.7-percent growth rate in the 2010–2020 decade. (See table 4.) Expenditures for medical services continued to grow during the recession, a result of increasing demand from an aging population, the use of advanced medical technologies such as imaging, and the adoption of medical delivery methods like home health care. Still, budgetary pressures affecting federal, state, and local government are expected to slow spending on medical services, likely forcing consumers to pay more for their own health care. As a result, BLS projects medical spending by consumers to grow 2.9 percent

Table 3.	Nominal gross domestic product, by major demand category, 1990, 2000, 2010, and projected 2020							
Category	**Billions of current dollars**				**Percent distribution**			
	1990	**2000**	**2010**	**2020**	**1990**	**2000**	**2010**	**2020**
Gross domestic product	$5,800.5	$9,951.5	$14,526.5	$23,669.5	100.0	100.0	100.0	100.0
Personal consumption expenditures	3,835.4	6,830.4	10,245.5	16,600.5	66.1	68.6	70.5	70.1
Gross private domestic investment	861.0	1,772.2	1,795.1	3,604.3	14.8	17.8	12.4	15.2
Exports	552.1	1,093.2	1,839.8	4,257.9	9.5	11.0	12.7	18.0
Imports[1]	629.8	1,475.3	2,356.7	5,034.6	10.9	14.8	16.2	21.3
Federal defense consumption expenditures and gross investment	373.9	371.0	819.2	980.5	6.4	3.7	5.6	4.1
Federal nondefense consumption expenditures and gross investment	133.6	205.0	403.6	451.8	2.3	2.1	2.8	1.9
State and local consumption expenditures and gross investment	674.2	1,154.9	1,780.0	2,809.0	11.6	11.6	12.3	11.9

[1] Imports are subtracted from the other components of GDP because they are not produced in the United States.

SOURCE: Historical data, U.S. Bureau of Economic Analysis; projected data, U.S. Bureau of Labor Statistics.

per year from 2010 to 2020, identical to the growth rate experienced from 2000 to 2010.

The catchall category "other services," which includes telecommunications, computer services, and personal care services, suffered during the 2007–2009 recession, declining from an annual growth rate of 4.2 percent during 1990–2000 to 1.0 percent in the decade ending in 2010. BLS anticipates that, as the economy rebuilds in the coming years, these services will grow by 2.8 percent annually from 2010 to 2020. Like "other services," housing services suffered from the recession, with annual growth retreating from 2.7 percent during 1990–2000 to 1.7 percent from 2000 to 2010. The housing bust caused housing demand to collapse, pulling home prices down substantially and flattening the real value of imputed rents. With residential investment expected to contribute to economic growth, consumer housing services are seen to rise at an annual growth rate of 2.4 percent in the decade ending in 2020. (See table 4.)

Nondurable goods—goods with a short-term life of less than 3 years—exhibited a 2.8-percent rate of growth from 1990 to 2000, followed by a 1.8-percent rate during 2000–2010. Nondurable goods include items such as food, clothing, gasoline, and medicines. Consumers tend to be less sensitive to price changes in these goods than in durables; however, the recession of 2007–2009 brought about job losses that led to reduced incomes and less overall spending on nondurables. The slower spending on these items is expected to continue into the coming decade. BLS projects a 2.0-percent annual growth rate for nondurable goods from 2010 to 2020, less than during the 1990–2000 period. (See table 4.)

Durable goods—goods with a life of 3 years or longer— are split between motor vehicles and other durable goods.

Sales of light vehicles peaked in 2000 at 17.3 million units, through a combination of industry incentives and eased lending standards. The effects of the 2007–2009 recession on the auto industry are now widely known, with declining sales and high cost structures forcing reorganizations of two of the Detroit "Big Three." Unit sales of cars and trucks were a modest 11.5 million in 2010, a lingering effect of the economic downturn. Technological advancements in motor vehicles, along with a release of some pent-up demand, should spur sales going forward, with 16.2 million units projected to be sold in 2020. Still, sales are expected to remain lower than their 2000 peak as consumers continue rebuilding their household balance sheets.

The category "other durable goods" tends to exhibit a cyclical consumption pattern over time. Items in this category include televisions, large kitchen appliances, and laundry equipment. Expenditures on these goods have grown much faster than expenditures on any other consumption category over the last 20 years. From 1990 to 2000, the annual growth rate was 8.9 percent, after which it dropped to 6.4 percent from 2000 to 2010. Because BLS expects consumers to continue to shift more of their disposable income to nondurable goods like food and medicines over the coming decade, as well as to slow down their spending on discretionary durables such as jewelry and new luggage, "other durable goods" is projected to grow at a 4.9-percent annual rate from 2010 to 2020. (See table 4.)

Nonresidential investment. Nonresidential investment fell considerably during the recession of 2007–2009 and then snapped back at a rapid pace once the economic decline ended. This return of nonresidential investment to its long-term trend was expected after the substantial drop.

Table 4.	Personal consumption expenditures, 1990, 2000, 2010, and projected 2020						
Category	Billions of chained 2005 dollars				Annual rate of change		
	1990	2000	2010	2020	1990–2000	2000–2010	2010–2020
Personal consumption expenditures	$5,313.7	$7,604.6	$9,220.9	$12,063.4	3.6	1.9	2.7
Durable goods	422.9	818.0	1,188.4	1,828.2	6.8	3.8	4.4
Motor vehicles and parts	242.9	356.1	330.1	476.9	3.9	–.8	3.7
Other durable goods	198.9	464.9	863.7	1,388.7	8.9	6.4	4.9
Nondurable goods	1,295.5	1,714.6	2,041.3	2,480.2	2.8	1.8	2.0
Services	3,673.8	5,093.6	5,991.8	7,843.8	3.3	1.6	2.7
Housing services	1,083.3	1,413.6	1,669.2	2,106.5	2.7	1.7	2.4
Medical services	872.9	1,081.6	1,442.9	1,924.2	2.2	2.9	2.9
Other services	1,721.1	2,597.5	2,879.4	3,810.1	4.2	1.0	2.8
Residual[1]	–100.8	–23.7	–5.8	–123.1	...	...	...

[1] The residual is the difference of the first line and the sum of the most detailed lines, for each first-level category.

Source: Historical data, U.S. Bureau of Economic Analysis; projected data, U.S. Bureau of Labor Statistics.

BLS projects that nonresidential investment will grow at a 5.4-percent annual rate from 2010 to 2020, lower than the 7.9-percent growth during 1990–2000, but much faster than the 0.1 percent experienced from 2000 to 2010. (See table 5.) The various components of this major category exhibited behavior similar to that of the category itself in the last several years.

Investment in equipment and software has historically grown much faster than investment in structures. During the high-growth period from 1990 to 2000, equipment and software breached the 10-percent mark, growing at 10.3 percent per year. The dot-com bust and subsequent recession in 2001, along with the economic slide that took place from 2007 to 2009, contributed to a lower growth rate of 1.4 percent annually over 2000–2010. In spite of these setbacks, this sector is projected to grow at an annual 6.2-percent pace from 2010 to 2020. The primary driver is expected to be computers and software, a category that is projected to grow at a 10.3-percent rate from 2010 to 2020. (See table 5.) Contributors to rising growth in this category are anticipated to be continuing increases in the use of digital and social media, in mobile computing, in Internet and enterprise security, and in the implementation of electronic health records.

Investment in nonresidential structures weakened considerably during the recession of 2007–2009. After growing at a 1.5-percent annual rate from 1990 to 2000, nonresidential structure investment posted two large declines over the next decade, with a real-value drop of 33.7 percent between 2008 and 2010 alone. (See chart 3.) Even after residential investment peaked in 2005, nonresidential construction continued rising through 2008. With respect to the timing of the peaks, residential investment was a leading indicator of the recession of 2007–2009 while nonresidential investment was a lagging indicator. Despite the recession's having hit this sector quite hard, BLS projects that nonresidential investment in structures will improve to a 3.2-percent annual growth rate during 2010–2020. (See table 5.) Infrastructure projects are expected to be part of the recovery, although other buildings, such as schools, medical facilities, offices, and industrial parks, are also seen to contribute to the growth.

Residential investment. Demand for residential investment continues to remain at levels at or near those of 1983. Growth in fixed residential structures was 4.2 percent annually from 1990 to 2000. Then, during 2000–2010, residential investment plummeted, declining 5.5 percent per year, a result of the housing bust and the financial crisis. (See table 5.) The economic malaise has left lingering effects that still pose problems for a housing investment recovery. Lending institutions have tightened standards in response to mortgage losses, although they have been seeking to lend more recently.[24] The shadow inventory of foreclosures, of homes in serious delinquency, and of bank-owned properties, among other factors, are likely keeping prices from rising, although as this inventory is reduced, prices are expected to increase. Unemployment remains high, at 8.5 percent in December 2011, also keeping many potential buyers from entering the demand side of the market.[25]

BLS projects residential investment to grow at a seemingly high 7.0-percent annual rate from 2010 to 2020. This rate, however, includes a recovery from unusually low levels and results in a level that is still 15.8 percent below the peak of the housing bubble. Assistance to the housing rebound will come from single-family as well as

Table 5.	Gross private domestic investment, 1990, 2000, 2010, and projected 2020						
Category	Billions of chained 2005 dollars				Annual rate of change		
	1990	2000	2010	2020	1990–2000	2000–2010	2010–2020
Gross private domestic investment	$989.9	$1,963.1	$1,714.9	$2,945.1	7.1	−1.3	5.6
Fixed nonresidential investment	614.8	1,311.3	1,319.2	2,235.7	7.9	.1	5.4
Equipment and software	332.1	889.3	1,019.4	1,857.7	10.3	1.4	6.2
Computers and software	26.5	224.9	395.4	1,052.0	23.8	5.8	10.3
Other equipment	365.2	672.0	633.4	908.9	6.3	−.6	3.7
Structures	380.6	440.1	309.2	422.7	1.5	−3.5	3.2
Fixed residential structures	386.1	580.0	330.8	652.7	4.2	−5.5	7.0
Single family	205.1	315.0	114.6	337.7	4.4	−9.6	11.4
Multifamily	33.5	35.4	12.0	30.4	.6	−10.2	9.7
Other	146.8	229.4	206.7	293.9	4.6	−1.0	3.6
Change in business inventories	16.5	60.2	58.8	48.3	13.8	−.2	−1.9
Residual[1]	−184.5	−14.0	−15.2	−148.9	...	...	...

[1] The residual is the difference of the first line and the sum of the most detailed lines, for each first-level subcategory.

SOURCE: Historical data, U.S. Bureau of Economic Analysis; projected data, U.S. Bureau of Labor Statistics.

Chart 3. Investment in nonresidential structures, 1990–2010 and projected 2020
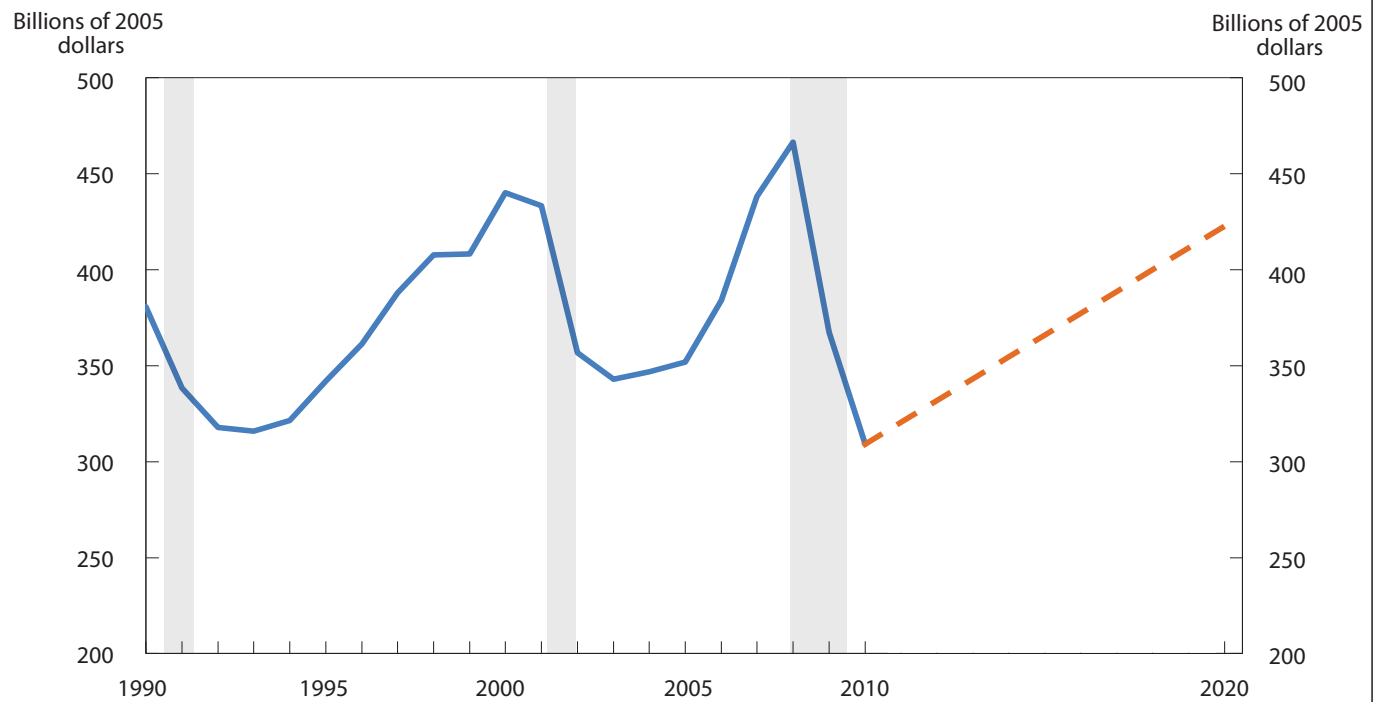
NOTE: BLS does not project specific data for each of the years between 2010 and 2020. Interim years to the 2020 projection point are expressed by a dashed straight line only. Shaded areas denote recessions as determined by the National Bureau of Economic Research.
SOURCE: Historical data, U.S. Bureau of Economic Analysis; projected data, U.S. Bureau of Labor Statistics.

multifamily housing, with both showing a rise from historic lows. Investment in single-family structures grew at a 4.4-percent annual rate from 1990 to 2000, dropped by 9.6 percent over 2000–2010, and is projected to grow 11.4 percent per year from 2010 to 2020. Investment in multifamily structures grew at a much smaller 0.6-percent annual rate from 1990 to 2000, declined precipitously by 10.2 percent in the decade ending in 2010, and is expected to grow at a 9.7-percent annual rate over the 2010–2020 timeframe. Investment in other structures, which includes improvements and brokers' commissions, also fell substantially from 2000 to 2010, at a 1.0-percent annual rate, al-

though the category is projected to recover to a 3.6-percent annual rate of growth from 2010 to 2020. (See table 5.)

Gross private domestic business investment, including both nonresidential and residential investment, is expected to contribute 15.2 percent of total GDP in 2020, on a nominal basis. This percentage is a decrease from the 17.8 percent the category contributed in 2000, but is still a large improvement from the 12.4 percent registered in 2010. (See table 3.) On a real, or inflation-adjusted, basis, business investment is projected to grow 5.6 percent annually from 2010 to 2020, compared with the previous decade's 1.3-percent annual decline. Over the 2010–2020 period, private business investment is seen to contribute 0.8 percent, or more than one-quarter, of the projected 3.0-percent GDP growth. The vast majority of investment growth is expected to be in equipment and software, with residential construction adding just 0.2 percent of the 3.0-percent annual GDP growth during the coming decade.

Foreign trade in goods and services and the current account. Trade expectations, especially over the longer run, are dependent largely on highly unpredictable behaviors across the entire world market. Therefore, trade-related results are often considered the most uncertain part of the long-term macroeconomic outlook. Oil prices, for example, play a large role in the anticipated trade situation and have exhibited particularly volatile behavior in recent years. As mentioned earlier, BLS relies upon oil price projections published by the Energy Information Administration, but these estimates are subject to considerable uncertainty. Other areas of recognized risk include the extent and impact of the European sovereign debt crisis, unanticipated behavior of the exchange rate, and the impact on the market of shocks or changes to world demand and supply of a particular commodity.

In light of the recognized uncertainty, the United States is expected to continue to become increasingly integrated into the world trade market over the coming decade, with both more imports and more exports. The real trade deficit narrowed somewhat in the late 1980s and early 1990s before swelling from a low of $35.2 billion in 1992 and peaking at $729.4 billion in 2006. As the trade deficit grew, the personal savings rate declined by nearly 5 percent, with consumers supporting import growth at an annual rate of more than 8 percent. Impacts of the recent financial crisis, including improvements to the personal savings rate, a decline in business investment, and a falling exchange rate, have contributed to a narrowing of the U.S. trade deficit. BLS projects that the real trade deficit will continue to narrow appreciably over the coming decade, from $421.8 billion in 2010 to $193.3 billion in 2020. (See table 6.)

A continued decline in the exchange rate, as well as general world economic recovery, is expected to support strong export growth of 6.3 percent annually over 2010–2020, faster than the 3.4 percent exhibited from 2000 to

Table 6.	Exports and imports of goods and services, 1990, 2000, 2010, and projected 2020						
Category	**Billions of chained 2005 dollars**				**Annual rate of change**		
	1990	**2000**	**2010**	**2020**	**1990–2000**	**2000–2010**	**2010–2020**
Exports of goods and services	$599.7	$1,187.4	$1,663.3	$3,065.1	7.1	3.4	6.3
Goods	395.3	843.4	1,164.9	2,114.0	7.9	3.3	6.1
Nonagricultural	348.6	778.3	1,077.3	2,016.5	8.4	3.3	6.5
Agricultural	46.9	64.1	86.1	110.6	3.2	3.0	2.5
Services	209.0	343.5	498.9	955.2	5.1	3.8	6.7
Residual[1]	–4.8	1.6	1.0	–17.2	...	...	...
Imports of goods and services	672.6	1,638.7	2,085.0	3,258.4	9.3	2.4	4.6
Goods	512.3	1,366.7	1,729.3	2,815.3	10.3	2.4	5.0
Nonpetroleum	412.8	1,153.6	1,503.5	2,616.5	10.8	2.7	5.7
Petroleum	140.6	215.9	227.0	265.8	4.4	.5	1.6
Services	171.3	271.7	357.4	448.0	4.7	2.8	2.3
Residual[2]	–52.2	–2.5	–2.9	–71.9	...	...	...
Trade surplus/deficit	–72.8	–451.3	–421.8	–193.3	20.0	–.7	–7.5

[1] Difference of the aggregate category "exports of goods and services" and the sum of the most detailed lines, for each first-level subcategory of "exports of goods and services."

[2] Difference of the aggregate category "imports of goods and services" and the sum of the most detailed lines, for each first-level subcategory of "imports of goods and services."

SOURCE: Historical data, U.S. Bureau of Economic Analysis; projected data, U.S. Bureau of Labor Statistics.

2010, but somewhat less than the 7.1-percent growth over 1990–2000. (See table 6.) Exports of services are projected to increase slightly more quickly than exports of goods, 6.7 percent and 6.1 percent, respectively. However, goods are still expected to make up the majority of exports in the next 10 years. As with exports, import growth is expected to pick up from the previous decade's figures, from 2.4 percent over 2000–2010 to 4.6 percent over 2010–2020. As the U.S. economy recovers, consumers and businesses are anticipated to increase their purchases, including demand for imports. Consumers, however, are expected to devote a growing portion of their spending to medical expenses, somewhat limiting the growth of imports.

The nominal trade balance has been in deficit every year since 1976, but never exceeded $150 billion until 1998. By 2006, the deficit had grown fivefold, to $769.3 billion. Since then, the deficit has receded somewhat, to $516.9 billion in 2010. BLS expects that by 2020 the nominal trade deficit will grow to $776.6 billion, nearly equivalent to the 2006 level. Because the world is becoming increasingly interconnected, imports and exports are each expected to make up a more substantial share of GDP by 2020. On balance, the trade deficit held back GDP by less than 1 percent in the early 1990s, but by 2006 it accounted for −5.8 percent of GDP. As the trade deficit contracted, the share fell to −3.6 percent of GDP in 2010; it is projected to stay relatively constant at −3.3 percent of GDP in 2020.

The growing nominal trade deficit and an increase in foreign investment in the United States have resulted in a rapid rise in the current-account deficit (the excess of imports and income flows to foreigners over exports and foreign income to Americans) since the late 1990s. Economic prosperity contributed to making the nation an attractive destination for foreign investors, enabling the current-account balance to grow from roughly 1.5 percent of GDP in the mid-1990s to a peak of 6 percent in 2006. As the stock market fell and the financial crisis took hold, the current-account deficit receded to 3.3 percent of GDP in 2010. BLS projects a similar level of 3.5 percent of GDP in 2020.[26]

Federal government. Like personal consumption expenditures, medical care and income support are projected to rise as an aging and longer lived society demands more of these services, pushing prices higher for all consumers. Although Medicare will see increased costs, reimbursement rates are being reduced over the next decade, slowing the overall growth of that social insurance program. Social Security also is expected to consume more resources. As military operations in Afghanistan continue

and those completed in Iraq are assessed, worn equipment will need to be replaced, further necessitating government spending. The dominant trend is expected to be fiscal stimulus giving way to fiscal restraint, leading to federal government consumption and investment of $1.0 trillion in 2020, down nearly $70 billion from 2010, or an annual decline of 0.7 percent. (See table 7.) Previous policies and current programs enacted in response to the recession have contributed to large budget deficits and a larger national debt over the last few years. BLS assumes that policy will largely finish as planned and no new major stimulus programs will be enacted. In light of these developments, BLS anticipates that the 2010 budget deficit of almost $1.3 trillion, or 8.8 percent of GDP, will decline to $846.1 billion, or 3.6 percent of GDP, by 2020 as economic and employment recoveries drive revenue increases and as stimulus programs come to an end.

The leading edge of the baby-boomer generation became eligible for limited Social Security benefits in 2008 and Medicare benefits in 2010. As this age cohort begins demanding more sophisticated medical care for age-related maladies, costs of administering the care, including the use of new medical technologies, are expected to grow considerably faster than GDP. As a share of nominal federal government spending, these two programs grew from 27.9 percent in 1990 to 33.1 percent in 2000, before dropping slightly to 32.6 percent in 2010 from the impact of the earlier recession. By 2020, Social Security and Medicare are expected to continue rising, to approximately 39.7 percent of nominal federal government expenditures.[27] (See table 8.)

In 2010, the Congress passed, and the President signed into law, the Patient Protection and Affordable Care Act. Although there is considerable uncertainty over whether the act will reduce costs or add to the deficit, the general provisions of the law aim to expand health care coverage to roughly 30 million people. The end result of the law was initially an estimated reduction in the federal deficit of between $132 and $210 billion over 10 years; however, final estimates were not available from the Congressional Budget Office at the time of this writing.[28]

Military operations still underway in Afghanistan and those recently completed in Iraq are likely to warrant substantial replacement spending for wornout equipment in the coming decade. However, the costs associated with investing in new machinery and maintaining current troop levels of approximately 1.4 million around the world[29] are expected to decline somewhat from a record of $718.2 billion in 2010 to $692.6 billion in 2020, an annual growth rate of −0.4 percent, in stark contrast to a rate of 4.7 per-

Table 7.	Government consumption expenditures and gross investment, 1990, 2000, 2010, and projected 2020						
Category	Billions of chained 2005 dollars				Annual rate of change		
	1990	2000	2010	2020	1990–2000	2000–2010	2010–2020
Government consumption expenditures and gross investment	$1,864.1	$2,097.8	$2,556.8	$2,792.8	1.2	2.0	0.9
Federal government consumption and investment	799.1	698.1	1,075.9	1,007.3	–1.3	4.4	–.7
Defense consumption and investment	584.9	453.5	718.2	692.6	–2.5	4.7	–.4
Consumption expenditures	506.5	403.8	608.9	567.0	–2.2	4.2	–.7
Compensation, military	182.4	131.1	162.8	169.2	–3.2	2.2	.4
Compensation, civilian	99.0	65.8	78.8	78.1	–4.0	1.8	–.1
Consumption of fixed capital	68.4	65.7	83.2	101.2	–.4	2.4	2.0
Intermediate goods and services purchased	174.0	147.2	289.8	224.4	–1.7	7.0	–2.5
Less own–account investment	2.6	1.5	2.3	2.4	–5.7	4.5	.3
Less sales to other sectors	3.2	2.4	3.1	2.4	–3.1	2.8	–2.6
Gross investment	75.0	50.3	110.2	131.5	–3.9	8.2	1.8
Own–account investment	2.6	1.5	2.3	2.4	–5.7	4.5	.3
Other investment	72.2	48.8	108.0	129.3	–3.9	8.3	1.8
Nondefense consumption and investment	213.9	244.4	357.7	314.3	1.3	3.9	–1.3
Consumption expenditures	191.8	212.4	307.5	268.4	1.0	3.8	–1.4
Compensation	130.3	124.7	147.7	146.5	–.4	1.7	–.1
Consumption of fixed capital	14.3	22.4	31.2	37.7	4.6	3.4	1.9
Intermediate goods and services purchased:							
Commodity credit corporation purchases	–1.6	.8	–.1	.0	—	—	—
Other	67.0	73.7	137.9	93.9	1.0	6.5	–3.8
Less own–account investment	4.2	2.6	2.9	3.0	–4.6	1.0	.5
Less sales to other sectors	7.6	5.4	6.4	5.4	–3.4	1.7	–1.6
Gross investment	23.9	31.7	50.5	46.4	2.8	4.8	–.8
Own–account investment	4.2	2.6	2.9	3.0	–4.6	1.0	.5
Other investment	20.4	29.1	47.6	43.3	3.6	5.1	–.9
State and local government consumption and investment	1,062.1	1,400.2	1,487.0	1,779.4	2.8	.6	1.8
Consumption expenditures	880.0	1,133.7	1,213.0	1,436.8	2.6	.7	1.7
Compensation	729.1	842.9	895.9	953.1	1.5	.6	.6
Consumption of fixed capital	63.5	96.2	128.7	165.3	4.2	3.0	2.5
Intermediate goods and services purchased	297.4	480.4	519.4	727.1	4.9	.8	3.4
Less own–account investment	13.5	17.6	18.4	24.0	2.7	.5	2.7
Less sales to other sectors	188.7	267.7	312.3	385.3	3.6	1.6	2.1
Gross investment	183.2	266.6	274.3	343.5	3.8	.3	2.3
Own–account investment	13.5	17.6	18.4	24.0	2.7	.5	2.7
Other investment	169.8	249.1	256.0	319.7	3.9	.3	2.2
Residual[1]	–22.6	–4.6	–8.3	–2.7	...	...	...

NOTE: Dash indicates data not computable or not applicable.
[1] The residual is the difference of the first line and the sum of the most detailed lines, for each first–level subcategory.

SOURCE: Historical data, U.S. Bureau of Economic Analysis; projected data, U.S. Bureau of Labor Statistics.

cent from 2000 to 2010. (See table 7.) Military activities are seen to decrease during 2010–2020. In fact, nominal defense spending as a proportion of GDP is projected to be 4.1 percent in 2020, a reduction from 5.6 percent in 2010. (See table 3.)

The recession of 2007–2009 brought about federal measures supporting and maintaining aggregate demand and aimed at preventing another recession. TARP cash infusions into several large banking institutions and automakers, extensions to unemployment benefits, payments to

states, infrastructure investments, other provisions of the ARRA, and lower revenues as a result of the recession increased the deficit as a percentage of GDP over the last few years to levels not seen since the Second World War. More recently, the Budget Control Act of 2011 was passed to avert default on the U.S. government's debt and to outline means by which budgets must be trimmed going forward. As discussed earlier, BLS assumes that no additional monetary or fiscal stimulus programs or quantitative easing efforts will be implemented during the 2010–2020 decade. Details regarding deficit reduction legislation were not yet resolved in time to be included in the 2020 projections. In light of the preceding assumptions, BLS projects a budget deficit of $846.1 billion in 2020, representing an annual decline of 4.0 percent from the 2010 deficit of $1.3 trillion. (See table 8.)

As the decade continues and economic output resumes more normal patterns, revenues are expected to increase from corporate and individual tax receipts. Federal government receipts, on a nominal basis, are projected to grow 6.8 percent annually from 2010 to 2020, much faster than the 1.7-percent rate seen during 2000–2010, but only slightly faster than the 6.6 percent registered over the 1990–2000 period. (See table 8.) Growth in nominal expenditures is expected to decline from 7.1 percent over 2000–2010 to 4.1 percent in the decade ending in 2020. The latter percentage is historically in line with the 4.0-percent growth rate seen during 1990–2000. BLS projects federal government interest payments to increase from 7.6 percent of nominal federal spending in 2010 to 18.7 percent in 2020.

State and local governments. Although federal government consumption and investment are expected to decline slightly over the next 10 years, state and local government consumption and investment are anticipated to grow. BLS projects state and local consumption and gross investment to increase at 1.8 percent annually from 2010 to 2020. This growth rate is triple the 0.6-percent growth exhibited in the decade ending in 2010, but less than the 2.8-percent growth seen from 1990 to 2000. (See table 2.) The expenditures seen in 2020 equate to 11.9 percent of nominal GDP, down slightly from 12.3 percent in 2010, though close to the 11.6 percent experienced in 1990 and 2000. (See table 3.)

States are currently experiencing budgetary pressures rising from the revenue losses associated with the recession of 2007–2009. For example, federal grants-in-aid are expected to be less generous as the aforementioned federal budgetary issues persist. In 2020, these grants are projected to be 18.2 percent of states' total receipts, a large drop from the 25.7-percent share observed in 2010. (See table 9.) Adding to current fiscal problems, most states are typically required by law to maintain a balanced budget or to quickly eliminate any deficits they run. Increased Medicaid and similar social benefit expenses are expected to lead to reductions in other state programs in order for states to operate within these budgetary constraints in the near term.

BLS projects that, as the economic recovery continues, nominal state and local revenues will increase from 4.6-percent annual growth during 2000–2010 to 5.1 percent from 2010 to 2020. At the same time, expenditure growth is seen to decrease from 5.0 percent in the decade ending in 2010 to 4.7 percent for the 2010–2020 period. The combination of anticipated higher revenues and lower spending is expected to result in state surpluses totaling $89.4 billion by 2020. (See table 9.)

Personal income

GDP, the value of the goods and services produced in the nation, is measured by both an expenditure approach, as discussed in the previous section, and an income approach. In theory, the sum of purchases by final users is equivalent to all of the incomes earned and all of the costs of production. Real personal income, from the income side of the GDP accounts, slowed from 5.9 percent annual growth over 1990–2000 to 3.8 percent over 2000–2010. (See table 10.) This slowdown over the past decade can be explained largely by a decline of 4.3 percent from 2008 to 2009, the first decline since 1949, attributable mostly to decreases in personal income on assets and in wage and salary disbursements. As the economy recovers from the 2007–2009 recession, personal income is expected to resume growing at 5.2 percent annually over 2010–2020, with sizable recoveries to both wages and asset income.

One mark of the 2007–2009 recession is that social benefits made up a larger share of personal income in 2010 than in earlier years; likewise, compensation, or labor income, accounted for a smaller share that year. Social benefits include programs such as Social Security, Medicaid, and Medicare, which are growing with the aging baby boomers, but also include welfare and unemployment insurance programs, both heavily affected by the high rate of unemployment in 2010. Therefore, personal current transfer receipts, made up of government social benefits and a small amount of business transfer payments, are expected to decline somewhat, from 18.4 percent of personal income in 2010 to 16.5 percent in 2020, as social

Table 8.	Federal government receipts and expenditures, 1990, 2000, 2010, and projected 2020										
Category	Billions of current dollars				Percent distribution				Annual rate of change		
	1990	2000	2010	2020	1990	2000	2010	2020	1990–2000	2000–2010	2010–2020
Receipts	$1,082.8	$2,057.1	$2,429.6	$4,674.4	100.0	100.0	100.0	100.0	6.6	1.7	6.8
Tax receipts	642.2	1,309.6	1,340.7	2,940.5	59.3	63.7	55.2	62.9	7.4	.2	8.2
Personal taxes	470.1	995.5	896.3	2,335.4	43.4	48.4	36.9	50.0	7.8	–1.0	10.1
Corporate income taxes	118.1	219.4	329.6	397.6	10.9	10.7	13.6	8.5	6.4	4.2	1.9
Taxes on production and imports	50.9	87.3	101.4	186.3	4.7	4.2	4.2	4.0	5.5	1.5	6.3
Taxes from the rest of the world	3.0	7.3	13.3	21.2	.3	.4	.5	.5	9.2	6.2	4.8
Contributions for social insurance	402.0	698.6	970.9	1,603.1	37.1	34.0	40.0	34.3	5.7	3.3	5.1
Income receipts on assets	29.6	24.5	36.1	38.7	2.7	1.2	1.5	.8	–1.9	3.9	.7
Interest receipts	27.0	19.3	29.9	34.3	2.5	.9	1.2	.7	–3.3	4.5	1.4
Rents and royalties	2.6	5.2	6.2	4.4	.2	.3	.3	.1	7.0	1.8	–3.4
Transfer receipts	14.3	25.7	69.7	95.1	1.3	1.3	2.9	2.0	6.1	10.5	3.1
From business	10.8	15.0	48.8	64.4	1.0	.7	2.0	1.4	3.3	12.5	2.8
From persons	3.5	10.7	21.0	30.7	.3	.5	.9	.7	12.0	6.9	3.9
Surplus of government enterprises	–5.3	–1.2	–4.8	–2.9	–.5	–.1	–.2	–.1	–13.6	14.7	–4.8
Expenditures	1,259.2	1,871.9	3,703.3	5,520.4	100.0	100.0	100.0	100.0	4.0	7.1	4.1
Consumption expenditures	419.0	496.0	1,054.0	1,249.6	33.3	26.5	28.5	22.6	1.7	7.8	1.7
Transfer payments	576.2	1,047.3	2,313.6	3,182.3	45.8	55.9	62.5	57.6	6.2	8.2	3.2
Government social benefits	451.2	777.8	1,724.9	2,508.9	35.8	41.5	46.6	45.4	5.6	8.3	3.8
Social Security benefits	244.1	401.4	690.2	1,202.6	19.4	21.4	18.6	21.8	5.1	5.6	5.7
Medicare benefits	107.6	219.1	518.5	987.0	8.5	11.7	14.0	17.9	7.4	9.0	6.7
Unemployment benefits	18.2	20.8	138.7	50.3	1.4	1.1	3.7	.9	1.3	20.9	–9.6
Other benefits to persons	75.1	127.9	361.0	244.2	6.0	6.8	9.7	4.4	5.5	10.9	–3.8
Benefits to the rest of the world	6.2	8.6	16.6	24.8	.5	.5	.4	.4	3.4	6.7	4.1
Other transfer payments	125.0	269.5	588.8	673.4	9.9	14.4	15.9	12.2	8.0	8.1	1.4
Grants–in–aid to state and local government	111.4	247.3	531.5	614.4	8.8	13.2	14.4	11.1	8.3	8.0	1.5
Transfer payments to the rest of the world	13.5	22.2	57.3	59.0	1.1	1.2	1.5	1.1	5.1	9.9	.3
Interest payments	237.4	283.2	279.9	1,032.0	18.9	15.1	7.6	18.7	1.8	–.1	13.9
To persons and businesses	196.7	198.7	143.8	418.0	15.6	10.6	3.9	7.6	.1	–3.2	11.3
To the rest of the world	40.8	84.5	136.1	614.0	3.2	4.5	3.7	11.1	7.6	4.9	16.3
Subsidies	26.6	45.3	55.8	56.5	2.1	2.4	1.5	1.0	5.5	2.1	.1
Less wage accruals, less disbursements	.1	.0	.0	.0	—	—	—	—	—	—	—
Net federal government saving	–176.4	185.2	–1,273.7	–846.1	—	—	—	—	—	—	–4.0
Surplus or deficit as percentage of gross domestic product	–3.0	1.9	–8.8	–3.6	—	—	—	—	—	—	—

NOTE: Dash indicates data not computable or not applicable.

SOURCE: Historical data, U.S. Bureau of Economic Analysis; projected data, U.S. Bureau of Labor Statistics.

programs relating to the recession wind down. However, receipts remain elevated from their 12.7-percent contribution in 2000 as the impacts of an aging society persist. Meanwhile, compensation is projected to continue to follow its long-run trend of declining as a share of personal income, whereas interest and dividend income are ex-

pected to make up a growing share.

As displayed in table 10, income is disaggregated by two accounting methods: sources of income and uses of income. Within uses are consumption, taxes, interest payments, transfer payments, and personal savings. Personal consumption, equivalent to the measurement of GDP on

Table 9.	State and local government receipts and expenditures, 1990, 2000, 2010, and projected 2020										
Category	**Billions of current dollars**				**Percent distribution**				**Annual rate of change**		
	1990	**2000**	**2010**	**2020**	**1990**	**2000**	**2010**	**2020**	**1990–2000**	**2000–2010**	**2010–2020**
Receipts	$738.0	$1,322.6	$2,064.7	$3,383.6	100.0	100.0	100.0	100.0	6.0	4.6	5.1
Tax receipts	519.1	893.2	1,307.9	2,328.4	70.3	67.5	63.3	68.8	5.6	3.9	5.9
Personal taxes	122.6	236.7	297.5	505.7	16.6	17.9	14.4	14.9	6.8	2.3	5.4
Corporate income taxes	22.5	35.2	57.8	153.0	3.0	2.7	2.8	4.5	4.6	5.1	10.2
Taxes on production and imports	374.1	621.3	952.5	1,669.8	50.7	47.0	46.1	49.3	5.2	4.4	5.8
Sales taxes and other	212.5	366.6	521.9	928.2	28.8	27.7	25.3	27.4	5.6	3.6	5.9
Property taxes	161.5	254.7	430.6	741.7	21.9	19.3	20.9	21.9	4.7	5.4	5.6
Contributions for social insurance	10.0	10.8	20.8	34.3	1.4	.8	1.0	1.0	.7	6.8	5.1
Income receipts on assets	68.5	94.3	91.0	192.0	9.3	7.1	4.4	5.7	3.2	–.4	7.8
Interest receipts	64.1	86.7	75.0	159.3	8.7	6.6	3.6	4.7	3.1	–1.4	7.8
Dividends	.3	1.4	2.6	4.6	.0	.1	.1	.1	18.4	6.7	5.9
Rents and royalties	4.2	6.3	13.4	28.2	.6	.5	.6	.8	4.2	7.9	7.7
Transfer receipts	133.4	313.9	655.9	822.5	18.1	23.7	31.8	24.3	8.9	7.6	2.3
Federal grants–in–aid	111.4	247.3	531.5	614.4	15.1	18.7	25.7	18.2	8.3	8.0	1.5
From business (net)	7.1	28.6	50.3	88.2	1.0	2.2	2.4	2.6	15.0	5.8	5.8
From persons	14.9	38.0	74.1	119.8	2.0	2.9	3.6	3.5	9.8	6.9	4.9
Surplus of government enterprises	6.9	10.4	–10.8	6.4	.9	.8	–.5	.2	4.2	—	—
Expenditures	731.8	1,281.3	2,090.0	3,294.3	100.0	100.0	100.0	100.0	5.8	5.0	4.7
Consumption expenditures	547.0	930.6	1,443.5	2,256.8	74.7	72.6	69.1	68.5	5.5	4.5	4.6
Government social benefit payments to persons	127.7	271.5	534.6	850.9	17.4	21.2	25.6	25.8	7.8	7.0	4.8
Medicaid	78.2	205.0	421.1	690.9	10.7	16.0	20.1	21.0	10.1	7.5	5.1
Other	49.5	66.4	113.5	160.1	6.8	5.2	5.4	4.9	3.0	5.5	3.5
Interest payments	56.8	78.8	110.3	184.5	7.8	6.1	5.3	5.6	3.3	3.4	5.3
Subsidies	.4	.6	1.6	2.0	.1	.0	.1	.1	3.2	11.1	2.4
Less wage accruals, less disbursements	.0	.0	.0	.0	.0	.0	.0	.0	—	—	—
Net state and local government saving	6.2	41.3	–25.3	89.4	—	—	—	—	20.9	—	—

NOTE: Dash indicates data not computable or not applicable.

SOURCE: Historical data, U.S. Bureau of Economic Analysis; projected data, U.S. Bureau of Labor Statistics.

the product side, discussed earlier, is expected to decline from 82.8 percent of income in 2010 to 80.7 percent in 2020. As consumption falls slightly as a share of GDP, taxes are expected to recover, moving from 9.6 percent of income in 2010 to 13.8 percent in 2020, with the latter percentage in between their 1990 and 2000 contributions. The recovery of wage growth, coupled with the assumption of more fiscal restraint over the coming decade, implies increasing personal tax payments over the decade.

As household net worth rose by about 7 percent annually, the savings rate fell from roughly 7 percent in the late 1980s to 1.5 percent in 2005, rebounded somewhat to 2.6 percent in 2006, and dropped slightly to 2.4 percent in 2007. As home values declined and credit conditions tightened, consumers increased their savings rate to 5.4 percent in 2008; it stayed relatively stable at that level for 3 years. A couple of factors are expected to exert downward pressure on the savings rate. First, household balance sheets have shown considerable recovery and credit conditions are expected to improve, allowing consumers once again to rely more heavily upon credit and slow their savings. Second, the aging of the baby boomers leads to a rising share of income from medical and Social Security transfer payments, and the marginal propensity to consume out of this type of income is higher than that for labor income.[30] Preliminary data for the third quarter of 2011 indicate that the savings rate was 3.8 percent, slightly higher than the projected rate for 2020.

Table 10.	Personal income, 1990, 2000, 2010, and projected 2020										
Category	**Billions of current dollars**				**Percent distribution**				**Annual rate of change**		
	1990	**2000**	**2010**	**2020**	**1990**	**2000**	**2010**	**2020**	**1990–2000**	**2000–2010**	**2010–2020**
Sources											
Personal income	4,846.7	8,559.4	12,373.5	20,573.7	100.0	100.0	100.0	100.0	5.9	3.8	5.2
Compensation of employees	3,326.2	5,788.9	7,971.4	12,878.2	68.6	67.6	64.4	62.6	5.7	3.3	4.9
Wage and salary disbursements	2,741.1	4,827.7	6,408.2	10,320.5	56.6	56.4	51.8	50.2	5.8	2.9	4.9
Supplements to wages and salaries	585.0	961.2	1,563.1	2,557.8	12.1	11.2	12.6	12.4	5.1	5.0	5.0
Proprietors' income	365.2	817.5	1,036.4	1,770.8	7.5	9.6	8.4	8.6	8.4	2.4	5.5
Rental income	49.8	215.3	350.2	484.2	1.0	2.5	2.8	2.4	15.8	5.0	3.3
Personal income on assets	920.8	1360.7	1,721.2	3,680.6	19.0	15.9	13.9	17.9	4.0	2.4	7.9
Personal interest income	752.0	984.2	1,003.4	2,393.4	15.5	11.5	8.1	11.6	2.7	.2	9.1
Personal dividend income	168.9	376.5	717.7	1,287.2	3.5	4.4	5.8	6.3	8.4	6.7	6.0
Personal current transfer receipts	594.9	1083.0	2,281.2	3,397.3	12.3	12.7	18.4	16.5	6.2	7.7	4.1
Federal social benefits	445.0	769.1	1,708.3	2,484.1	9.2	9.0	13.8	12.1	5.6	8.3	3.8
State and local social benefits	127.7	271.5	534.6	850.9	2.6	3.2	4.3	4.1	7.8	7.0	4.8
Other, from business (net)	22.2	42.5	38.3	62.2	.5	.5	.3	.3	6.7	–1.0	5.0
Less social insurance contribution	412.1	709.4	991.7	1,637.4	8.5	8.3	8.0	8.0	5.6	3.4	5.1
Uses											
Personal income	4,846.7	8,559.4	12,373.5	20,573.7	100.0	100.0	100.0	100.0	5.9	3.8	5.2
Personal consumption	3,835.4	6,830.4	10,245.5	16,600.5	79.1	79.8	82.8	80.7	5.9	4.1	4.9
Personal taxes	592.7	1,232.3	1,193.9	2,841.1	12.2	14.4	9.6	13.8	7.6	–.3	9.1
Personal interest payments	111.3	200.3	173.4	316.0	2.3	2.3	1.4	1.5	6.0	–1.4	6.2
Personal transfer payments	30.6	83.4	168.0	258.6	.6	1.0	1.4	1.3	10.5	7.3	4.4
To government	18.4	48.8	95.1	150.5	.4	.6	.8	.7	10.2	6.9	4.7
Federal	3.5	10.7	21.0	30.7	.1	.1	.2	.1	12.0	6.9	3.9
State and local	14.9	38.0	74.1	119.8	.3	.4	.6	.6	9.8	6.9	4.9
To the rest of the world (net)	12.2	34.6	72.9	108.2	.3	.4	.6	.5	11.0	7.7	4.0
Personal savings	276.7	213.1	592.8	557.5	5.7	2.5	4.8	2.7	–2.6	10.8	–.6
Addenda											
Disposable personal income	4,254.0	7,327.2	11,179.7	17,732.5	—	—	—	—	5.6	4.3	4.7
Disposable personal income, chained 2005 dollars	5,893.6	8,157.9	10,061.7	12,886.0	—	—	—	—	3.3	2.1	2.5
Per capita disposable income	17,010.9	25,934.7	36,015.5	51,874.9	—	—	—	—	4.3	3.3	3.7
Per capita disposable income, chained 2005 dollars	23,567.2	28,875.1	32,414.0	37,696.8	—	—	—	—	2.1	1.2	1.5
Savings rate (percent)	6.5	2.9	5.3	3.1	—	—	—	—	–7.7	6.2	–5.1

NOTE: Dash indicates data not computable or not applicable.

SOURCE: Historical data, U.S. Bureau of Economic Analysis; projected data, U.S. Bureau of Labor Statistics.

Employment

BLS compiles in-house projections of the labor force and labor force participation rate that are then fed into the macromodel as exogenous data. The Census Bureau expects that the population growth of those ages 16 years and older will continue to slow, from 1.2-percent annual growth over 1990–2000, to 1.1 percent for 2000–2010, to 1.0 percent in 2010–2020. (See table 11.) BLS projects that, as the large cohort of baby boomers continues to move into retirement age and young adults increasingly delay entering the labor market, civilian labor force growth also will slow, from 0.8 percent annually over 2000–2010 to 0.7 percent from 2010 to 2020.

BLS projections of employment are highly dependent on demographic expectations and the assumption of full employment. The recession of 2007–2009 had a considerable impact on the labor market, leaving nonfarm payroll employment almost 2 million jobs lower in 2010 than 10 years earlier. (See table 11.) As the economy struggled and employment declined, the unemployment rate peaked at 10.0 percent in October 2009, the second-highest peak in

Table 11.	Labor supply and factors affecting productivity, 1990, 2000, 2010, and projected 2020							
Category	Levels				Annual rate of change		
	1990	2000	2010	2020	1990–2000	2000–2010	2010–2020
Labor supply (millions):							
Total population	250.1	282.5	310.4	341.8	1.2	0.9	1.0
Population ages 16 and older	189.2	212.6	237.8	263.0	1.2	1.1	1.0
Civilian labor force	125.8	142.6	153.9	164.4	1.3	.8	.7
Civilian household employment	118.8	136.9	139.1	155.9	1.4	.2	1.1
Nonfarm payroll employment	109.5	131.8	129.8	149.5	1.9	−.2	1.4
Unemployment rate (percent)	5.6	4.0	9.6	5.2	−3.4	9.2	−6.0
Productivity:							
Private nonfarm business output per hour (billions of chained 2005 dollars)	35.0	43.1	55.1	67.4	2.1	2.5	2.0
SOURCE: Historical data, U.S. Bureau of Economic Analysis, Bureau of Census, U.S. Bureau of Labor Statistics; projected data, U.S. Bureau of Labor Statistics.							

the postwar period; only the peak in late 1982 was higher, at 10.8 percent. Although labor force growth is expected to slow slightly over the next decade, the unemployment rate is assumed to recover to a level consistent with "full employment": 5.2 percent by 2020. Consequently, BLS expects that, as the economy recovers from the recession, employment will slowly recover as well, growing by 1.4 percent per year and adding nearly 20 million nonfarm jobs from 2010 to 2020. Civilian household employment is projected to increase by 1.1 percent annually over the same period, resulting in an increase of 16.8 million workers.[31] (Employment projections are discussed in more detail in other articles in this issue of the *Review*.)

Productivity

Labor productivity, measured as output per hour in the private nonfarm business sector, is a critical contributing factor to GDP growth because greater productivity results in more output at a given level of employment. Increased output in turn results in declining prices, higher wages, increased profits, or some combination thereof, all of which contribute to improvements in living standards. U.S. productivity growth was relatively strong from 1996 to 2004, at 3.1 percent annually. Improvements in productivity over this period, especially before the 2001 recession, are generally agreed upon to have stemmed largely from information technology,[32] including advances in computing power, greater software efficiency, and sophistication of communication capabilities. Continued growth in productivity after the 2001 recession and through 2004 allowed firms to increase output without boosting their payrolls.

Between 2005 and 2009, productivity in the United States grew at a much slower rate of 1.4 percent annually. However, productivity is one area within the U.S. economy that has experienced a strong recovery since 2009, growing by an impressive 4.1 percent in 2010. Because productivity is a procyclical measure, much of the recovery from the recent recession is expected to have been completed by the end of 2010. Firms have yet to use their productivity gains to increase wages or to expand their workforces and instead have been holding on to profits. Although research is still needed to explain why recent recoveries have included rapid upturns in productivity accompanied by slower improvement in the labor markets, some preliminary results indicate that uncertainty may play an important role in this behavior.[33] BLS projects that productivity will grow by 2.0 percent per year over 2010–2020 (see table 11), slower than the growth experienced from the mid-1990s to the early 2000s, but similar to its long-run trend behavior. The strong projected GDP growth of 3.0 percent annually is therefore supported more through employment recovery than productivity growth.

Sensitivity analysis

Although the model's outcomes are based on an econometric approach developed by Macroeconomic Advisers, changing the expectations of certain exogenous variables necessarily results in a different economic projected growth path. BLS performed a sensitivity analysis examining the impact of changes to some exogenous variables on key outcomes of the model, particularly the effect on projected GDP. Long-term outlooks tend to rely heavily upon historical trends in the data. Therefore, changing most exogenous variables affects the model's outcomes only minimally; changing the values of demographic vari-

ables likely has the greatest effect.

The most important variable projected within the macromodel, for BLS purposes, is employment, because it serves as a constraint on the much more detailed projections of industries and occupations. As regards the aggregate employment projection, BLS tries to ensure risks to both the upside and downside. As the recovery progresses and the unemployment rate remains elevated, there seems to be growing support in the literature for assuming a long-term nonaccelerating inflation rate of unemployment higher than 5.2 percent. However, BLS expects that the labor force will grow by 0.7 percent annually over the coming decade, compared with 0.8 percent in 2000–2010 and 1.3 percent during 1990–2000. This slowed growth has important implications. To begin with, according to the structure of the equations in the macromodel, annual growth of 0.7 percent in the labor force requires a monthly increase in household employment of 140,100 over the decade in order to reach the assumed unemployment rate of 5.2 percent. If the labor force were to grow 0.1 percent faster—that is, by 0.8 percent annually—an additional employment increase of 13,000 per month, or 1.6 million additional workers over the decade, would be required.

In a similar vein, if the labor force were to grow by an additional 0.1 percent annually, the GDP solution within the macromodel also would be projected to grow by 0.1 percent faster per year from 2010 to 2020. In order to run this 0.1-percent-faster-labor-growth scenario and maintain the full-employment assumption, the real federal funds rate was adjusted to register 3.8 percent in 2020, lower than the assumed 4.5 percent within the published projections. Interest-rate-related measures fell accordingly. Other notable changes to the published results included a decline in the savings rate, which fell to 2.4 percent in 2020, compared with the published projection of 3.1 percent, and a retreat of the federal budget deficit to 2.9 percent of GDP rather than 3.6 percent of GDP.

Uncertainty and economic projections

The BLS macroeconomic projections are based on the model structure set up by Macroeconomic Advisers. This structure accommodates BLS expectations for certain key and exogenous variables. The results should be understood as a projection, not a forecast. The distinction is important: economic forecasts tend to foretell the near future and generally attempt to anticipate actual behavior, including the dynamics of the business cycle; projections, by contrast, tend to be longer in scope and do not attempt to forecast behavior, but rather focus on long-term growth

paths based on assumptions regarding certain variables. Understanding the purpose of BLS macroeconomic projections is important in interpreting the results.

The macroeconomic model sets the stage for publication of the more detailed BLS projections, including output and employment projections for nearly 200 industries and more than 700 occupations. A detailed projected input–output system is developed in order to determine commodity and industry output, which, in turn, is the key determinant of industry employment, broken out into occupations. The macromodel is intended to provide an accounting system for the employment and output projections, ensuring that models of detailed employment and output variables arrive at sound, defensible results for aggregate categories. The macroeconomic projections are generally finalized about 5 to 6 months ahead of publication, with only minor adjustments made afterwards. Wage and salary employment is held, at the whole, to the macroeconomic projection. Final demand categories, including consumption, investment, imports, exports, defense, nondefense, and State and local government, also are supplied by the macromodel and then disaggregated by other in-house models. The macromodel outcomes, in general, set up the framework for the discussion regarding more detailed results within the projections. For example, the number of light-vehicle sales from the model gives guidance in projecting automotive employment. Similarly, estimates of construction employment are dependent on housing starts and other construction-related projections produced by the model.

The macromodel projects that household employment will grow by 1.1 percent annually, from 139.1 million in 2010 to 155.9 million in 2020, adding 16.8 million workers over the coming decade. Nonfarm payroll employment is projected to increase slightly faster, at 1.4 percent per year, adding 19.7 million jobs between 2010 and 2020. According to both measures, employment is expected to recover from very slow growth or contraction that took place over the 2000–2010 decade, exhibiting growth slightly slower than that experienced between 1990 and 2000. On the basis of these employment results and a general expected recovery from a rather deep recession, GDP is projected to increase by 3.0 percent per year from 2010 to 2020. Underlying this growth in GDP, strong recovery is expected within the housing market, resulting in improved consumer confidence and, therefore, more spending. As the recovery takes hold and uncertainty subsides, businesses are expected to invest recent profits more heavily, increasing both employment and wages, in turn stimulating consumption further. The broad trade-weighted exchange rate of the U.S. dollar

is assumed to continue falling, contributing to a narrowing of the real trade deficit to $193.3 billion in 2020, less than half its 2010 reading. As tax revenues increase during the recovery, state and local governments are expected to grow by 1.8 percent annually from 2010 to 2020. Over the same period, federal government consumption and investment are each projected to decline by 0.7 percent annually as fiscal restraint takes hold after heightened expenditures in response to the 2007–2009 recession.

Projections are always subject to considerable uncertainty as the unexpected occurs, with unanticipated influences. However, the uncertainty surrounding the set of projections presented here is particularly elevated relative to past BLS projections, because of the severity of the 2007–2009 recession and unknown structural changes that may ensue. Specific examples are given in detail in the overview article.[34] With the points discussed there in mind, readers will be better able to grasp and appreciate the projections and estimates presented in this issue of the *Review*.   □

Notes

[1] According to the National Income and Product Accounts published by the Bureau of Economic Analysis (BEA) at the time of this publication, the recession was the deepest in the postwar period, as meas-ured by the decline in gross domestic product. The National Bureau of Economic Research, the arbiter of beginning and ending dates of U.S. recessions, has determined that the recession of 2007–2009 lasted 18 months. The 1973–1975 and 1981–1982 downturns each lasted 16 months. (See "US Business Cycle Expansions and Contractions," (Cambridge, MA, National Bureau of Economic Research, Jan. 19, 2012, updated daily), **http://www.nber.org/cycles/cyclesmain. html)**.

[2] See Carmen M. Reinhart and Kenneth Rogoff, *This Time Is Different: Eight Centuries of Financial Folly* (Princeton, NJ, Princeton University Press, 2009).

[3] Estimates of levels cited in this article are chain-weighted measures based on constant real 2005 dollars unless stated otherwise. For a discussion of the chain-weighting methodology, see J. Steven Landefeld and Robert P. Parker, "BEA's Chain Indexes, Time Series, and Measures of Long-Term Economic Growth," *Survey of Current Business*, May 1997, **http://www.bea.gov/scb/pdf/national/nipa/1997/0597od.pdf**.

[4] See, for example, "American Economic Policy: Running Out of Road," *The Economist*, June 16, 2011, **http://www.economist.com/node/18834323**; Andrew Tilton, "The Outlook for the U.S. Economy," white paper (New York, Goldman Sachs Asset Management, October 2011), **http://www2. goldmansachs.com/gsam/docs/fundsgeneral/general_education/ economic_and_market_perspectives/wp_economic_outlook.pdf**; and *Monetary Policy Report to the Congress, submitted pursuant to section 2B of the Federal Reserve Act* (Board of Governors of the Federal Reserve System, July 13, 2011), **http://federalreserve.gov/monetarypolicy/ files/20110713_mprfullreport.pdf**.

[5] As measured by corporate profits with inventory valuation and capital consumption adjustments within BEA's National Income and Product Accounts. (See Table 1.16, "Sources and Uses of Private Enterprise Income" (Bureau of Economic Analysis, Dec. 23, 2011), **http://www.bea.gov/national/index.htm#gdp**.)

[6] As measured by the Current Population Survey (CPS), a monthly survey of about 60,000 households conducted by the Census Bureau for the Bureau of Labor Statistics. The CPS provides a comprehensive body of data on the labor force, employment, unemployment, persons not in the labor force, hours of work, earnings, and other demographic and labor force characteristics.

[7] The overview article in this issue of the *Review* presents a detailed discussion of the impact of the recession on the BLS projections. (See Dixie Sommers and James C. Franklin, "Overview of projections to 2020," this issue, pp. 3–20, **http://www.bls.gov/opub/mlr/2012/01/**

art1full.pdf.)

[8] Macroeconomic Advisers developed, and continues to support, the Washington University Macro Model, used as a central analytical tool for both short- and long-term forecasts of the U.S. economy. BLS has relied on this model to prepare its economic projections since May 2002.

[9] BLS arrives at the target unemployment rate associated with a full-employment economy on the basis of an extensive literature review, as well as a consideration of both the nonaccelerating inflation rate of unemployment and unemployment estimates by a number of other agencies and firms, such as the Congressional Budget Office, the Federal Open Market Committee (which submits a monetary policy report to Congress), the Council of Economic Advisors (whose chairperson writes the *Economic Report of the President*), and Blue Chip. Among the research works reviewed were Mary Daly, Bart Hobijn, and Rob Valletta, "The Recent Evolution of the Natural Rate of Unemployment," IZA discussion paper no. 5832 (Bonn, IZA, July 2011), **http:// ftp.iza.org/dp5832.pdf**, and Rob Valletta and Katherine Kuang, "Is Structural Employment on the Rise?" *FRSBF Economic Letter* (San Francisco, Federal Reserve Bank, Nov. 8, 2010), **http://www.frbsf. org/publications/economics/letter/2010/el2010-34.html**. The first paper concludes that, although there has been a sizable short-term impact on the natural rate, considerable slack remains in the labor market and only about 0.5 percent will persist in 5 years, at which time the nonaccelerating inflation rate of unemployment will be 5.5 percent. The second paper finds that the recent uptick in the nonaccelerating inflation rate of unemployment can likely be explained by (1) Congress' extending the number of weeks a worker may receive unemployment insurance and (2) unemployed construction workers needing to find work in other sectors of the economy. As the authors state, "The effects of both of these factors are likely to be transitory rather than permanent."

[10] The federal funds rate is the Fed's target for the rate that banks charge other banks for overnight loans. (For more information, see "Open Market Operations" (Board of Governors of the Federal Reserve System, Jan. 26, 2010), **http://www.federalreserve.gov/ monetarypolicy/openmarket.htm**.)

[11] Based on monthly data on the effective federal funds rate reported by the Federal Reserve Bank of St. Louis. (See "Effective Federal Funds Rate (FEDFUNDS)," *Economic Research* (St. Louis, Federal Reserve Bank, Jan. 10, 2012), **http://research.stlouisfed.org/fred2/ series/FEDFUNDS**.)

[12] See "Press Release" (Board of Governors of the Federal Reserve System, Dec. 16, 2008), **http://www.federalreserve.gov/newsevents/ press/monetary/20081216b.htm**.

[13] See "Press Release" (Board of Governors of the Federal Reserve

System, Aug. 9, 2011), **http://www.federalreserve.gov/newsevents/press/monetary/20110809a.htm**.

[14] See "Table 2, Factors supplying reserve balances: overview," **http://www.federalreserve.gov/releases/h41/hist/h41hist2.pdf**.

[15] See "Monetary Policy Report to the Congress, submitted pursuant to section 2B of the Federal Reserve Act (Board of Governors of the Federal Reserve System, Mar. 1, 2011, **http://www.federalreserve.gov/monetarypolicy/mpr_20110301_part4.htm**.

[16] The Troubled Asset Relief Program (TARP), established in late 2008, initially authorized $700 billion in funds for the Treasury Department to purchase "troubled assets" in order to stabilize the financial system. As of March 2011, the Congressional Budget Office (CBO) estimated that $432 billion had been disbursed through the program. Already, $244 billion has been repaid, and CBO estimates that the final cost of the subsidy will be less than $20 billion. (For more information, see *Report on the Troubled Asset Relief Program* (Congressional Budget Office, March 2011), **http://www.cbo.gov/ftpdocs/121xx/doc12118/03-29-TARP.pdf**.)
The American Recovery and Reinvestment Act (ARRA) followed TARP as a fiscal stimulus measure. The act was originally estimated at nearly $800 billion, including tax cuts, increased spending on entitlement programs such as an extension of unemployment benefits, and spending on contracts, grants, and loans. (For a more detailed discussion of ARRA, see *The Economic Impact of the American Recovery and Reinvestment Act of 2009: Seventh Quarterly Report* (Executive Office of the President, Council of Economic Advisers, July 1, 2011), **http://www.whitehouse.gov/sites/default/files/cea_7th_arra_report.pdf?wwparam=1323202656**.)

[17] Historical data for the broad trade-weighted exchange rate for the U.S. dollar appear in Macroeconomic Advisers' database, where this variable corresponds to the Federal Reserve Board's broad nominal exchange rate index.

[18] For a further discussion of population and labor force projections, see Mitra Toossi, "Labor force projections to 2020: a more slowly growing workforce," this issue, pp. 43–64, **http://www.bls.gov/opub/mlr/2012/01/art2full.pdf**.

[19] For more information, see *Annual Energy Outlook 2011* (U.S. Energy Information Administration, Apr. 26, 2011), **http://www.eia.gov/forecasts/aeo/index.cfm**.

[20] See "Petroleum & Other Liquids: Monthly Cushing. OK WTI Spot Price FOB" (U.S. Energy Information Administration, Jan, 11, 2012), **http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=RWTC&f=M**.

[21] Under U.S. law, the Federal Open Market Committee, an arm of the Federal Reserve System, is charged with overseeing the Fed's buying and selling of United States Treasury securities.

[22] David Leonhardt, "We're Spent," *The New York Times*, July 16, 2011.

[23] In the National Income and Product Accounts, the personal savings rate is defined as the percentage of personal after-tax income that is neither spent on consumption, nor paid as interest, nor given to foreigners. The savings rate does not take into account gains from rising stock prices or the appreciation of owned homes. Thus, people's assets could be growing even as they spend more of their pay.

[24] See "The October 2011 Senior Loan Officer Opinion Survey on Bank Lending Practices" (The Federal Reserve Board, Nov. 7, 2011),

http://www.federalreserve.gov/boarddocs/snloansurvey/201111/default.htm.

[25] See "Employment Situation Summary," *Economic News Release* (U.S. Bureau of Labor Statistics, Jan. 6, 2012), **http://www.bls.gov/news.release/empsit.nr0.htm**.

[26] On the basis of national accounting identities, the national savings rate is calculated by adding the current-account balance (exports less imports, with net factor income added) to gross investment and dividing the resulting sum by GDP. In other words, the current-account balance is the mathematical difference of national savings and domestic investment. Thus, a decrease in the national savings rate reflects a widening of the external deficit.

[27] See *The Budget and Economic Outlook: An Update* (Congressional Budget Office, August 2011), p. 16, **http://cbo.gov/ftpdocs/123xx/doc12316/08-24-BudgetEconUpdate./pdf**. The macromodel assumes that current policy will be left in place during the next decade. Changes to law based on the outcome of the Budget Control Act's Committee on Deficit Reduction may alter the course of spending and cost growth for health care and other social programs.

[28] See "Testimony (Statement of Douglas W. Elmendorf, Director), CBO's Analysis of the Major Health Care Legislation Enacted in March 2010, before the Subcommittee on Health, Committee on Energy and Commerce, U.S. House of Representatives" (Congressional Budget Office, Mar. 30, 2011), p. 2, **http://www.cbo.gov/ftpdocs/121xx/doc12119/03-30-HealthCareLegislation.pdf**.

[29] Current military force levels are anticipated to continue over the next 10-year period. Current data appear in *National Defense Budget Estimates for FY 2012* (Office of the Under Secretary of Defense (Comptroller), March 2011), p. 45, **http://comptroller.defense.gov/defbudget/fy2012/FY12_Green_Book.pdf**.

[30] The consumer sector of the macromodel is built on a life-cycle model of household consumption and saving.

[31] Historical data on civilian household employment are a count of persons supplied by the CPS. Payroll employment data are a count of jobs and are based on the Current Employment Statistics (CES) survey, a BLS survey of establishments. Although the employment measures from the two surveys show similar trends over the long term, shorter term differences have arisen. (For further information, see Mary Bowler and Teresa L. Morisi, "Understanding the employment measures from the CPS and CES survey," *Monthly Labor Review*, February 2006, pp. 23–28, **http://www.bls.gov/opub/mlr/2006/02/art2full.pdf**. BLS maintains a monthly update on CES and CPS employment trends; see "Employment from the BLS household and payroll surveys: summary of recent trends" (U.S. Bureau of Labor Statistics, Jan. 6, 2012), **http://www.bls.gov/web/empsit/ces_cps_trends.pdf**.)

[32] See, for example, Dale W. Jorgenson, Mun S. Ho, and Kevin J. Stiroh, "A Retrospective Look at the U.S. Productivity Growth Resurgence," Staff Report no. 277 (New York, Federal Reserve Bank, February 2007), **http://www.newyorkfed.org/research/staff_reports/sr277.pdf**.

[33] See Edouard Schaal, "Uncertainty, Productivity and Unemployment in the Great Recession" (Princeton, NJ, Princeton University, Oct. 7, 2010), **http://www.princeton.edu/economics/seminar-schedule-by-prog/macro-f10/pdfs/schaal_job_market.pdf**.

[34] Sommers and Franklin, "Overview of projections."

NOTE: Corrections were made to this article on February 21, 2012. For details on these corrections, please see Errata at www.bls.gov/opub/mlr/2012/01/errata.pdf.

Employment outlook: 2010–2020

Labor force projections to 2020: a more slowly growing workforce

The projected labor force growth over the next 10 years will be affected by the aging of the baby-boom generation; as a result, the labor force is projected to grow at a slower rate than in the last several decades

Mitra Toossi

The recession of 2007–2009, a sluggish labor market, crises in the financial and credit markets, and weakness in the housing sector have combined to create great uncertainty about the future of the U.S. economy and labor market. However, despite all these problems, a positive force in the economy is the size and demographic composition of the U.S. population, which together determine the growth and composition of the labor force. As suggested by the saying "Demography is destiny,"[1] demography is a key driving force in the growth of the U.S. economy, the growth of the labor force, and almost all social and economic trends.

Compared with the labor force of the past decades, today's labor force is older, more racially and ethnically diverse, and composed of more women.[2] These trends are expected to continue to shape the future of the workforce; however, the U.S. labor force is expected to grow at a slightly slower rate than in previous decades. The annual growth rate of the U.S. labor force over the 2010–2020 period is projected to be 0.7 percent, lower than the 0.8-percent growth rate exhibited in the previous decade. The labor force is projected to increase by 10.5 million in the next decade, reaching 164.4 million in 2020. This 6.8-percent increase in the size of the labor force is lower than the 7.9-percent increase posted over the previous 10-year period, 2000–2010, when the labor force grew by 11.3 million. (See table 1.)

The slower growth of the labor force is primarily the result of a slower rate of growth in the U.S. population and a noticeable decrease in the labor force participation rate. The civilian noninstitutional population 16 years and older had an annual growth rate of 1.1 percent from 2000 to 2010, but is projected to grow by a lesser 1.0 percent during 2010–2020. (See table 2.) In addition, the labor force participation rate started a downward trend in 2000, and the decrease accelerated during the 2007–2009 recession and its aftermath. As a result, the labor force participation rate declined by 2.4 percentage points over the 2000–2010 period and is projected to drop by another 2.2 percentage points between 2010 and 2020. These two declining factors lead to a projected annual growth rate of only 0.7 percent for the labor force from 2010 to 2020, a 0.1-percent drop from the annual growth rate exhibited in the 2000–2010 timeframe. (See table 3.)

The projected labor force growth over the next 10 years will be affected by the aging of the baby-boom generation, persons born between 1946 and 1964. The baby boomers will be between the ages of 56 and 74 in 2020, placing them in the 55-years-and-older age group in the labor force, with distinctively lower

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Table 1.	Civilian labor force, by age, gender, race, and ethnicity, 1990, 2000, 2010, and projected 2020																
[Numbers in thousands]																	
Group	Level				Change			Percent change			Percent distribution				Annual growth rate (percent)		
	1990	2000	2010	2020	1990–2000	2000–2010	2010–2020	1990–2000	2000–2010	2010–2020	1990	2000	2010	2020	1990–2000	2000–2010	2010–2020
Total, 16 years and older	125,840	142,583	153,889	164,360	16,743	11,306	10,471	13.3	7.9	6.8	100.0	100.0	100.0	100.0	1.3	0.8	0.7
Age, years:																	
16 to 24	22,492	22,520	20,934	18,330	28	−1,586	−2,604	.1	−7.0	−12.4	17.9	15.8	13.6	11.2	.0	−.7	−1.3
25 to 54	88,322	101,394	102,940	104,619	13,072	1,546	1,679	14.8	1.5	1.6	70.2	71.1	66.9	63.7	1.4	.2	.2
55 and older	15,026	18,669	30,014	41,411	3,643	11,345	11,397	24.2	60.8	38.0	11.9	13.1	19.5	25.2	2.2	4.9	3.3
Gender:																	
Men	69,011	76,280	81,985	87,128	7,269	5,705	5,143	10.5	7.5	6.3	54.8	53.5	53.3	53.0	1.0	.7	.6
Women	56,829	66,303	71,904	77,232	9,474	5,601	5,328	16.7	8.4	7.4	45.2	46.5	46.7	47.0	1.6	.8	.7
Race:																	
White	107,447	118,545	125,084	130,516	11,098	6,539	5,432	10.3	5.5	4.3	85.4	83.1	81.3	79.4	1.0	.5	.4
Black	13,740	16,397	17,862	19,676	2,657	1,465	1,814	19.3	8.9	10.2	10.9	11.5	11.6	12.0	1.8	.9	1.0
Asian	4,653	6,270	7,248	9,430	1,617	978	2,182	34.8	15.6	30.1	3.7	4.4	4.7	5.7	3.0	1.5	2.7
All other groups[1]	–	1,371	3,694	4,738	–	2,323	1,044	–	169.4	28.3	–	1.0	2.4	2.9	–	10.4	2.5
Ethnicity:																	
Hispanic origin	10,720	16,689	22,748	30,493	5,969	6,059	7,745	55.7	36.3	34.0	8.5	11.7	14.8	18.6	4.5	3.1	3.0
Other than Hispanic origin	115,120	125,894	131,141	133,867	10,774	5,247	2,726	9.4	4.2	2.1	91.5	88.3	85.2	81.4	.9	.4	.2
White non-Hispanic	97,818	102,729	103,947	102,371	4,911	1,218	−1,576	5.0	1.2	−1.5	77.7	72.0	67.5	62.3	.5	.1	−.2
Age of baby boomers	26 to 44	36 to 54	46 to 64	56 to 74	…	…	…	…	…	…	…	…	…	…	…	…	…

[1] The "all other groups" category includes (1) those classified as being of multiple racial origin and (2) the racial categories of (2a) American Indian and Alaska Native and (2b) Native Hawaiian and Other Pacific Islanders.

NOTE: Dash indicates no data collected for category. Details may not sum to totals because of rounding.
SOURCE: U.S. Bureau of Labor Statistics.

participation rates than those of the prime age group of 25-to-54-year-olds.

Changes in the labor force participation rate are generally gradual, and population growth is the chief factor in the growth of the labor force. However, during the recent recession, the aggregate labor force participation rate also decreased noticeably and affected the growth of the labor force. In the early days of the recession, in 2008, the aggregate participation rate was 66.0 percent. In 2009 the overall participation rate dropped by 0.6 percentage point, to 65.4 percent, and in 2010 it decreased even further, by another 0.7 percentage point, to 64.7 percent.

The Bureau of Labor Statistics (BLS) produces its labor force projections by multiplying the civilian noninstitutional population projections by the labor force participation rate projections. As a result, changes projected in the aggregate labor force are the reflection of changes in both the labor force participation rate and changes in the age, gender, racial, and ethnic composition of the population.

This article projects and profiles U.S. labor force trends in the next 10 years. First, on the basis of historical population data and projections from the U.S. Census Bureau, past and future trends in the U.S. population are discussed. Then, current and future estimates of labor force participation rates are presented for detailed age, gender, racial, and ethnic groups. Finally, the median age of the labor force for

the different racial and ethnic groups is examined, along with the economic dependency ratio.

U.S. population

The 2010 census measured the U.S. resident population at 308.7 million, an increase of 27.3 million people over a decade. In addition to counting the population every 10 years, the Census Bureau calculates annual population estimates and periodically produces long-term projections of the U.S. resident population by age, gender, race, and ethnicity.[3] These projections illustrate the demographic forces that are expected to shape the future of the U.S. resident population. Specifically, the U.S. population is expected to get larger, to continue growing at a slower rate, to grow older, and to become more diverse.

Larger population.   The Census Bureau projects that the U.S. resident population will grow from 308.7 million in 2010 to 341.4 million in 2020, an increase of 32.7 million people in 10 years.

Slower growth.   Even though the resident population will grow by large numbers, the annual rate of growth is projected to slow from 0.98 percent during 2009–2010 to 0.94 percent over the 2019–2020 period. The slower rate of growth is primarily the result of the aging of the U.S. population.

Older population.   A significant factor shaping the future demographics of the U.S. population is the increase in older population cohorts. In 2020, the 55–years-and-older age group will total 97.8 million, composing 28.7 percent of the 2020 resident population, compared with 24.7 percent in 2010.

A more diverse population.   Immigration has a major role in the growth and makeup of the racial and ethnic composition of the U.S. resident population. Every race and ethnicity is projected to grow over the 2010–2020 period. However, the *share* of White non-Hispanics in the total resident population is expected to decrease.

The Census Bureau provides projections of the resident population and the demographic components of change: births, deaths, and international migration by age, gender, race, and ethnicity. These population projections start from the 2000 Decennial Census and are estimated by means of a cohort component method.[4] Race and ethnicity are tabulated according to Office of Management and Budget guidelines.[5]

1. *Fertility.*   The total fertility rate, which is the average number of children born to a woman over the course of her life, is often the largest component of population change and has the greatest impact on the level and growth of the population.[6] Fertility is derived from the behavioral choices people make in planning their future. Even a minor change in the fertility rate, maintained over a long time, can have a great impact on future population growth. Higher fertility rates result in higher population growth, a lower median age, and a larger share of the population for younger age groups. Assumptions about the fertility rate affect estimates of the labor force with a lag of roughly 16 years, given that the definition of the labor force encompasses only those members of the civilian noninstitutional population 16 years and older who are employed or unemployed and are looking for a job.

In the most recent Census Bureau projection of the resident population, used as the basis of the BLS labor force projections, the future fertility rate is assumed to remain close to the present level, roughly the replacement level of 2.1. Differences in fertility rates among various racial and ethnic groups cause different growth patterns in specific population groups. Compared with other developed countries, the United States has a rather high fertility rate, primarily a result of higher fertility rates among young immigrants of different racial and ethnic backgrounds. However, this differential in fertility rates ultimately converges to the fertility rate of the native population in the second generation of immigrants.

2. *Mortality.*   With changes in the health habits of individuals and continual progress in medicine and technology, the life expectancy of the U.S. population is expected to continue to increase.[7] In developed countries, mortality happens largely at the very old age cohorts, when people are mostly out of the labor force. As a result, mortality has a lesser effect on the working-age population than fertility has. The Census Bureau projects falling mortality rates and increasing life expectancies for the U.S. population, due primarily to a significant reduction in deaths from infectious diseases, heart conditions, strokes, and cancer. According to the Census Bureau, mortality rates of second-generation immigrants are projected to converge to that of the general population by 2075.

3. *Immigration.*   Among the three sources of population growth, immigration is the most volatile, and thus hardest, to project. Immigration can be affected by sweeping changes in immigration policies or by events that happen in other parts of the world, encouraging or discouraging

more immigration to the United States. The immigration assumption is a major determinant of population projections and plays a significant role in the growth and composition of the labor force. Immigration is also the main source of diversity in both the population and the labor force. According to the Census Bureau's population projections used in the 2010–2020 projections of the labor force, net immigration to the United States is expected to add 1.4 million people annually to the U.S. resident population. This figure is a sharp increase over the roughly 800,000 immigrants per year projected in 2004 by the Census Bureau's previous long-term projections of the resident population. As the projected number of immigrants to the United States nearly doubles, a substantial change will occur in both the size and composition of the population. As with previous Census Bureau projections, assumptions about immigration are not constrained by any current policy on international migration patterns. The assumptions on immigration were developed with the use of a historical time series of data on the age, gender, race, and ethnicity of immigrants.[8]

Civilian noninstitutional population

The Bureau of Labor Statistics converts the resident population projections of the Census Bureau to projections of the civilian noninstitutional population for use in BLS labor force projections.[9] The conversion takes place in four steps. First, the population of children under age 16 is subtracted from the total U.S. resident population, to yield the U.S. resident population 16 years and older. Second, estimates of the Armed Forces by age, gender, racial, and ethnic categories are subtracted from the U.S. resident population 16 years and older, giving the total civilian population.[10] Then, on the basis of Census Bureau data on the U.S. institutional population, and under another set of assumptions about the institutionalization rates of the different categories of population, an estimate of the civilian noninstitutional population is derived from that of the civilian population for the years covered by the BLS projections. Finally, the resulting estimate of the civilian noninstitutional population is benchmarked to the latest annual averages of civilian noninstitutional population data from the Current Population Survey.[11]

Table 2 provides snapshots of the U.S. civilian noninstitutional population and its composition by age, gender, race, and ethnicity, historically from 1990 through 2010 and projected for 2020. The civilian noninstitutional population was 189.2 million in 1990 and 212.6 million

in 2000. It grew by 1.1 percent annually over the 2000–2010 period, reaching 237.8 million in 2010, an increase of 25.3 million people over the 2000 figure. The civilian noninstitutional population is projected to grow by 1.0 percent annually, an increase of another 25.3 million, during 2010–2020, reaching 263.0 million in the latter year.

Age.   Table 2 highlights the share of the youth, prime-age, and older age groups in the total civilian noninstitutional population. The 16-to-24-year-old group's share declined from 17.7 percent in 1990 to 16.0 percent in 2010. This age cohort is projected to have no growth over the 2010–2020 period, and its share of the civilian noninstitutional population is expected to decline even further during that same timeframe, reaching 14.5 percent in 2020.

The 25-to-54-year-old age group's share of the total civilian noninstitutional population was 56.8 percent in 2000, dropped to 52.7 percent in 2010, and is projected to drop further, to 48.9 percent in 2020. The so-called baby-bust generation is the generation following the baby boomers and comprises the age cohorts that reflect the drop in birthrates that took place from 1965 through 1975. In the years from 2010 to 2020, the baby-bust cohorts will be in the prime age group 25 to 54 years old. In 2010, the baby busters were between the ages of 35 and 45 and were a much smaller cohort than the baby boomers, further lowering the growth of the civilian noninstitutional population and the labor force. In 2020, the baby busters will be ages 45 to 55. Table 2 shows clearly the path of the decline of the baby buster cohort. The group fell by 1.0 percent over the 1990–2000 timeframe, when they were 25 to 34 years old. Then, from 2000 to 2010, when they were 35 to 44 years old, the baby busters again declined by 1.0 percent. They are projected to drop by 0.8 percent during 2010–2020, when they will be between the ages of 45 and 54. The 35-to-44-year-olds' share of the population is expected to decrease from 20.8 percent in 2000 to 16.2 percent in 2020. The 45-to-54-year-olds' share is projected to decrease from 18.6 percent in 2010 to 15.6 percent in 2020.

By contrast, the 55-years-and-older age group increased its relative share, from 26.4 percent in 1990 to 27.1 percent in 2000. A decade later, in 2010, this group's share of the total civilian noninstitutional population increased to 31.4 percent. It is expected that the share will grow to 36.6 percent in 2020.

The aging of the baby-boom generation increases the shares of the older age groups in the population. The oldest baby boomers celebrated their 65th birthdays in 2011. In 2020, the entirety of this huge generation will be older

| Table 2. | Civilian noninstitutional population, by age, gender, race, and ethnicity, 1990, 2000, 2010, and projected 2020 |

[Numbers in thousands]

Group	Level				Change			Annual growth rate			Percent distribution			
	1990	2000	2010	2020	1990–2000	2000–2010	2010–2020	1990–2000	2000–2010	2010–2020	1990	2000	2010	2020
Total, 16 years and older	189,164	212,577	237,830	263,009	23,413	25,253	25,179	1.2	1.1	1.0	100.0	100.0	100.0	100.0
16 to 24	33,421	34,223	37,948	38,055	802	3,725	107	.2	1.0	.0	17.7	16.1	16.0	14.5
16 to 19	14,520	15,912	16,901	17,131	1,392	989	230	.9	.6	.1	7.7	7.5	7.1	6.5
20 to 24	18,902	18,311	21,047	20,924	−591	2,736	−123	−.3	1.4	−.1	10.0	8.6	8.8	8.0
25 to 54	105,777	120,657	125,291	128,665	14,880	4,634	3,374	1.3	.4	.3	55.9	56.8	52.7	48.9
25 to 34	42,976	38,704	40,903	45,215	−4,272	2,199	4,312	−1.0	.6	1.0	22.7	18.2	17.2	17.2
35 to 44	37,719	44,312	40,090	42,534	6,593	−4,222	2,444	1.6	−1.0	.6	19.9	20.8	16.9	16.2
45 to 54	25,081	37,641	44,297	40,916	12,560	6,656	−3,381	4.1	1.6	−.8	13.3	17.7	18.6	15.6
55 and older	49,966	57,696	74,591	96,289	7,730	16,895	21,698	1.4	2.6	2.6	26.4	27.1	31.4	36.6
55 to 64	20,720	24,230	35,885	42,600	3,510	11,655	6,715	1.6	4.0	1.7	11.0	11.4	15.1	16.2
65 to 74	17,648	18,212	21,122	32,032	564	2,910	10,910	.3	1.5	4.3	9.3	8.6	8.9	12.2
75 and older	11,598	15,254	17,585	21,657	3,656	2,331	4,072	2.8	1.4	2.1	6.1	7.2	7.4	8.2
Men, 16 years and older	90,377	101,964	115,174	127,711	11,587	13,210	12,537	1.2	1.2	1.0	47.8	48.0	48.4	48.6
16 to 24	16,667	17,190	19,128	19,145	523	1,938	17	.3	1.1	.0	8.8	8.1	8.0	7.3
16 to 19	7,347	8,089	8,578	8,659	742	489	81	1.0	.6	.1	3.9	3.8	3.6	3.3
20 to 24	9,320	9,101	10,550	10,486	−219	1,449	−64	−.2	1.5	−.1	4.9	4.3	4.4	4.0
25 to 54	51,884	59,155	61,986	64,030	7,271	2,831	2,044	1.3	.5	.3	27.4	27.8	26.1	24.3
25 to 34	21,117	19,106	20,465	22,644	−2,011	1,359	2,179	−1.0	.7	1.0	11.2	9.0	8.6	8.6
35 to 44	18,529	21,684	19,807	21,134	3,155	−1,877	1,327	1.6	−.9	.7	9.8	10.2	8.3	8.0
45 to 54	12,238	18,365	21,713	20,252	6,127	3,348	−1,461	4.1	1.7	−.7	6.5	8.6	9.1	7.7
55 and older	21,826	25,619	34,060	44,536	3,793	8,441	10,476	1.6	2.9	2.7	11.5	12.1	14.3	16.9
55 to 64	9,778	11,583	17,291	20,611	1,805	5,708	3,320	1.7	4.1	1.8	5.2	5.4	7.3	7.8
65 to 74	7,776	8,217	9,758	14,928	441	1,541	5,170	.6	1.7	4.3	4.1	3.9	4.1	5.7
75 and older	4,273	5,819	7,011	8,998	1,546	1,192	1,987	3.1	1.9	2.5	2.3	2.7	2.9	3.4
Women, 16 years and older	98,787	110,613	122,656	135,298	11,826	12,043	12,642	1.1	1.0	1.0	52.2	52.0	51.6	51.4
16 to 24	16,754	17,034	18,820	18,909	280	1,786	89	.2	1.0	.0	8.9	8.0	7.9	7.2
16 to 19	7,173	7,823	8,323	8,471	650	500	148	.9	.6	.2	3.8	3.7	3.5	3.2
20 to 24	9,582	9,211	10,497	10,438	−371	1,286	−59	−.4	1.3	−.1	5.1	4.3	4.4	4.0
25 to 54	53,893	61,502	63,305	64,635	7,609	1,803	1,330	1.3	.3	.2	28.5	28.9	26.6	24.6
25 to 34	21,859	19,598	20,438	22,572	−2,261	840	2,134	−1.1	.4	1.0	11.6	9.2	8.6	8.6
35 to 44	19,190	22,628	20,282	21,400	3,438	−2,346	1,118	1.7	−1.1	.5	10.1	10.6	8.5	8.1
45 to 54	12,843	19,276	22,584	20,664	6,433	3,308	−1,920	4.1	1.6	−.9	6.8	9.1	9.5	7.9
55 and older	28,139	32,077	40,531	51,753	3,938	8,454	11,222	1.3	2.4	2.5	14.9	15.1	17	19.7
55 to 64	10,942	12,647	18,594	21,989	1,705	5,947	3,395	1.5	3.9	1.7	5.8	5.9	7.8	8.4
65 to 74	9,872	9,995	11,363	17,105	123	1,368	5,742	.1	1.3	4.2	5.2	4.7	4.8	6.5
75 and older	7,325	9,435	10,574	12,659	2,110	1,139	2,085	2.6	1.1	1.8	3.9	4.4	4.4	4.8
White,16 years and older	160,625	176,220	192,075	207,693	15,595	15,855	15,618	.9	.9	.8	84.9	82.9	80.8	79
Men	77,369	85,370	94,082	102,057	8,001	8,712	7,975	1	1	.8	40.9	40.2	39.6	38.8
Women	83,256	90,850	97,993	105,636	7,594	7,143	7,643	.9	.8	.8	44	42.7	41.2	40.2

See notes at end of table.

Table 2. Continued—Civilian noninstitutional population, by age, gender, race, and ethnicity, 1990, 2000, 2010, and projected 2020

[Numbers in thousands]

Group	Level				Change			Annual growth rate			Percent distribution			
	1990	2000	2010	2020	1990–2000	2000–2010	2010–2020	1990–2000	2000–2010	2010–2020	1990	2000	2010	2020
Black, 16 years and older	21,477	24,901	28,708	32,650	3,424	3,807	3,942	1.5	1.4	1.3	11.4	11.7	12.1	12.4
Men	9,573	11,129	12,939	14,894	1,556	1,810	1,955	1.5	1.5	1.4	5.1	5.2	5.4	5.7
Women	11,904	13,772	15,769	17,756	1,868	1,997	1,987	1.5	1.4	1.2	6.3	6.5	6.6	6.8
Asian, 16 years and older	7,062	9,330	11,199	14,952	2,268	1,869	3,753	2.8	1.8	2.9	3.7	4.4	4.7	5.7
Men	3,434	4,420	5,315	6,995	986	895	1,680	2.6	1.9	2.8	1.8	2.1	2.2	2.7
Women	3,628	4,910	5,884	7,957	1,282	974	2,073	3.1	1.8	3.1	1.9	2.3	2.5	3.0
All other racial groups[1]	–	2,126	5,847	7,714	–	3,721	1,867	–	10.6	2.8	–	.9	2.5	2.9
Men	–	1,045	2,838	3,765	–	1,793	927	–	10.5	2.9	–	.4	1.2	1.4
Women	–	1,081	3,009	3,949	–	1,928	940	–	10.8	2.8	–	.5	1.3	1.5
Hispanic origin, 16 years and older	15,904	23,938	33,713	46,067	8,034	9,775	12,354	4.2	3.5	3.2	8.4	11.3	14.2	17.5
Men	8,041	12,174	17,359	23,540	4,133	5,185	6,181	4.2	3.6	3.1	4.3	5.7	7.3	9.0
Women	7,863	11,764	16,353	22,527	3,901	4,589	6,174	4.1	3.3	3.3	4.2	5.5	6.9	8.6
Other than Hispanic origin, 16 years and older	173,260	188,639	204,117	216,942	15,379	15,478	12,825	.9	.8	.6	91.6	88.7	85.8	82.5
Men	82,336	89,790	97,815	104,171	7,454	8,025	6,356	.9	.9	.6	43.5	42.2	41.1	39.6
Women	90,924	98,849	106,303	112,771	7,925	7,454	6,468	.8	.7	.6	48.1	46.5	44.7	42.9
White non–Hispanic, 6 years and older	146,535	153,506	160,811	165,024	6,971	7,305	4,213	.5	.5	.3	77.5	72.2	67.6	62.7
Men	70,220	73,811	77,925	80,199	3,591	4,114	2,274	.5	.5	.3	37.1	34.7	32.8	30.5
Women	76,315	79,695	82,886	84,825	3,380	3,191	1,939	.4	.4	.2	40.3	37.5	34.9	32.3
Age of baby-boomers	26 to 44	36 to 54	46 to 64	56 to 74	…	…	…	…	…	…	…	…	…	…

    [1] The "all other groups" category includes (1) those classified as being of multiple racial origin and (2) the racial categories of (2a) American Indian and Alaska Native and (2b) Native Hawaiian and Other Pacific Islanders.

    NOTE: Dash indicates no data collected for category. Details may not sum to totals because of rounding.
    SOURCE: U.S. Bureau of Labor Statistics.

than 55 years of age.

Gender. The civilian noninstitutional population of men stood at 115.2 million in 2010 and is projected to be 127.7 million in 2020, an annual growth rate of 1.0 percent over the 2010–2020 period. The civilian noninstitutional population of women was 122.7 million in 2010 and is projected to be 135.3 million in 2020, also an annual growth rate of 1.0 percent over the same period and an increase of 12.6 million. The civilian noninstitutional population of women in the 55-years-and-older cohort was 6.5 million more than men in 2010 and is expected to be 7.2 million more in 2020. So, as the population shifts to higher age groups, the population of older women will be increasing at a considerably higher rate than that of older men.

Diversity. Table 2 also clearly highlights the diversity in the civilian noninstitutional population. Minorities' growing shares of that population have been an ongoing trend in the past several decades and are reflected in the Census Bureau and BLS projections of the U.S. population and labor force. Asians and Hispanics are projected to continue to grow much faster than White non-Hispanics.

The rate of growth of the Hispanic population is expected to be the highest of all racial and ethnic groups.

The civilian noninstitutional population of Hispanics was 15.9 million in 1990 and 23.9 million in 2000. From 2000 to 2010, their number increased by nearly 10 million, reaching 33.7 million in the latter year. BLS projects that the group will increase by another 12.4 million, to reach more than 46 million in 2020. The Hispanic share of the total civilian noninstitutional population will have increased from 11.3 percent in 2000 to 17.5 percent in 2020. Hispanic immigrants to the United States are mostly in younger age groups, and their entry into the country lowers the median age of the working-age population. The high fertility rate of Hispanics offsets the slow growth of the native-born population and increases the overall U.S. fertility rate.

BLS also projects that the Asian population will grow by 2.9 percent between 2010 and 2020 and increase the Asian share of the total civilian noninstitutional population to 5.7 percent. In contrast, the share of White non-Hispanics is projected to decline over the same period. The White non-Hispanic share of the total civilian noninstitutional population was 77.5 percent in 1990, declined to 72.2 percent in 2000, and fell to a low of 67.6 percent in 2010. The group's share is projected to decrease further, to 62.7 percent in 2020. The Black share of the total civilian noninstitutional population is expected to grow little, from 12.1 percent in 2010 to 12.4 percent in 2020.

Labor force participation rate

The overall labor force participation rate peaked at 67.1 percent from 1997 to 2000 and then declined during the recession of 2001. Unlike its behavior in previous downturns, in which it would soon return to the prerecession level, the labor force participation rate continued to decline after the 2001 recession and then held steady at 66.0 percent from 2004 to 2008, with a small uptick to 66.2 percent in 2006. In the 2007–2009 recession, the overall labor force participation rate experienced a sharp drop, to 65.4 percent in 2009. In 2010, it came in at 64.7 percent, a further decrease of 0.7 percentage point. (See table 3.)

A number of factors are responsible for the downward pressure on participation rates. These factors affect the rates in various ways.

Demographic and structural changes. The aging of the U.S population is a prime example of a demographic change that will affect the labor force participation rate and, hence, the labor force itself. As the baby-boom generation has aged and moved from the prime age group, with high participation rates, to the older age groups, with significantly lower labor force participation rates, the overall labor force participation rate has declined. This trend is expected to continue and even accelerate in the 2010–2020 timeframe.

The demographic composition of the population directly affects the demographic composition of the labor force. In 1990, 11.9 percent of the labor force was 55 years and older. (See table 1.) Over the 1990–2000 timeframe, the share of the older labor force increased to 13.1 percent. In 2010, the share increased again, to 19.5 percent. BLS projects that the share of the 55-years-and-older labor force will increase to 25.2 percent in 2020. In 2000, baby boomers were ages 36 to 54 and all of them were in the prime age group of 25 to 54 years—the group with the highest participation rates. With the passage of every year after 2000, a segment of the baby-boom population has moved from the prime age group, with a high participation rate of 82.2 percent in 2010, to the 55-years-and-older age category, with a much lower participation rate of 40.2 percent in 2010, causing the overall participation rate to drop. (see table 3.) In other words, the U.S. labor market is currently experiencing a negative demographic effect in which a large segment of the population is moving from an age group with higher participation rates to an older age group with lower participation rates, resulting in a slowdown in the growth of the labor force. In addition, the baby bust is reinforcing this slowdown because fewer people are entering the labor force from that age cohort.

With the aging of the baby-boom generation, the older age cohorts are expected to make up a much larger share of both the population and the labor force. Because age is a major factor in the labor supply, the aging of the U.S. population will affect the growth of the labor force by lowering labor force participation rates.

Two long-term labor force projections have been published by BLS since 2000.[12] Even before the impact of the most recent recession was felt, both of these studies projected slower growth of the labor force participation rate and, consequently, the labor force. The increasing shares of workers in the 55-years–and-older age group is a structural force that will continue over the 2010–2020 period, dramatically lowering both the overall participation rate and the growth of the labor force.

Cyclical changes. Cyclical factors such as economic expansions and recessions cause short-term changes in labor force participation rates, which usually increase in expan-

| Table 3. | Civilian labor force participation rates, by age, gender, race, and ethnicity, 1990, 2000, 2010, and projected 2020 |

[In percent]

Group	Participation rate				Percentage–point change			Annual growth rate		
	1990	2000	2010	2020	1990–2000	2000–2010	2010–2020	1990–2000	2000–2010	2010–2020
Total, 16 years and older	66.5	67.1	64.7	62.5	0.6	–2.4	–2.2	0.1	0–.4	–0.3
16 to 24	67.3	65.4	55.2	48.2	–1.9	–10.2	–7.0	–.3	–1.7	–1.3
16 to 19	53.7	52.0	34.9	26.5	–1.7	–17.1	–8.4	–.3	–3.9	–2.7
20 to 24	77.8	77.8	71.4	65.9	.0	–6.4	–5.5	.0	–.9	–.8
25 to 54	83.5	84.0	82.2	81.3	.5	–1.8	–.9	.1	–.2	–.1
25 to 34	83.6	84.6	82.2	80.6	1.0	–2.4	–1.6	.1	–.3	–.2
35 to 44	85.2	84.8	83.2	82.6	–.4	–1.6	–.6	.0	–.2	–.1
45 to 54	80.7	82.5	81.2	80.8	1.8	–1.3	–.4	.2	–.2	.0
55 and older	30.1	32.4	40.2	43.0	2.3	7.8	2.8	.7	2.2	.7
55 to 64	55.9	59.3	64.9	68.8	3.4	5.6	3.9	.6	.9	.6
55 to 59	67.0	68.9	73.3	76.3	1.9	4.4	3.0	.3	.6	.4
60 to 64	44.8	47.2	55.2	60.9	2.4	8.0	5.7	.5	1.6	1.0
60 to 61	55.1	57.1	62.5	64.2	2.0	5.4	1.7	.4	.9	.3
62 to 64	38.0	40.2	49.8	58.5	2.2	9.6	8.7	.6	2.2	1.6
65 and older	11.8	12.9	17.4	22.6	1.1	4.5	5.2	.9	3.0	2.6
65 to 74	16.7	19.2	25.7	31.0	2.5	6.5	5.3	1.4	3.0	1.9
65 to 69	21.0	24.5	31.5	37.8	3.5	7.0	6.3	1.6	2.5	1.8
70 to 74	11.3	13.5	18.0	22.8	2.2	4.5	4.8	1.8	2.9	2.4
75 and older	4.3	5.3	7.4	10.0	1.0	2.1	2.6	2.1	3.4	3.1
75 to 79	6.1	7.5	10.9	15.2	1.4	3.4	4.3	2.1	3.8	3.4
Men, 16 years and older	76.4	74.8	71.2	68.2	–1.6	–3.6	–3.0	–.2	–.5	–.4
16 to 24	71.8	68.6	56.8	50.6	–3.2	–11.8	–6.2	–.5	–1.9	–1.1
16 to 19	55.7	52.8	34.9	27.9	–2.9	–17.9	–7.0	–.5	–4.1	–2.2
20 to 24	84.4	82.6	74.5	69.4	–1.8	–8.1	–5.1	–.2	–1.0	–.7
25 to 54	93.4	91.6	89.3	88.1	–1.8	–1.9	–1.6	–.2	–.2	–.2
25 to 34	94.1	93.4	90.3	86.9	–.7	–3.1	–3.4	–.1	–.3	–.4
35 to 44	94.3	92.7	91.5	91.3	–1.6	–1.2	–.2	–.2	–.1	.0
45 to 54	90.7	88.6	86.8	86.0	–2.1	–1.8	–.8	–.2	–.2	–.1
55 and older	39.4	40.1	46.4	47.3	.7	6.3	.9	.2	1.5	.2
55 to 64	67.8	67.3	70.0	71.1	–.5	2.7	1.1	–.1	.4	.2
55 to 59	79.9	77.1	78.5	78.6	–2.8	1.4	.1	–.4	.2	.0
60 to 64	55.5	55.0	60.0	63.2	–.5	5.0	3.2	–.1	.9	.5
60 to 61	68.8	66.0	67.4	62.9	–2.8	1.4	–4.5	–.4	.2	–.7
62 to 64	46.5	47.0	54.6	63.4	.5	7.6	8.8	.1	1.5	1.5
65 and older	16.3	17.7	22.1	26.7	1.4	4.4	4.6	.8	2.2	1.9
65 to 74	21.4	24.6	30.4	35.1	3.2	5.8	4.7	1.4	2.1	1.4
65 to 69	26.0	30.3	36.5	41.4	4.3	6.2	4.9	1.5	1.9	1.3
70 to 74	15.4	18.0	22.0	27.0	2.6	4.0	5.0	1.6	2.0	2.1
75 and older	7.1	8.1	10.4	12.8	1.0	2.3	2.4	1.3	2.5	2.1
75 to 79	9.5	10.7	14.5	18.2	1.2	3.8	3.7	1.2	3.1	2.3
Women, 16 years and older	57.5	59.9	58.6	57.1	2.4	–1.3	–1.5	.4	–.2	–0.3
16 to 24	62.9	63.0	53.6	45.7	.1	–9.4	–7.9	.0	–1.6	–1.6
16 to 19	51.6	51.2	35.0	25.2	–.4	–16.2	–9.8	–.1	–3.7	–3.2
20 to 24	71.3	73.1	68.3	62.3	1.8	–4.8	–6.0	.2	–.7	–.9
25 to 54	74.0	76.7	75.2	74.6	2.7	–1.5	–.6	.4	–.2	–.1
25 to 34	73.5	76.1	74.7	74.2	2.6	–1.4	–.5	.3	–.2	–.1
35 to 44	76.4	77.2	75.2	74.0	.8	–2.0	–1.2	.1	–.3	–.2
45 to 54	71.2	76.8	75.7	75.7	5.6	–1.1	.0	.8	–.1	.0

See notes at end of table.

Table 3. Continued—Civilian labor force participation rates, by age, gender, race, and ethnicity, 1990, 2000, 2010, and projected 2020

[In percent]

Group	Participation rate				Percentage–point change			Annual growth rate		
	1990	2000	2010	2020	1990–2000	2000–2010	2010–2020	1990–2000	2000–2010	2010–2020
55 and older	22.9	26.1	35.1	39.3	3.2	9.0	4.2	1.3	3.0	1.1
55 to 64	45.2	51.9	60.2	66.6	6.7	8.3	6.4	1.4	1.5	1.0
55 to 59	55.3	61.4	68.4	74.1	6.1	7.0	5.7	1.1	1.1	.8
60 to 64	35.5	40.2	50.7	58.8	4.7	10.5	8.1	1.3	2.3	1.5
60 to 61	42.9	49.0	58.0	65.4	6.1	9.0	7.4	1.3	1.7	1.2
62 to 64	30.7	34.1	45.3	54.1	3.4	11.2	8.8	1.1	2.9	1.8
65 and older	8.6	9.4	13.8	19.2	.8	4.4	5.4	.9	3.9	3.4
65 to 74	13.0	14.9	21.6	27.5	1.9	6.7	5.9	1.4	3.8	2.4
65 to 69	17.0	19.5	27.0	34.5	2.5	7.5	7.5	1.4	3.3	2.5
70 to 74	8.2	10.0	14.7	19.2	1.8	4.7	4.5	2.0	3.9	2.7
75 and older	2.7	3.6	5.3	8.0	.9	1.7	2.7	2.9	3.9	4.2
75 to 79	3.9	5.3	8.2	13.0	1.4	2.9	4.8	3.1	4.5	4.7
Race:										
White	66.9	67.3	65.1	62.8	.4	−2.2	−2.3	.1	−.3	−.4
Men	77.1	75.5	72.0	69.0	−1.6	−3.5	−3.0	−.2	−.5	−.4
Women	57.4	59.5	58.5	56.9	2.1	−1.0	−1.6	.4	−.2	−.3
Black	64.0	65.8	62.2	60.3	1.8	−3.6	−1.9	.3	−.6	−.3
Men	71.1	69.2	65.0	63.1	−1.9	−4.2	−1.9	−.3	−.6	−.3
Women	58.3	63.1	59.9	57.9	4.8	−3.2	−2.0	.8	−.5	−.3
Asian	65.4	67.2	64.7	63.1	1.8	−2.5	−1.6	.3	−.4	−.3
Men	75.0	76.1	73.2	71.0	1.1	−2.9	−2.2	.1	−.4	−.3
Women	57.4	59.2	57.0	56.1	1.8	−2.2	−.9	.3	−.4	−.2
All other race groups[1]	–	–	63.2	61.4	–	–	−1.8	–	–	−.3
Men	–	–	68.7	63.4	–	–	−5.3	–	–	−.8
Women	–	–	58.0	59.5	–	–	1.5	–	–	.3
Ethnicity:										
Hispanic origin	67.4	69.7	67.5	66.2	2.3	−2.2	−1.3	.3	−.3	−.2
Men	81.4	81.5	77.8	75.9	.1	−3.7	−1.9	.0	−.5	−.2
Women	53.1	57.5	56.5	56.1	4.4	−1.0	−.4	.8	−.2	−.1
Other than Hispanic origin	66.4	66.7	64.2	61.7	.3	−2.5	−2.5	.0	−.4	−.4
Men	75.9	73.9	70.0	66.5	−2.0	−3.9	−3.5	−.3	−.5	−.5
Women	57.9	60.2	59.0	57.3	2.3	−1.2	−1.7	.4	−.2	−.3
White non–Hispanic	66.8	66.9	64.6	62.0	.1	−2.3	−2.6	.0	−.3	−.4
Men	76.5	74.6	70.7	67.2	−1.9	−3.9	−3.5	−.3	−.5	−.5
Women	57.8	59.8	58.9	57.2	2.0	−.9	−1.7	.3	−.2	−.3

[1] The "all other groups" category includes (1) those classified as being of multiple racial origin and (2) the racial categories of (2a) American Indian and Alaska Native or (2b) Native Hawaiian and Other Pacific Islanders.

NOTE: Dash indicates no data collected for category. Details may not sum to totals because of rounding.
SOURCE: U.S. Bureau of Labor Statistics.

sions and decline during economic downturns. During the 2007–2009 recession, weak demand for workers strengthened the aforementioned demographic and structural factors, pushing participation rates to considerably lower levels.

Historically, cyclical factors have had the greatest im-

pact on the labor force participation of the young. The youth labor force (16 to 24 years old) is quite vulnerable during recessions: youths are usually the first to be fired and the last to be hired.[13] During recessions and in weak job markets, this young age group tends to stay in school longer and experiences a significant drop in its labor force

participation rate. By contrast, the prime-age workforce is the least sensitive to economic downturns and cyclical changes, because its members are already firmly established in the labor market, with high labor force participation rates. Finally, like the youth labor force, the 55-years-and-older workforce is more sensitive to cyclical changes than the prime-age workforce.

In contrast to the factors exerting downward pressure on labor force participation rates, at least two factors have been responsible for strengthening the rates, although not enough to offset the factors pulling them down:

- The labor force participation rate of the 55-years-and-older age group has increased considerably since 1996. In 2000, the rate was 32.4 percent; a decade later, in 2010, it had risen significantly, to 40.2 percent. (See table 3.) BLS projects that the labor force participation rate of those 55 years and older will reach 43.0 percent in 2020. The continued gradual increase in the labor force participation rate of this age group, multiplied by the sheer number of baby boomers in the group, is expected to partially compensate for the multiple other factors pushing the rate to lower levels and is expected to keep it from declining even further in the future.

- Another factor responsible for strengthening the overall participation rate in the next 10 years is the increasing racial and ethnic diversity of both the population and the labor force. The participation rates of Hispanics and Asians, especially Hispanic and Asian men, have increased steadily in the past several decades. This factor, too, is expected to have an offsetting influence on the downward movement of labor force participation rates.

In sum, a combination of demographic, structural, and cyclical factors has affected the overall labor force participation rate, as well as the participation rates of specific groups, in the past. BLS projects that the downward pressure on the overall labor force participation rate will continue over the 2010–2020 period and the rate will gradually decline further, reaching 62.5 percent in 2020. (See chart 1.)

Participation rate by age

Workers 55 years and older. The aging of the baby-boom generation has shifted the composition of the population toward older age groups, and this trend is likely to continue for the foreseeable future. In 2000, the baby

Chart 1. Labor force participation rates, 1960–2010 and projected 2020
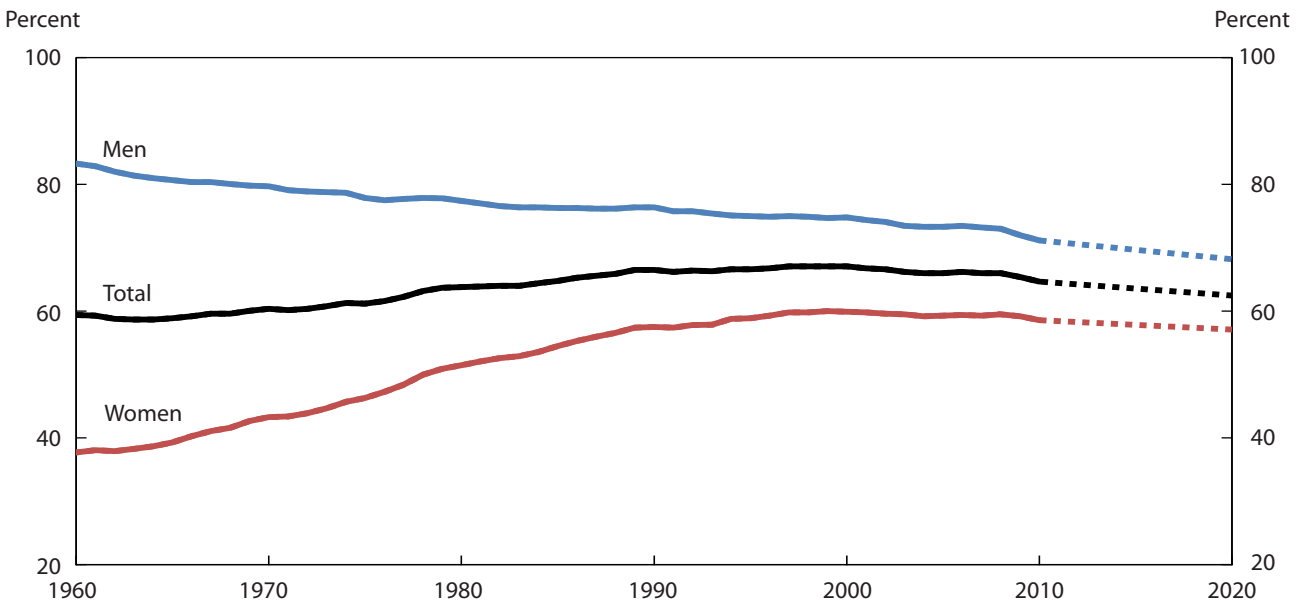
SOURCE: U.S. Bureau of Labor Statistics.

boomers were in the 36-to-54-year-old age group, all of whose members were in the prime age group, the group with the highest participation rates. In 2020, that entire cohort will be older than 55 years. The shift of this huge group from the prime age to the older age groups is expected to exert significant downward pressure on the overall participation rate and on the growth of the labor force in the future.

Prime-age workers 25 to 54 years.   Historically, this group has exhibited a strong attachment to the labor market. Over the next decade, the participation rate of the group is projected to decrease. The participation rate of 25-to-54-year-olds was 83.5 percent in 1990 and increased to 84.0 percent in 2000. (See table 3.) Since 2000, however, the rate has been declining each year or has remained flat at best, falling to 82.2 percent in 2010. BLS projects that the rate will decline to 81.3 percent in 2020.

The participation rate of a subgroup of prime-age workers, those 25 to 34 years old, also has been on a declining trend since 2000. This group had a participation rate of 82.2 percent in 2010. The rate is expected to decline to 80.6 percent in 2020. Two other age groups—those 35 to 44 years old and those 45 to 54 years old—have had similar experiences: both groups saw their participation rates decline since 2000, falling to 83.2 percent and 81.2 percent, respectively, in 2010. BLS projects that the participation rates for these two groups will decline further, to 82.6 percent and 80.8 percent, respectively, in 2020.

Youths 16 to 24 years.   The two age groups of 16-to-19-year-olds and 20-to-24-year-olds have different patterns of labor force participation rates. The difference is partially explained by the differing shares of students and nonstudents in the groups. Students are less likely to participate in the labor force. Increases in school attendance at the secondary and college levels, particularly in summer school, decrease each group's participation rate in the labor force, but more so for the younger group, which has proportionally more students.[14]

Of all the age and gender categories that make up the labor force, 16-to-19-year-old men have experienced the largest decline and have had the greatest impact on the decrease of the overall participation rate. This group saw its participation rate fall from 55.7 percent in 1990 to 52.8 percent in 2000. Then, from 2000 to 2010, the rate declined by 17.9 percentage points, coming in at 34.9 percent in 2010. The cohort of 16-to-19-year-old women saw a similar steep decline in its participation rate. BLS

projects that the downward trend in the participation rates of both 16-to-19-year-old men and 16-to-19-year-old women will continue, further reducing the overall participation rate for the 16-to-19-years age group to 26.5 percent in 2020.

Participation rate by gender

Women.   The participation rate of women was 57.5 percent in 1990 and peaked to 60.0 percent in 1999. In 2000, the rate declined slightly, to 59.9 percent. Since then, the rate has shown a general pattern of slow decline, falling to 58.6 percent in 2010. With significant increases in the share of older women in the total population, the overall labor force participation rate for women is projected to slow down even further, to 57.1 percent in 2020.

Among the different age groups of women, 16-to-24-year-olds experienced a significant decrease in their participation rate, from 63.0 percent in 2000 to 53.6 percent in 2010. BLS expects this group's rate to continue to decrease.

In contrast to the younger group, the participation rate of women in the 55-years-and-older age group rose from 22.9 percent in 1990 to 26.1 percent in 2000 and increased again, this time by 9.0 percentage points, to 35.1 percent in 2010. BLS projects that the participation rate of women 55 years and older will increase to 39.3 percent, a gain of 4.2 percentage points, in 2020.

Women in the prime age group of 25 to 54 years had participation growth rates that were in between those of the younger and older age groups (neither as weak as the one nor as strong as the other). Prime-age women had a participation rate of 74.0 percent in 1990 and saw the rate peak at 76.7 percent in 2000. After that, the group's rate declined to 75.2 percent in 2010. BLS expects the rate to drop further, to 74.6 percent in 2020.

Men.   The participation rate of men has been on a downward trend since the 1950s and is expected to continue to decrease in the next 10 years. In 1990, the rate was 76.4 percent; it fell to 74.8 percent in 2000 and to 71.2 percent in 2010. The rate is projected to decrease steadily to 68.2 percent in 2020. Younger men (16 to 24 years) saw their rate fall by a significant 15.0 percentage points, from 71.8 percent in 1990 to 56.8 percent in 2010. BLS expects the declining trend for this age group of men to continue into 2020.

The labor force participation rate of prime-age men (25 to 54 years) decreased from 93.4 percent in 1990, to 91.6 percent in 2000, to 89.3 percent in 2010. The par-

ticipation rate for this age group is projected to decrease further, to 88.1 percent in 2020. In contrast, and like the group of older women, the 55-years-and-older age group of men increased its participation rate from 1990 to 2010. Older men saw their labor force participation rate increase from 39.4 percent in 1990, to 40.1 percent in 2000, to 46.4 percent in 2010, the last increase a gain of 6.3 percentage points. BLS projects that men in this age group will increase their participation rate significantly, to 47.3 percent in 2020.

Labor force participation rate by race and ethnicity. There are substantial differences in the labor force participation rates of the various racial and ethnic groups, although the differences are usually not as great as those observed for the different age and gender groups. The tabulation that follows shows the variation and ranking of the various labor force participation rates by race in 2010. The rankings, from 1, the highest labor force participation rate, to 4, the lowest, apply to each column, individually.

Rank	Total	Men	Women
1	Hispanic	Hispanic	Black
2	Asian	Asian	White non-Hispanic
3	White non-Hispanic	White non-Hispanic	Asian
4	Black	Black	Hispanic

As the tabulation indicates, Hispanics in the aggregate and Hispanic men had the highest labor force participation rates in 2010 compared with the other racial and ethnic groups listed in that column. Hispanic women, by contrast, had the lowest participation rates in the workforce. Hispanics have a younger population than other racial and ethnic groups, and, consequently, have a greater proportion at the ages of higher participation rates. The aggregate Asian participation rate and the rate for Asian men ranked second in 2010, while Asian women were in third place among women. For Blacks, the situation by gender is reversed: Black women have a very high labor force participation rate, higher in fact than that of any other racial or ethnic group of women; however, the overall labor force participation rate of Blacks is the lowest of all the racial and ethnic groups. White non-Hispanics in the aggregate and white non-Hispanic men ranked third in labor force participation rate, while White non-Hispanic women ranked second, in their respective categories.

The data in table 3 indicate that age, gender, and race or ethnicity are important in describing variations in labor force participation. Although overall labor force participation rates for men and women are projected to change during the next 10 years, the changes are expected to preserve the relative ranking of the different racial and ethnic groups, with minor differences in the participation rates of Asian and Hispanic women.

Higher participation in the labor force by Hispanic men and Asian men relative to other racial and ethnic groups would increase their share in the labor force, continuing the trend of even more racial and ethnic diversity in the workforce in the next 10 years.

The projected labor force

The U.S. labor force grew at an annual rate of 1.3 percent over the 1990–2000 timeframe, followed by a 0.8-percent annual growth rate during the 2000–2010 period. As a result of the earlier mentioned projected slower population growth, combined with the significant decline in the overall labor force participation rate, particularly since 2008, labor force growth is projected to slow to 0.7 percent per year over the 2010–2020 timeframe. The labor force is anticipated to reach 164.4 million in 2020. This projected 6.8-percentage-point change from 2010 to 2020 is less than the 7.9-percentage-point increase registered over the 2000–2010 decade and translates into a numerical increase of 10.5 million, compared with 11.3 million over the 2000–2010 timeframe. (See table 4.)

The year 2000 marked a high point as far as the impact of demographics on the labor market is concerned. The entirety of the baby-boom generation was in the prime working-age group (25 to 54 years old). Every year following 2000, more members of this huge cohort, numbering 77 million, have pushed into the 55-years–and-older age group. The substantial shift of the population to older age groups will dampen the growth of the labor force over the next decade.

The labor force also will change in composition, with the various age, gender, racial, and ethnic groups experiencing growth at different rates.

Labor force by gender

Men. The labor force of men grew by 1.0 percent annually in the 1990–2000 timeframe, followed by 0.7 percent over the 2000–2010 period. BLS projects that the men's

Table 4. **Civilian labor force, by age, gender, race, and ethnicity, 1990, 2000, 2010, and projected 2020**

[Numbers in thousands]

Group	Level				Change			Percent change		
	1990	2000	2010	2020	1990–2000	2000–2010	2010–2020	1990–2000	2000–2010	2010–2020
Total, 16 years and older	125,840	142,583	153,889	164,360	16,743	11,306	10,471	13.3	7.9	6.8
16 to 24	22,492	22,520	20,934	18,330	28	−1,586	−2,604	.1	−7.0	−12.4
16 to 19	7,792	8,270	5,906	4,548	478	−2,364	−1,358	6.1	−28.6	−23.0
20 to 24	14,700	14,250	15,028	13,783	−450	778	−1,245	−3.1	5.5	−8.3
25 to 54	88,322	101,394	102,940	104,619	13,072	1,546	1,679	14.8	1.5	1.6
25 to 34	35,929	32,756	33,614	36,421	−3,173	858	2,807	−8.8	2.6	8.4
35 to 44	32,145	37,566	33,366	35,147	5,421	−4,200	1,781	16.9	−11.2	5.3
45 to 54	20,248	31,072	35,960	33,051	10,824	4,888	−2,909	53.5	15.7	−8.1
55 and older	15,026	18,669	30,014	41,411	3,643	11,345	11,397	24.2	60.8	38.0
55 to 64	11,575	14,357	23,297	29,298	2,782	8,940	6,001	24.0	62.3	25.8
65 to 74	2,952	3,505	5,424	9,945	553	1,919	4,521	18.7	54.8	83.4
75 and older	498	807	1,293	2,168	309	486	875	62.0	60.2	67.7
Men, 16 years and older	69,011	76,280	81,985	87,128	7,269	5,705	5,143	10.5	7.5	6.3
16 to 24	11,960	11,789	10,855	9,690	−171	−934	−1,165	−1.4	−7.9	−10.7
16 to 19	4,094	4,268	2,991	2,413	174	−1,277	−578	4.3	−29.9	−19.3
20 to 24	7,866	7,521	7,864	7,276	−345	343	−588	−4.4	4.6	−7.5
25 to 54	48,456	54,206	55,326	56,386	5,750	1,120	1,060	11.9	2.1	1.9
25 to 34	19,872	17,844	18,352	19,667	−2,028	508	1,315	−10.2	2.8	7.2
35 to 44	17,481	20,093	18,119	19,303	2,612	−1,974	1,184	14.9	−9.8	6.5
45 to 54	11,103	16,269	18,856	17,415	5,166	2,587	−1,441	46.5	15.9	−7.6
55 and older	8,594	10,285	15,803	21,052	1,691	5,518	5,249	19.7	53.7	33.2
55 to 64	6,627	7,796	12,103	14,662	1,169	4,307	2,559	17.6	55.2	21.1
65 to 74	1,664	2,018	2,971	5,236	354	953	2,265	21.3	47.2	76.2
75 and older	303	471	729	1,155	168	258	426	55.4	54.8	58.4
Women, 16 years and older	56,829	66,303	71,904	77,232	9,474	5,601	5,328	16.7	8.4	7.4
16 to 24	10,532	10,731	10,079	8,641	199	−652	−1,438	1.9	−6.1	−14.3
16 to 19	3,698	4,002	2,914	2,134	304	−1,088	−780	8.2	−27.2	−26.8
20 to 24	6,834	6,729	7,164	6,506	−105	435	−658	−1.5	6.5	−9.2
25 to 54	39,866	47,188	47,614	48,233	7,322	426	619	18.4	0.9	1.3
25 to 34	16,058	14,912	15,263	16,754	−1,146	351	1,491	−7.1	2.4	9.8
35 to 44	14,663	17,473	15,247	15,844	2,810	−2,226	597	19.2	−12.7	3.9
45 to 54	9,145	14,803	17,104	15,635	5,658	2,301	−1,469	61.9	15.5	−8.6
55 and older	6,431	8,384	14,211	20,358	1,953	5,827	6,147	30.4	69.5	43.3
55 to 64	4,948	6,561	11,194	14,637	1,613	4,633	3,443	32.6	70.6	30.8
65 to 74	1,288	1,487	2,453	4,709	199	966	2,256	15.5	65.0	92.0
75 and older	195	336	564	1,012	141	228	448	72.3	67.9	79.4
White	107,447	118,545	125,084	130,516	11,098	6,539	5,432	10.3	5.5	4.3
Men	59,638	64,466	67,728	70,379	4,828	3,262	2,651	8.1	5.1	3.9
Women	47,809	54,079	57,356	60,137	6,270	3,277	2,781	13.1	6.1	4.8
Black	13,740	16,397	17,862	19,676	2,657	1,465	1,814	19.3	8.9	10.2
Men	6,802	7,702	8,415	9,393	900	713	978	13.2	9.3	11.6
Women	6,938	8,695	9,447	10,283	1,757	752	836	25.3	8.6	8.8
Asian	4,653	6,270	7,248	9,430	1,617	978	2,182	34.8	15.6	30.1
Men	2,570	3,362	3,893	4,968	792	531	1,075	30.8	15.8	27.6
Women	2,083	2,908	3,355	4,462	825	447	1,107	39.6	15.4	33.0
All other groups[1]	–	1,371	3,694	4,738	–	2,323	1,044	–	169.4	28.3
Men	–	750	1,949	2,388	–	1,199	439	–	159.9	22.5
Women	–	621	1,746	2,350	–	1,125	604	–	181.2	34.6
Hispanic origin	10,720	16,689	22,748	30,493	5,969	6,059	7,745	55.7	36.3	34.0
Men	6,546	9,923	13,511	17,859	3,377	3,588	4,348	51.6	36.2	32.2
Women	4,174	6,767	9,238	12,634	2,593	2,471	3,396	62.1	36.5	36.8
Other than Hispanic origin	115,120	125,894	131,141	133,867	10,774	5,247	2,726	9.4	4.2	2.1
Men	62,465	66,357	68,474	69,269	3,892	2,117	795	6.2	3.2	1.2
Women	52,655	59,536	62,666	64,598	6,881	3,130	1,932	13.1	5.3	3.1
White non–Hispanic	97,818	102,729	103,947	102,371	4,911	1,218	−1,576	5.0	1.2	−1.5
Men	53,731	55,040	55,116	53,867	1,309	76	−1,249	2.4	.1	−2.3
Women	44,087	47,689	48,831	48,504	3,602	1,142	−327	8.2	2.4	−.7

See notes at end of table.

Table 4. Continued—Civilian labor force, by age, gender, race, and ethnicity, 1990, 2000, 2010, and projected 2020

[Numbers in thousands]

Group	Percent distribution				Annual growth rate (percent)		
	1990	2000	2010	2020	1990–2000	2000–2010	2010–2020
Total, 16 years and older	100.0	100.0	100.0	100.0	1.3	0.8	0.7
16 to 24	17.9	15.8	13.6	11.2	.0	−.7	−1.3
16 to 19	6.2	5.8	3.8	2.8	.6	−3.3	−2.6
20 to 24	11.7	1.0	9.8	8.4	−.3	.5	−.9
25 to 54	70.2	71.1	66.9	63.7	1.4	.2	.2
25 to 34	28.6	23.0	21.8	22.2	−.9	.3	.8
35 to 44	25.5	26.3	21.7	21.4	1.6	−1.2	.5
45 to 54	16.1	21.8	23.4	20.1	4.4	1.5	−.8
55 and older	11.9	13.1	19.5	25.2	2.2	4.9	3.3
55 to 64	9.2	10.1	15.1	17.8	2.2	5.0	2.3
65 to 74	2.3	2.5	3.5	6.1	1.7	4.5	6.2
75 and older	.4	.6	.8	1.3	4.9	4.8	5.3
Men, 16 years and older	54.8	53.5	53.3	53.0	1.0	.7	.6
16 to 24	9.5	8.3	7.1	5.9	−.1	−.8	−1.1
16 to 19	3.3	3.0	1.9	1.5	.4	−3.5	−2.1
20 to 24	6.3	5.3	5.1	4.4	−.4	.4	−.8
25 to 54	38.5	38.0	36.0	34.3	1.1	.2	.2
25 to 34	15.8	12.5	11.9	12.0	−1.1	.3	.7
35 to 44	13.9	14.1	11.8	11.7	1.4	−1.0	.6
45 to 54	8.8	11.4	12.3	10.6	3.9	1.5	−.8
55 and older	6.8	7.2	10.3	12.8	1.8	4.4	2.9
55 to 64	5.3	5.5	7.9	8.9	1.6	4.5	1.9
65 to 74	1.3	1.4	1.9	3.2	1.9	3.9	5.8
75 and older	.2	.3	.5	.7	4.5	4.5	4.7
Women, 16 years and older	45.2	46.5	46.7	47.0	1.6	.8	.7
16 to 24	8.4	7.5	6.5	5.3	.2	−.6	−1.5
16 to 19	2.9	2.8	1.9	1.3	.8	−3.1	−3.1
20 to 24	5.4	4.7	4.7	4.0	−.2	.6	−1.0
25 to 54	31.7	33.1	30.9	29.3	1.7	.1	.1
25 to 34	12.8	10.5	9.9	10.2	−.7	.2	.9
35 to 44	11.7	12.3	9.9	9.6	1.8	−1.4	.4
45 to 54	7.3	10.4	11.1	9.5	4.9	1.5	−.9
55 and older	5.1	5.9	9.2	12.4	2.7	5.4	3.7
55 to 64	3.9	4.6	7.3	8.9	2.9	5.5	2.7
65 to 74	1.0	1.0	1.6	2.9	1.4	5.1	6.7
75 and older	.2	.2	.4	.6	5.6	5.3	6.0
White	85.4	83.1	81.3	79.4	1.0	.5	.4
Men	47.4	45.2	44.0	42.8	.8	.5	.4
Women	38.0	37.9	37.3	36.6	1.2	.6	.5
Black	10.9	11.5	11.6	12.0	1.8	.9	1.0
Men	5.4	5.4	5.5	5.7	1.3	.9	1.1
Women	5.5	6.1	6.1	6.3	2.3	.8	.9
Asian	3.7	4.4	4.7	5.7	3.0	1.5	2.7
Men	2.0	2.4	2.5	3.0	2.7	1.5	2.5
Women	1.7	2.0	2.2	2.7	3.4	1.4	2.9
All other groups[1]	–	1.0	2.4	2.9	–	10.4	2.5
Men	–	.5	1.3	1.5	–	10.0	2.1
Women	–	**.4**	1.1	1.4	–	10.9	3.0
Hispanic origin	8.5	11.7	14.8	18.6	4.5	3.1	3.0
Men	5.2	7.0	8.8	10.9	4.2	3.1	2.8
Women	3.3	4.7	6.0	7.7	5.0	3.2	3.2
Other than Hispanic origin	91.5	88.3	85.2	81.4	.9	.4	.2
Men	49.6	46.5	44.5	42.1	.6	.3	.1
Women	41.8	41.8	40.7	39.3	1.2	.5	.3
White non–Hispanic	77.7	72.0	67.5	62.3	.5	.1	−.2
Men	42.7	38.6	35.8	32.8	.2	.0	−.2
Women	35.0	33.4	31.7	29.5	.8	.2	−.1

[1] The "all other groups" category includes (1) those classified as being of multiple racial origin and (2) the racial categories of (2a) American Indian and Alaska Native and (2b) Native Hawaiian and Other Pacific Islanders.

NOTE: Dash indicates no data collected for category. Details may not sum to totals because of rounding.
SOURCE: U.S. Bureau of Labor Statistics.

labor force will grow 0.6 percent annually from 2010 to 2020. Men in the labor force numbered 69.0 million in 1990, 76.3 million in 2000, and nearly 82.0 million in 2010 and are projected to be 87.1 million in 2020.

Women. Women in the labor force had 1.6 percent annual growth over the 1990–2000 timeframe and 0.8 percent during the 2000–2010 period. BLS projects that the annual growth of the labor force of women will remain at about 0.7 percent in the next decade. The women's labor force was 56.8 million in 1990, 66.3 million in 2000, and 71.9 million in 2010, and it is projected to grow to 77.2 million in 2020.

Women's labor force growth was considerably greater than men's over the 1990–2000 timeframe, whether measured by number of persons or rate of change. Then, from 2000 to 2010, the women's labor force grew by only 0.1 percent more than the men's, and this growth rate is projected to continue over the 2010–2020 period. However, the number of men in the labor force has always been greater than the number of women, a situation that is expected to remain the same in the next decade.

Labor force by age

Youths 16 to 24 years. The youth labor force is broken down into two groups: 16-to-19-year-olds and 20-to-24-year-olds. An increase in school attendance of youths, including attending summer school, is the main reason the youth labor force has been declining. Also, this age group has been affected by two recessions that have occurred since 2000, resulting in reduced job opportunities and increased competition for those jobs which were available.[15] In the current economic situation, these difficulties are likely to persist for youths, especially teens, as they face increased competition from other age groups for the entry-level jobs they normally would fill.[16]

The youth labor force, nearly 22.5 million in 1990, did not experience any growth over the next 10 years, and their number was roughly the same in 2000. In 2010, the youth labor force stood at 20.9 million, a decline of 1.6 million over a decade. BLS projects that the number of 16-to-24-year-olds in the labor force will be 18.3 million in 2020. The group's share of the labor force was 17.9 percent in 1990, decreased to 15.8 percent in 2000, and dropped further to 13.6 percent in 2010. BLS projects that the share will fall yet further, to 11.2 percent in 2020.

Prime-age workers 25 to 54 years. Prime-age workers have the strongest ties to the labor market. Their labor force numbered 101.4 million in 2000 and 102.9 million in 2010, an increase of 1.5 million during that timeframe. BLS projects that the prime-age workforce will reach 104.6 million in 2020. This group, which made up 71.1 percent of the total labor force in 2000, saw its share decrease to 66.9 percent in 2010. BLS expects the group's share to fall to approximately 63.7 percent of the total labor force in 2020.

Workers 55 years and older. In contrast to the declining trend of the youth labor force, the 55-years-and-older age group grew from 15.0 million in 1990 to 18.7 million in 2000. In 2010, their number climbed to 30.0 million, 9.1 million more than the labor force of 16-to-24-year-olds. The group's share of the total labor force also increased, from 11.9 percent in 1990, to 13.1 percent in 2000, to 19.5 percent in 2010. The 55-years-and-older age group is projected to increase to 41.4 million in 2020, and their share is expected to reach 25.2 percent that year. Within the group, the number of 55-to-64-year-olds is expected to increase from 23.3 million in 2010 to 29.3 million in 2020. Concomitantly, their share of the total labor force will grow from 15.1 percent to 17.8 percent over the same timespan. The shift in the composition of the labor force from the younger to the older age groups is expected to continue throughout that same decade and beyond.

Projected labor force by race and ethnicity. Reflecting the higher rates of diversity in the population, the diversity of the labor force also has increased in the past several decades. Over the next decade, the workforce will become even more racially and ethnically diverse. The share of minorities in the labor force will expand more than ever before, because immigration is the main engine of population growth and because Hispanics and Asians have high labor force participation rates. BLS projects that, by 2020, Hispanics (18.6 percent), Blacks (12.0 percent), Asians (5.7 percent), and all those belonging to the "all other groups" category (2.9 percent) will make up nearly 40 percent of the civilian labor force.

White labor force. BLS projects that, during the next decade, the White labor force will have an annual growth rate of 0.4 percent, much slower than that of the other racial groups. More than 80 percent of Hispanics are counted as White, so the group will remain the largest in 2020. However, the group's share of the total, even including White Hispanics, has been on a declining trend for the past couple of decades and even before that. Whites accounted for 85.4 percent of the labor force in 1990, 83.1

percent in 2000, and 81.3 percent in 2010, with a further decline expected, to 79.4 percent in 2020. The White population has lower fertility rates compared with other racial and ethnic groups, plus Whites immigrate to the United States at lower numbers and rates than other groups do. The labor force of Whites is expected to continue to have a slow rate of growth from 2010 to 2020.

Black labor force.   During the 2010–2020 timeframe, the Black labor force is projected to grow steadily at an annual rate of 1.0 percent. However, its growth is expected to be slower than that of the Hispanic group and that of the Asian group. Blacks accounted for 10.9 percent of the labor force in 1990 and 11.6 percent in 2010; they are expected to increase their share to 12.0 percent in 2020. The increase in the share of Blacks in the total labor force comes mainly from higher birthrates, a steady stream of immigrants to the country, and the very high labor force participation rates of Black women.

Asian labor force.   Although its numbers and shares start from much lower levels, the Asian labor force is projected to increase substantially over the next decade. Asians accounted for 4.4 percent of the labor force in 2000 and 4.7 percent in 2010 and are projected to increase their share to 5.7 percent in 2020. The continued immigration of this group to the United States, coupled with the group's high participation rates, contributes to its increasing share of the labor force. The Asian labor force totaled 7.2 million in 2010, and BLS projects this number to increase to 9.4 million in 2020.

All other groups.   The "all other groups" category comprises three distinct racial or ethnic groups: (1) those who are of multiple racial origins, (2) American Indians and Alaska Natives, and (3) Native Hawaiian and other Pacific Islanders. These groups are projected to grow from 3.7 million in 2010 to 4.7 million in 2020. Together, they make up one of the fastest growing groups in the U.S. labor force. Over the 2010–2020 timeframe, they are projected to grow at an annual rate of 2.5 percent, outpaced only by Hispanics, at 3.0 percent.

Hispanic labor force.   Hispanics may be of any race. As the Hispanic population continues to expand at faster rates, so does the group's labor force. A combination of rapid population growth (from high birth and immigration rates) and extremely high participation rates has caused a surge in this group's labor force growth. The Hispanic labor force was 10.7 million in 1990, 16.7 million in 2000,

and 22.7 million in 2010. BLS projects that the Hispanic labor force will reach 30.5 million in 2020 and the Hispanic share in the total labor force will increase considerably over the next decade. In 2000, Hispanics composed 11.7 percent of the labor force, a share that increased to 14.8 percent in 2010. BLS expects that Hispanics will make up 18.6 percent of the labor force in 2020.

Non-Hispanic labor force.   As the share of Hispanics has increased in both the population and the labor force, the share of non-Hispanics has decreased with each decade. Non-Hispanics held a 91.5-percent share of the labor force in 1990 and 85.2 percent in 2010. BLS anticipates that the non-Hispanic share will fall even further, to 81.4 percent in 2020.

White non-Hispanic labor force.   The White non-Hispanic labor force is projected to decline by 0.2 percent annually over the 2010–2020 timeframe. The decrease in the number of White non-Hispanics in the labor force is accompanied by faster growth of other racial and ethnic groups in the U.S. workforce. The share of the White non-Hispanic labor force decreased from 77.7 percent in 1990 to 72.0 percent in 2000 and to 67.5 percent in 2010. BLS projects that this group will compose 62.3 percent of the labor force in 2020. The fall in the White non-Hispanic share of the total labor force can be attributed to the group's lower fertility and immigration rates compared with those of other racial and ethnic groups. In addition, the rapid aging and retirement of White non-Hispanic men in past decades has contributed to the decelerating share of White non-Hispanics in the labor force.

Dynamic changes in the labor force

The labor force is projected to increase by 10.5 million during 2010–2020. This growth projection is based on the dynamic changes that underlie the movement of workers into and out of the labor force. (See table 5.) From 2010 through 2020, changes in the workforce are projected to emerge from three dynamic groups:

- *Entrants:* those who were not in the labor force in 2010, but who will enter during the 2010–2020 period and will continue to be part of the labor force in 2020.

- *Leavers:* those who were in the labor force in 2010, but who will leave during the 2010–2020 period and will not be in the labor force of 2020.

Table 5. Civilian labor force, entrant and leavers, 2000, 2010, and projected 2020

[Numbers in thousands]

Group	2000	2000–2010			2010	2010–2020			2020
		Entrants	Leavers	Stayers		Entrants	Leavers	Stayers	
Number, 16 years and older									
Total	142,583	32,963	21,657	120,926	153,889	35,800	25,329	128,560	164,360
Men	76,280	17,814	12,109	64,171	81,985	19,452	14,309	67,676	87,128
Women	66,303	15,149	9,548	56,755	71,904	16,348	11,020	60,884	77,232
White	118,545	25,221	18,682	99,863	125,084	30,081	24,553	100,531	130,516
Men	64,466	13,871	10,609	53,857	67,728	16,616	13,114	54,614	70,379
Women	54,079	11,350	8,073	46,006	57,356	13,465	11,439	45,917	60,137
Black	16,397	4,353	2,888	13,509	17,862	4,834	3,022	14,840	19,676
Men	7,702	2,107	1,394	6,308	8,415	2,468	1,491	6,924	9,393
Women	8,695	2,246	1,494	7,201	9,447	2,366	1,531	7,916	10,283
Asian	6,270	1,786	808	5,462	7,248	3,005	823	6,425	9,430
Men	3,362	934	403	2,959	3,893	1,521	446	3,447	4,968
Women	2,908	852	405	2,503	3,355	1,484	377	2,978	4,462
All other groups[1]	1,371	–	–	–	3,694	–	–	–	4,738
Men	750	–	–	–	1,949	–	–	–	2,388
Women	621	–	–	–	1,746	–	–	–	2,350
Hispanic origin	16,689	7,453	1,194	15,496	22,748	9,710	1,966	20,783	30,493
Men	9,923	4,432	644	9,279	13,511	5,553	1,205	12,306	17,859
Women	6,767	3,021	550	6,217	9,238	4,157	761	8,477	12,634
Other than Hispanic origin	125,894	25,510	20,463	105,430	131,141	26,090	23,363	107,778	133,867
Men	66,357	13,382	11,465	54,892	68,474	13,899	13,104	55,370	69,269
Women	59,536	12,128	8,998	50,538	62,666	12,191	10,259	52,407	64,598
White Non–Hispanic	102,729	18,929	17,711	85,018	103,947	18,099	19,676	84,271	102,371
Men	55,040	10,084	10,008	45,032	55,116	9,795	11,044	44,072	53,867
Women	47,689	8,845	7,703	39,986	48,831	8,304	8,632	40,199	48,504
Share (percent), 16 years and older									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Men	53.5	54.0	55.9	53.1	53.3	54.3	56.5	52.6	53.0
Women	46.5	46.0	44.1	46.9	46.7	45.7	43.5	47.4	47.0
White	83.1	76.5	86.3	82.6	81.3	84.0	96.9	78.2	79.4
Men	45.2	42.1	49.0	44.5	44.0	46.4	51.8	42.5	42.8
Women	37.9	34.4	37.3	38.0	37.3	37.6	45.2	35.7	36.6
Black	11.5	13.2	13.3	11.2	11.6	13.5	11.9	11.5	12.0
Men	5.4	6.4	6.4	5.2	5.5	6.9	5.9	5.4	5.7
Women	6.1	6.8	6.9	6.0	6.1	6.6	6.0	6.2	6.3
Asian[1]	4.4	5.4	3.7	4.5	4.7	8.4	3.2	5.0	5.7
Men	2.4	2.8	1.9	2.4	2.5	4.2	1.8	2.7	3.0
Women	2.0	2.6	1.9	2.1	2.2	4.1	1.5	2.3	2.7
All other groups	–	–	–	–	2.4	–	–	–	2.9
Men	–	–	–	–	1.3	–	–	–	1.5
Women	–	–	–	–	1.1	–	–	–	1.4
Hispanic origin	11.7	22.6	5.5	12.8	14.8	27.1	7.8	16.2	18.6
Men	7	13.4	3	7.7	8.8	15.5	4.8	9.6	10.9
Women	4.7	9.2	2.5	5.1	6	11.6	3	6.6	7.7
Other than Hispanic origin	88.3	77.4	94.5	87.2	85.2	72.9	92.2	83.8	81.4
Men	46.5	40.6	52.9	45.4	44.5	38.8	51.7	43.1	42.1
Women	41.8	36.8	41.5	41.8	40.7	34.1	40.5	40.8	39.3
White Non–Hispanic	72	57.4	81.8	70.3	67.5	50.6	77.7	65.5	62.3
Men	38.6	30.6	46.2	37.2	35.8	27.4	43.6	34.3	32.8
Women	33.4	26.8	35.6	33.1	31.7	23.2	34.1	31.3	29.5

[1] The "all other groups" category includes (1) those classified as being of multiple racial origin and (2) the racial categories of (2a) American Indian and Alaska Native and (2b) Native Hawaiian and Other Pacific Islanders.

NOTE: Dash indicates no data collected for category. Details may not sum to totals because of rounding.
SOURCE: U.S. Bureau of Labor Statistics.

- *Stayers:* those who were in the labor force in 2010 and who will remain in it through 2020.[17]

To the extent that the demographic composition of labor force entrants between 2010 and 2020 is different from the composition of those now in the labor force, the 2020 labor force will be different from today's labor force. During 2010–2020, the labor force will be affected by the demographic composition of those leaving, those entering, and those staying in the labor force.

BLS projects that 35.8 million workers will enter the labor force, and 25.3 million will leave, over the 2010–2020 period. These figures compare with nearly 33 million entrants and 21.7 million leavers over the 2000–2010 period. Thus, the number of entrants in the labor force will be about 2.8 million more during 2010–2020 than in the previous decade. However, over 3.6 million more people will be leaving the labor force, mainly as a result of aging and retirement. In a continuation of the trend of the previous decade, the entrants are projected to be mostly men: 19.5 million, compared with 16.3 million women, during the 2010–2020 timeframe.

Over the 2010–2020 period, more men than women are projected to leave the labor force. Men—especially White non-Hispanic men—in the labor force are much older than women and will be exiting the workforce in greater numbers. BLS projects that 14.3 million men will leave the labor force by 2020, resulting in a labor force of 87.1 million men that year. BLS also projects that 11.0 million women will leave the labor force by 2020. Because less than half (43.5 percent) of the leavers are projected to be women, the share of women is expected to increase to 47.0 percent in 2020.

Racial and ethnic origin.   Over the 2010–2020 timeframe, of the 35.8 million entrants to the labor force, the largest number, slightly more than 18 million, is projected to be White non-Hispanics. However, the White non-Hispanic share of the entrants (50.6 percent) is much smaller than the group's share of the total labor force (62.3 percent), reflecting White non-Hispanics' lower population growth as a result of lower birthrates and very little migration into the United States. This shift will result in relatively fewer labor force entrants (27.4 percent) and relatively more labor force leavers (43.6 percent) among the aging White non-Hispanic male labor force. During the 2010–2020 period, 19.7 million White non-Hispanics are expected to leave the workforce, the majority of whom (about 11.0 million) will be men.

Blacks are projected to add nearly 2.0 million workers to the labor force between 2010 and 2020. During that period, Blacks are expected to account for 13.5 percent of all new entrants, compared with the 13.2 percent they contributed during the 2000–2010 period. Higher-than-average birthrates, combined with continued immigration, has resulted in an increase in the growth rate of the Black population. BLS projects that the Black labor force will grow slightly faster than the overall labor force during 2010–2020.

In 2000, there were 16.7 million Hispanics in the labor force. Over the 2000–2010 period, 7.5 million Hispanics entered the labor force, and about 1.2 million left. By 2010, the Hispanic labor force numbered 22.7 million. BLS projects that 9.7 million Hispanics will be entering the labor force over the 2010–2020 timeframe and nearly 2.0 million will be leaving, resulting in an increase of nearly 7.8 million in the Hispanic labor force. The Hispanic share of the labor force is expected to increase more than that of any other demographic group, because of overall population growth—from more births and increased immigration—and because of considerably higher labor force participation rates.

Currently, Asians are one of the least populous racial groups in the labor force. BLS projects that about 3.0 million Asians will enter the labor force during the 2010–2020 period and about 0.8 million will leave. With more entrants and fewer leavers, the share of Asians in the 2020 labor force is expected to be 5.7 percent. Increases in the number of Asians in the workforce reflect their continued high immigration and very high participation rates.

Median age.   The median age of the labor force summarizes the age structure of the labor force and is defined as the age that splits the population into two equal parts, with 50 percent younger than the median age and 50 percent older. (See table 6.)

As the baby-boom generation entered the workforce, the median age of the labor force decreased steadily until it bottomed at 34.6 years in 1980, when the baby boomers were between 16 and 34 years. Since then, decreasing fertility rates, increasing life expectancies, and the aging of the baby boomers have caused the population and the labor force to age. The median age of the labor force was 36.4 years in 1990 and 39.3 years in 2000. Within a decade, in 2010, the median age of the U.S. labor force increased to 41.7 years. BLS projects that the median age of the labor force will increase to 42.8 years in 2020, at which point the baby boomers will be between 56 and 74 years old.

The median age of the women's labor force was lower

Table 6.	Median age of the labor force, by gender, race, and ethnicity, 1980, 1990, 2000, 2010, and projected 2020					
Group	1980	1990	2000	2010	2020
Total	34.6	36.4	39.3	41.7	42.8
Gender:					
Men	35.1	36.5	39.2	41.5	42.4
Women	33.9	36.2	39.3	42.0	43.3
Race:					
White	34.8	36.6	39.6	42.3	43.3
Black	33.3	34.8	37.4	39.3	40.4
Asian	34.1	35.8	37.9	41.2	44.0
Ethnicity:					
Hispanic origin	32.0	31.2	33.7	36.9	38.7
White non–Hispanic	35.2	37.1	40.5	43.6	44.8

SOURCE: U.S. Bureau of Labor Statistics.

In 2010 the Asian median labor force age rose to 41.2 years, and it is projected to increase further, to 44.0 years in just a decade.

Until 2010, the White labor force was much older than the rest of the labor force. The median age of the White labor force was 36.6 years in 1990, 39.6 years in 2000, and 42.3 years in 2010; it is projected to reach 43.3 years in 2020. On the one hand, because most Hispanics are classified as White, the younger median age of the Hispanic labor force has had the effect of lowering the White median labor force age. On the other hand, the White non-Hispanic labor force is the oldest group in the workforce. In 1990, the median age of this group was 37.1 years. A decade later, the group's median age increased by 3.4 years, to 40.5 years. Then, over the 2000–2010 timeframe, the median age of the White non-Hispanic labor force increased by another 3.1 years, to 43.6 years. BLS expects that White non-Hispanics will see their median labor force age rise to 44.8 years in 2020.

Economic dependency ratio.   The economic dependency ratio is measured by estimating the number of persons in the total population (including all Armed Forces personnel overseas and children) who are *not* in the labor force per hundred of those who are. In 2000, for every 100 persons in the labor force, 94 were not working. (See table 7.) Of those not in the labor force, 44 were children, 28 were in the 16-to-64-years age group, and 22 were 65 years and older.

Historically, the economic dependency ratio was highest in 1975, at 126.[18] In 1980 the ratio was 108.9, and in 1990 it fell to 98.3. Most of the 10.6-percentage-point drop was attributable to the decline in the dependency rate of those under 16 years old. With the influx of the baby boomers into the workforce and a significant drop in the number of births, the economic dependency ratio has decreased considerably since the 1970s. BLS projects that the number of those not working will reach 107 per hundred workers in 2020. Economic dependency is directly related to both the number of children in the population

than that of the men's until 2000, when the two median ages were 39.3 years and 39.2 years, respectively. In 2010, the median age of women in the labor force rose to 42.0 years while that of men increased to a lesser 41.5 years. BLS projects a significant increase in the median age of the women's labor force to 43.3 years in 2020 while, again, that of the men's labor force is expected to rise to a lesser 42.4 years.

Among the different racial and ethnic groups, the Hispanic labor force is the youngest. The median age of Hispanics in the labor force was 33.7 years in 2000, compared with 39.3 years for the overall labor force. Thus, the Hispanic labor force was about 5.6 years younger than the total labor force in 2000. The median age of the Hispanic labor force increased to 36.9 years in 2010 and is expected to increase to 38.7 years in 2020, still much younger than the median age of the labor force as a whole. Hispanics will remain the youngest of all racial and ethnic groups in the population because Hispanic immigrants are mostly in the younger age groups and their immigration to the United States has contributed substantially to an increase in the level and composition of those age groups. The relatively high fertility rates of Hispanics will keep their population and labor force younger than other groups' population and labor force into the foreseeable future.

The median age of the Black labor force was 37.4 years in 2000. The median age increased to 39.3 years in 2010 and is projected to rise to 40.4 years in 2020. The median age of the Asian labor force also has been increasing steadily. It stood at 34.1 years in 1980, increased to 35.8 years in 1990, and increased again, to 37.9 years in 2000.

Table 7.	Economic dependency ratio, 1980, 1990, 2000, 2010, and projected 2020					
Group	1980	1990	2000	2010	2020
Total population	108.9	98.3	93.9	100.6	107.0
Under age 16	50.7	45.8	44.1	43.3	44.0
Ages 16 to 64	37.4	30.5	28.3	36.5	38.0
Ages 65 and older	20.8	22.1	21.6	21.8	26.0

SOURCE: U.S. Bureau of Labor Statistics.

and the number of people 65 years and older. The dependency ratio of the population under 16 years is expected to rise slightly, to 44, over the 2010–2020 decade; however, the share of the 65-years-and-older age group in the total population will increase substantially. In 1990, the older group's ratio of 22 was by far the smallest part of the total economic dependency ratio. The dependency ratio of the 65-years-and-older group is expected to increase to 26 by 2020.

Caveats and risks regarding the projections

As was discussed earlier, the growth of the labor force in the future is the result of either

1. The projected changes in the labor force participation rates of the different age, gender, racial, and ethnic groups or
2. The projected growth in the population of the different age, gender, racial, and ethnic groups.

The BLS labor force projections point to a decrease in the growth of the labor force, to 0.7 percent in the next 10 years. However, several factors could interfere with this projected slowdown.

An increase in the participation rate of the young. An increase in the demand for 16-to-24-year-old workers is one way that both the overall labor force participation rate and the growth rate of the labor force might increase. However, rising school enrollment of youths during the past several decades has decreased this cohort's labor force participation rates dramatically. The increase in attendance in high school, college, and summer schools represents a structural change with a permanent impact on the labor market. Thus, on the basis of previous and current participation rate projections, it appears that the labor force participation rate of the young age groups will *not* be increasing anytime soon enough to be effective in increasing either the overall labor force participation rate or the growth rate of the labor force.

An increase in the participation rate of women. A second way that the overall labor force participation rate and the growth rate of the labor force might rise is through an increase in the labor force participation rate of women. However, previous and current BLS projections indicate that the labor force participation rate of women may have already reached its peak. The decline in women's participation since 2000 is another factor contributing to the

downward trend in the overall participation rate. It is unlikely that the labor force participation rate of women will again achieve the significant increases registered during the 1970–1990 timeframe; more likely, as the share of older women in the population increases, the labor force participation rate of women will edge further down and will also put downward pressure on the aggregate labor force participation rate.

An increase in the participation rate of older workers. Yet another way in which the labor force participation and growth rates can increase is through an increase in the participation rate of the older workforce. Indeed, such an increase began in 1996 and is still continuing. In fact, the older group is the only labor force group whose participation rate has been rising substantially. An increase in the labor force participation rate of the older workforce, multiplied by the large number of workers in this age group, has the potential to increase the growth rate, and hence the size, of the labor force significantly. The 55-years-and-older age group accounted for 13.1 percent of the labor force in 2000 and 19.5 percent in 2010. BLS expects the share of the older labor force to increase to 25.2 percent in 2020. (See table 1.)

The decision to continue work into the later years of life has been the result of several intertwined factors—such as the continually increasing life expectancy of the population—wherein a growing number of people are healthier for a longer portion of their lifespan. In addition, the elimination of mandatory retirement and the enactment of age discrimination laws have contributed to the increase in participation rates of older persons.

The continuing economic uncertainty and the impact of the financial crisis on many individuals' retirement savings and investment accounts are major factors in the continued high participation rate of the older age groups in the labor force. Other factors, such as increases in healthcare costs and a decrease in the availability of health benefits, also may have increased the participation of the older age groups in the workforce.

Finally, changes in the Social Security laws, along with an increase in the normal retirement age for certain birth cohorts and a decrease in benefits with early retirement, may have encouraged the 55-years-and-older group to increase its labor force participation. This increase will prevent the overall participation rate from dropping even further in the future.

Immigration. As far as population projections are concerned, different immigration scenarios result in different

growth rates for both the population and the labor force. Because immigration accounts for more than 40 percent of the growth of the U.S population, assumptions about immigration have a direct effect on the Census Bureau's population projections and hence on the BLS labor force projections. According to the Census Bureau's population projections used in the 2010–2020 projections of the labor force, net immigration to the United States is expected to add 1.5 million persons annually to the U.S. resident population, increasing that population significantly over the next several decades. However, the Census Bureau's upcoming projections of the resident population, possibly in 2012, may change the immigration assumption from the present level, and that in turn would change assumptions about the growth of the labor force.

A recent (November 11, 2011) visit to the Census Bureau's website indicated that the United States posts 1 birth every 8 seconds, 1 death every 12 seconds, 1 (net) international migrant every 43 seconds, and a net gain of 1 person every 16 seconds.[19] Changes in future immigration policies also significantly affect the growth rate of the population, which is the major factor in the growth of the labor force.

OVER THE 2010–2020 PERIOD, a combination of structural and cyclical factors will lower the labor force participation rates of the various age, gender, racial, and ethnic groups making up the workforce, in turn lowering the overall labor force participation rate. The baby-boom generation's exit from the prime-age workforce and entry into the older age groups will lower the overall labor force participation rate significantly. This change would then lower the annual growth rate of the labor force to 0.7 percent. The U.S. labor force in 2020 is projected to be 164.4 million, an increase of nearly 10.5 million over the 2010 level.   □

Notes

[1] Attributed to the 19th-century French philosopher Auguste Comte. The idea is that the social, cultural, and economic fabric of a nation derives in large part from its population dynamics.

[2] The civilian labor force consists of employed and unemployed persons actively seeking work, but does not include any Armed Forces personnel. Historical data for this series are from the Current Population Survey, conducted by the U.S. Census Bureau for the Bureau of Labor Statistics.

[3] The Census Bureau recommends its 2008 national population projections for data users. (See "U.S. Population Projections: 2008 National Population Projections" (U.S. Census Bureau, Aug. 14, 2008), **http://www.census.gov/population/www/projections/2008projections.html**). The 2009 national population projections are a supplemental series to the 2008 projections and lack the detailed age, gender, racial and ethnic data needed for the BLS labor force projections. All other methods and assumptions, including those relating to mortality and fertility, are the same in the 2009 projections as in the 2008 projections. The 2009 series is useful for analyzing potential outcomes of different levels of net international migration.

[4] See "U.S. Population Projections: Methodology Statement for the 2008 National Population Projections, United States Population Projections by Age, Sex, Race, and Hispanic Origin: July 1, 2000–2050" (U.S. Census Bureau, no date), **http://www.census.gov/population/www/projections/methodstatement08.html**.

[5] For more information, see "Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity" (Office of Management and Budget, Oct. 30, 1997), **http://www.whitehouse.gov/omb/fedreg_1997standards**.

[6] In Census Bureau projections, fertility rates were calculated from National Center for Health Statistics birth data and Census Bureau estimates of the female population.

[7] Census Bureau mortality time series data are calculated on the basis of National Center for Health Statistics data on deaths and the Census Bureau population estimates for 1984 through 2003.

[8] See "Population projections: Interim Projections of the U.S. Population by Age, Sex, Race, and Hispanic Origin: Summary Methodology and Assumptions" (U.S. Census Bureau, no date), **http://www.census.gov/population/www/projections/usinterimproj/idbsummeth.html**.

[9] The civilian noninstitutional population does not include the Armed Forces and comprises all persons 16 years and older who are neither inmates nor in penal or mental institutions, sanitariums, or homes for the aged.

[10] The Armed Forces estimates are arrived at with the use of data from the Department of Defense and under assumptions about the distribution of military personnel by demographic category.

[11] The Current Population Survey, a monthly survey of households, is conducted by the Bureau of the Census for the Bureau of Labor Statistics. The survey provides statistics on the employment and labor force status of the civilian noninstitutional population 16 years and older and is collected from a probability sample of approximately 60,000 households.

[12] See the following *Monthly Labor Review* articles by Mitra Toossi: "A century of change: the U.S. labor force, 1950–2050," May 2002, pp. 15–28, **http://www.bls.gov/opub/mlr/2002/05/art2full.pdf**; and "A new look at long-term labor force projections to 2050," November 2006, pp. 19–39, **http://www.bls.gov/opub/mlr/2006/11/art3full.pdf**.

[13] See Abraham Mosisa and Steven Hipple, "Trends in labor force participation in the United States," *Monthly Labor Review*, October 2006, pp. 35–57, **http://www.bls.gov/opub/mlr/2006/10/art3full.pdf**.

[14] See Teresa L. Morisi, "The early 2000s: a period of declining teen summer employment rates," *Monthly Labor Review*, May 2010, pp. 23–35, **http://www.bls.gov/opub/mlr/2010/05/art2full.pdf**.

[15] *Ibid.*

[16] See Andrew Sum and Ishwar Khatiwada, with Sheila Palma, *The Age Twist in Employment Rates in the U.S., 2000–2004: The Steep Tilt*

Against Young Workers in the Nation's Labor Markets, report prepared for Jobs for America's Graduates, Alexandria, VA (Boston, Northeastern University, Center for Labor Market Studies, January 2005), **http://www.aypf.org/publications/EmploymentRatesofyoungworkers.pdf**.

[17]   Entrants and leavers are computed by comparing the labor force numbers for birth cohorts at two points in time. If a given cohort has more labor force participants at the second point than at the first, the difference is termed the entrants. If the cohort has fewer labor force participants at the second point, the difference is the leavers. These concepts understate the numbers likely to enter and leave the labor force over the period covered by the two points in time, but are still a valid comparison. For a further discussion of the methods, see Howard N Fullerton, Jr., "Measuring Rates of Labor Force Dynamics," *Proceedings of the Social Statistics Section of the American Statistical Association* (Alexandria, VA, American Statistical Association, 1993).

[18]   See Howard N Fullerton, Jr., and Mitra Toossi, "Labor force projections to 2010: steady growth and changing composition," *Monthly Labor Review*, November 2001, pp. 21–38, **http://www.bls.gov/opub/mlr/2001/11/art2full.pdf**.

[19]   See "U.S. POPClock Projection" (U.S. Census Bureau, updated monthly), **http://www.census.gov/population/www/popclockus.html**.

Employment outlook: 2010–2020

Industry employment and output projections to 2020

The health care and social assistance sector and the professional and business services sector will account for almost half the projected job growth from 2010 to 2020; construction is projected to rebound from the most recent recession and add jobs, while employment in manufacturing is expected to decline over the period

Richard Henderson

This release of the Bureau of Labor Statistics (BLS) projections, which are published every 2 years, is the second since the recession that began in December 2007.[1] The characteristics and impacts of a recession are usually understood only in retrospect. Industries are affected differently, and the recovery for each industry can occur at different paces and along different paths. These recovery paths for an industry are greatly influenced by a recession's impact on the industry. The latest recession severely affected the construction industry, while the health care sector seemed unaffected. The biennial BLS projections assume that the economy is at or near full employment. This article will present the industry-level perspective of the BLS employment projections within that context.

BLS projects that total employment in the United States will rise 20.5 million between 2010 and 2020, from about 143.1 million to 163.5 million.[2] The annual growth rate of 1.3 percent reverses the 0.2-percent annual rate of decline that occurred during the 2000–2010 period, in which 3.2 million jobs were lost. The majority of the growth in employment can be attributed to an increase in the number of nonagricultural wage and salary workers, who will account for about 9 out of 10 projected jobs in the upcoming period. This employment growth will add 19.7 million jobs and is expected to

reach 150.2 million in 2020.[3] The number of agricultural workers, which includes self-employed people, unpaid family workers, and wage and salary workers, is expected to decline by 130,200. The remaining growth is accounted for by a projected increase of 776,800 nonagricultural self-employed and unpaid family workers, whose employment is projected to rise to more than 9.7 million by 2020. (See table 1.)

Real output is projected to increase from $23.2 trillion to $30.9 trillion (in chain-weighted 2005 dollars),[4] an annual growth rate of 2.9 percent during the 2010–2020 period. This growth rate is faster than the 1.0-percent annual growth rate experienced during the 2000–2010 period. The majority of output growth is projected to come from the service-providing sectors. Real output in these sectors is expected to rise from $16.2 trillion to $21.6 trillion, 2.9 percent per year, over the 2010–2020 period. This growth rate is faster than the 1.8-percent-per-year rate of increase seen in the 2000–2010 period. The service-providing sectors are expected to increase their share of nominal output from 69.4 percent in 2010 to 71.1 percent in 2020. The goods-producing sectors, excluding agriculture, are projected to increase their real output by $1.8 trillion to reach $7.4 trillion in 2020, an annual increase of 2.9 percent. This growth rate is faster than the 1.1-percent annual rate of decline expe-

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Table 1. Employment, by major industry sector, 2000, 2010, and projected 2020

Industry sector	Thousands of jobs			Change		Percent distribution			Annual rate of change	
	2000	2010	2020	2000–2010	2010–2020	2000	2010	2020	2000–2010	2010–2020
Total[1]	146,236.3	143,068.1	163,536.1	−3,168.2	20,468.0	100.0	100.0	100.0	−0.2	1.3
Nonagriculture wage and salary[2]	132,425.0	130,435.6	150,176.8	−1,989.4	19,741.2	90.6	91.2	91.8	−.2	1.4
Goods producing, excluding agriculture	24,569.7	17,705.5	19,496.8	−6,864.2	1,791.3	16.8	12.4	11.9	−3.2	1.0
Mining	520.4	655.9	680.7	135.5	24.8	.4	.5	.4	2.3	.4
Construction	6,786.4	5,525.6	7,365.1	−1,260.8	1,839.5	4.6	3.9	4.5	−2.0	2.9
Manufacturing	17,262.9	11,524.0	11,450.9	−5,738.9	−73.1	11.8	8.1	7.0	−4.0	−.1
Service providing	107,855.3	112,730.1	130,680.1	4,874.8	17,950.0	73.8	78.8	79.9	.4	1.5
Utilities	601.3	551.8	516.1	−49.5	−35.7	.4	.4	.3	−.9	−.7
Wholesale trade	5,933.5	5,456.1	6,200.2	−477.4	744.1	4.1	3.8	3.8	−.8	1.3
Retail trade	15,279.8	14,413.7	16,182.2	−866.1	1,768.5	10.4	10.1	9.9	−.6	1.2
Transportation and warehousing	4,410.3	4,183.3	5,036.2	−227.0	852.9	3.0	2.9	3.1	−.5	1.9
Information	3,630.6	2,710.9	2,851.2	−919.7	140.3	2.5	1.9	1.7	−2.9	.5
Financial activities	7,687.5	7,630.2	8,410.6	−57.3	780.4	5.3	5.3	5.1	−.1	1.0
Professional and business services	16,666.1	16,688.0	20,497.0	21.9	3,809.0	11.4	11.7	12.5	.0	2.1
Educational services	2,390.6	3,149.6	3,968.8	759.0	819.2	1.6	2.2	2.4	2.8	2.3
Health care and social assistance	12,718.3	16,414.5	22,053.9	3,696.2	5,639.4	8.7	11.5	13.5	2.6	3.0
Leisure and hospitality	11,861.6	13,019.6	14,362.3	1,158.0	1,342.7	8.1	9.1	8.8	.9	1.0
Other services	5,885.7	6,031.3	6,850.7	145.6	819.4	4.0	4.2	4.2	.2	1.3
Federal government	2,865.0	2,968.0	2,596.0	103.0	−372.0	2.0	2.1	1.6	.4	−1.3
State and local government	17,925.0	19,513.1	21,154.8	1,588.1	1,641.7	12.3	13.6	12.9	.9	.8
Agriculture, forestry, fishing, and hunting[3]	2,396.2	2,135.5	2,005.3	−260.7	−130.2	1.6	1.5	1.2	−1.1	−.6
Agriculture wage and salary	1,354.0	1,282.1	1,236.1	−71.9	−46.0	.9	.9	.8	−.5	−.4
Agriculture self-employed and unpaid family workers	1,042.2	853.4	769.3	−188.8	−84.1	.7	.6	.5	−2.0	−1.0
Nonagriculture self-employed and unpaid family workers	9,313.7	8,943.8	9,720.6	−369.9	776.8	6.4	6.3	5.9	−.4	.8
Secondary wage and salary jobs in agriculture and private household industries[4]	141.7	111.6	112.4	−30.1	1.1	.1	.1	.1	−2.4	.1
Secondary jobs as a self-employed or unpaid family worker[5]	1,959.4	1,441.7	1,521.7	−517.7	80.0	1.3	1.0	.9	−3.0	.5

[1] Employment data for wage and salary workers are from the BLS Current Employment Statistics survey, which counts jobs; whereas data for self-employed people, unpaid family workers, and agriculture, forestry, fishing, and hunting workers are from the Current Population Survey (household survey), which counts workers.

[2] Includes wage and salary data from the Current Employment Statistics survey, except for data on private households, which are from the Current Population Survey. Logging workers are excluded.

[3] Includes agriculture, forestry, fishing, and hunting data from the Current Population Survey, except for data on logging, which are from the Current Employment Statistics survey. Government wage and salary workers are excluded.

[4] Because of methodological changes, data are not comparable to previously published data for the categories of secondary workers.

[5] Wage and salary workers who hold a secondary job as a self-employed or unpaid family worker. Workers who hold a secondary wage and salary job in agricultural production, forestry, fishing, and private household industries.

SOURCE: U.S. Bureau of Labor Statistics, Employment Projections Program.

rienced during the 2000–2010 period. The share of nominal output for the goods-producing sectors, excluding agriculture, is expected to fall from 24.3 percent to 22.7 percent over the 2010–2020 period. Real output in the agriculture, forestry, fishing, and hunting sector is expected to increase from $301.4 billion in 2010 to $365.1 billion

in 2020, a 1.9-percent annual growth rate, which is higher than the 0.5-percent annual growth rate experienced during the previous period. The share of nominal output for the agricultural sector is projected to fall from 1.4 percent in 2010 to 1.1 percent in 2020. (See table 2.)

The macroeconomic factors, which include the labor

force, gross domestic product (GDP) and its components, and labor productivity, affect the growth in total employment. The BLS projections for 2010–2020 have GDP increasing from $13.1 trillion to $17.5 trillion, an annual growth rate of 3.0 percent, up from the 1.6 percent rate experienced during the 2000–2010 period. The labor force is projected to increase from 153.9 million to 164.4 million, a rate of 0.7 percent per year, slightly slower than the 0.8- percent rate seen in the previous period. Nonfarm labor productivity is projected to increase 2.0 percent annually during the 2010–2020 period, slower than the 2.5-percent growth that occurred during the previous decade. These macroeconomic constraints, along with the industry models, help shape the final projections of industry employment and output.[5]

The recession that began in December 2007 and ended in June 2009 contributed to the decline in employment at the end of the 2000–2010 period. While this loss of employment is not part of the analysis of this article, one should keep in mind that these declines in employment may cause some industries to have uncharacteristically high levels of employment growth for the 2010–2020 period because of the low starting levels for employment in 2010.[6] (See chart 1.)

Sector highlights

Service-providing sectors are expected to have the most job growth, with the number of wage and salary workers increasing from 112.7 million to 130.7 million, an annual growth rate of 1.5 percent, between 2010 and 2020. This growth rate is faster than the 0.4 percent experienced during the 2000–2010 period. The health care and social assistance sector[7] is projected to have the largest growth,

Table 2.	**Output, by major industry sector (gross duplicated output), 2000, 2010, and projected 2020**										
Industry sector	Billions of chained 2005 dollars			Annual rate of change		Billions of dollars			Percent distribution		
	2000	2010	2020	2000–2010	2010–2020	2000	2010	2020	2000	2010	2020
Total	20,979.4	23,171.3	30,876.3	1.0	2.9	18,303.6	26,273.6	43,000.3	100.0	100.0	100.0
Goods producing, excluding agriculture	6,218.3	5,565.8	7,385.6	–1.1	2.9	5,279.8	6,390.9	9,769.0	28.8	24.3	22.7
Mining	393.2	388.1	441.0	–.1	1.3	201.2	417.9	641.1	1.1	1.6	1.5
Construction	1,240.0	814.7	1,183.3	–4.1	3.8	937.9	932.5	1,540.2	5.1	3.5	3.6
Manufacturing	4,585.1	4,363.0	5,723.3	–.5	2.8	4,140.6	5,040.6	7,587.6	22.6	19.2	17.6
Service providing	13,525.9	16,165.8	21,600.5	1.8	2.9	11,960.8	18,242.0	30,563.4	65.3	69.4	71.1
Utilities	478.2	354.2	431.7	–3.0	2.0	371.9	429.0	644.0	2.0	1.6	1.5
Wholesale trade	896.7	1,176.4	1,648.9	2.8	3.4	883.1	1,213.5	1,836.6	4.8	4.6	4.3
Retail trade	1,019.1	1,165.0	1,671.0	1.3	3.7	988.8	1,208.1	2,029.3	5.4	4.6	4.7
Transportation and warehousing	640.1	709.4	977.6	1.0	3.3	588.0	820.4	1,365.6	3.2	3.1	3.2
Information	950.9	1,196.4	1,893.0	2.3	4.7	922.2	1,281.2	2,407.4	5.0	4.9	5.6
Financial activities	2,687.2	3,329.5	4,568.5	2.2	3.2	2,378.9	3,761.4	6,489.4	13.0	14.3	15.1
Professional and business services	1,934.6	2,355.0	3,372.1	2.0	3.7	1,729.0	2,667.4	5,056.6	9.4	10.2	11.8
Educational services	201.6	198.5	235.5	–.2	1.7	142.6	260.7	387.8	.8	1.0	.9
Health care and social assistance	1,142.2	1,525.9	2,025.9	2.9	2.9	973.0	1,763.2	3,145.1	5.3	6.7	7.3
Leisure and hospitality	754.8	870.2	1,123.9	1.4	2.6	654.4	996.4	1,664.6	3.6	3.8	3.9
Other services	514.0	514.5	652.3	.0	2.4	434.0	591.7	947.5	2.4	2.3	2.2
Federal government	732.3	1,012.1	938.9	3.3	–.7	597.9	1,158.6	1,345.8	3.3	4.4	3.1
State and local government	1,574.3	1,758.6	2,120.4	1.1	1.9	1,297.2	2,090.3	3,243.7	7.1	8.0	7.5
Agriculture, forestry, fishing, and hunting	285.4	301.4	365.1	.5	1.9	243.1	368.2	485.7	1.3	1.4	1.1
Special industries[1]	949.8	1,138.3	1,521.1	1.8	2.9	820.0	1,272.6	2,182.2	4.5	4.8	5.1
Residual[2]	.0	.0	4.0								

[1] Consist of nonproducing accounting categories to reconcile the Bureau of Economic Analysis input–output system with NIPA accounts.
[2] Residual is shown for the higher level only. As a byproduct of chain-weighting, subcategories do not necessarily add to higher level categories.

SOURCE: U.S. Bureau of Labor Statistics, Employment Projections Program.

Chart 1. **Total nonfarm wage and salary employment, 2000–2010 and projected to 2020**

Millions

Millions

- 2000–2010
- 2010–2020
- 2007–2020

At 0.6-percent annual rate (no recession)

149.5

137.6

At 1.4-percent annual rate

129.8

| | 2000 | 2002 | 2004 | 2006 | 2008 | 2010 | | 2020 |

NOTE: BLS does not project specific data for each of the years between 2010 and 2020. Interim years to the 2020 projection point are expressed by a dashed straight line only.

SOURCE: U.S. Bureau of Labor Statistics, Current Employment Statistics (historical data) and Employment Projections Program (2020 data).

5.6 million jobs, and the fastest growth rate, 3.0 percent, of all the major service-providing sectors, as well as all the other major sectors. (See table 1.) The information sector is projected to have the fastest growth rate in real output for all major sectors, 4.7 percent per year, increasing from nearly $1.2 trillion in 2010 to almost $1.9 trillion in 2020. (See table 2.)

Goods-producing sectors are projected to add almost 1.8 million jobs over the 2010–2020 period, an annual increase of 1.0 percent. Within the goods-producing sectors, construction is expected to add the most jobs, 1.8 million, over the projection period, reaching nearly 7.4 million. Productivity gains will help output in the goods-producing sector to increase 2.9 percent annually, to reach almost $7.4 trillion by 2020. Construction also is projected to have the most rapid employment growth in the goods-producing sector, an annual rate of 2.9 percent. (See table 1.) In addition, the construction sector is projected to have the fastest real output growth rate, 3.8 percent per year, among the goods-producing sectors. Still, despite this rapid growth, the construction sector is not projected to return to its prerecession levels of employment and output. Manufacturing is the dominant industry within the goods-producing sectors and is expected to experience an increase in real output from $4.4 trillion to

$5.7 trillion, a 2.8-percent annual increase, higher than the prerecession level of real output. (See table 2.)

Service-providing sectors

Health care and social assistance. Real output in the health care and social assistance sector is projected to grow at the same rate as the overall rate of the economy, 2.9 percent, to reach $2.0 trillion in 2020. (See table 2.) This growth rate is the same as that seen in the previous decade. However, employment in the health care and social assistance sector is projected to generate the largest number of jobs, 5.6 million, at an annual rate of 3.0 percent. This increase is the largest and fastest among all major sectors. (See table 1.) The projected change in demographics is largely driving the growth in the number of jobs being added in the sector. The number of people 65 years and older is projected to increase from 40.2 million in 2010 to 54.8 in 2020; this age group will account for 16.1 percent of the population in 2020, up from 13.0 percent in 2010.[8] In addition, increasing cost pressures are expected to shift demand from higher cost hospitals and long-term care services to lower cost health practitioners, home health care services, and clinical services.[9]

Home health care services, which provides in-home

care such as nursing and physical therapy, has the fastest growing employment of all industries and one of the largest increases in employment. It is projected to grow at 6.1 percent per year, adding 871,800 jobs and reaching almost 2.0 million jobs over the 2010–2020 period. (See tables 3 and 4.) Real output in home health care services is expected to grow at 4.3 percent per year (an increase of $25.7 billion) from 2010 to 2020, making the industry one of the fastest growing in terms of real output over the period. Output is expected to reach $74.4 billion in 2020. (See table 5.) The strong growth in employment and output reflects an aging population and the lower costs of home healthcare settings rather than the higher costs of inpatient facilities.[10]

The industry of offices of health practitioners, which includes offices of physicians, of dentists, and of other health practitioners such as chiropractors and optometrists, is expected to be one of the industries with the largest employment and real output increases over the 2010–2020 period. (See tables 4 and 6.) The industry is expected to add 1.4 million jobs, 3.2 percent annually, reaching 5.2 million by 2020. Real output is expected to grow by $179.2 billion, to reach $692.7 billion by 2020. Technological advances, cost pressures, and the increased number of people 65 years and older seeking medical care will shift services from inpatient facilities to the offices of health practitioners.

Nursing and residential care facilities provide assisted-living services, including nursing, rehabilitation, and other related personal care, to those who need continuous care but do not require hospital services. Nursing and residential care facilities are projected to add 822,000 jobs, to reach a level of almost 4.0 million by 2020. This industry is among those with the largest increases in employment. (See table 4.) By 2020, real output in the industry is expected to reach $221.7 billion, an increase of $52.4 billion, representing an annual growth rate of 2.7 percent. The increasing population of elderly people seeking to maintain some level of independence and improvements in technology allowing younger patients shorter rehabilitation stays will drive growth in the industry.

Employment growth in hospitals, which are facing increasingly higher industry costs as well as cheaper alternatives, is expected to increase at an annual rate of 1.7 percent during the projection period, the same as the 2000–2010 period. While this employment growth is the slowest in the health care and social assistance sector, private hospitals have a large employment base, so the growth represents an increase of 878,300 jobs, to reach 5.6 million by 2020. This employment increase is one of the largest among all industries. (See table 4.) Real output also is projected to have one of the largest increases, $129.4 billion, a 2.3-percent annual growth rate, to reach $637.7 billion. (See table 6.) The shift of services from hospitals, which are more expensive, to lower cost outpatient or home health services will slow the growth rate in employment relative to other healthcare services.[11]

Employment in the individual and family services industry, which provides a variety of social assistance to children, elderly people, people with disabilities, and others, is projected to increase 5.5 percent annually, the second-fastest employment growth over the 2010–2020 period. (See table 3.) This industry will add 851,400 jobs, one of the largest projected increases among all industries, to reach an employment level of nearly 2.1 million in 2020. (See table 4.) Real output in individual and family services is expected to grow at an annual rate of 3.2 percent, an increase of $23.9 billion, to reach $88.9 billion in 2020. Output and employment growth are again driven by the cost pressures that shift services from more costly inpatient facilities to less costly individual and family service providers.[12]

Because of cost reduction measures, employment in the outpatient, laboratory, and other ambulatory care industry is projected to grow 3.2 percent annually, one of the fastest rates, adding 394,100 jobs and making it one of the largest growing industries. (See tables 3 and 4.) Real output also is expected to be among the fastest growing, up 4.0 percent annually, or $69.4 billion, to reach $215.5 billion by 2020. (See table 5.)

Professional and business services. Strong demand for these services is expected to increase real output in this sector from $2.4 trillion to $3.4 trillion, or 3.7 percent per year, over the 2010–2020 period. (See table 2.) Employment in professional and business services is projected to add 3.8 million jobs (second largest among all major sectors), to reach 20.5 million in 2020. The 2.1-percent annual growth rate of employment is larger than the zero-percent growth rate experienced during the 2000–2010 period. (See table 1.)

The management, scientific, and technical consulting services industry is responsible for the majority of the employment growth in professional and business services. Employment is projected to increase by 575,600 jobs, or 4.7 percent annually, reaching a level of 1.6 million by 2020. This industry is expected to have one of the largest and fastest employment increases of all industries. (See tables 3 and 4.) Businesses' increasing use of consulting services to keep pace with the latest technologies, government regulations, and management and production

Table 3.	Industries with the fastest growing and most rapidly declining wage and salary employment, 2010–2020						
2007 NAICS code	**Industry description**	**Sector**	**Thousands of jobs**		**Change, 2000–2010**	**Annual rate of change, 2010–2020**
			2010	**2020**		
	Fastest growing					
6216	Home health care services	Health care and social assistance	1,080.6	1,952.4	871.8	6.1
6241	Individual and family services	Health care and social assistance	1,215.0	2,066.4	851.4	5.5
5416	Management, scientific, and technical consulting services	Professional and business services	991.4	1,567.0	575.6	4.7
3212	Veneer, plywood, and engineered wood product manufacturing	Manufacturing	64.7	94.9	30.2	3.9
5415	Computer systems design and related services	Professional and business services	1,441.5	2,112.8	671.3	3.9
3273	Cement and concrete product manufacturing	Manufacturing	171.8	236.1	64.3	3.2
6214, 6215, 6219	Outpatient, laboratory, and other ambulatory care services	Health care and social assistance	1,077.1	1,471.2	394.1	3.2
6211, 6212, 6213	Offices of health practitioners	Health care and social assistance	3,818.2	5,209.6	1,391.4	3.2
5112	Software publishers	Information	259.8	351.6	91.8	3.1
23	Construction	Construction	5,525.6	7,365.1	1,839.5	2.9
5324	Commercial and industrial machinery and equipment rental and leasing	Financial activities	113.5	151.2	37.7	2.9
5419	Other professional, scientific, and technical services	Professional and business services	573.1	760.2	187.1	2.9
5612	Facilities support services	Professional and business services	134.0	177.6	43.6	2.9
6242, 6243	Community and vocational rehabilitation services	Health care and social assistance	557.5	738.4	180.9	2.9
533	Lessors of nonfinancial intangible assets (except copyrighted works)	Financial activities	25.2	33.4	8.2	2.9
6114–7	Other educational services	Educational services	604.2	787.1	182.9	2.7
8111	Automotive repair and maintenance	Leisure and hospitality	799.7	1,037.2	237.5	2.6
8132, 8133	Grantmaking and giving services and social advocacy organizations	Other services	394.5	510.7	116.2	2.6
3211	Sawmills and wood preservation	Manufacturing	81.3	105.1	23.8	2.6
6244	Child day care services	Health care and social assistance	851.8	1,101.3	249.5	2.6
	Most rapidly declining					
3151	Apparel knitting mills	Manufacturing	157.7	66.1	−91.6	−8.3
3161, 3169	Leather and hide tanning and finishing, and other leather and allied product manufacturing	Manufacturing	27.8	12.7	−15.1	−7.6
491	Postal Service	Federal government	656.4	474.6	−181.8	−3.2
3342	Communications equipment manufacturing	Manufacturing	118.0	85.7	−32.3	−3.1
3341	Computer and peripheral equipment manufacturing	Manufacturing	161.6	117.5	−44.1	−3.1
486	Pipeline transportation	Transportation and warehousing	42.4	32.6	−9.8	−2.6
2122	Metal ore mining	Mining	36.4	28.1	−8.3	−2.5
3253	Pesticide, fertilizer, and other agricultural chemical manufacturing	Manufacturing	35.3	27.5	−7.8	−2.5
NA	Federal enterprises except the Postal Service and electric utilities	Federal government	76.6	60.2	−16.4	−2.4
3399	Other miscellaneous manufacturing	Manufacturing	266.0	210.3	−55.7	−2.3
3259	Other chemical product and preparation manufacturing	Manufacturing	82.9	68.6	−14.3	−1.9
3335	Metalworking machinery manufacturing	Manufacturing	153.2	130.5	−22.7	−1.6
3272	Glass and glass product manufacturing	Manufacturing	80.7	68.8	−11.9	−1.6
3251	Basic chemical manufacturing	Manufacturing	142.4	121.6	−20.8	−1.6
3353	Electrical equipment manufacturing	Manufacturing	136.3	116.9	−19.4	−1.5
3221	Pulp, paper, and paperboard mills	Manufacturing	112.7	97.4	−15.3	−1.4
3131	Fiber, yarn, and thread mills	Manufacturing	237.8	206.1	−31.7	−1.4
3311	Iron and steel mills and ferroalloy manufacturing	Manufacturing	85.4	74.3	−11.1	−1.4
324	Petroleum and coal products manufacturing	Manufacturing	114.0	100.0	−14.0	−1.3
5111	Newspaper, periodical, book, and directory publishers	Information	501.3	439.7	−61.6	−1.3
SOURCE: U.S. Bureau of Labor Statistics, Employment Projections Program.						

Table 4.	Industries with the largest wage and salary employment growth and declines, 2010–2020					
2007 NAICS code	Industry description	Sector	Thousands of jobs		Change, 2000–2010	Annual rate of change, 2010–2020
			2010	2020		
	Largest growth					
23	Construction	Construction	5,525.6	7,365.1	1,839.5	2.9
44, 45	Retail trade	Retail trade	1,4413.7	16,182.2	1,768.5	1.2
6211, 6212, 6213	Offices of health practitioners	Health care and social assistance	3,818.2	5,209.6	1,391.4	3.2
622	Hospitals	Health care and social assistance	4,685.3	5,563.6	878.3	1.7
6216	Home health care services	Health care and social assistance	1,080.6	1,952.4	871.8	6.1
722	Food services and drinking places	Leisure and hospitality	9,351.8	10,212.2	860.4	.9
6241	Individual and family services	Health care and social assistance	1,215.0	2,066.4	851.4	5.5
623	Nursing and residential care facilities	Health care and social assistance	3,129.0	3,951.0	822.0	2.4
42	Wholesale trade	Wholesale trade	5,456.1	6,200.2	744.1	1.3
NA	General local government educational services compensation	State and local government	8,010.4	8,751.4	741.0	.9
5415	Computer systems design and related services	Professional and business services	1,441.5	2,112.8	671.3	3.9
5613	Employment services	Professional and business services	2,716.7	3,348.0	631.3	2.1
5416	Management, scientific, and technical consulting services	Professional and business services	991.4	1,567.0	575.6	4.7
6112, 6113	Junior colleges, colleges, universities, and professional schools	Educational services	1,694.0	2,171.1	477.1	2.5
6214, 6215, 6219	Outpatient, laboratory, and other ambulatory care services	Health care and social assistance	1,077.1	1,471.2	394.1	3.2
5413	Architectural, engineering, and related services	Professional and business services	1,276.6	1,635.1	358.5	2.5
5617	Services to buildings and dwellings	Professional and business services	1,742.5	2,044.8	302.3	1.6
484	Truck transportation	Transportation and warehousing	1,244.0	1,544.0	300.0	2.2
NA	General state government educational services compensation	State and local government	2,377.1	2,661.7	284.6	1.1
6244	Child day care services	Health care and social assistance	851.8	1,101.3	249.5	2.6
	Largest declines					
491	Postal Service	Federal government	656.4	474.6	−181.8	−3.2
NA	General federal nondefense government compensation	Federal government	1667.5	1545.7	−121.8	−.8
3151	Apparel knitting mills	Manufacturing	157.7	66.1	−91.6	−8.3
5111	Newspaper, periodical, book, and directory publishers	Information	501.3	439.7	−61.6	−1.3
3399	Other miscellaneous manufacturing	Manufacturing	266.0	210.3	−55.7	−2.3
NA	General federal defense government compensation	Federal government	545.5	496.0	−49.5	−.9
3341	Computer and peripheral equipment manufacturing	Manufacturing	161.6	117.5	−44.1	−3.1
3345	Navigational, measuring, electromedical, and control instruments manufacturing	Manufacturing	406.0	363.2	−42.8	−1.1
111	Crop production	Agriculture, forestry, fishing, and hunting	629.5	589.3	−40.2	−.7
8123	Drycleaning and laundry services	Other services	302.1	265.7	−36.4	−1.3
2211	Electric power generation, transmission and distribution	Utilities	396.9	361.4	−35.5	−.9
NA	State government enterprises	State and local government	517.8	484.6	−33.2	−.7
3344	Semiconductor and other electronic component manufacturing	Manufacturing	369.7	336.9	−32.8	−.9
3342	Communications equipment manufacturing	Manufacturing	118.0	85.7	−32.3	−3.1
323	Printing and related support activities	Manufacturing	486.9	454.7	−32.2	−.7
3131	Fiber, yarn, and thread mills	Manufacturing	237.8	206.1	−31.7	−1.4
512	Motion picture, video, and sound recording industries	Information	372.0	347.0	−25.0	−.7
3335	Metalworking machinery manufacturing	Manufacturing	153.2	130.5	−22.7	−1.6
3251	Basic chemical manufacturing	Manufacturing	142.4	121.6	−20.8	−1.6
3363	Motor vehicle parts manufacturing	Manufacturing	415.1	394.9	−20.2	−.5

SOURCE: U.S. Bureau of Labor Statistics, Employment Projections Program.

Table 5.	Industries with the fastest growing and most rapidly declining output, 2010–2020		Billions of chained 2005 dollars		Change, 2000–2010	Annual rate of change, 2010–2020
2007 NAICS code	Industry description	Sector	2010	2020		
	Fastest growing					
3341	Computer and peripheral equipment manufacturing	Manufacturing	132.3	513.0	380.7	14.5
5112	Software publishers	Information	156.9	368.2	211.3	8.9
3344	Semiconductor and other electronic component manufacturing	Manufacturing	143.8	290.0	146.1	7.3
5415	Computer systems design and related services	Professional and business services	258.5	466.5	208.0	6.1
518, 519	Data processing, hosting, related services, and other information services	Information	168.2	303.2	135.0	6.1
3342	Communications equipment manufacturing	Manufacturing	62.8	105.7	42.8	5.3
533	Lessors of nonfinancial intangible assets (except copyrighted works)	Financial activities	134.1	219.6	85.5	5.1
55	Management of companies and enterprises	Professional and business services	318.8	494.7	175.8	4.5
523	Securities, commodity contracts, and other financial investments and related activities	Financial activities	410.7	636.6	226.0	4.5
6216	Home health care services	Health care and social assistance	48.7	74.4	25.7	4.3
3331	Agriculture, construction, and mining machinery manufacturing	Manufacturing	47.8	72.5	24.7	4.3
517	Telecommunications	Information	511.3	774.7	263.4	4.2
3346	Manufacturing and reproducing magnetic and optical media	Manufacturing	7.3	11.1	3.7	4.2
492	Couriers and messengers	Transportation and warehousing	73.9	110.9	37.0	4.1
3333	Commercial and service industry machinery manufacturing	Manufacturing	21.0	31.2	10.1	4.0
3365	Railroad rolling stock manufacturing	Manufacturing	10.6	15.7	5.1	4.0
6214, 6215, 6219	Outpatient, laboratory, and other ambulatory care services	Health care and social assistance	146.1	215.5	69.4	4.0
487, 488	Scenic and sightseeing transportation and support activities for transportation	Transportation and warehousing	63.1	93.0	29.9	4.0
5416	Management, scientific, and technical consulting services	Professional and business services	166.7	242.9	76.1	3.8
5613	Employment services	Professional and business services	157.7	229.3	71.6	3.8
23	Construction	Construction	814.7	1,183.3	368.7	3.8
5321	Automotive equipment rental and leasing	Financial activities	49.7	72.0	22.3	3.8
3259	Other chemical product and preparation manufacturing	Manufacturing	47.3	68.4	21.1	3.8
	Most rapidly declining					
3151	Apparel knitting mills	Manufacturing	14.8	7.1	−7.7	−7.1
3161, 3169	Leather and hide tanning and finishing, and other leather and allied product manufacturing	Manufacturing	4.4	3.2	−1.3	−3.3
NA	General federal nondefense government compensation	Federal government	147.0	128.7	−18.3	−1.3
NA	General federal nondefense government consumption of fixed capital	Federal government	31.3	27.4	−3.9	−1.3
3131	Fiber, yarn, and thread mills	Manufacturing	44.1	39.9	−4.2	−1.0
NA	General federal nondefense government except compensation and consumption of fixed capital	Federal government	138.5	127.2	−11.3	−.8
491	Postal service	Federal government	62.0	57.5	−4.6	−.8
NA	General federal defense government compensation	Federal government	241.6	225.0	−16.5	−.7
NA	General federal defense government consumption of fixed capital	Federal government	83.1	77.4	−5.7	−.7
NA	General federal defense government except compensation and consumption of fixed capital	Federal government	288.6	272.0	−16.6	−.6
NA	General state government hospitals compensation	State and local government	29.7	28.2	−1.5	−.5
3112	Tobacco manufacturing	Manufacturing	54.3	52.0	−2.2	−.4
114	Fishing, hunting, and trapping	Agriculture, forestry, fishing, and hunting	6.3	6.1	−.2	−.3

SOURCE: U.S. Bureau of Labor Statistics, Employment Projections Program.

Table 6.	Industries with the largest output growth and declines, 2010–2020						
2007 NAICS code	Industry description	Sector	Billions of chained 2005 dollars		Change, 2000–2010	Annual rate of change, 2010–2020
			2010	2020		
	Largest growth					
44, 45	Retail trade	Retail trade	1,165.0	1,671.0	506.0	3.7
42	Wholesale trade	Wholesale trade	1,176.4	1,648.9	472.5	3.4
521, 522	Monetary authorities, credit intermediation, and related activities	Financial activities	917.0	1,303.3	386.3	3.6
3341	Computer and peripheral equipment manufacturing	Manufacturing	132.3	513.0	380.7	14.5
23	Construction	Construction	814.7	1,183.3	368.7	3.8
531	Real estate	Financial activities	1,016.8	1,334.2	317.3	2.8
517	Telecommunications	Information	511.3	774.7	263.4	4.2
523	Securities, commodity contracts, and other financial investments and related activities	Financial activities	410.7	636.6	226.0	4.5
5112	Software publishers	Information	156.9	368.2	211.3	8.9
5415	Computer systems design and related services	Professional and business services	258.5	466.5	208.0	6.1
6211, 6212, 6213	Offices of health practitioners	Health care and social assistance	513.4	692.7	179.2	3.0
55	Management of companies and enterprises	Professional and business services	318.8	494.7	175.8	4.5
3344	Semiconductor and other electronic component manufacturing	Manufacturing	143.8	290.0	146.1	7.3
518, 519	Data processing, hosting, related services, and other information services	Information	168.2	303.2	135.0	6.1
722	Food services and drinking places	Leisure and hospitality	480.6	615.3	134.7	2.5
622	Hospitals	Health care and social assistance	508.3	637.7	129.4	2.3
NA	General state and local governments except compensation and consumption of fixed capital	State and local government	534.9	656.1	121.2	2.1
5241	Insurance carriers	Financial activities	440.6	545.6	105.0	2.2
324	Petroleum and coal products manufacturing	Manufacturing	440.5	542.6	102.0	2.1
5413	Architectural, engineering, and related services	Professional and business services	263.8	365.6	101.8	3.3
	Largest declines					
NA	General federal nondefense government compensation	Federal government	147.0	128.7	−18.3	−1.3
NA	General federal defense government except compensation and consumption of fixed capital	Federal government	288.6	272.0	−16.6	−.6
NA	General federal defense government compensation	Federal government	241.6	225.0	−16.5	−.7
NA	General federal nondefense government except compensation and consumption of fixed capital	Federal government	138.5	127.2	−11.3	−.8
3151	Apparel knitting mills	Manufacturing	14.8	7.1	−7.7	−7.1
NA	General federal defense government consumption of fixed capital	Federal government	83.1	77.4	−5.7	−.7
491	Postal Service	Federal government	62.0	57.5	−4.6	−.8
3131	Fiber, yarn, and thread mills	Manufacturing	44.1	39.9	−4.2	−1.0
NA	General federal nondefense government consumption of fixed capital	Federal government	31.3	27.4	−3.9	−1.3
3122	Tobacco manufacturing	Manufacturing	54.3	52.0	−2.2	−.4
NA	General state government hospitals compensation	State and local government	29.7	28.2	−1.5	−.5
3161, 3169	Leather and hide tanning and finishing, and other leather and allied product manufacturing	Manufacturing	4.4	3.2	−1.3	−3.3
114	Fishing, hunting, and trapping	Agriculture, forestry, fishing, and hunting	6.3	6.1	−.2	−.3

SOURCE: U.S. Bureau of Labor Statistics, Employment Projections Program.

techniques will increase the demand for workers in the industry. Services of consultants can be a lower cost alternative, because consultants can be hired temporarily and as needed. Real output in the management, scientific, and technical consulting services industry is projected to rise by $76.1 billion, a 3.8-percent annual increase, to reach $242.9 billion by 2020, making it one of the industries with the fastest projected real output growth. (See table 5.)

Employment in the computer systems design and related services industry is projected to add 671,300 jobs, to reach an employment level of 2.1 million by 2020, making this industry one of the largest growing ones. (See table 4.) Employment in computer systems design and related services also is projected to grow at 3.9 percent per year, making this industry one of the fastest growing. (See table 3.) The demand for increased network and computer systems security, mobile technologies, and custom programming services, as well as the health care industry's ongoing move to electronic records, will drive the employment growth in this industry. The computer systems design and related services industry also is expected to be among those with the largest and fastest increases in real output, which is projected to increase by $208.0 billion, to reach $466.5 billion in 2020, an annual growth rate of 6.1 percent. (See tables 5 and 6.)

The employment services industry, which comprises employment placement agencies, temporary help services, and professional employer organizations, is projected to add 631,300 jobs, an annual rate of increase of 2.1 percent, and reach 3.3 million by 2020, placing this industry among those with the largest projected employment growth. (See table 4.) The industry also is projected to be among those with the fastest real output growth rate, 3.8 percent annually, increasing by $71.6 billion, to reach $229.3 billion by 2020. (See table 5.) The demand for information technology, healthcare, and temporary help services is driving growth in this industry.

Information.   The information sector is projected to grow at 4.7 percent per year in real output, the fastest growth among all major sectors, increasing by $696.6 billion, to reach $1.9 trillion by 2020. (See table 2.) This growth rate is faster than the 2.3-percent-per-year growth rate that the information sector experienced during the 2000–2010 period, in which real output rose from $950.9 billion to nearly $1.2 trillion, an increase of almost $245.5 billion. Most of the expected output growth in 2010–2020 is being driven by the software publishers and the data processing, hosting, related services, and other information services industries, which are growing at 8.9 percent and

6.1 percent, respectively. While real output in the information sector is growing faster than the overall economy, employment in the sector is growing more slowly than the overall economy. Employment in the information sector is expected to grow at an annual rate of 0.5 percent, adding 140,300 jobs, to reach a level of 2.9 million by 2020. (See table 1.) The slower growth rate in employment over the 2010–2020 period is driven by the projected 1.3-percent-per-year decline in employment in the newspaper, periodical, book, and directory publishers industry, in which jobs have decreased by 61,600. This loss is due mostly to a decrease in circulation caused by the rise of available information on the Internet.

The software publishers industry is projected to grow from $156.9 billion to $368.2 billion in real output, an increase of $211.3 billion, making it one of the largest growing industries in real output. (See table 6.) The projected 8.9-percent real output growth rate also makes the software publishers industry the second-fastest-growing industry in real output. (See table 5.) Over the 2010–2020 period, employment is projected to increase 91,800, to reach 351,600, an annual growth rate of 3.1 percent, making this industry one of the fastest growing in employment. (See table 3.) With increasing technology, output will grow faster than employment. As more software services, such as cloud computing, word processing, and entering data into spreadsheets, become available through the Internet and the need grows for a more secure network, so will the demand for services of software publishers.

Real output in the data processing, hosting, related services, and other information services industry, which not only provides the infrastructure for hosting and data processing but also offers search engines, is projected to grow at an annual rate of 6.1 percent, making it one of the fastest growing industries. (See table 5.) Real output is expected to increase $135.0 billion, to reach $303.2 billion by 2020, also making the industry one of the largest growing. (See table 6.) Employment in this industry is projected to increase by 31,000, or 0.8 percent per year, to reach 414,500 by 2020. This increase is an improvement over the figure registered in the 2000–2010 period, when the industry lost 89,300 jobs, a 2.1-percent-per-year decline, but as of 2020, employment will still be below the 2000 level of 472,800 jobs. The creation of cloud storage that allows computer users to move storage offsite, as well as an increase in the amount of Web broadcasting and virtual meetings, lowering travel costs, will drive growth in this industry. Technological advances will increase productivity, which will slow the growth of employment in the industry.

Telecommunications is the industry with the largest employment in this sector, accounting for almost one-third of the sector's employment. Over the 2010–2020 period, telecommunications is projected to gain 73,800 jobs, a rate of 0.8 percent per year, reaching 973,500. Real output is expected to rise from $511.3 to $774.7 billion, an increase of $263.4 billion, a 4.2-percent annual growth rate, making this industry one of the largest and fastest growing. (See tables 5 and 6.) The replacement of copper wires with fiber-optic cables, new wireless communication that will increase download speeds, and new technologies will spur demand for both output and employment in this industry.

Financial activities. Real output in the financial activities sector is projected to rise from $3.3 trillion in 2010 to nearly $4.6 trillion in 2020, an increase of almost $1.3 trillion. (See table 2.) The annual growth rate of 3.2 percent for real output is faster than the growth rate of the economy, 2.9 percent per year, over the 2010–2020 period. The 3.2-percent growth rate also is faster than that posted by the industry in the 2000–2010 period, when real output grew at 2.2 percent per year. Employment in this sector is expected to increase by 780,400, to reach 8.4 million jobs by 2020. (See table 1.) The 1.0-percent growth rate for employment, during 2010–2020, is faster than the 0.1-percent decline the industry experienced during the previous period.

Real output in lessors of nonfinancial intangible assets, with a 5.1-percent growth rate, is projected to be the fastest growing industry in financial activities, and among the fastest growing of all industries, over the 2010–2020 period. (See table 5.) Real output is expected to increase by $85.5 billion, to reach $219.6 billion in 2020. Employment in this industry is projected to add 8,200 jobs, an annual rate of 2.9 percent, to reach 33,400 jobs by 2020, making the industry one of the fastest growing in employment. (See table 3.) The increase of 8,200 jobs is an improvement over the loss of 2,600 jobs, an annual decline of 1.0 percent, experienced during the 2000–2010 period. Increased demand for asset rights, trademarks, and franchising agreements will drive growth in the industry.

Real output in securities, commodity contracts, and other financial investments and related activities is projected to increase from $410.7 billion in 2010 to $636.6 billion in 2020. The increase of $226.0 billion, an annual growth rate of 4.5 percent, makes this industry one of the largest and fastest growing industries in real output. (See tables 5 and 6.) Employment in the industry is projected to add 201,400 jobs, which is the largest increase in jobs in the financial activities sector over the 2010–2020 period.

This increase contrasts with the 3,600 jobs lost during the 2000–2010 period. Demand in the industry will rise as the number of people reaching retirement age and seeking advice on retirement options grows. Younger workers seeking advice on retirement options also will increase demand in this industry.

The monetary authorities, credit intermediation, and related activities industry is expected to increase its real output by $386.3 billion, reaching $1.3 trillion in 2020, making this increase the third largest in real output during the 2010–2020 period. (See table 6.) The 3.6-percent growth rate in real output over the period is slower than the 4.4-percent increase in real output experienced in 2000–2010. Employment in this industry is expected to rise from 2.6 million to almost 2.7 million, an increase of 85,200 jobs, an annual growth rate of 0.3 percent over the 2010–2020 period. This growth rate is an improvement over that seen in the 2000–2010 period, when job growth was stagnant.

The real estate industry is expected to have one of the largest increases in real output, from $1.0 trillion to more than $1.3 trillion, a gain of $317.3 billion. (See table 6.) The 2.8-percent annual growth rate experienced during the 2010–2020 period is an improvement over the 1.9-percent real output growth rate exhibited during the 2000–2010 period. The increase in output during the 2010–2020 period is due largely to the rebound in the construction industry and the housing market projected to occur over the 2010–2020 period.[13] Employment in the real estate industry also is expected to rebound, increasing from almost 1.4 million in 2010 to almost 1.6 million, an annual rate of 1.1 percent, during 2010–2020. The increase of 167,300 jobs is more than double the increase experienced during the 2000–2010 period.

Educational services. Employment in the educational services sector is projected to rise from 3.1 million in 2010 to almost 4.0 million in 2020, a difference of 819,200 jobs. (See table 1.) The expected 2.3-percent growth rate in employment during 2010–2020 is down slightly from the 2.8-percent growth rate experienced over the 2000–2010 period. Increasing enrollments in primary and secondary schools, along with a growing number of people seeking postsecondary education, will drive the increase in employment in educational services.[14] Real output in educational services is projected to increase by $37 billion, to reach $235.5 billion in 2020. (See table 2.) The 1.7-percent annual growth rate of real output during 2010–2020 contrasts with the 0.2-percent rate of decline experienced during the 2000–2010 period.

Employment in the industry titled "other educational services," which comprises business schools and computer and management training, technical and trade schools, other schools and instruction, and educational support services, is projected to increase 182,900, from 604,200 in 2010 to 787,100 in 2020, an annual rate of 2.7 percent, making this industry one of the fastest growing. (See table 3.) Real output in "other educational services" is projected to increase by $10.6 billion to $53.3 billion by 2020, an annual rate of 2.2 percent, which is higher than the 0.1-percent decline experienced during the previous decade. As the number of high school graduates increases and as a greater number of older workers seek additional training in their fields in order to keep pace with newer employees, the demand for other educational services will grow.

Employment in junior colleges, colleges, universities, and professional schools is projected to rise from nearly 1.7 million in 2010 to almost 2.2 million in 2020. The increase of 477,100 jobs, representing an annual growth rate of 2.5 percent, gives this industry one of the largest increases in employment. (See table 4.) Rising total enrollment in postsecondary-degree granting institutions will drive the increase in employment in this industry.[15] Real output in the industry is projected to increase by $23.2 billion, to reach $145.7 billion by 2020. The 1.7-percent annual growth rate of real output is higher than the zero-percent growth rate experienced during the 2000–2010 period.

Wholesale trade. Employment in the wholesale trade sector is projected to rise from almost 5.5 million in 2010 to 6.2 million in 2020. The employment increase of 744,100 represents one of the largest increases in employment among all industries. (See table 4.) While a large number of jobs are expected to be added, the 1.3-percent growth rate of employment is the same as the overall growth rate of employment for the economy. Much of the rise in employment is due to the recovery from the recession, employment having fallen from 5.9 million in 2000 to 5.5 million in 2010. The economy and domestic demand for goods influence employment in the wholesale trade industry. Real output in wholesale trade is expected to increase from almost $1.2 trillion to $1.6 trillion over the 2010–2020 period. (See table 6.) The increase in real output of $472.5 billion, or 3.4 percent per year, is the second-largest increase in real output for all industries during the 2010–2020 period. As the economy improves and demand for domestic goods increases, so will the demand for wholesale trade services.

Retail trade. Real output in the retail trade sector is projected to grow by $506.0 billion, to reach almost $1.7 trillion by 2020, making this increase the largest in real output among all industries. (See table 6.) Retail trade also is expected to increase employment by 1.8 million, to reach 16.2 million in 2020. This projected increase is the second largest among all industries. (See table 4.) The annual growth rate of 1.2 percent for employment is slightly lower than the overall growth rate of employment for the economy; the difference is attributable to the fact that retail trade is such a large industry in terms of employment. The increase in personal consumption expenditures, from $9.2 trillion in 2010 to $12.0 trillion in 2020, will drive employment and output growth in this industry.[16]

Leisure and hospitality. The leisure and hospitality sector is expected to gain 1.3 million jobs, to reach nearly 14.4 million, over the 2010–2020 period. (See table 1.) Two-thirds of the increase in employment is attributable to the food services and drinking places industry, in which employment is projected to increase from almost 9.4 million in 2010 to 10.2 million in 2020. The increase of 860,400 jobs is among the highest number of jobs added among all industries. (See table 4). The 0.9-percent annual increase in employment is lower than the 1.3 percent experienced during the 2000–2010 period. Real output in food services and drinking places is expected to grow by $134.7 billion, to reach $615.3 billion in 2020, making this increase one of the largest in real output. (See table 6.)

Utilities. The utilities sector is one of the two service-providing sectors (federal government is the other) that are projected to decrease in employment over the 2010–2020 period. The sector is expected to lose 35,700 jobs, falling to 516,100 by 2020, an annual rate of decline of 0.7 percent. (See table 1.) This rate is slower than that posted during the 2000–2010 period, when the sector shed 49,500 jobs, representing a 0.9-percent decline, and fell from 601,300 to 551,800. While employment is expected to fall in the utilities sector, real output is expected to rise from $354.2 billion to $431.7 billion, an increase of $77.5 billion, or 2.0 percent per year.

Water, sewage, and other systems is the only industry in the utilities sector projected to see an employment increase. Employment is expected to rise from 46,900 to 59,000, adding 12,100 jobs over the 2010–2020 period. With a growing population and an increasing number of Environmental Protection Agency (EPA) regulations, as well as state regulations, the demand for workers will rise in this industry. Over the coming decade, real output in the industry is expected to increase by $2.5 billion,

a 2.5-percent annual growth rate, to reach $11.5 billion. This increase contrasts with the drop in real output over the previous decade, from $10.3 to $9.0 billion, a loss of $1.3 billion.

Employment in electric power generation, transmission, and distribution is expected to decrease more than employment in any other industry in the utilities sector. The industry is projected to lose 35,500 jobs, falling to 361,400, a 0.9-percent decline, over the 2010–2020 period. The decline continues the downward trend in employment in the industry, employment having fallen by 37,500, to 396,900, over the 2000–2010 period, also a 0.9-percent decline. New technologies, along with newer and larger facilities, have led to more efficient plants that require fewer workers. While employment continues to fall, real output in the electric power generation, transmission, and distribution industry is projected to rise from $236.7 billion in 2010 to $299.9 billion in 2020. The increase of $63.2 billion represents a growth rate of 2.4 percent over the coming decade, contrasting with the 3.0-percent decline the industry experienced during the 2000–2010 period.

Federal government. The federal government is expected to be the only sector to experience a decrease in real output over the 2010–2020 period, with real output expected to fall by $73.2 billion, from $1.0 trillion in 2010 to $938.9 billion in 2020. (See table 2.) The decline contrasts with the $267.7 billion rise in real output for the sector, from $732.3 billion in 2000 to $1.0 trillion in 2020. Employment in the federal government is projected to fall from almost 3.0 million jobs in 2010 to nearly 2.6 million jobs in 2020. (See table 1.) The expected loss of 372,000 jobs is larger than that of any other sector. The increased pressure to reduce the government budget deficit will be one of the major contributors to the loss of employment and output.

The Postal Service is expected to be responsible for almost half of the decrease in employment in the federal government sector. The agency is projected to lose 181,800 jobs, to fall to 474,600, an annual decline of 3.2 percent, over the 2010–2020 period, the third-fastest and the largest decline in employment of any industry. (See tables 4 and 5.) The Postal Service also is projected to decrease by $4.6 billion in real output, down to $57.5 billion, a rate of decline of 0.8 percent, making this industry one of the fastest declining ones. (See table 5.) With the more widespread use of email, online payment of bills, and a decrease in the circulation of magazines, consumers are moving away from services that the Postal Service industry provides.

General federal nondefense government compensation, which is government spending to produce goods and services by federal nondefense civilian employees, is projected to shed 121,800 jobs between 2010 and 2020, an annual rate of decline of 0.8 percent. This loss of employment is the second-largest for all industries. (See table 4.) Pressure to reduce the budget deficit and curb government spending, as well as to shrink the government workforce, will decrease employment in the industry. Real output in general federal nondefense government compensation is expected to decrease slightly, from $147.0 billion in 2010 to $128.7 billion in 2020, an annual rate of decline of 1.3 percent.

State and local government. Employment in the state and local government sector is projected to increase from 19.5 million in 2010 to almost 21.2 million in 2020. (See table 1.) This employment increase, of slightly more than 1.6 million jobs for this sector, is one of the largest increases in employment for all major sectors. Real output in the state and local government sector also is expected to increase in 2020, rising from almost $1.8 trillion in 2010 to more than $2.1 trillion. (See table 2.)

Employment in state and local educational services will account for almost two-thirds of the increase in employment in the state and local government sector over the 2010–2020 period. Employment in local government educational services will increase from 8.0 million in 2010 to just less than 8.8 million in 2020. The addition of 741,000 jobs, representing an annual growth rate of 0.9 percent, is one of the largest increases in employment among all industries. (See table 4.) Rising enrollment in primary and secondary schools and the increasing assimilation of those with disabilities into regular instruction will drive employment gains for both teachers and aides.[17] Employment in state educational services is expected to increase from almost 2.4 million to almost 2.7 million. The employment increase of 284,600 is one of the largest projected for the decade. (See table 4.) The increased enrollment in postsecondary institutions, which is due to the increased number of high school graduates and older workers seeking to improve their skills, will drive most of this employment growth.

Goods-producing sectors

The goods-producing sectors, which together comprise agriculture, mining, construction, and manufacturing, are projected to add almost 1.7 million jobs, increasing from 19.8 million to 21.5 million from 2010 to 2020. (See

table 1.) Although employment is rising in those sectors, employment in the service-providing sectors is increasing more rapidly, so the goods-producing sectors percentage of total employment is projected to fall from 13.9 percent to 13.1 percent during the period. Real output in the goods-producing sector is expected to grow at 2.8 percent, which is slightly lower than the overall economy. (See table 2.) While real output is expected to grow at a rate just less than that of the overall economy, the percentage of total nominal output is projected to fall from 25.7 percent in 2010 to 23.8 percent in 2020. Again, this decline is due to the service-providing sectors growing more rapidly than the goods-producing sectors.

Agriculture, forestry, fishing, and hunting. This sector contains more self-employed and unpaid family workers than wage and salary workers. Over the 2010–2020 decade, employment of self-employed and unpaid family workers is expected to decrease by 84,100, down to 769,300 in 2020, a 1.0-percent decline from the 2010 figure. Wage and salary employment is projected to fall from almost 1.3 million in 2010 to just more than 1.2 million in 2020, a decrease of 46,000, or a 0.4-percent decline. Total employment in this sector is expected to fall by 130,200, a 0.6-percent decline. Real output is projected to rise from $301.4 billion in 2010 to $365.1 billion in 2020, an increase of $63.7 billion. The projected annual increase in real output of 1.9 percent from 2010 to 2020 is larger than the 0.5-percent increase experienced during the 2000–2010 period.

Wage and salary employment in the crop production industry is expected to fall by 40,200, from 629,500 in 2010 to 589,300 in 2020, one of the largest declines in employment among all industries. (See table 4.) Still, while employment is projected to fall, real output is projected to rise from $123.1 billion in 2010 to $143.2 billion in 2020, an increase of $20.1 billion, at an annual rate of 1.5 percent, which is greater than the 0.1-percent decline the industry experienced during the 2000–2010 period. The expansion of the U.S. biofuels industry and increased demand for biofuels by the United States, Brazil, and the European Union (where biofuels are exported) will help drive demand in this industry. Rising demand for these crops will increase the price of the crops over the 2010–2020 decade.[18]

Employment in the animal production industry also is expected to fall, from 832,500 in 2010 to 785,100 in 2020, a decrease of 47,400, an annual rate of decline of 0.6 percent. Real output in this industry is expected to increase by $36.4 billion, an annual rate of 2.4 percent, to reach $175.4 billion by 2020. While output in the industry is growing, higher prices for feed used in raising livestock may initially mute some of the growth.[19]

The forestry industry is the only industry within the agriculture, forestry, fishing, and hunting sector that is projected to have employment growth over the next decade. Employment is expected to rise from 14,700 in 2010 to 19,200 in 2020, increasing at an annual rate of 2.7 percent, which is faster than the 0.6-percent growth rate experienced during the 2000–2010 period. Real output also is expected to grow in the forestry industry, increasing by $2.2 billion, to reach $9.8 billion in 2020. The 2.5-percent annual growth rate in real output registered in 2010–2020 is slightly faster than the 2.3-percent growth rate experienced during the 2000–2010 period.

Mining. Employment in the mining sector is projected to rise from 655,900 in 2010 to 680,700 in 2020, an increase of 24,800. The annual growth rate for employment of 0.4 percent during the 2010–2020 period is slower than the 2.3-percent rate experienced during the 2000–2010 period. (See table 1.) Employment in the industry is closely related to trends in the price of the goods being mined and to increasing energy efficiency as prices rise. Real output in mining also is expected to rise, by $52.9 billion, an annual rate of increase of 1.3 percent, to reach $441.0 billion by 2020. (See table 2.) This growth rate is faster than the 0.1-percent rate of decline that the industry experienced during the previous period.

The oil and gas extraction industry will account for almost all the employment gains in the mining sector, with employment rising from 158,900 in 2010 to 182,100 in 2020. The employment gain of 23,200 experienced during the 2010–2020 period, a rate of increase of 1.4 percent per year, is less than the employment increase of 34,000 seen from 2000 to 2010. Real output in this industry is projected to rise by $9.0 billion, an annual rate of increase of 0.4 percent. Further increases in shale gas production, in which the new technologies of horizontal drilling and hydraulic fracturing made production more economical, are expected over the next decade.[20] The increased demand for oil and gas will spur further exploration for oil and gas reserves. Some factors, such as increased environmental regulations, may slow growth.

The nonmetallic mineral mining and quarrying industry is the other industry in the mining sector that is projected to increase employment over the 2010–2020 period. Employment is expected to grow from 85,900 in 2010 to 97,500 in 2020, a difference of 11,600. The annual growth rate of 1.3 percent over the decade contrasts with the

2.9-percent decline during the 2000–2010 period. Real output in the nonmetallic mineral mining and quarrying industry also is projected to increase, by $8.7 billion, to reach $33.7 billion by 2020. The annual increase in real output of 3.0 percent projected for the 2010–2020 period is higher than the 1.1-percent rise experienced during the previous period. As the construction sector rebounds, demand will increase for nonmetallic minerals such as granite and gravel and other materials used in residential and nonresidential construction. (See next sections.)

The coal mining and metal ore mining industries are both projected to decrease in employment by 3,100 and 8,300 jobs, respectively. However, both industries are projected to increase in real output. Coal mining is expected to increase from $20.9 billion in 2010 to $27.7 billion in 2020, a difference of $6.8 billion. The 2.9-percent growth rate during the 2010–2020 period contrasts with the 3.9-percent decline experienced during the 2000–2010 period. Coal is still the main source of electric power generation, and as the demand for more power increases, so will the demand for coal. Real output in metal ore mining is projected to increase by $2.3 billion, to reach $8.8 billion in 2020. The 3-percent growth rate of the industry period projected for the next decade contrasts with the 10-percent decline experienced during the previous 10 years.

Construction. Employment in the construction sector is projected to increase from more than 5.5 million in 2010 to nearly 7.4 million in 2020. (See table 1.) The increase of 1.8 million jobs, an annual rate of growth of 2.9 percent, is the largest increase in employment among all industries. (See table 4.) In 2006, the construction industry had 7.7 million wage and salary jobs. While the number of jobs projected to be added in the industry between 2010 and 2020 is large, the number still is projected to be below that held in 2006. (See chart 2.)

The construction industry was hit particularly hard by the recession, causing the annual employment for the wage and salary workers to fall by 2.1 million jobs for the 2007–2010 period. This fall represents a 10-percent annual rate of decline. The relatively low starting point for 2010 contributes to the large change and relatively fast growth rate of employment projected for 2010–2020. During the earlier 2000–2010 period, the share of total employment held by construction fell from 4.6 percent to 3.9 percent. Because the employment rate in the construction industry is expected to grow faster than the overall employment rate, the percentage of all employees in the construction

Chart 2. Wage and salary employment in construction, 2000–2010 and projected 2020
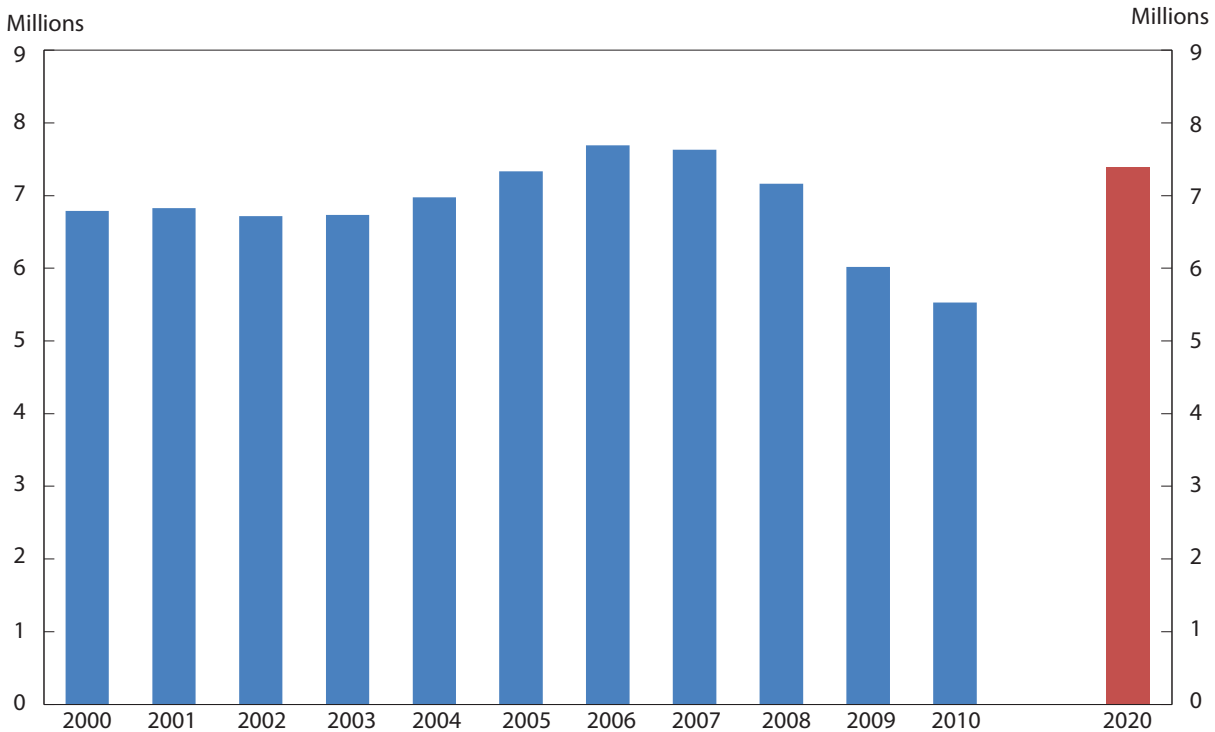
industry is expected to rise to 4.5 percent in 2020.

The construction industry is projected to experience one of the largest increases in real output, with the measure expected to rise by $368.7 billion, to reach almost $1.2 trillion in 2020. (See table 6.) This increase contrasts sharply with that seen in the 2000–2010 period, in which real output in construction fell from $1.2 trillion to $814.7 billion. Most of the loss in output during 2000–2010 can be attributed to the recession that started in December 2007.

The increase in residential investment and nonresidential structures investment during 2010–2020 will spur employment and output in the construction sector. Investment in nonresidential structures is expected to grow 3.2 percent per year between 2010 and 2020, contrasting with the 3.5-percent decrease experienced during the 2000–2010 period. Improving existing and aging infrastructure will play a large role in this increase. Residential investment is projected to grow at 7.0 percent per year over the 2010–2020 period, faster than the 5.5-percent decline seen during the previous period. Most of the growth in residential construction can be attributed to its low starting point due to the recession.[21]

Manufacturing.   Employment in the manufacturing sector is projected to fall by 73,100, an annual rate of decline of 0.1 percent, down to just under 11.5 million in 2020. (See table 1.) Although employment is decreasing in this sector, the slight fall contrasts with the 5.7 million jobs lost between 2000 and 2010. Within the sector, 32 of the 77 industries are projected to increase employment. The increase in the volume of manufactured goods that are imported, as well as the increased productivity gains experienced in manufacturing industries, will drive some loss in jobs in the manufacturing sector.

In 2006, annual wage and salary employment in manufacturing stood at 14 million. By 2010, employment had fallen to just more than 11.5 million, or 8.1 percent of economywide employment. Combined with the projected loss of 73,100 jobs from 2010 to 2020 and the 18.0 million jobs expected to be gained in the service-providing sector, the share of employment held by the manufacturing sector is anticipated to fall to 7.0 percent by 2020. (See chart 3.)

Real output in the manufacturing sector is expected to grow from nearly $4.4 trillion in 2010 to $5.7 trillion in 2020. (See table 2.) This increase of almost $1.4 billion is greater than the $222.1 billion lost between 2000 and 2010. The 2.8-percent growth rate of real output during 2010–2020 is slightly lower than the 2.9 percent projected for the overall economy but is considerably faster than the 0.5-percent decline experienced during the previous pe-

riod. Although manufacturing output is growing, its percentage of total output continues to fall, from 19.2 percent in 2010 to 17.6 percent in 2020. Of the 77 manufacturing industries, only 4 (apparel knitting mills; fiber, yarn, and thread mills; tobacco manufacturing; leather and hide tanning and finishing and all other leather and allied product manufacturing) are projected to decrease output during the 2010–2020 period.

The computer and electronic product manufacturing subsector is projected to grow the fastest in output, with real output increasing from $465.7 billion in 2010 to $895.9 billion in 2020. The increase of $430.2 billion represents an annual rate of increase of 6.8 percent, faster than the 1.1 percent experienced during the 2000–2010 period. While output is increasing in this subsector, employment continues to fall. Employment is projected to fall by 156,700, down to 943,400 by 2020, an annual rate of decline of 1.5 percent, which is greater than the 4.9-percent decline experienced during the 2000–2010 period. Productivity improvements in this industry are driving the large increases in output and the decline in employment.

Real output in the computer and peripheral equipment manufacturing industry is expected to grow from $132.3 billion in 2010 to $513.0 billion in 2020, an increase of $380.7 billion, one of the largest increases. (See table 6.) The 14.5-percent projected growth rate over the 2010–2020 period makes this industry the fastest in output growth. (See table 5.) Employment in the industry is expected to fall 44,100, down to 117,500 by 2020. The annual rate of decline of 3.1 percent during the projection period is slower than the 6.1-percent rate experienced during the previous period. The expected increase in productivity in this industry will produce large gains in output, while employment falls.

In the semiconductor and other electronic component manufacturing industry, real output is expected to increase $146.1 billion over the coming decade, one of the largest projected increases in output. (See table 6.) The anticipated 7.3-percent annual increase in output would make this industry the third-fastest-growing industry in terms of output during the 2010–2020 period. (See table 5.) By contrast, employment in semiconductor and other electronic component manufacturing is expected to decline by 32,800 over the same time span, an annual rate of 0.9 percent compared with the 5.9-percent decline seen during the 2000–2010 period. Increased demand for smartphone, tablet, and wireless technology will drive output growth in the industry.

The communications equipment manufacturing indus-

Chart 3. Wage and salary employment in manufacturing, 2000–2010 and projected 2020
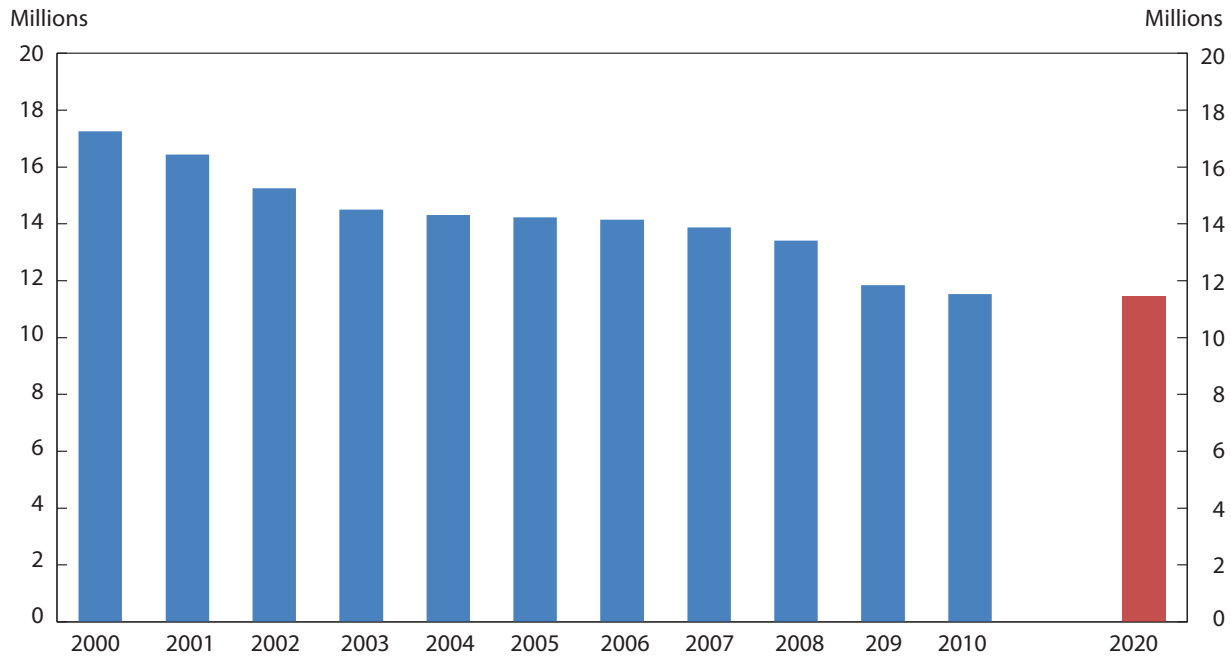
Millions

Millions

	2000	2001	2002	2003	2004	2005	2006	2007	2008	209	2010	2020

SOURCE: U.S. Bureau of Labor Statistics, Current Employment Statistics (historical data) and Employment Projections Program (2020 data).

try is projected to increase its real output from $62.8 billion in 2010 to $105.7 billion in 2020. The increase of more than $42.8 billion, or 5.3 percent per year, makes this one of the fastest growing industries. (See table 5.) While output is growing fast, employment in this industry is projected to fall from 118,000 in 2010 to 85,700 in 2020. The decrease of 32,300 jobs, at an annual rate of 3.1 percent, is one of the fastest and largest decreases in employment. (See tables 3 and 4.) The aforementioned increased demand for smartphone applications and for wireless communications devices in general will drive output growth in the industry. The increase in productivity, due to technological advances, will drive the decrease in employment.

The transportation equipment manufacturing subsector had the largest percentage, 11.5 percent, of employees of any other manufacturing subsector in 2010. Employment growth in this subsector is expected to remain flat, increasing by only 3,000, to reach 1.3 million in 2020. The subsector's share of employment in the manufacturing sector also is projected to remain flat, at 11.6 percent. Although employment is projected to stay flat, real output in this subsector is projected to increase by $215.0 billion over the 2010–2020 period, in contrast to the $53.9 million lost during the previous period.

The railroad rolling stock manufacturing industry is projected to grow the fastest in employment and output in the transportation equipment manufacturing subsector. Employment is expected to increase from 20,100 to 24,600, an annual rate of 2.1 percent, during the 2010–2020 period. The projected employment for 2020 is below the employment level of 32,800 jobs in 2000, because this industry was hit hard by the recession. Real output in the industry is projected to grow at 4.0 percent per year, making railroad rolling stock manufacturing one of the fastest growing among all industries. (See table 5.) The replacement of aging railroads, railroad cars, railway equipment, subway cars, and tracks, as well as the maintenance of existing cars and tracks, will drive demand in this industry.

Motor vehicle manufacturing, motor vehicle body and trailer manufacturing, and motor vehicle parts manufacturing are all projected to experience strong output growth during the coming decade, with real output growing at 3.7 percent, 3.6 percent, and 3.2 percent, respectively. These and other industries can be found on the BLS website.[22] While motor vehicle manufacturing and motor vehicle body and trailer manufacturing are expected to grow slightly in employment, at rates of 0.9 percent and 0.6 percent, respectively, employment in motor vehicle parts manufacturing is projected to fall 0.5 percent per year between 2010 and 2020.

The apparel knitting mills industry and the leather and

hide tanning and finishing and other leather and allied product manufacturing industry are projected to decrease the fastest in employment among all industries. Apparel knitting mills employment is expected to fall from 157,700 in 2010 to 66,100 in 2020, a loss of 91,600, making this industry the fastest declining of all industries and one of the largest in terms of number of jobs lost. (See tables 3 and 4.) Employment in leather and hide tanning and finishing and other leather and allied product manufacturing industry is projected to decrease at 7.6 percent per year over the 2010–2020 period, making this decline in employment one of the fastest. (See table 3.)

Real output in apparel knitting mills also is projected to fall, by $7.7 billion, or 7.1 percent, one of the largest decreases in output, and the fastest decrease in output, of all industries. (See tables 5 and 6.) Real output in the leather and hide tanning and finishing and other leather and allied product manufacturing industry is expected to fall by $1.3 billion over the next decade, a 3.3-percent decline, one of the fastest of all industries and representing one of the largest decreases in employment of all industries. (See tables 5 and 6.) The large decreases in employment and output in these two industries can be attributed to import competition and the labor-intensive nature of the industries.

BLS PROJECTS THAT EMPLOYMENT AND OUTPUT GROWTH

will improve in the 2010–2020 decade, compared with the 2000–2010 decade, in which a major economic recession took place. As a result of the recession, some industries began the new decade with low levels of employment and output and thus may have uncharacteristically high projected values.

The service-providing sectors will account for a large percentage of employment growth in the upcoming decade. The health care and social assistance sector and the professional and business services sectors will add more than a third of all the new jobs and will account for almost a fourth of total employment by 2020. The service-providing domain of the economy will grow slightly faster than the overall economy as a result of the growth in these sectors. Output in the service-providing domain also is expected to continue to increase its share of total output, reaching more than 70 percent, while growing at the same rate as the rest of the economy.

The goods-producing sectors will rebound from the dramatic employment loss experienced during the previous decade, some of which was caused by the recession. The increase in the number of construction jobs will lead the growth in employment in the goods-producing domain of the economy and will mitigate some of the job losses in other goods-producing sectors. The loss of manufacturing jobs also will slow, compared with the previous decade's loss of jobs in the same sector. □

Notes

[1] The National Bureau of Economic Research (NBER) is generally recognized as the official arbiter of recessions in the United States. The NBER identified the latest recession as starting in December 2007 and ending in June 2009. For more information, visit the NBER website on the Internet at **http://www.nber.org**.

[2] Total employment is the summation of the employment figures among all nonagricultural wage and salary workers; the data are from the BLS Current Employment Statistics survey, and self-employed, unpaid family workers, and agriculture, forestry, fishing, and hunting workers, which are from the Current Population Survey.

[3] Nonagricultural wage and salary employment data are from the Current Employment Statistics survey, except for private household employment data, which are from the Current Population Survey. Logging workers are excluded.

[4] Throughout this article, unless otherwise noted, output refers to real output in chain-weighted 2005 dollars.

[5] For more information on the projections for the macroeconomic variables, see Kathryn J. Byun and Christopher Frey, "The U.S. economy to 2020: recovery in uncertain times," this issue, pp. 21–42, **http://www.bls.gov/opub/mlr/2012/01/art2full.pdf**.

[6] For more information on the effects of the most recent recession,

see Eleni Theodossiu and Steven F. Hipple, "Unemployment remains high in 2010," and John P. Eddlemon, "Payroll employment turns the corner in 2010," *Monthly Labor Review,* March 2011, pp. 3–22 and 23–32, respectively, **http://www.bls.gov/opub/mlr/2011/03/home.htm**.

[7] This set of BLS projections is based on the 2007 North American Industrial Classification System (NAICS). Within this article, sectors generally refer to two-digit NAICS categories, subsectors to three-digit NAICS categories, and industries to either two-, three-, or four-digit NAICS categories.

[8] "Projections of the Population by Selected Age Groups and Sex for the United States: 2008 to 2050" (U.S. Census Bureau, Population Division, Aug. 14, 2008), **http://www.census.gov/population/www/projections/summarytables.html**.

[9] "Projections of National Health Expenditures: Methodology and Model Specification" (Centers for Medicare and Medicaid Services, Jul. 28, 2011), **http://www.cms.gov/NationalHealthExpendData/03_NationalHealthAccountsProjected.asp.**

[10] *Ibid.*

[11] *Ibid.*

[12] *Ibid.*

[13] For more information on the housing market, see Byun and Frey, "The U.S. economy to 2020: recovery in uncertain times," this issue, pp. 21–42, **http://www.bls.gov/opub/mlr/2012/01/art2full.pdf**.

[14] For more information, see Tabitha M. Bailey and William J. Hussar, "Projections of Education Statistics to 2020" (U.S. Department of Education, National Center for Education Statistics, Washington, DC, September 2011).

[15] *Ibid.*

[16] For more information on the projections for the macroeconomic variables, see Byun and Frey, "The U.S. economy to 2020: recovery in uncertain times," this issue, pp. 21–42, **http://www.bls.gov/opub/mlr/2012/01/art2full.pdf**.

[17] For more information, see Bailey and Hussar, "Projections of Education Statistics to 2020."

[18] *USDA Agricultural Projections to 2020,* Report OCE-2011–1 (Office of the Chief Economist, World Agricultural Outlook Board, U.S. Department of Agriculture, Interagency Agricultural Projections Committee, Long-term Projections Report).

[19] *Ibid.*

[20] See "Annual Energy Outlook 2011" (U.S. Department of Energy, April 2011), **http://www.eia.gov/oiaf/archive/aeo10/gas.html**.

[21] For more information on the projections for the macroeconomic variables, see Byun and Frey, "The U.S. economy to 2020: recovery in uncertain times," this issue, pp. 21–42, **http://www.bls.gov/opub/mlr/2012/01/art2full.pdf**.

[22] For more information, see the employment and output by detailed industry table on the Internet at **http://www.bls.gov/emp/ep_table_207.htm**.

Employment outlook: 2010–2020

Occupational employment projections to 2020

Overall employment is projected to increase about 14 percent during the 2010–2020 decade with more than half a million new jobs expected for each of four occupations—registered nurses, retail salespersons, home health aides, and personal care aides; occupations that typically need postsecondary education for entry are projected to grow faster than average, but occupations that typically need a high school diploma or less will continue to represent more than half of all jobs

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From 2010 to 2020, the U.S. economy is projected to add 20.5 million new jobs as total employment grows from nearly 143.1 million to more than 163.5 million. This 14.3-percent growth reflects the assumption of a full-employment economy in 2020. Out of 749 detailed occupations, 657 are projected to grow, while 92 are projected to decline. The fastest growth is expected among healthcare, personal care, and community and social service occupations.

The Bureau of Labor Statistics (BLS) produces these long-term projections of occupational employment to supply those who seek or provide career guidance with information on how the labor market is changing. In addition, policymakers and educational authorities use BLS employment projections for long-term policy planning. Finally, BLS projections are used by states in preparing state and area projections.

Detailed descriptions of more than 500 occupations, including reasons they are projected to grow or decline, are included in the *Occupational Outlook Handbook*, a BLS career guidance publication.[1]

This article focuses on broad results of the projections and is designed for those seeking a comprehensive overview of the projections data. Those seeking career guidance information and information on specific occupations will likely find the *Handbook* more suitable.

The first section of this article describes the factors that provide context for generating the occupational projections, including projections and assumptions for growth in the population, labor force, and gross domestic product (GDP). The next section describes the methods used to produce the occupational projections, as well as the concepts and terminology that will be used throughout the rest of the article. The third section looks at projections for major occupational groups and describes trends across groups. The fourth section presents projections for select detailed occupations: those that are growing the fastest, adding the most new jobs, declining most rapidly, or losing the most jobs. The fifth section discusses the concept of replacement needs—that is, the job openings that arise when workers leave an occupation permanently rather than those that arise from occupational growth. Finally, the last section describes the projections within the context of the new BLS education and training classification system.

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Overview of BLS projections

The occupational projections presented in this article are the last step in the employment projections process. The process begins with projecting the population and labor force. From there, changes in the aggregate economy—GDP and its components—are projected. Next, projections are derived for consumers' final demand of products and services from each industry. Then the interplay of goods and services among industries, including intermediate demand, is used to project output by industry. Once industry output is projected, industry employment is calculated by projecting productivity and hours. Finally, projected staffing patterns are developed to distribute the projected industry employment to occupations. The assumptions and results of projections for the population, labor force, GDP, and industry output and employment are covered in more detail in other articles in this issue of the *Monthly Labor Review.*

The demographics of the U.S. population will have a prime role in shaping the future of the workforce. Between 2010 and 2020, the civilian noninstitutional population ages 16 and older is projected to grow by 25.2 million, or about 1.0 percent per year. However, as the baby-boom generation ages, the population will also shift to older age groups, with those ages 55 and older projected to increase their share of the population from 31.4 percent to 36.6 percent through the projections period. Because older people are less likely to be part of the labor force, the labor force will increase by only 10.5 million, or 0.7 percent per year, over the same decade.[2] Demographic changes are important for determining not just the size of the workforce but also the demand for goods and services. Because older people are more likely to purchase certain types of goods and services, notably health care, their growing share of the population affects the projections for industries and occupations that provide those goods or services.[3]

The aggregate economy is expected to grow, with GDP growth averaging 3.0 percent annually from 2010 to 2020.[4] This growth is faster than the growth in the labor force because labor productivity, as measured by output per hour, is projected to grow by 2.0 percent annually. GDP is projected to grow somewhat faster than in recent history as the economy recovers from the effects of the December 2007–June 2009 recession. BLS projections focus on long-term trends and do not project business cycle fluctuations. However, because many economic variables were at lower than normal levels in 2010, many growth rates, like that for the GDP, are projected to be faster than

historical trends. In addition, as industries and occupations that experienced large declines during the recession rebound, they may have higher growth rates relative to industries and occupations that were less affected by the recession.[5]

Another variable affected by the recession is the unemployment rate, which averaged 9.6 percent in 2010. Among the assumptions used in projecting the overall economy is that there will be a full-employment economy in 2020. The unemployment rate associated with a full-employment economy in 2020 is 5.2 percent. The increase in the labor force combined with this decrease in the unemployment rate together leads to the projected growth in employment.

Employment growth will not occur evenly across all industries and classes of employment. Nonagricultural wage and salary employment accounts for about 9 out of 10 jobs; within this group, service-providing industries are projected to grow by 1.5 percent per year during the 2010–2020 decade, while goods-producing industries are projected to grow by 1.0 percent per year.[6] Agricultural jobs are projected to decline by 0.6 percent per year, while jobs for nonagricultural self-employed and unpaid family workers are projected to grow by 0.8 percent per year.

How BLS derives occupational projections

As noted above, occupational projections are made by applying projected staffing patterns to industry employment projections in order to distribute industry employment to occupations. To derive projected-year (2020) staffing patterns, BLS economists use qualitative and quantitative analyses to project how base-year (2010) staffing patterns are likely to change. They examine historical staffing pattern data and conduct research on factors that may affect the utilization of occupations within given industries during the projection decade. Some examples of factors are:

- *Automation*: technology or machinery replaces workers by performing some of their tasks. This will lower the need for those workers as the technology is implemented.

- *Productivity-enhancing technology*: similar to automation but makes workers more efficient at the task, making it possible for workers to accomplish the same amount of work that previously required more workers. This will drive down the utilization of workers.

- *Domestic or offshore outsourcing*: companies contract with another firm to perform specific tasks instead of hiring their own workers. This will drive down use of those workers in the companies that outsource the work but may increase utilization in another industry if the work is being outsourced domestically.

- *Changes in product mix*: shifts in what an industry is producing to reflect, for example, increased demand for a specific product or service. This will increase demand for some workers while decreasing the utilization of others whose job duties are not essential to production of the new products.

- *Organizational or work restructuring*: any type of change in duties to produce the same output. This may increase the utilization of some workers and decrease the utilization of others.

For each industry, projected wage and salary employment is distributed to occupations on the basis of the projected staffing pattern. Occupational employment data for self-employed and unpaid family workers are projected separately. Total projected occupational employment is the sum of the projected employment for each wage and salary industry, the self-employed, and unpaid family workers.

Drivers of growth and decline

From an occupational point of view, there are two main factors that impact employment growth or decline: 1) the growth of industries that employ the occupation, and 2) changes in the way those industries use the occupation. Looking at the latter, if occupations A and B are both employed in one industry but the demand for occupation A is increasing because of one of the factors previously discussed, we would expect occupation A to grow faster than B. Without such a change to the staffing pattern, occupations A and B would both grow at the same rate as the industry in which they are employed. On the other hand, if occupation C is employed in a different industry that is growing faster, then occupation C will grow faster than either occupation A or B. Even when changes to occupational utilization are factored in, industry growth still has a major impact on occupational growth rates. Occupations concentrated in fast-growing industries such as health care tend to grow faster than occupations in slower growing or declining industries such as mining.

To illustrate the impact of industry growth, consider two occupations that are concentrated in different industries: 98 percent of shoe machine operators and tenders work in leather and allied product manufacturing, while 95 percent of subway and streetcar operators are in local government. These industries are behaving differently: leather and allied product manufacturing is projected to decline, while local government is projected to grow. Neither of these occupations is projected to be utilized differently within these industries, so their projected growth rates reflect the growth of the industries they are concentrated in: shoe machine operators and tenders are projected to decline by 53.4 percent between 2010 and 2020, while subway and streetcar operators are projected to grow by 9.8 percent.

To illustrate the impact of changes in occupational utilization, consider two occupations that are concentrated in the postal service industry: postal service mail carriers and postal service mail sorters, processors, and processing machine operators. These occupations have different growth rates because the way they are being used is changing, leading to a projected staffing pattern different from the current staffing pattern. Postal service mail sorters, processors, and processing machine operators are expected to represent a smaller portion of the industry in the future, as technological improvements to automated sorting and processing equipment will increase productivity and reduce the need for these workers. Meanwhile, postal service mail carriers are projected to increase their share of the industry because carriers will continue to be needed to deliver mail even as overall employment in the postal service industry declines. Postal service industry employment is projected to decline by 27.7 percent, but because of the expected changes in occupational utilization, jobs for postal service mail carriers are only projected to decline by 12.0 percent, while jobs for postal service mail sorters, processors, and processing machine operators are projected to decline by 48.5 percent.

Numeric versus percent change

There are two ways to measure occupational growth or decline: numeric change (projected-year employment minus base-year employment) and percent change (numeric change divided by base-year employment). Both of these measures of growth or decline are important for different reasons, and when viewed together, they give a more complete view of the projected changes to the occupation and the workforce.

Percent change is especially useful when comparing the outlook for different occupations. Looking at percent

change controls for the occupation's size in the base year and focuses on how the occupation is changing. For example, general and operations managers are projected to add 81,600 new jobs while interpreters and translators are projected to add 24,600. However, the general and operations managers occupation is much larger. When looking at growth rates, we see that general and operations managers are projected to grow by only 4.6 percent while interpreters and translators are projected to grow by 42.2 percent. The percent change provides a clearer comparison between these occupations. Employment of interpreters and translators will grow rapidly as companies increasingly need these workers to assist in conducting multinational business. Meanwhile, the employment of general and operations managers is projected to grow more slowly than average as these managers oversee larger areas of operations, leaving lower level management to other managerial specialties.

While percent change is useful for comparing what is happening in different occupations, it does not by itself give an idea of how many jobs are being added. For example, employment of industrial-organizational psychologists is projected to grow by 34.9 percent, while cashiers' jobs are only projected to grow by 7.4 percent. This gives the impression that industrial-organizational psychologists have a much better job outlook, but they are a relatively small occupation and are projected to add only 800 new jobs. Meanwhile, cashiers is a very large occupation and, despite relatively slow growth, is projected to add 250,200 new jobs. Numeric employment change shows that many jobs can be created even if an occupation is not growing fast and gives a better understanding of how growth of the economy will be distributed among occupations. Numeric employment change is also useful when combined with occupational replacement needs to give a more complete view of the extent of opportunities to enter an occupation. (Job openings created by replacement needs will be discussed later in this article.)

As these examples show, the size of an occupation and the occupation's growth rate are both important in determining the number of new jobs that will be created. This is further illustrated in chart 1. Brickmasons and blockmasons are expected to add about 36,000 new jobs, as are dishwashers. However, brickmasons and blockmasons are growing almost 6 times as fast as dishwashers,

Chart 1. Size and projected 2010–2020 growth of selected occupations

NOTE: Bubble size shows projected growth in the number of jobs.
SOURCE: U.S. Bureau of Labor Statistics.

but because dishwashers make up a much larger occupation, the slower growth rate results in the same number of new jobs. If an occupation were growing at the same fast rate as brickmasons and blockmasons and were as large as dishwashers, it would add many more jobs; we see this with medical secretaries, an occupation which is expected to add 210,200 new jobs. In contrast, occupations that are both small and growing slowly, such as real estate brokers, add very few jobs. Visually, the closer an occupation is to the top right corner of chart 1, the larger its projected number of new jobs.

Occupational groups

To see some of the key changes affecting the economy over the projection period, it is easiest to examine the growth of the 22 major occupational groups. (See box on this page.) Changes in the employment levels of these groups also can serve to underline the effects of the recent recession on the projections. Table 1 presents the projections for the 22 major groups but also includes comparable data for 2006, a prerecession year.[7] Between 2006 and 2010, according to these data, the economy lost 7.6 million jobs, but the losses were not spread evenly across occupational groups. These recessionary employment declines can have a large impact on interpreting the projections through 2020. For example, the computer and mathematical occu-

pations group and the construction and extraction occupations group are projected to grow at similar rates, 22.0 percent and 22.2 percent, respectively. However, computer and mathematical occupations grew between 2006 and 2010, so their 2020 employment level will be 1.0 million higher than the level in 2006. On the other hand, construction and extraction employment fell rapidly after the burst of the housing bubble, so despite rapid growth from 2010 to 2020, the projected 2020 employment level is still below the 2006 level. (See chart 2.)

Like the projections for the construction and extraction group, projected employment levels for production occupations and transportation and material moving occupations are also below the levels of 2006, despite projected growth from 2010 to 2020. This is largely because the recession hit these three groups the hardest; they were the only groups where employment dropped by more than 10 percent from 2006 to 2010.

It also should be noted that rapid projected growth for some other occupational groups mostly represents recovering jobs lost between 2006 and 2010. Office and administrative support occupations is the group projected to add the most new jobs, 2.3 million, from 2010 to 2020. However, the group lost 1.7 million jobs from 2006 to 2010. Similarly, sales occupations are projected to add 1.9 million new jobs through 2020, but most of that is just the recovery of the 1.1 million jobs lost from 2006 to 2010.

How occupations are classified

BLS produces employment projections for 749 occupations; these occupations match the structure that the Occupational Employment Statistics (OES) program used to publish 2010 data, the primary source for base-year staffing patterns.[1] OES occupations are classified on the basis of the Standard Occupational Classification (SOC) system. However, OES data do not exactly match the updates made to the SOC in 2010. OES is transitioning to the 2010 SOC, but the change will not be fully implemented until the 2012 reference year.[2]

The coding structure has four levels of aggregation

(listed from most detailed to least): detailed occupations, broad occupations, minor groups, and major groups. Nearly all the 749 occupations are detailed occupations, and projections for all of these occupations are included on the Bureau of Labor Statistics website at **http://www.bls.gov/emp/ep_table_102.htm**. This article mostly discusses projections at the detailed occupation and major group level. However, the discussions of projections for particular major groups sometimes include references to the minor groups within that major group.

Notes

[1] Of the 749 occupations, 746 match OES directly. The remaining three—25–1000 postsecondary teachers, 29–1060 physicians and surgeons, and 45-2090 miscellaneous agricultural workers—are summary occupations that contain multiple

published OES occupations.

[2] For more information on differences between the 2010 SOC and the 2010 OES data, see **http://www.bls.gov/oes/oes_ques.htm#Ques41**.

Table 1. Employment and wages of major occupational groups, 2006, 2010, and projected 2020

(Numbers in thousands)

Matrix code	2010 National Employment Matrix title	Employment			Change, 2006–2010		Projected change, 2010–2020		Median annual wage, May 2010[1]
		2006	2010	2020	Number	Percent	Number	Percent	
00–0000	Total, all occupations	150,620.0	143,068.2	163,537.1	–7,551.8	–5.0	20,468.9	14.3	$33,840
11–0000	Management occupations	8,771.9	8,776.1	9,391.9	4.2	.0	615.8	7.0	91,440
13–0000	Business and financial operations occupations	6,831.9	6,789.2	7,961.7	–42.7	–.6	1,172.5	17.3	60,670
15–0000	Computer and mathematical occupations	3,313.2	3,542.8	4,321.1	229.6	6.9	778.3	22.0	73,720
17–0000	Architecture and engineering occupations	2,583.2	2,433.4	2,686.2	–149.8	–5.8	252.8	10.4	70,610
19–0000	Life, physical, and social science occupations	1,172.6	1,228.8	1,419.6	56.2	4.8	190.8	15.5	58,530
21–0000	Community and social service occupations	2,385.5	2,402.7	2,985.0	17.2	.7	582.3	24.2	39,280
23–0000	Legal occupations	1,222.2	1,211.9	1,342.9	–10.3	–.8	131.0	10.8	74,580
25–0000	Education, training, and library occupations	9,033.7	9,193.6	10,597.3	159.9	1.8	1,403.7	15.3	45,690
27–0000	Arts, design, entertainment, sports, and media occupations	2,677.0	2,708.5	3,051.0	31.5	1.2	342.5	12.6	42,870
29–0000	Healthcare practitioners and technical occupations	7,197.6	7,799.3	9,819.0	601.7	8.4	2,019.7	25.9	58,490
31–0000	Healthcare support occupations	3,723.5	4,190.0	5,633.7	466.5	12.5	1,443.7	34.5	24,760
33–0000	Protective service occupations	3,162.9	3,302.5	3,667.0	139.6	4.4	364.5	11.0	36,660
35–0000	Food preparation and serving related occupations	11,352.4	11,150.3	12,242.8	–202.1	–1.8	1,092.5	9.8	18,770
37–0000	Building and grounds cleaning and maintenance occupations	5,744.6	5,498.5	6,162.5	–246.1	–4.3	664.0	12.1	22,490
39–0000	Personal care and service occupations	4,877.6	4,994.7	6,331.4	117.1	2.4	1,336.6	26.8	20,640
41–0000	Sales and related occupations	15,985.4	14,915.6	16,784.7	–1,069.8	–6.7	1,869.1	12.5	24,370
43–0000	Office and administrative support occupations	24,344.0	22,602.5	24,938.2	–1,741.5	–7.2	2,335.7	10.3	30,710
45–0000	Farming, fishing, and forestry occupations	1,037.8	972.1	952.6	–65.7	–6.3	–19.4	–2.0	19,630
47–0000	Construction and extraction occupations	8,294.5	6,328.0	7,735.2	–1,966.5	–23.7	1,407.2	22.2	39,080
49–0000	Installation, maintenance, and repair occupations	5,883.3	5,428.6	6,228.7	–454.7	–7.7	800.2	14.7	40,120
51–0000	Production occupations	10,674.6	8,594.4	8,951.2	–2,080.2	–19.5	356.8	4.2	30,330
53–0000	Transportation and material moving occupations	10,350.8	9,004.8	10,333.4	–1,346.0	–13.0	1,328.7	14.8	28,400

[1] For wage and salary workers, from the Occupational Employment Statistics survey.

SOURCE: U.S. Bureau of Labor Statistics.

Chart 3 shows the employment trends for occupational groups whose employment declined by at least 2 percent from 2006 to 2010. Although growth is expected for all groups except farming, fishing, and forestry occupations (which is undergoing a long-term decline), none of these groups is expected to regain its employment share of 2006.

Chart 4 shows occupational groups that grew or de- clined by less than 2 percent from 2006 to 2010. These groups are all projected to grow, though with widely varying projected growth rates, from 2010 to 2020. Food preparation and serving occupations and management oc- cupations are projected to grow slower than most of the occupations included on the chart, indicating that these two groups may not be strongly affected by business cy-

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Chart 2. **Employment for selected occupational groups, 2006 to 2010 and projected 2010 to 2020**
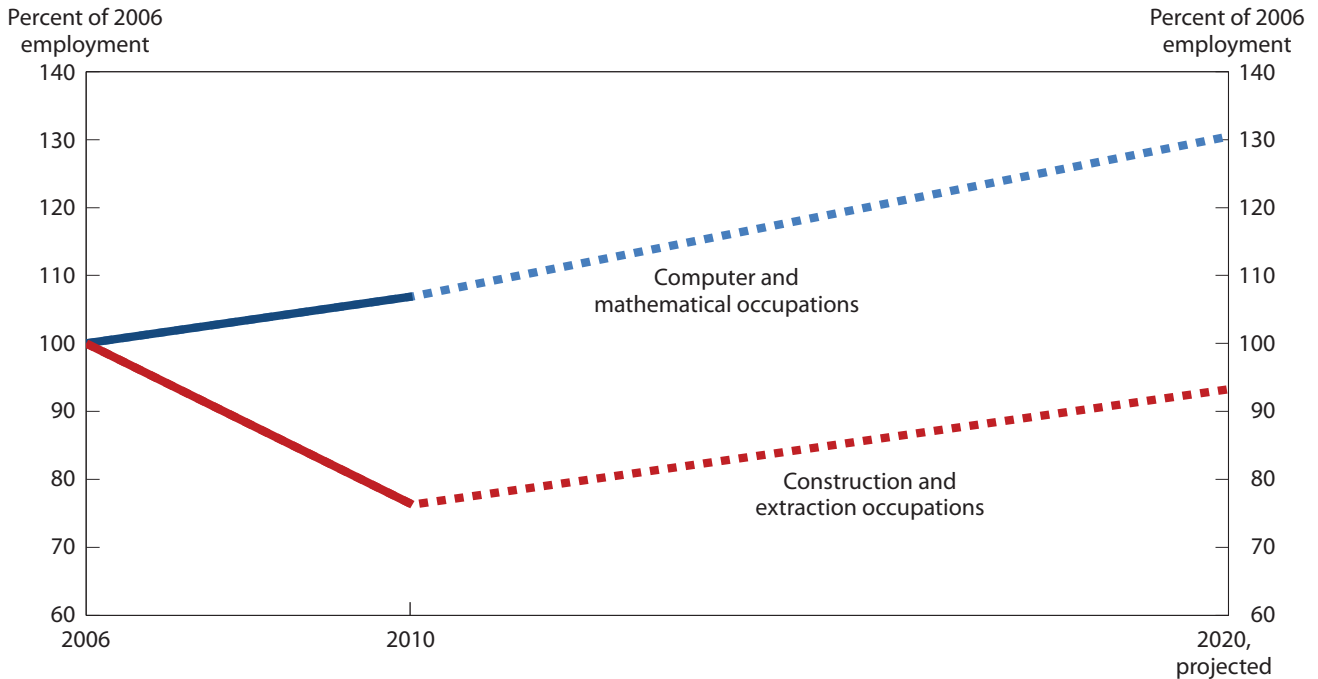
Percent of 2006
employment

Percent of 2006
employment

NOTE: BLS does not project specific data for each of the years between 2010 and 2020. Interim years to the 2020 projection point are expressed by a dashed straight line only.

SOURCE: U.S. Bureau of Labor Statistics.

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cles. Business and financial occupations are projected to grow more rapidly than several other occupations, indicating that the lack of growth from 2006 to 2010 may have resulted from the recession, with the fast projected growth including some recovery of lost potential growth.

Chart 5 shows occupational groups that grew by at least 2 percent from 2006 to 2010; all of these groups are projected to see continued growth through 2020. The two groups with the fastest growth from 2006 to 2010 were healthcare support occupations and healthcare practitioners and technical occupations. These two groups are projected to continue to see strong growth, adding a combined 3.5 million jobs from 2010 to 2020 after gaining 1.1 million from 2006 to 2010.

What follow are brief highlights about each of the major groups, discussed in the order the groups appear in the Standard Occupational Classification (SOC) system. The text table within each section shows, for that occupational group, the occupation that is projected to have the largest growth in number of jobs, the fastest growing and fastest declining (or slowest growing) occupations, and the occupation with the highest median annual wage in May 2010.

Management occupations.

Most new jobs:
Construction managers +86,600
Fastest growing (in percent):
Social and community service managers +26.7
Fastest declining (in percent):
Postmasters and mail superintendents −27.8
Highest paying:
Chief executives $165,080

Management occupations are projected to add 615,800 new jobs between 2010 and 2020. This represents 7.0 percent growth from their 2010 employment level of 8.8 million. Management occupations are projected to be the third-slowest-growing occupational group but, because they have relatively high employment, will be near the middle of the pack (14th out of 22) in projected employment growth from 2010 to 2020. Although projected to be slow growing, this relatively stable occupational group did not experience any decline in employment from 2006 to 2010.

Farmers, ranchers, and other agricultural managers, part of the management occupations group, are projected to experience an employment decline of 96,100 between 2010

Chart 3. Employment, 2006 to 2010 and projected 2010 to 2020, for occupational groups whose employment declined 2006–2010
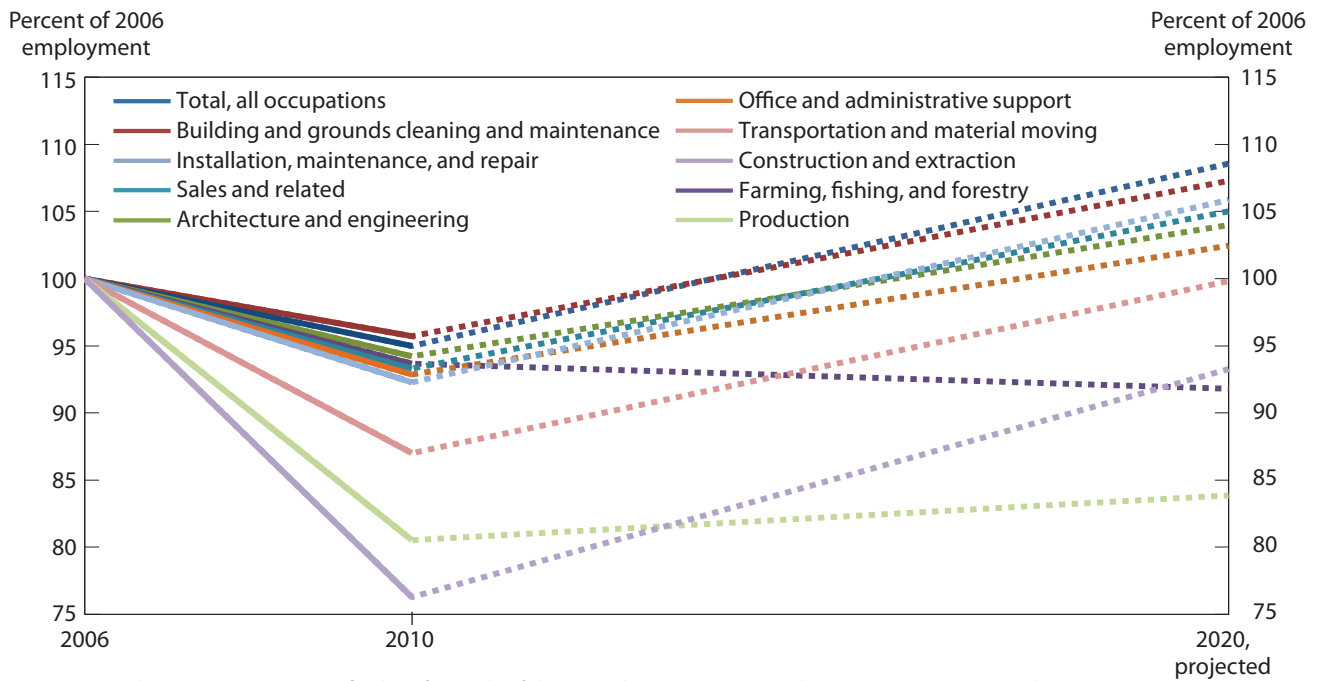
Percent of 2006
employment

Percent of 2006
employment

Total, all occupations
Building and grounds cleaning and maintenance
Installation, maintenance, and repair
Sales and related
Architecture and engineering
Office and administrative support
Transportation and material moving
Construction and extraction
Farming, fishing, and forestry
Production

NOTE: BLS does not project specific data for each of the years between 2010 and 2020. Interim years to the 2020 projection point are expressed by a dashed straight line only.

SOURCE: U.S. Bureau of Labor Statistics.

Chart 4. Employment, 2006 to 2010 and projected 2010 to 2020, for occupational groups with little employment change 2006–2010
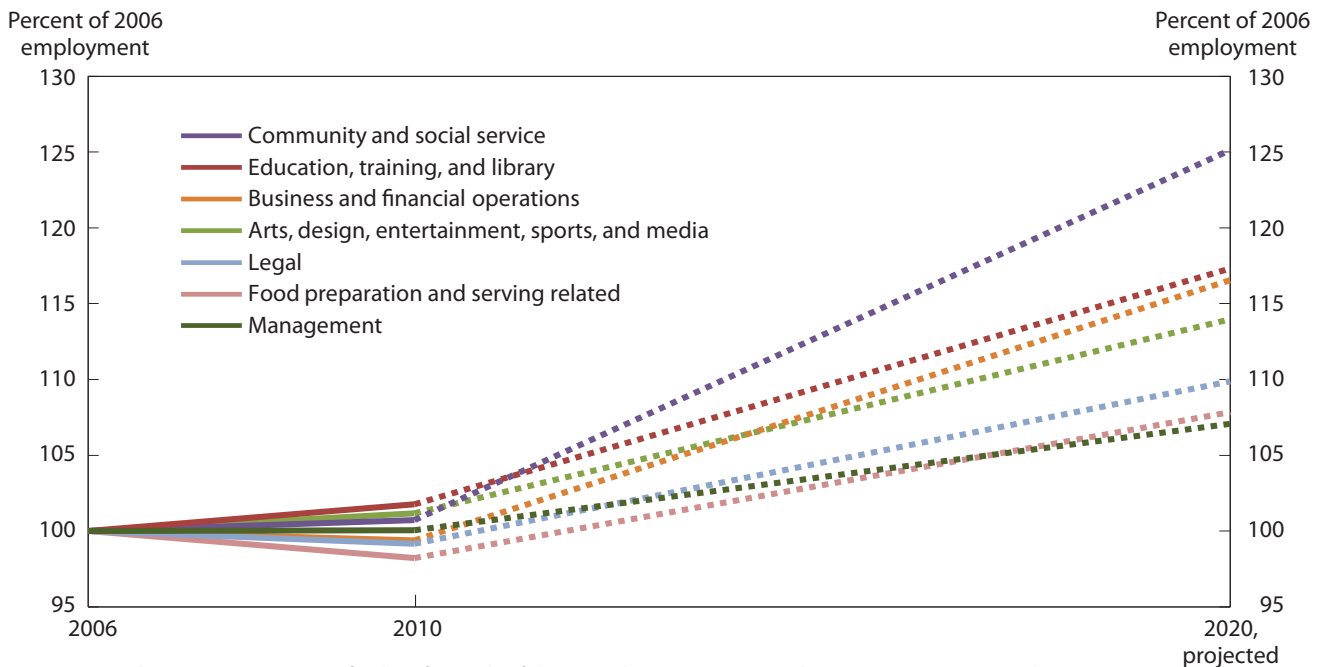
Percent of 2006
employment

Percent of 2006
employment

Community and social service
Education, training, and library
Business and financial operations
Arts, design, entertainment, sports, and media
Legal
Food preparation and serving related
Management

NOTE: BLS does not project specific data for each of the years between 2010 and 2020. Interim years to the 2020 projection point are expressed by a dashed straight line only.

SOURCE: U.S. Bureau of Labor Statistics.

Chart 5. Employment, 2006 to 2010 and projected 2010 to 2020, for occupational groups whose employment increased 2006–2010

Percent of 2006
employment

Percent of 2006
employment

NOTE: BLS does not project specific data for each of the years between 2010 and 2020. Interim years to the 2020 projection point are expressed by a dashed straight line only.

SOURCE: U.S. Bureau of Labor Statistics.
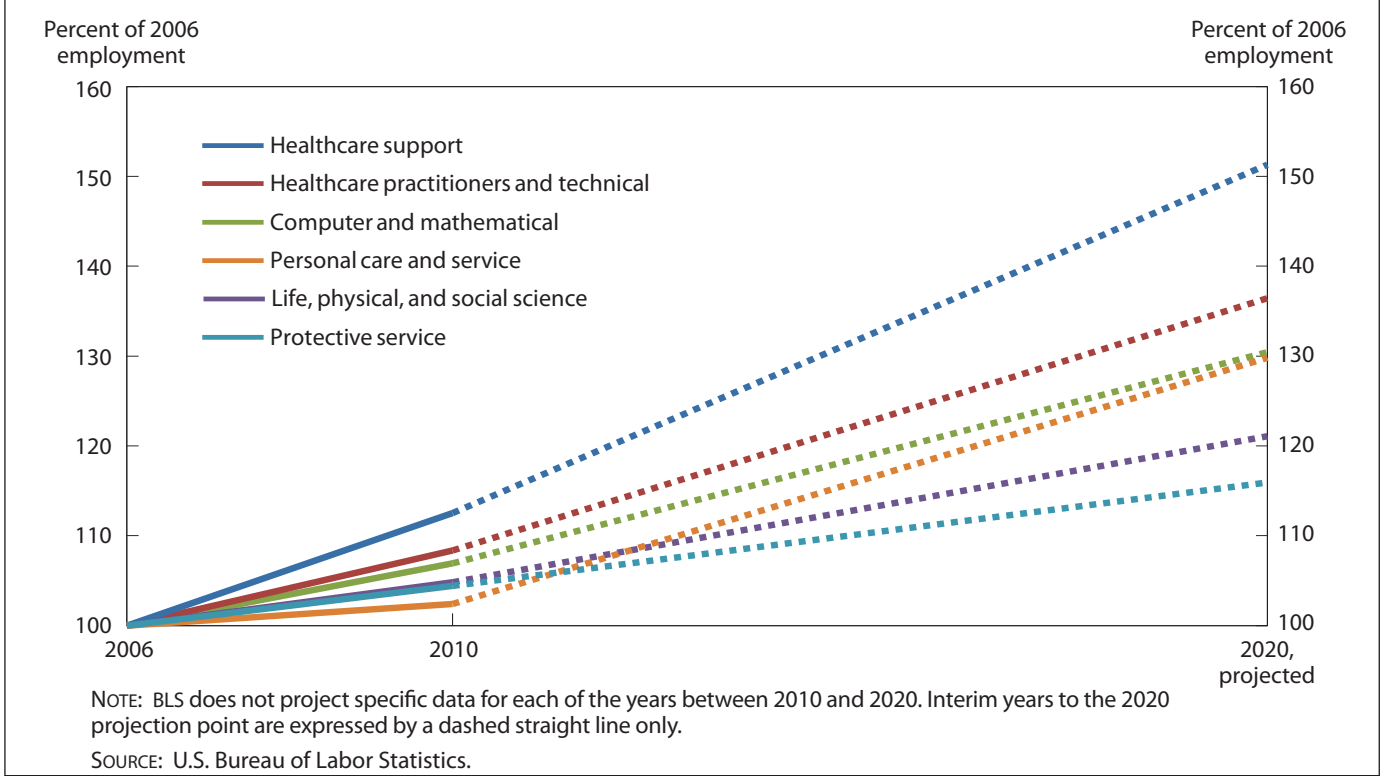
and 2020. The job decline for farmers, ranchers, and other agricultural managers by itself slows the overall projected growth for this group by more than 1 percentage point. In addition, general and operations managers, who composed 20 percent of jobs in this group in 2010, are projected to grow by only 4.6 percent as these workers are overseeing increasingly larger areas of operation, causing their employment to grow slower than the industries in which they work.

Management occupations are found throughout all industries in the economy and tend to be high paying: their median annual wage of $91,440 was higher than for any other occupational group.[8] The high pay reflects, in part, the combination of formal postsecondary education and work experience that most of these occupations typically need.

Business and financial operations occupations.

Most new jobs:
Accountants and auditors   +190,700
Fastest growing (in percent):
Meeting, convention, and event planners   +43.7
Fastest declining (in percent):
Insurance appraisers, auto damage   −7.5

Highest paying:
Management analysts $78,160

Business and financial operations occupations are projected to add 1.2 million new jobs as they grow by 17.3 percent between 2010 and 2020. This group includes business operations specialists—such as management analysts, human resources workers, and buyers and purchasing agents—and financial specialists—such as accountants and auditors, loan officers, and financial analysts. The business operations specialists group is larger (4.2 million vs. 2.6 million jobs for financial specialists in 2010), is projected to grow slightly faster (18.1 percent growth vs. 16.0 percent), and is projected to add more new jobs (751,400 vs. 421,100 new jobs) than financial operations occupations.

Business and financial operations workers are found in industries throughout the economy, but the largest numbers are found in government, professional and business services, and the finance and insurance industries. In these industries, business and financial operations occupations are projected to account for a larger share of industry employment in 2020 than in 2010, meaning the occupational

group is expected to grow faster than the industry. Meeting, convention, and event planners, as well as market research analysts and marketing specialists, in particular, are expected to increase their share over that decade.

Computer and mathematical occupations.

Most new jobs:
Software developers, applications   +143,800
Fastest growing (in percent):
Software developers, systems software   +32.4
Slowest growing (in percent):
Mathematical technicians   +6.2
Highest paying:
Computer and information research
   scientists $100,600

Computer and mathematical occupations are projected to add 778,300 new jobs between 2010 and 2020, after having added 229,600 new jobs from 2006 to 2010. This represents 22.0 percent growth from 2010 to 2020, making the computer and mathematical occupational group the sixth-fastest-growing major occupational group. However, because it is a relatively small group, it ranks only twelfth (out of 22 groups) in the projected number of new jobs between 2010 and 2020.

Computer occupations are much larger than mathematical occupations, accounting for 3.4 million of the total 3.5 million jobs in computer and mathematical occupations in 2010. Employment in computer occupations also is projected to grow faster than mathematical occupations, with growth rates of 22.1 percent and 16.7 percent, respectively. Although computer occupations are found throughout the economy, fast growth in the computer systems design and related services industry is driving the growth in this group; this industry accounted for just over 20 percent of all jobs in computer occupations in 2010, but will generate more than half of all new computer jobs from 2010 to 2020.

Architecture and engineering occupations.

Most new jobs:
Civil engineers   +51,100
Fastest growing (in percent):
Biomedical engineers   +61.7
Fastest declining (in percent):
Aerospace engineering and operations
   technicians   −1.6
Highest paying:
Petroleum engineers $114,080

Architecture and engineering occupations are projected to add 252,800 new jobs between 2010 and 2020 as they grow by 10.4 percent. This follows a decline of 149,800 jobs from 2006 to 2010. Engineers are the largest component of this major occupational group and will add the most new jobs, 160,400, but architects, surveyors, and cartographers are projected to grow faster, at 23.7 percent.

Nearly 30 percent of jobs for architecture and engineering occupations are found in manufacturing industries. The projected employment decline in many manufacturing industries is one of the main reasons this occupational group is projected to grow more slowly than other groups. Architecture and engineering jobs account for more than 20 percent of all jobs in the computer and electronic product manufacturing industry, so declines in this industry are expected to cause the loss of 33,900 jobs for occupations in this group.

Growth will come primarily from the architectural, engineering, and related services industry group. This industry group accounted for 26.4 percent of jobs for architecture and engineering occupations in 2010 but will contribute 173,700 new jobs for these occupations from 2010 to 2020, a growth rate of 27.0 percent.

Life, physical, and social science occupations.

Most new jobs:
Medical scientists, except epidemiologists   +36,400
Fastest growing (in percent):
Medical scientists, except epidemiologists   +36.4
Fastest declining (in percent):
Forest and conservation technicians   −1.0
Highest paying:
Political scientists $107,420

Life, physical, and social science occupations are projected to add 190,800 new jobs between 2010 and 2020 as they grow by 15.5 percent. Jobs for life scientists are projected to increase by 20.4 percent, making it the fastest growing of these three occupation groups. The employment of social scientists and related workers is projected to grow slightly slower, at 18.4 percent, while jobs for physical scientists are projected to grow by 12.7 percent.

Because workers in life, physical, and social science occupations do research, many of them are employed in scientific research and development services and in colleges, universities, and professional schools. These industries combine to employ more than a quarter of workers in life, physical, and social science occupations and are projected to account for almost one-third of all new jobs for this occupational group between 2010 and 2020.

Community and social service occupations.

Most new jobs:
Social and human service assistants +106,000
Fastest growing (in percent):
Marriage and family therapists +41.2
Slowest growing (in percent):
Directors, religious activities and education +16.8
Highest paying:
Educational, guidance, school, and
vocational counselors $53,380

Community and social service occupations include workers such as counselors, social workers, and religious workers. This occupational group is projected to add 582,300 new jobs between 2010 and 2020. This represents a 24.2-percent increase, making community and social service occupations the fourth-fastest-growing major occupational group. This group is unique in how uniform and fast the growth will be—each one of the 17 detailed occupations in this group is expected to grow faster than the 14.3-percent average growth rate for all occupations.

The individual and family services industry, despite employing only 11.9 percent of community and social service occupations, is projected to account for 26.5 percent of new jobs for this occupational group. The industry is projected to grow by more than 70 percent, giving many new opportunities to the community and social service occupations employed there, including social and human service assistants and child, family, and school social workers.

Legal occupations.

Most new jobs:
Lawyers +73,600
Fastest growing (in percent):
Paralegals and legal assistants +18.3
Fastest declining (in percent):
Title examiners, abstractors, and searchers −1.4
Highest paying:
Judges, magistrates judges, and
magistrates $119,270

Legal occupations are projected to add 131,000 new jobs between 2010 and 2020. This represents 10.8 percent growth from the occupational group's 2010 employment level of roughly 1.2 million. Legal occupations form the second-smallest major occupational group; it is expected to add the second-fewest new jobs. They tend to be high-paying jobs, though, with a median annual wage of $74,580 in May 2010.

Lawyers account for more than half of the jobs in this group, with employment of 728,200 in 2010. Because their employment is growing at about the same rate as the group as a whole, the 73,600 new jobs projected for lawyers will also account for the majority of new jobs in the group.

Jobs for legal support workers are projected to grow 12.9 percent, which is somewhat faster than the group. However, they will only add 50,600 new jobs.

Education, training, and library occupations.

Most new jobs:
Postsecondary teachers +113,600
Fastest growing (in percent):
Preschool teachers, except special
education +24.9
Slowest growing (in percent):
Career/technical education teachers,
secondary school +1.1
Highest paying:
Postsecondary teachers $62,050

The education, training, and library occupations group is projected to add 1.4 million new jobs, the sixth most of any major occupational group, with projected growth of 15.3 percent between 2010 and 2020. Of these new jobs, 655,000 will be for preschool, primary, secondary, and special education teachers, as this group is expected to grow by 15.0 percent, while another 305,700 jobs will be for postsecondary teachers, whose jobs are projected to increase 17.4 percent. Growth in education, training, and library occupations is influenced strongly by a rise in school enrollments. Enrollment in elementary and secondary schools tends to follow general population growth for children, while enrollment in postsecondary institutions is increasing faster than population growth as more high school graduates attend college and as members of the workforce seek additional education.

While the majority of education, training, and library jobs are located in public education, growth will be faster for these occupations in private elementary and secondary schools and private colleges, universities, and professional schools.

Arts, design, entertainment, sports, and media occupations.

Most new jobs:
Coaches and scouts +71,400
Fastest growing (in percent):
Interpreters and translators +42.2
Fastest declining (in percent):
Floral designers −9.3
Highest paying:
Art directors $80,630

This diverse occupational group is projected to add 342,500 new jobs between 2010 and 2020, a growth rate of 12.6 percent. The group includes a variety of occupations:

- *Art and design workers*, such as graphic designers, merchandise displayers and window trimmers, and art directors.

- *Entertainers and performers, sports and related workers*, such as coaches and scouts, musicians and singers, producers and directors, music directors and composers, and actors.

- *Media and communication workers*, such as public relations specialists, writers and authors, editors, interpreters and translators, and reporters and correspondents.

- *Media and communication equipment workers*, such as photographers, audio and visual equipment technicians, broadcast technicians, and film and video editors.

The entertainers and performers, sports and related workers group is projected to grow the fastest, at 16.0 percent, and is also projected to add the most new jobs, 128,900. Jobs for media and communication workers are expected to grow by 106,100, while jobs for art and design workers will increase by 76,100.

Self-employed workers accounted for more than 30 percent of jobs in the arts, design, entertainment, sports, and media group in 2010. Jobs for the self-employed are projected to grow somewhat slower than wage and salary jobs, and are only projected to account for less than 20 percent of the new jobs for this occupational group.

Healthcare practitioners and technical occupations.

Most new jobs:	
Registered nurses	+711,900
Fastest growing (in percent):	
Veterinary technologists and technicians	+52.0
Slowest growing (in percent):	
Respiratory therapy technicians	+4.1
Highest paying:	
Physicians and surgeons	≥$166,400

Healthcare practitioners and technical occupations are projected to add 2.0 million new jobs from 2010 to 2020, the second most of any major group. This follows an increase of 601,700 jobs from 2006 to 2010, more growth than any other occupational group. The healthcare practitioners and technical occupations growth rate of 25.9 percent from 2010 to 2020 is also the third fastest. This

group consists mainly of health diagnosing and treating practitioners—such as registered nurses, physicians and surgeons, and physical therapists—whose employment is projected to grow by 1.3 million, and health technologists and technicians—such as pharmacy technicians, emergency medical technicians and paramedics, and radiologic technologists and technicians—whose employment is projected to grow by 720,300.

The fast growth for the healthcare practitioners and technical occupational group is driven by increased spending on healthcare services, particularly by an aging population. Older individuals spend more on healthcare than those who are younger, so as the share of the population ages 65 and older grows, healthcare spending is expected to increase. The recently passed healthcare reform legislation could also have a large impact on the growth rate for healthcare practitioners, but its full effects remain unknown.

Healthcare support occupations.

Most new jobs:	
Home health aides	+706,300
Fastest growing (in percent):	
Home health aides	+69.4
Slowest growing (in percent):	
Medical transcriptionists	+5.9
Highest paying:	
Occupational therapy assistants	$51,010

After having gained 466,500 new jobs from 2006 to 2010, the healthcare support occupations group is projected to be the fastest growing occupational group from 2010 to 2020, growing by 34.5 percent and creating 1.4 million more new jobs. About half, or 706,300, of these new jobs will be in a single occupation, home health aides, which is projected to grow by 69.4 percent. Home health aides accounted for 24 percent of this occupational group in 2010, but their proportion is projected to rise to 31 percent in 2020.

Much as it affects healthcare practitioners and technical occupations, an aging population that spends more on healthcare is a major factor behind the fast growth rate for healthcare support occupations. The recently passed healthcare reform legislation will also affect jobs within this occupation group, although the eventual impact is not known.

As with the more highly skilled healthcare practitioners and technical occupations, healthcare support occupations are concentrated within the health care industry—almost 80 percent of these jobs were in this industry in 2010. Together, the two groups account for more than 60 percent

of jobs in this industry. Healthcare support occupations are more highly concentrated in ambulatory health care services, while healthcare practitioners and technical occupations are more highly concentrated in hospitals. Ambulatory health care services are projected to grow faster than hospitals, contributing to the projected faster growth for healthcare support occupations.

Protective service occupations.

Most new jobs:
Security guards   +195,000
Fastest growing (in percent):
Private detectives and investigators   +20.5
Slowest growing (in percent):
Crossing guards   +1.1
Highest paying:
First-line supervisors of police and
   detectives $78,260

Protective service occupations are expected to add 364,500 new jobs—a growth rate of 11.0 percent. The majority of this occupational group consists of law enforcement workers, who predominantly work for governments, and security guards, who mostly work for private companies. About a third of the new jobs created will be in government, while another 40 percent will be in the investigation and security services industry.

Food preparation and serving related occupations.

Most new jobs:
Combined food preparation and
   serving workers, including fast food   +398,000
Fastest growing (in percent):
Food servers, nonrestaurant   +18.0
Fastest declining (in percent):
Cooks, fast food   −3.6
Highest paying:
Chefs and head cooks $40,630

About 1.1 million new jobs will arise in the food preparation and serving related occupational group. Although this group was the third-largest major occupational group in 2010, it is growing at a slower-than-average rate of 9.8 percent and ranks only 10th in number of new jobs. More than half of the new jobs will be for food and beverage serving workers, such as waiters and waitresses. Employment of these workers is growing slightly faster (11.5 percent) than that of cooks and food preparation workers (8.6 percent), who account for most of the other jobs in this group.

Not surprisingly, the food preparation and serving related occupational group is highly concentrated in the food services and drinking places industry, where about three-quarters of these jobs are found, and the group accounts for 90 percent of all jobs in this industry. Faster growth for these jobs is found in the health care and social assistance industry, which accounted for 5 percent of jobs in 2010 but 11 percent of new jobs over the 2010-to-2020 period.

Building and grounds cleaning and maintenance occupations.

Most new jobs:
Janitors and cleaners, except maids
   and housekeeping cleaners   +246,400
Fastest growing (in percent):
Pest control workers   +26.1
Slowest growing (in percent):
First-line supervisors of housekeeping
   and janitorial workers   +0.8
Highest paying:
First-line supervisors of landscaping, lawn
   service, and groundskeeping workers $41,860

This occupational group is projected to add 664,000 new jobs while growing at a slightly below-average rate (12.1 percent). This group includes, for example, janitors and landscaping workers. Jobs in almost all the occupations in this group typically need little to no education or training. As a result, they tend to be low-paying jobs, with a median annual wage of $22,490. About 14 percent of these workers were self-employed in 2010.

Jobs for grounds maintenance workers are projected to grow about twice as fast as jobs for building cleaning workers, but building cleaning workers are a larger occupational group and are projected to add more jobs—104,400 over the 10-year period.

Personal care and service occupations.

Most new jobs:
Personal care aides   +607,000
Fastest growing (in percent):
Personal care aides   +70.5
Fastest declining (in percent):
Motion picture projectionist   −11.1
Highest paying:
Funeral service managers, directors,
   morticians, and undertakers $54,330

Personal care and service occupations are expected to grow by 26.8 percent, second fastest of all groups, as they add 1.3 million new jobs from 2010 to 2020. This group includes

a wide variety of occupations, from child care workers to funeral attendants, manicurists to fitness trainers and aerobics instructors, and animal trainers to gaming dealers. Driving the overall growth in this group is personal care aides, the fastest growing occupation overall, which is projected to grow by 70.5 percent and add 607,000 new jobs. The fast growth in the number of elderly and their increasing desire to live in their own homes are the primary causes of the rapid expansion of this occupation. Personal care and service occupations tend to be low paid, with a median annual wage of $20,640 in May 2010.

Although just 24.2 percent of jobs in this occupational group were in the health care and social assistance industry in 2010, more than half of the new jobs through 2020 for this group will be in that industry. In contrast, the self-employed will account for only 12.8 percent of the group's new jobs, despite 22.0 percent of these workers being self-employed in 2010.

Sales and related occupations.

Most new jobs:
Retail salespersons +706,800
Fastest growing (in percent):
Insurance sales agents +21.9
Fastest declining (in percent):
Gaming change persons and booth cashiers −12.1
Highest paying:
Sales engineers $87,390

Sales and related occupations are projected to add 1.9 million new jobs from 2010 to 2020 as this large occupational group grows at a slightly below-average 12.5-percent rate. This follows the loss of 1.1 million jobs from 2006 to 2010. More than half of the new jobs projected between 2010 and 2020 will be for retail sales workers, such as cashiers, whose employment is growing at about the same rate as the group as a whole. Faster growth, 17.8 percent, is expected for sales representatives, services, a group which is expected to add 272,100 new jobs.

In 2010, about 10 percent of jobs in sales and related occupations were for the self-employed, but jobs for self-employed sales and related workers are expected to decline over the projection period. Most new jobs will be found in the retail sales industry, where the majority of jobs in this group are currently found.

Office and administrative support occupations.

Most new jobs:
Office clerks, general +489,500

Fastest growing (in percent):
Medical secretaries +41.3
Fastest declining (in percent):
Postal service mail sorters, processors, and
    processing machine operators −48.5
Highest paying:
Postal Service mail carriers $53,860

The largest occupational group, office and administrative support occupations comprised 22.6 million jobs in 2010 and are projected to add the most new jobs, 2.3 million through 2020, as the group grows by 10.3 percent. The majority of this job growth, however, represents a recovery of jobs lost during the recession; from 2006–2010, the employment of office and administrative support workers fell by 1.7 million. Office and administrative support occupations include information and records clerks, such as customer support representatives; secretaries and administrative assistants; financial clerks, such as billing and posting clerks; and material recording, scheduling, dispatching, and distributing workers, such as stock clerks and order fillers.

Occupations within this group have particularly varied growth rates. A number of occupations are declining because of automation, such as switchboard operators including answering service (−23.3 percent); file clerks (−4.8 percent); postal service mail sorters, processors, and processing machine operators (−48.5 percent); and data entry keyers (−6.8 percent). Others are growing rapidly, such as medical secretaries (41.3 percent), cargo and freight agents (29.3 percent), and receptionists and information clerks (23.7 percent).

The occupations within this group are found throughout the economy, and the number of new jobs varies greatly by industry. More than one-third of the new jobs will arise in the health care and social assistance industry, even though this industry accounted for only 12.2 percent of office and administrative support jobs in 2010. On the other hand, in government there will be a decline of 128,000 jobs for occupations in this group through 2020.

Farming, fishing, and forestry occupations.

Most new jobs:
Logging equipment operators +1,300
Fastest growing (in percent):
Log graders and scalers +13.3
Fastest declining (in percent):
Animal breeders −7.5
Highest paying:
First-line supervisors of farming, fishing,
    and forestry workers $41,800

The smallest major occupational group in 2010 was farming, fishing, and forestry occupations, which had only 972,100 jobs. It is also the only declining group, projected to lose 19,400 jobs, or 2.0 percent, through 2020. Agricultural workers, who accounted for 85 percent of all jobs in this group in 2010, are projected to lose 19,100 jobs. Fishing and hunting workers are expected to lose 2,000 jobs, while forest, conservation, and logging workers will gain 2,400 jobs. Three-quarters of farming, fishing, and forestry occupation jobs are located in the declining agriculture, forestry, fishing, and hunting industry sector; jobs for occupations in this group account for over half of all jobs in this industry.

Construction and extraction occupations.

Most new jobs:
Construction laborers +212,400
Fastest growing (in percent):
Helpers—brickmasons, blockmasons,
  stonemasons, and tile and marble setters +60.1
Slowest growing (in percent):
Explosive workers, ordnance handling
  experts, and blasters +0.2
Highest paying:
Elevator installers and repairers $70,910

Construction and extraction occupations are projected to add about 1.4 million new jobs over the 2010–2020 period as their employment grows by 22.2 percent. This fast growth rate will not result in a full recovery from the recent recession, however, which caused the loss of 2.0 million jobs from 2006 to 2010 for this group. Construction trades workers, such as carpenters and electricians, will account for 1.1 million of the new jobs. Jobs for extraction workers, who work in the mining and oil and gas industries, are expected to grow much slower (6.9 percent) than construction trades and will increase by only 15,500. Most workers in construction and extraction occupations typically need little formal education for their jobs, but they tend to receive significant on-the-job training. The median annual wage of $39,080 for construction and extraction occupations in May 2010 is higher than the average for all occupations.

The majority of construction and extraction occupation jobs were in the fast-growing construction industry, which is expected to account for 1.2 million of the new jobs in this group. A fifth of jobs were for self-employed workers in 2010, but jobs for the self-employed are projected to grow by only 5.8 percent, resulting in 75,400 new jobs.

Installation, maintenance, and repair occupations.

Most new jobs:
Maintenance and repair workers,
  general +142,000
Fastest growing (in percent):
Bicycle repairers +37.6
Fastest declining (in percent):
Fabric menders, except garment −6.3
Highest paying:
Electrical and electronics repairers,
  powerhouse, substation, and relay $65,230

About 800,200 new jobs are projected in installation, maintenance, and repair occupations between 2010 and 2020, a growth rate of 14.7 percent. This group lost about 454,700 jobs from 2006 to 2010, so a little more than half of the projected increase is making up for job losses during the period that included the recession. Vehicle and mobile equipment mechanics, installers, and repairers—such as automotive service technicians and mechanics—will account for 267,300 new jobs, while electrical and electronic equipment mechanics, installers, and repairers—such as security and fire alarm systems installers—will account for 71,800 new jobs.

Almost one-quarter of the new jobs are expected to be in the construction industry, where jobs for installation, maintenance, and repair occupations are projected to grow by 40.6 percent. In contrast, employment of installation, maintenance, and repair occupations in the manufacturing industry is projected to grow by only 4.0 percent over the decade.

Production occupations.

Most new jobs:
Team assemblers +52,300
Fastest growing (in percent):
Sawing machine setters, operators,
  and tenders, wood +24.7
Fastest declining (in percent):
Shoe machine operators and tenders −53.4
Highest paying:
Nuclear power reactor operators $75,650

Production occupations are projected to add 356,800 new jobs, resulting from a slower-than-average 4.2-percent growth rate. This growth is dwarfed by the 2.1 million jobs that were lost in this group from 2006 to 2010 as the manufacturing sector was hard hit by the recession. Although production workers are heavily concentrated in the manufacturing industry, only 48,800 new jobs for these occupations are expected for this industry.

In contrast, 127,800 new jobs are expected in the employment services industry, as manufacturers increasingly use workers from temporary help services.

Most minor groups within production occupations, such as assemblers and fabricators or metal workers and plastic workers, are growing at single-digit rates, comparable to the group as a whole. However, jobs for textile, apparel, and furnishings workers are projected to decline by 9.6 percent, resulting in the loss of 65,500 jobs. In contrast, jobs for woodworkers are projected to grow by 17.1 percent, adding 40,200 jobs.

Transportation and material moving occupations.

Most new jobs:	
Heavy and tractor-trailer truck drivers	+330,100
Fastest growing (in percent):	
Ambulance drivers and attendants, except emergency medical technicians	+32.1
Fastest declining (in percent):	
Gas compressor and gas pumping station operators	−10.1
Highest paying:	
Air traffic controllers	$108,040

Transportation and material moving occupations are projected to add 1.3 million new jobs, reflecting 14.8-percent growth from 2010 to 2020. This growth matches the 1.3 million jobs that were lost from 2006 to 2010. Nearly all the projected new jobs from 2010 to 2020 will be for motor vehicle operators (such as truck drivers), who will add 641,100 jobs, and for material moving workers (such as packers and packagers, hand), who will add 552,600 jobs.

Almost half of the new jobs for this group will be found in the transportation and warehousing industry, even though this industry accounted for only 28.8 percent of the group in 2010. This is because jobs for material moving occupations are growing quickly, at 22.1 percent, in this industry. The retail trade and wholesale trade industries will also contribute 131,100 and 164,600 new transportation and material moving jobs, respectively.

Detailed occupations

Table 2 lists the 30 occupations with the largest projected percentage employment increases from 2010 to 2020. The increase in healthcare employment is reflected here as 10 of the 30 occupations shown are in either the healthcare practitioner and technical occupations group or the healthcare support occupations group. Construction and extraction occupations, which are projected to grow as the construction industry begins to recover from the recent recession, account for 8 of the 30 occupations. The 30 occupations are relatively evenly distributed in terms of typical education needed for entry. (The education classification system is described in more detail in the last section of this article). A bachelor's or graduate degree is needed for 12 of the occupations, while 5 need an associate's degree, and 13 need a high school diploma or less. However, four of the construction occupations typically need, in addition to a high school diploma, formal apprenticeship training; these are reinforcing iron and rebar workers, glaziers, brickmasons and blockmasons, and stonemasons.

The two fastest growing occupations, personal care aides and home health aides, will be affected by demographic changes. Workers in both occupations assist the elderly, persons with disabilities, and convalescents in the person's home or in a care facility. Home health aides provide health services, such as administering medications, while personal care aides provide general services, such as cooking meals. The growing elderly population will require some care and assistance in their own homes or health care facilities, which should lead to increased demand for these occupations.

Table 3 lists the 30 occupations with the largest projected numeric job increases from 2010 to 2020. These are generally larger occupations that will account for many new jobs even though some of these occupations are projected to grow at average rates. The expected growth in healthcare will drive the demand for the six the occupations on this list in either the healthcare practitioner and technical occupations or healthcare support occupations groups, including registered nurses, which are projected to add the most new jobs. Six office and administrative support occupations appear on this list as well, primarily because they are large occupations that are employed across many industries. Five of these six had more than a million jobs in 2010, while the sixth occupation, medical secretaries, is expected to grow rapidly because of its concentration in the fast-growing health care industry. In contrast with the fastest growing occupations, the occupations with the largest numeric increases tend to have lower education needs. A high school diploma or less is sufficient to enter 23 of the occupations, while a bachelor's or higher degree is the typical level needed to enter only 4 of the occupations on this list.

Tables 4 and 5 show the 10 occupations with the largest percentage declines and the largest numeric declines in employment, respectively. Four occupations appear on both lists, making for 16 unique occupations. Five of these

Table 2.	Employment and wages of occupations with the largest percentage growth in jobs, 2010 and projected 2020						
(Numbers in thousands)							
Matrix code	2010 National Employment Matrix title	Employment		Projected change, 2010–2020		Median annual wage, May 2010[1]	Typical education needed for entry
		2010	2020	Number	Percent		
00–0000	Total, all occupations	143,068.1	163,537.1	20,468.9	14.3	$33,840	—
39–9021	Personal care aides	861.0	1,468.0	607.0	70.5	19,640	Less than high school
31–1011	Home health aides	1,017.7	1,723.9	706.3	69.4	20,560	Less than high school
17–2031	Biomedical engineers	15.7	25.4	9.7	61.7	81,540	Bachelor's degree
47–3011	Helpers—brickmasons, blockmasons, stonemasons, and tile and marble setters	29.4	47.0	17.6	60.1	27,780	Less than high school
47–3012	Helpers—carpenters	46.5	72.4	25.9	55.7	25,760	Less than high school
29–2056	Veterinary technologists and technicians	80.2	121.9	41.7	52.0	29,710	Associate's degree
47–2171	Reinforcing iron and rebar workers	19.1	28.4	9.3	48.6	38,430	High school diploma or equivalent
31–2021	Physical therapist assistants	67.4	98.2	30.8	45.7	49,690	Associate's degree
47–3015	Helpers—pipelayers, plumbers, pipefitters, and steamfitters	57.9	84.2	26.3	45.4	26,740	High school diploma or equivalent
13–1121	Meeting, convention, and event planners	71.6	102.9	31.3	43.7	45,260	Bachelor's degree
29–2032	Diagnostic medical sonographers	53.7	77.1	23.4	43.5	64,380	Associate's degree
31–2011	Occupational therapy assistants	28.5	40.8	12.3	43.3	51,010	Associate's degree
31–2022	Physical therapist aides	47.0	67.3	20.3	43.1	23,680	High school diploma or equivalent
47–2121	Glaziers	41.9	59.6	17.7	42.4	36,640	High school diploma or equivalent
27–3091	Interpreters and translators	58.4	83.1	24.6	42.2	43,300	Bachelor's degree
43–6013	Medical secretaries	508.7	718.9	210.2	41.3	30,530	High school diploma or equivalent
13–1161	Market research analysts and marketing specialists	282.7	399.3	116.6	41.2	60,570	Bachelor's degree
21–1013	Marriage and family therapists	36.0	50.8	14.8	41.2	45,720	Master's degree
47–2021	Brickmasons and blockmasons	89.2	125.3	36.1	40.5	46,930	High school diploma or equivalent
29–1123	Physical therapists	198.6	276.0	77.4	39.0	76,310	Doctoral or professional degree
29–2021	Dental hygienists	181.8	250.3	68.5	37.7	68,250	Associate's degree
49–3091	Bicycle repairers	9.9	13.6	3.7	37.6	23,660	High school diploma or equivalent
29–1181	Audiologists	13.0	17.8	4.8	36.8	66,660	Doctoral or professional degree
21–1091	Health educators	63.4	86.6	23.2	36.5	45,830	Bachelor's degree
47–2022	Stonemasons	15.6	21.4	5.7	36.5	37,180	High school diploma or equivalent
13–1051	Cost estimators	185.4	252.9	67.5	36.4	57,860	Bachelor's degree
19–1042	Medical scientists, except epidemiologists	100.0	136.5	36.4	36.4	76,700	Doctoral or professional degree
21–1014	Mental health counselors	120.3	163.9	43.6	36.3	38,150	Master's degree
47–2072	Pile-driver operators	4.1	5.6	1.5	36.0	47,860	High school diploma or equivalent
29–1131	Veterinarians	61.4	83.4	22.0	35.9	82,040	Doctoral or professional degree

[1] For wage and salary workers, from the Occupational Employment Statistics survey.   SOURCE: U.S. Bureau of Labor Statistics.

occupations are textile, apparel, or furnishings workers, all concentrated in textile and apparel manufacturing industries, which are declining rapidly because of increased imports. Four occupations related to the postal service make the lists as that agency cuts costs and jobs in the face of operating deficits. The occupation expected to decline the fastest, at 53.4 percent, is shoe machine operators and tenders. However, this decline will only cause the loss of 1,700 jobs over the 10-year period because of the occupa-

tion's small size. Farmers, ranchers, and other agricultural managers will lose 96,100 jobs, more than any other occupation, as technological improvements and consolidation continue to reduce the number of workers needed to produce the nation's food. Nearly all the occupations in tables 4 and 5 typically need no more than a high school diploma for entry. The only exception is semiconductor processors, for which an associate's degree is the typical education needed for entry.

Table 3. Employment and wages of occupations with the largest numeric growth in jobs, 2010 and projected 2020

(Numbers in thousands)

Matrix code	2010 National Employment Matrix title	Employment		Projected change, 2010–2020		Median annual wage, May 2010[1]	Typical education needed for entry
		2010	**2020**	**Number**	**Percent**		
00–0000	Total, all occupations	143,068.2	163,537.1	20,468.9	14.3	$33,840	—
29–1111	Registered nurses	2,737.4	3,449.3	711.9	26.0	64,690	Associate's degree
41–2031	Retail salespersons	4,261.6	4,968.4	706.8	16.6	20,670	Less than high school
31–1011	Home health aides	1,017.7	1,723.9	706.3	69.4	20,560	Less than high school
39–9021	Personal care aides	861.0	1,468.0	607.0	70.5	19,640	Less than high school
43–9061	Office clerks, general	2,950.7	3,440.2	489.5	16.6	26,610	High school diploma or equivalent
35–3021	Combined food preparation and serving workers, including fast food	2,682.1	3,080.1	398.0	14.8	17,950	Less than high school
43–4051	Customer service representatives	2,187.3	2,525.6	338.4	15.5	30,460	High school diploma or equivalent
53–3032	Heavy and tractor-trailer truck drivers	1,604.8	1,934.9	330.1	20.6	37,770	High school diploma or equivalent
53–7062	Laborers and freight, stock, and material movers, hand	2,068.2	2,387.3	319.1	15.4	23,460	Less than high school
25–1000	Postsecondary teachers	1,756.0	2,061.7	305.7	17.4	45,690	Doctoral or professional degree
31–1012	Nursing aides, orderlies, and attendants	1,505.3	1,807.2	302.0	20.1	24,010	Postsecondary nondegree award
39–9011	Childcare workers	1,282.3	1,544.3	262.0	20.4	19,300	High school diploma or equivalent
43–3031	Bookkeeping, accounting, and auditing clerks	1,898.3	2,157.4	259.0	13.6	34,030	High school diploma or equivalent
41–2011	Cashiers	3,362.6	3,612.8	250.2	7.4	18,500	Less than high school
25–2021	Elementary school teachers, except special education	1,476.5	1,725.3	248.8	16.8	51,660	Bachelor's degree
43–4171	Receptionists and information clerks	1,048.5	1,297.0	248.5	23.7	25,240	High school diploma or equivalent
37–2011	Janitors and cleaners, except maids and housekeeping cleaners	2,310.4	2,556.8	246.4	10.7	22,210	Less than high school
37–3011	Landscaping and groundskeeping workers	1,151.5	1,392.3	240.8	20.9	23,400	Less than high school
41–4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	1,430.0	1,653.4	223.4	15.6	52,440	High school diploma or equivalent
47–2061	Construction laborers	998.8	1,211.2	212.4	21.3	29,280	Less than high school
43–6013	Medical secretaries	508.7	718.9	210.2	41.3	30,530	High school diploma or equivalent
43–1011	First-line supervisors of office and administrative support workers	1,424.4	1,627.8	203.4	14.3	47,460	High school diploma or equivalent
47–2031	Carpenters	1,001.7	1,197.6	196.0	19.6	39,530	High school diploma or equivalent
35–3031	Waiters and waitresses	2,260.3	2,456.2	195.9	8.7	18,330	Less than high school
33–9032	Security guards	1,035.7	1,230.7	195.0	18.8	23,920	High school diploma or equivalent
25–9041	Teacher assistants	1,288.30	1,479.30	191.1	14.8	23,220	High school diploma or equivalent
13–2011	Accountants and auditors	1,216.90	1,407.60	190.7	15.7	61,690	Bachelor's degree
29–2061	Licensed practical and licensed vocational nurses	752.3	920.8	168.5	22.4	40,380	Postsecondary nondegree award
29–1060	Physicians and surgeons	691	859.3	168.3	24.4	111,570	Doctoral or professional degree
31–9092	Medical assistants	527.6	690.4	162.9	30.9	28,860	High school diploma or equivalent

[1] For wage and salary workers, from the Occupational Employment Statistics survey.

SOURCE: U.S. Bureau of Labor Statistics.

Job openings from replacement needs

New jobs account for only a portion of all jobs that are expected to be available during the projection period. Many workers will retire, leave the labor force, or transfer to other occupations, creating additional opportunities for workers to enter each occupation. These replacement needs, when added to new jobs, create a more complete picture of job openings. While projections of job growth and decline provide the best picture of how occupational

Table 4. Employment and wages of occupations with the largest percentage decline in jobs, 2010 and projected 2020

(Numbers in thousands)

Matrix code	2010 National Employment Matrix title	Employment		Projected change, 2010–2020		Median annual wage, May 2010[1]	Typical education needed for entry
		2010	2020	Number	Percent		
00–0000	Total, all occupations	143,068.2	163,537.1	20,468.9	14.3	$33,840	—
51–6042	Shoe machine operators and tenders	3.2	1.5	–1.7	–53.4	26,280	High school diploma or equivalent
43–5053	Postal service mail sorters, processors, and processing machine operators	142.0	73.0	–68.9	–48.5	53,080	High school diploma or equivalent
43–5051	Postal service clerks	65.6	34.0	–31.6	–48.2	53,100	High school diploma or equivalent
51–6092	Fabric and apparel patternmakers	6.0	3.9	–2.1	–35.6	38,970	High school diploma or equivalent
11–9131	Postmasters and mail superintendents	24.5	17.7	–6.8	–27.8	60,300	High school diploma or equivalent
51–6031	Sewing machine operators	163.2	121.1	–42.1	–25.8	20,600	Less than high school
43–2011	Switchboard operators, including answering service	142.5	109.3	–33.2	–23.3	24,920	High school diploma or equivalent
51–6062	Textile cutting machine setters, operators, and tenders	14.9	11.7	–3.3	–21.8	23,490	High school diploma or equivalent
51–6063	Textile knitting and weaving machine setters, operators, and tenders	22.5	18.4	–4.1	–18.2	25,870	High school diploma or equivalent
51–9141	Semiconductor processors	21.1	17.3	–3.8	–17.9	33,130	Associate's degree

[1] For wage and salary workers, from the Occupational Employment Statistics survey.

SOURCE: U.S. Bureau of Labor Statistics.

Table 5. Employment and wages of occupations with the largest numeric decline in jobs, 2010 and projected 2020

(Numbers in thousands)

| Matrix code	2010 National Employment Matrix title	Employment		Projected change, 2010–2020		Median annual wage, May 2010[1]	Typical education needed for entry
		2010	2020	Number	Percent		
00–0000	Total, all occupations	143,068.2	163,537.1	20,468.9	14.3	$33,840	—
11–9013	Farmers, ranchers, and other agricultural managers	1,202.5	1,106.4	–96.1	–8.0	60,750	High school diploma or equivalent
43–5053	Postal service mail sorters, processors, and processing machine operators	142.0	73.0	–68.9	–48.5	53,080	High school diploma or equivalent
51–6031	Sewing machine operators	163.2	121.1	–42.1	–25.8	20,600	Less than high school
43–5052	Postal service mail carriers	316.7	278.5	–38.1	–12.0	53,860	High school diploma or equivalent
43–2011	Switchboard operators, including answering service	142.5	109.3	–33.2	–23.3	24,920	High school diploma or equivalent
43–5051	Postal service clerks	65.6	34.0	–31.6	–48.2	53,100	High school diploma or equivalent
35–2011	Cooks, fast food	530.4	511.4	–19.1	–3.6	18,100	Less than high school
45–2090	Miscellaneous agricultural workers	746.4	727.3	–19.1	–2.6	19,180	Less than high school
43–9021	Data entry keyers	234.7	218.8	–15.9	–6.8	27,450	High school diploma or equivalent
43–9022	Word processors and typists	115.3	102.1	–13.2	–11.5	33,400	High school diploma or equivalent

[1] For wage and salary workers, from the Occupational Employment Statistics survey.

SOURCE: U.S. Bureau of Labor Statistics.

employment is expected to change, job openings provide a better description of the labor market that new entrants will face. Projections of job openings also serve as an estimate of the minimum number of workers who will need to be trained for occupations that require pre-employment education or training.[9]

From 2010 to 2020, about 33.7 million job openings are expected to come from replacement needs, compared with 21.1 million job openings from growth.[10] In four out of five occupations, openings due to replacement needs exceed the number due to growth. Occupations where more openings are due to growth tend to be those that are growing the fastest. For example, personal care aides, the fastest growing occupation, will add 607,000 jobs because of growth, but only 68,200 because of replacement needs.

Occupations that have low formal educational require-

ments and that are often taken as temporary positions have some of the highest replacement needs. For example, there will be 1.5 million openings for cashiers due to the need to replace workers who leave the occupation, far more than the 250,200 jobs that will arise because of growth. Waiters and waitresses will have 1.1 million job openings due to replacement needs, compared with 195,900 due to growth.

Job openings due to replacement needs occur even in declining occupations. Although employment of farmers, ranchers, and other agricultural managers is expected to decline by 96,100 jobs, there will be 234,500 job openings due to the need to replace workers who leave this occupation.

Job outlook by education

BLS is releasing a new education and training classification system with the 2010–2020 projections that assigns three classifications to each occupation: typical education needed for entry, work experience in a related occupation commonly considered necessary to be hired, and typical on-the-job training needed to attain competency in an occupation. (See box on next pages.) This new system was developed primarily for career exploration purposes but is also useful in depicting projected trends for occupations grouped by the type of preparation and experience needed for entry and attaining competency. A forthcoming article in the *Monthly Labor Review* will examine the system in more detail; included here are a few highlights of the new system.

Table 6 presents the employment projections for occupations on the basis of the new education classifications. BLS makes projections by occupation, not education level, so the data here represent the 2010 and projected 2020 employment for occupations assigned to each category. This is not the same as a projection of the number of workers with each of these education levels. Workers may have educational attainment that is either higher or lower than what is typically needed for entry into the occupation in which they are employed.[11]

The fastest growth is projected in occupations assigned to the master's degree level; these occupations are projected to grow by 21.7 percent. All six categories of occupations that typically need some postsecondary education are expected to grow faster than the average for all occupations, while those occupations assigned to the high school or less-than-high-school categories will grow slower than the average. However, 62.6 percent of new jobs and 69.2 percent of job openings due to growth and replacement needs are expected to arise in occupations assigned to these two lowest education categories; these occupations accounted for 69.3 percent of all jobs in 2010.

Wages are much higher in the categories of bachelor's degree, master's degree, and doctoral or professional degree, with median annual wages above $60,000 in all three categories. The median annual wage is also above $60,000 for occupations in the associate's degree category; however, wages are considerably less for workers with jobs that typically need less than an associate's degree. Occupations assigned to the postsecondary nondegree award and the high school diploma or equivalent categories have median wages around $34,000, while wages in the less-than-high-school category are only about $20,000.

An important feature of the new education and training classification system is that it allows examination of projected employment trends across all three dimensions of preparation: entry-level education, work experience in a related occupation, and on-the-job training. For example, in 2010, 43.5 percent of all jobs were in occupations assigned to the high school diploma or equivalent category. However, not all occupations that typically need a high school diploma need the same type of on-the-job training. Chart 6 shows data for occupations that typically need a high school diploma or equivalent for entry, broken down by the typical on-the-job training needed to attain competency in the occupation. Occupations that need short- and moderate-term on-the-job training account for 68.8 percent of the 2010 employment in occupations that need high school or equivalent education for entry and account for the majority of new jobs projected for these occupations. However, jobs in high school diploma occupations that typically receive training through an apprenticeship are expected to grow by 22.5 percent, almost twice as fast as the average for all high school diploma occupations. Apprenticeship occupations have a higher median annual wage in 2010 ($44,430) than the high school occupations that typically need short-term ($28,420) or moderate-term ($34,750) on-the-job training.

Jobs in occupations that need a high school diploma are spread more evenly among training categories than are jobs in occupations that typically need less than high school. As chart 7 shows, more than 90 percent of the jobs in occupations that typically need less than a high school diploma are in occupations that have only short-term on-the-job training. The relatively low skill level of these occupations, both in terms of formal education and on-the-job training, is reflected in the low median annual wage ($20,070 for less than high school occupations), as noted earlier. (See table 6.)

Definitions for the education and training classification system

The Bureau of Labor Statistics (BLS) education and training classification system consists of three categories of information that BLS analysts have assigned to each detailed occupation in the 2010–2020 National Employment Matrix. The categories are

- typical education needed for entry,
- commonly required work experience in a related occupation, and
- typical on-the-job training needed to obtain competency in the occupation.

Each category and its related choice selections are defined below. This education and training system replaces the one used for the 2008–2018 projections cycle.

Typical education needed for entry

This category best describes the typical level of education that most workers need to enter the occupation. Occupations are assigned one of the following eight education levels:

Doctoral or professional degree. Completion of a doctoral degree (Ph.D.) usually requires at least 3 years of full-time academic work beyond a bachelor's degree. Completion of a professional degree usually requires at least 3 years of full-time academic study beyond a bachelor's degree. Examples of occupations for which a professional degree is the typical form of entry-level education include lawyers, physicians and surgeons, and dentists.

Master's degree. Completion of this degree usually requires 1 or 2 years of full-time academic study beyond a bachelor's degree. Examples of occupations in this category include statisticians, physician assistants, and educational, vocational, and school counselors.

Bachelor's degree. Completion of this degree generally requires at least 4 years, but not more than 5 years, of full-time academic study beyond high school. Examples of occupations in this category include budget analysts, dietitians, and civil engineers.

Associate's degree. Completion of this degree usually requires at least 2 years but not more than 4 years of full-time academic study beyond high school. Examples of occupations in this category include mechanical drafters, respiratory therapists, and dental hygienists.

Postsecondary nondegree award. These programs lead to a certificate or other award but not a degree. The certificate is awarded by the educational institution and is the result of completing formal postsecondary schooling. Certification, which is issued by a professional organization or certifying body, is not included here. Some postsecondary nondegree award programs last only a few weeks, while others may last 1 to 2 years. Examples of occupations in this category include nursing aides, emergency medical technicians (EMTs) and paramedics, and hairstylists.

Some college, no degree. This category signifies the achievement of a high school diploma or equivalent plus the completion of one or more postsecondary courses that did not result in a degree or award. Examples of occupations in this category are actors and computer support specialists.

High school diploma or equivalent. This category signifies the completion of high school or an equivalent program resulting in the award of a high school diploma or an equivalent, such as the General Educational Development (GED) credential. Examples of occupations in this category include social and human service assistants and pharmacy technicians.

Less than high school. This category signifies the completion of any level of primary or secondary education that did not result in the award of a high school diploma or an equivalent. Examples of occupations in this category include janitors and cleaners, cashiers, and carpet installers.

Work experience in a related occupation

For some occupations, work experience in a related occupation may be a typical method of entry. The majority of occupations in this category are first-line supervisors or managers of service, sales, and production occupations. Although work experience in a related occupation is beneficial for all occupations, this metric is meant to capture work experience that is commonly considered necessary by employers or is a commonly accepted substitute for other, more formal types of training or education. Occupations are assigned one of the following four categories that deal with length of time spent gaining related work experience:

More than 5 years. This is assigned to occupations if more than 5 years of work experience in a related

occupation is typically needed for entry. Examples include construction managers and computer and information systems managers.

1 to 5 years. To enter occupations in this category, workers typically need 1–5 years of work experience in a related occupation. Examples include marketing managers and database administrators.

Less than 1 year. Examples of occupations that typically require less than 1 year of work experience in a related occupation include restaurant cooks and industrial truck and tractor operators.

None. No work experience in a related occupation is typically required. Examples are audiologists and actuaries.

Typical on-the-job training needed to attain competency in the occupation

This category encompasses any additional training or preparation that is typically needed, once a person is employed in an occupation, to attain competency in the skills needed in that occupation. Training is occupation-specific rather than job-specific; skills learned can be transferred to another job in the same occupation. Occupations are assigned one of the following six training categories:

Internship/residency. An internship or residency is training that involves preparation in a field such as medicine or teaching, generally under supervision in a professional setting, such as a hospital or classroom. This type of training may occur before one is employed. Completion of an internship or residency program is commonly required for state licensure or certification in fields including medicine, counseling, architecture, and teaching. This category does not include internships that are suggested for advancement. Examples of occupations in the internship/residency category include physicians and surgeons and marriage and family therapists.

Apprenticeship. An apprenticeship is a formal relationship between a worker and sponsor that consists of a combination of on-the-job training and related occupation-specific technical instruction in which the worker learns the practical and theoretical aspects of an occupation. Apprenticeship programs are sponsored by individual employers, joint employer-and-labor groups, and employer associations. The typical apprenticeship

program provides at least 144 hours of occupation-specific technical instruction and 2,000 hours of on-the-job training per year over a 3-to-5 year period. Examples of occupations in the apprenticeship category include electricians and structural iron and steel workers.

Long-term on-the-job training. More than 12 months of on-the-job training or, alternatively, combined work experience and formal classroom instruction are needed for workers to develop the skills to attain competency. Training is occupation specific rather than job specific; therefore, skills learned can be transferred to another job in the same occupation. This on-the-job training category also includes employer-sponsored training programs. Such programs include those offered by fire and police academies and schools for air traffic controllers and flight attendants. In other occupations—nuclear power reactor operators, for example—trainees take formal courses, often provided at the jobsite, to prepare for the required licensing exams. This category excludes apprenticeships. Examples of occupations in the long-term on-the-job training category include opticians and automotive service technicians and mechanics.

Moderate-term on-the-job training. Skills needed for a worker to attain competency in an occupation can be acquired during 1 to 12 months of combined on-the-job experience and informal training. Training is occupation specific rather than job specific; therefore, skills learned can be transferred to another job in the same occupation. This on-the-job training category also includes employer-sponsored training programs. Examples of occupations in the moderate-term category include school bus drivers and advertising sales agents.

Short-term on-the-job training. Skills needed for a worker to attain competency in an occupation can be acquired during 1 month or less of on-the-job experience and informal training. Training is occupation specific rather than job specific; therefore, skills learned can be transferred to another job in the same occupation. This on-the-job training category also includes employer-sponsored training programs. Examples of occupations in the short-term category include retail salespersons and maids and housekeeping cleaners.

None. There is no additional occupation-specific training or preparation typically required to attain competency in the occupation. Examples of occupations that do not require occupation-specific on-the-job training include geographers and pharmacists.

Table 6. Employment and total job openings, by education category, 2010 and projected 2020

(Numbers in thousands)

| Typical education needed for entry | Employment | | | | Projected change, 2010–2020 | | Job openings due to growth and replacement needs, 2010–2020[1] | | Median annual wage, May 2010[2] |
| | Number | | Percent distribution | | | | | | |
	2010	2020	2010	2020	Number	Percent	Number	Percent distribution	
Total, all occupations	143,068.2	163,537.1	100.0	100.0	20,468.9	14.3	54,787.4	100.0	$33,840
Doctoral or professional degree	4,409.7	5,286.3	3.1	3.2	876.6	19.9	1,701.8	3.1	87,500
Master's degree	1,986.0	2,417.2	1.4	1.5	431.2	21.7	903.9	1.6	60,240
Bachelor's degree	22,171.1	25,827.2	15.5	15.8	3,656.1	16.5	8,562.4	15.6	63,430
Associate's degree	7,994.6	9,434.6	5.6	5.8	1,440.0	18.0	2,941.0	5.4	61,590
Postsecondary nondegree award	6,524.0	7,624.9	4.6	4.7	1,100.9	16.9	2,389.6	4.4	34,220
Some college, no degree	811.6	953.8	.6	.6	142.2	17.5	362.0	.7	44,350
High school diploma or equivalent	62,089.6	69,665.7	43.4	42.6	7,576.1	12.2	21,745.9	39.7	34,180
Less than high school	37,081.7	42,327.4	25.9	25.9	5,245.7	14.1	16,180.8	29.5	20,070

[1] Total job openings may not equal the sum of replacement needs and employment change. If employment change for a detailed occupation is negative, job openings due to growth are zero and total job openings equal replacement needs.

[2] For wage and salary workers, from the Occupational Employment Statistics survey.

SOURCE: U.S. Bureau of Labor Statistics.

Chart 6. Size and projected 2010–2020 growth of occupations that typically require a high school diploma or equivalent for entry, grouped by typical on-the-job training
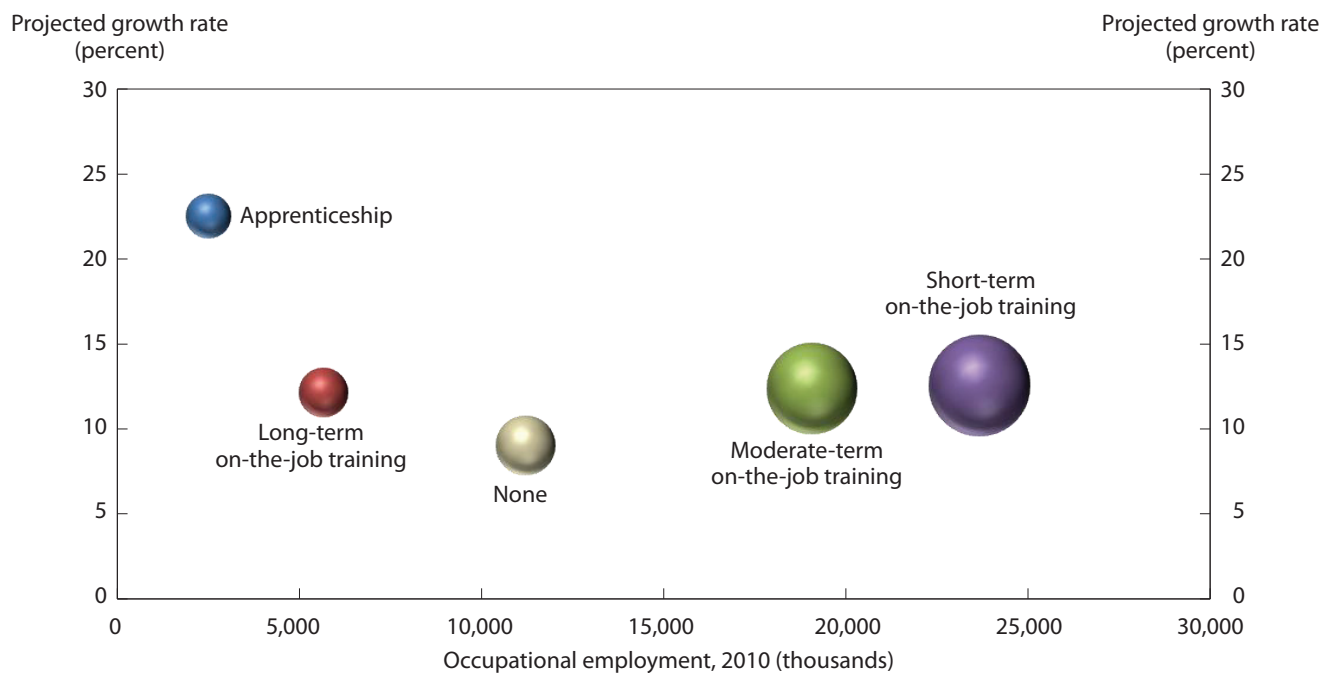
NOTE: Bubble size shows projected growth in the number of jobs.
SOURCE: U.S. Bureau of Labor Statistics.

The new education and training classification system also indicates if work experience in a related occupation is commonly considered necessary by employers for entry or is a commonly accepted substitute for formal types of training. For instance, more than three-quarters of the jobs in occupations that need a bachelor's degree is in occupations that have no related-work-experience requirements. However, bachelor's-degree occupations that do require related work experience, which are often supervisory or management occupations, are generally higher

Chart 7. Employment by typical on-the-job training among occupations requiring less than high school for entry, 2010

Long-term on-the-job training
Moderate-term on-the-job training
Short-term on-the-job training
None
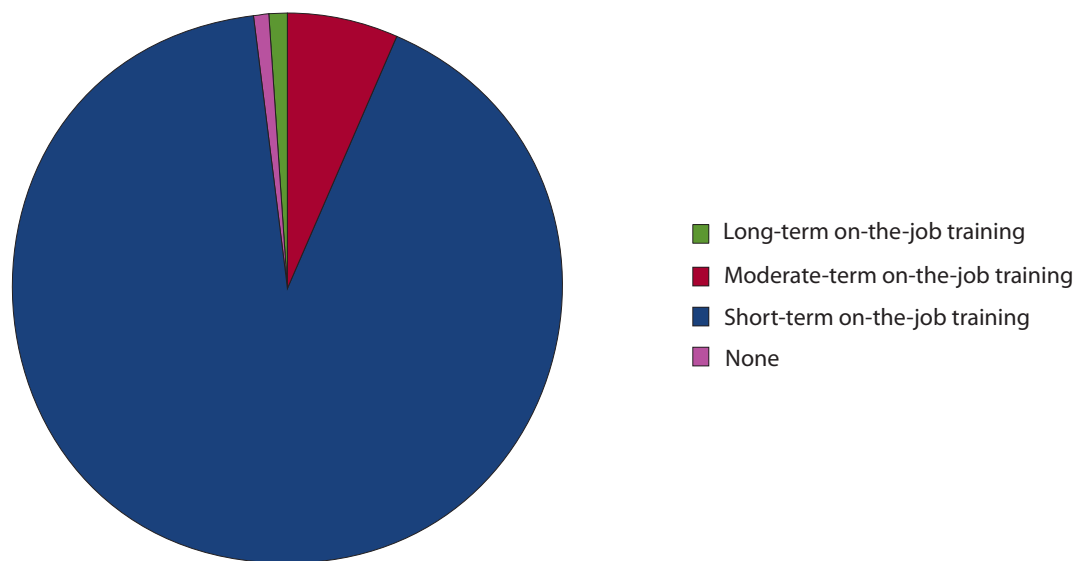
SOURCE: U.S. Bureau of Labor Statistics.

paid. The median annual wage for bachelor's-degree occupations with no requirement for work experience in a related occupation was $59,160 in 2010, while the median wage for bachelor's-degree occupations that need 1–5 years of such work experience was $76,090, and in bachelor's-degree occupations that need more than 5 years of such work experience, it was $116,290.

Further employment, projected growth, and earnings data based on the education and training system—including even more detailed groupings which combine education, work experience, and on-the-job training—can be found on the Employment Projections page of the BLS website.[12]

ABOUT 20.5 MILLION JOBS are expected to be added between 2010 and 2020 as the economy continues to recover from the recent recession. The fastest growth is expected in occupations related to healthcare, personal care, and community and social services, fields that remained relatively strong during the recession. However, there will also be substantial job gains among certain occupations that were severely affected by the recent recession, such as construction occupations and transportation and material moving occupations. Overall, job growth will be faster for occupations that typically need some form of postsecondary education. In addition to jobs arising from growth, 33.7 million job openings will result from the need to replace workers who leave an occupation permanently, creating opportunities in every occupation, even where employment is declining and no new jobs are expected.

Many factors affect the outlook for occupations, including demographic trends, the size of the economy, the types of goods and services that people consume, and technological advancements. The assumptions that BLS used to develop the projections presented here reflect the best information available at the time. New projections are developed and released every 2 years to account for changes in factors such as laws, consumer preferences, and the U.S. economy.   □

Notes

[1] The 2012–2013 edition of the *Occupational Outlook Handbook* will be available at **http://www.bls.gov/ooh** in late March 2012.

[2] See Mitra Toossi, "Labor force projections to 2020: a more slowly growing workforce," this issue, pp. 43–64, **http://www.bls.gov/opub/**

mlr/2012/01/art3full.pdf.

[3] People 65 years of age or older spent an average of $4,843 in 2010 on healthcare, compared with $3,157 for all consumers. See 2010 data from the Consumer Expenditures Survey, U.S. Bureau of Labor Statistics, available at **ftp://ftp.bls.gov/pub/special.requests/ce/standard/2010/age.txt**.

[4] See Kathryn J. Byun and Christopher Frey, "The U.S. economy in 2020, recovery in uncertain times" this issue, pp. 21–42, **http://www.bls.gov/opub/mlr/2012/01/art2full.pdf**.

[5] For more information on the effects of the recession, see Dixie Sommers and James Franklin, "Overview of employment projections to 2020," this issue, pp. 3–20, **http://www.bls.gov/opub/mlr/2012/01/art1full.pdf**.

[6] See Richard Henderson, "Industry employment and output projections to 2020," this issue, pp. 65–83, **http://www.bls.gov/opub/mlr/2012/01/art5full.pdf**.

[7] Recessions are identified by the National Bureau of Economic Research (NBER). According to the NBER, the most recent recession began in December 2007 and ended in June 2009. (See **http://www.nber.org/cycles/cyclesmain.html**.) This article uses 2006 data to examine effects of the recession because employment projections are published biennially and no comparable data were released for 2007. Data for 2006 is derived from the data published in Arlene Dohm and Lynn Shniper, "Occupational employment projections to 2016,"

Monthly Labor Review, November 2007, but are adjusted to take into account changes in occupational classifications effective with the 2010 Standard Occupational Classification system.

[8] Wage data used in this article come from the Occupational Employment Statistics (OES) survey, U.S. Bureau of Labor Statistics, **http://www.bls.gov/oes/**.

[9] For a detailed description of the methods used to calculate replacement needs, see the technical documentation accompanying the 2010 to 2020 projections, available at **http://www.bls.gov/emp/ep_replacements.htm**.

[10] Total job openings may not equal the sum of projected replacement needs and projected employment change. If employment change for a detailed occupation is negative, job openings due to growth are zero and total job openings equal replacement needs. For summary occupations, including the total of all occupations, job openings due to growth are summed from detailed occupations. If some detailed occupations are declining and others are growing, job openings due to growth will not equal the projected employment change.

[11] Table 1.11 on the employment projections page of the BLS website presents data on educational attainment by occupation from the Census Bureau's American Community Survey: **http://www.bls.gov/emp/ep_table_111.htm**.

[12] In particular, see education and training data at **http://www.bls.gov/emp/ep_education_training_system.htm**

Do initial claims overstate layoffs?

As one of the components of The Conference Board Leading Economic Index®, initial claims for unemployment insurance (UI) are widely accepted as an accurate reflection of the health of the labor market: initial claims are high because of business layoffs in a weak economy, and initial claims decline when the economy improves. In "Do Initial Claims Overstate Layoffs?" (*FRBSF Economic Letter*, Federal Reserve Bank of San Francisco, February 7, 2011, **http://www.frbsf. org/publications/economics/letter/ 2011/el2011-04.html**), researchers Bart Hobijn and Ayşegül Şahin assert that there are other reasons why initial claims increase.

The authors note that initial claims rise not only when layoffs are high, but also when the eligibility for unemployment insurance coverage expands. When eligibility is expanded during recessions, increasing numbers of workers apply for benefits both because they've become eligible and because they believe they cannot find a job in the short run.

To understand how each of these factors affects initial claims, the authors looked at data from both the Job Openings and Labor Turnover Survey (JOLTS) of the Bureau of Labor Statistics and initial UI claims. They determined initial claims data have an upward bias, particularly at the late stage of a recession, because the proportion of UI-eligible people who claim UI benefits—what the authors term the "take-up rate"—rises during periods of recession or weak growth. That is, initial claims tend to remain high as long as UI benefits are extended, even if layoffs return

to pre-recession levels.

The authors contend, however, that the take-up rate also can serve as an indicator of labor market health. Therefore, even though their alternative count of initial claims corrected for the take-up rate was well below the official claims level for 2010, they found little evidence that the labor market was stronger than the initial claims indicated.

Moreover, when interpreting declining initial UI claims, one should not necessarily assume that layoffs have subsided; the cause could be a decline in the take-up rate. The rate is expected to decline as UI benefit extensions end and as jobseekers begin to find employment more quickly.

The tax man cometh—to the G-7 countries

In an attempt to put America's financial "house" in order following the fiscal difficulties of recent years, many in Congress are seeking to put the brakes on our increasing national debt and to balance the national budget. And just as when dealing with a household budget, the policymakers have two main choices: cut back on expenses or increase income. On the income side, the primary method that governments use to acquire revenue is the collection of taxes.

In a comparison of the largest industrialized nations, just how do U.S. tax rates measure up? In his article, "How the U.S. Tax System Stacks Up Against Other G-7 Economies" (*Economic Letter,* Federal Reserve Bank of Dallas, November 2011, **https://www.dallasfed. org/research/eclett/2011/el1112. html**), Anthony Landry evaluates the revenue and taxation of the seven

G-7 countries—Canada, France, Germany, Japan, Italy, the United Kingdom, and the United States.

There are two main types of taxes: those on consumption sales (such as a state sales tax and the federal tax on gasoline) and those on income. Landry found that, of the G-7 economies, the United States received 11 percent of its revenue from consumption sales taxes during the 2000–2009 period, the smallest percentage among the G-7 countries. In contrast, Japan received 14 percent of its revenue from taxes on consumption sales, while the proportions for Germany (23 percent) and the United Kingdom (26 percent) were more than double that of the United States. (The U.S. average tax rate on consumption sales was 3.7 percent in 2009, compared with an average of 11.1 percent in G-7 economies.)

The other main government revenue consists of three types of income taxes: labor income taxes (including payroll taxes and Social Security contributions), capital income taxes (such as capital gains tax on stocks and bonds), and corporate income taxes (on company profits). In all seven countries, the greatest source of revenue comes from labor income tax, accounting for 55 to 72 percent of government receipts during the 2000–2009 period (70 percent in the United States). The U.S. tax rate on labor income was 22.3 percent in 2009, compared with a 35.7-percent average rate for G-7 economies.

The second source of revenue, a tax on capital income, ranged from 2 percent of the revenue of Germany to 11 percent of United Kingdom revenue. In the United States, capital income taxes accounted for 10 percent of all tax revenue. The 2009

tax on capital income averaged 37.6 percent in the G-7 economies, with three countries having rates higher than the United States' 38.0 percent and three countries having lower. Germany's rate was the lowest at 24.7 percent.

The third source of revenue—taxes on company profits—is corporate income tax. In 2009, the two countries with the highest tax rates were Japan (39.5 percent) and the United States (39.1 percent). Italy and the United Kingdom had corporate income tax rates below 30 percent.

The taxes that a country levies affect individual and firm decisions. On the domestic economic front, incentives created by the tax structure are taken advantage of—regardless of what is happening in other countries. However, with globalization, the tax structure of one country can influence individual and firm decisions in another, such as where in the world corporations seek to invest and operate. Another example is the significant mobility of skilled workers across borders.

Landry notes briefly the importance of *how* a government spends its revenue, and he maintains that a challenge to the United States lies in narrowing the national deficit while competing favorably in the global marketplace.   □

Inequalities at Work

Race, Gender, and the Labor Market: Inequalities at Work. By Robert L. Kaufman, Boulder, CO, Lynne Rienner Publishers, 2010, 277 pp., $62.50.

Sociology has developed a variety of theoretical explanations and empirical studies to understand persistent race and gender inequality in the labor market. Some studies narrowly focus on particular work structures while others only examine a specific measure or conception of inequality.

Robert Kaufman's sweeping *Race, Gender, and the Labor Market: Inequalities at Work*, avoids these narrow foci by examining many factors and interactions associated with occupational segregation and income gaps for Black and White American workers. Kaufman synthesizes theoretical threads into an integrated perspective that accounts for a wide variety of issues that affect segregation and income inequality, such as economic factors and regional distinction. Kaufman's book contributes analysis of race- and gender-typed (RGT) work tasks to the existing literature. RGT work tasks are based on stereotypes and the gender-typing at work found in seminal works like Reskin & Hartmann's *Women's Work, Men's Work* and Reskin & Roos' *Gender Queues, Job Queues*, and are extended here to the intersection of race and gender. These RGT work tasks can constrain Blacks and White women through lower placement on job queues for positions that are not considered to be race- or gender- 'appropriate,' in turn increasing employment segregation and income inequality

in broad expected ways and novel complex ways.

Kaufman begins by building his integrated perspective of race and gender inequality and discussing his methods. He contrasts supply-side explanations of inequality such as Human Capital/Status Attainment, and Worker Preferences with demand-side explanations such as Segmented Market Perspectives, Queuing Theory, and Devaluation. He contributes an integrated perspective that uses queuing theory as a base from which to add human capital differences in credentials, productivity and family status, segmented market theory's stress on job and firm characteristics, devaluation's emphasis on RGT work tasks in global and specific ways, and a *salience of preferences* that refers to employer power to rank and act upon their preferences. He tests his perspective on four groups (White men, Black men, White women, Black women) using the U.S. Census 1990 Public Use Microdata Sample files. I was troubled by the treatment of the measurement of RGT work tasks, a vital contribution in this study. There was little concerning what the size of the indicators mean beyond mention of the standardization of means. This led to likely errors regarding the measures in the Appendix. For instance, occupations heavily dependent on math skills such as Engineers and Mathematical and Computer Scientists do not appear to have any form of gender typing despite the inclusion of math skills as a primary measure of gender-typed tasks.

Kaufman examines segregation across labor market positions and its implications for theories of inequality highlighted earlier. The

results confirm that his integrated perspective represents an improvement over the piecemeal findings of other theories. Kaufman finds that gender segregation is most associated with RGT work tasks, followed by the desirable employment set of indicators measured as sufficient work hours, unemployment rate and self-employment rate, and the interaction of skill and employment growth. With employment growth, less represented groups (women and Blacks) gain greater representation in high-skilled positions while White men gain greater representation in low-skilled positions. Kaufman extends his analyses by looking at interactions between the RGT processes and employment growth, profitability and market power and finds that employment pressures can increase representation of women relative to men. Organizations that have higher visibility and slack resources use them to hire more Blacks and women. Market power and profitability can mute (less gender-typing of clerical aptitude and status in interaction) or heighten (more gender-typing of nurturant skills) inequality.

Kaufman next turns his focus towards stereotypical working conditions and income inequality. The initial models confirm that segregation devalues earnings paid to workers: female representation in an occupation depresses earnings for everyone while Black representation in an occupation depresses earnings for White men. In addition, concentrated market power is associated with comparative earnings increases for Blacks and White women which diminish earnings gaps with White men. Much like the previous chapter, this is not the whole story, as

Kaufman skillfully measures and shows greater complexity beneath the surface. For instance, two RGTs associated with women's work, dexterity and clerical perception, can increase earnings for men across the board, but can increase earnings only for women in male-typed occupational groups. When the analyses are extended to include moderating factors, Kaufman again finds that profitability helps reduce earnings gaps while market power can increase earnings gaps in gender- or race- atypical work settings.

Kaufman varies the segregation and income inequality analyses by region to see how geographical distinctions impact his models. He finds similar gender segregation across regions, but greater race segregation with respect to RGT especially among men in the South. He also finds that skill and growth outside the South open up jobs for only Black men while in the South, these open up jobs for both Black men and White women. Finally, he finds support for greater use of RGT in segregation and earning gaps for Black men especially, and to a lesser degree for Black women in the South.

Kaufman concludes his study by summarizing his findings and providing theoretical, research, and policy implications from them. He supports his integration perspective by emphasizing how his models, based largely on race-sex queuing, explain inequality across all occupational and industry settings. He suggests that future research should determine if these processes vary over time and examine assumed differences in skills and working conditions by gender and race. His brief implications for policy note that job growth and external pressures, such as proactive enforcement, can help to reduce inequalities in the American workplace.

My central concern is that the book is neither timely nor forward thinking. While theory building and testing do not require up-to-date data and measures, this book provides analyses on data that were 20 years old as of its publication date with limited historical context. Future analyses using currently available resources such as the American Community Survey and O*NET would offer a wider distinction in race, ethnicity, and immigration status reflective of our current and future labor forces as well as occupational, industrial, and RGT measurement reflective of our current labor market. As mentioned in his directions for future research, Kaufman would likely agree that an examination of his integrated perspective over time, including consideration of emergent industries and cultural trends since 1990, would benefit this line of research.

In sum, Kaufman's work serves as a vital building block for future studies. It is a book that academics and scholars on the topic should read. Scholars particularly need to consider his integrated perspective and the impact of racial and gender stereotyping of tasks on employment segregation and income inequality, and RGT's complex association with market pressures and regional differences. While this book is far too technical and specific for undergraduates or lay audiences, I highly recommend it for professional social scientists and graduate students interested in gaining a better understanding of the complexity of race and gender inequality in the U.S. labor market.   □

—Jeffrey E. Rosenthal
Survey Statistician
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Note: The views expressed in this review are those of the author and not necessarily those of the U.S. Census Bureau.

Current Labor Statistics

Notes on Current Labor Statistics

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

General notes

The following notes apply to several tables in this section:

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

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

Revisions in the productivity data in table 54 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month-to-month and quarter-to-quarter are published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All-Items CPI. Only seasonally adjusted percent changes are available for this series.

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

www.bls.gov/cps/

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

www.bls.gov/ces/

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

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

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

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

www.bls.gov/lpc/

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

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

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

Symbols

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

Comparative Indicators

(Tables 1–3)

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

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

Data on **changes in compensation, prices, and productivity** are presented in table 2. Measures of rates of change of compensation and wages from the Employment Cost Index

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

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

Notes on the data

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

Employment and Unemployment Data

(Tables 1; 4–29)

Household survey data

Description of the series

Employment data in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 60,000 households selected to represent the U.S. population 16 years of age and older. Households are interviewed on a rotating basis, so that three-fourths of the sample is the same for any 2 consecutive months.

Definitions

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

Unemployed persons are those who did not work during the survey week, but were available for work except for temporary illness and had looked for jobs within the preceding 4 weeks. Persons who did not look for work

because they were on layoff are also counted among the unemployed. **The unemployment rate** represents the number unemployed as a percent of the civilian labor force.

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

Notes on the data

From time to time, and especially after a decennial census, adjustments are made in the Current Population Survey figures to correct for estimating errors during the intercensal years. These adjustments affect the comparability of historical data. A description of these adjustments and their effect on the various data series appears in the Explanatory Notes of *Employment and Earnings*. For a discussion of changes introduced in January 2003, see "Revisions to the Current Population Survey Effective in January 2003" in the February 2003 issue of *Employment and Earnings* (available on the BLS Web site at **www.bls.gov/cps/rvcps03.pdf**).

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

At the beginning of each calendar year, historical seasonally adjusted data usually are revised, and projected seasonal adjustment factors are calculated for use during the January–June period. The historical season-

ally adjusted data usually are revised for only the most recent 5 years. In July, new seasonal adjustment factors, which incorporate the experience through June, are produced for the July–December period, but no revisions are made in the historical data.

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

Establishment survey data

Description of the series

Employment, hours, and earnings data in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its co-operating State agencies by about 160,000 businesses and government agencies, which represent approximately 400,000 individual worksites and represent all industries except agriculture. The active CES sample covers approximately one-third of all nonfarm payroll workers. Industries are classified in accordance with the 2007 North American Industry Classification System. In most industries, the sampling probabilities are based on the size of the establishment; most large establishments are therefore in the sample. (An establishment is not necessarily a firm; it may be a branch plant, for example, or warehouse.) Self-employed persons and others not on a regular civilian payroll are outside the scope of the survey because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

Definitions

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

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

Production workers in the goods-producing industries cover employees, up through the level of working supervisors, who engage directly in the manufacture or construction of the establishment's product. In private service-providing industries, data are collected for nonsupervisory workers, which include most employees except those in executive, managerial, and supervisory posi-

tions. Those workers mentioned in tables 11–16 include production workers in manufacturing and natural resources and mining; construction workers in construction; and nonsupervisory workers in all private service-providing industries. Production and nonsupervisory workers account for about four-fifths of the total employment on private nonagricultural payrolls.

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

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

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

Notes on the data

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

probability-based sample design. The industry-coding update included reconstruction of historical estimates in order to preserve time series for data users. Normally 5 years of seasonally adjusted data are revised with each benchmark revision. However, with this release, the entire new time series history for all CES data series were re-seasonally adjusted due to the NAICS conversion, which resulted in the revision of all CES time series.

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

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

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

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

lished as preliminary in January and February and as final in March.

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

Unemployment data by State

Description of the series

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

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

Notes on the data

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

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

Quarterly Census of Employment and Wages

Description of the series

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

The Quarterly Census of Employment and Wages (QCEW) data, also referred as ES-202 data, are the most complete enumeration of employment and wage information by

industry at the national, State, metropolitan area, and county levels. They have broad economic significance in evaluating labor market trends and major industry developments.

Definitions

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

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

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

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

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

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

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

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

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

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

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

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

Notes on the data

Beginning with the release of data for 2007, publications presenting data from the Covered Employment and Wages program have

switched to the 2007 version of the North American Industry Classification System (NAICS) as the basis for the assignment and tabulation of economic data by industry. NAICS is the product of a cooperative effort on the part of the statistical agencies of the United States, Canada, and Mexico. Due to difference in NAICS and Standard Industrial Classification (SIC) structures, industry data for 2001 is not comparable to the SIC-based data for earlier years.

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

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

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

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

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

For additional information on the covered employment and wage data, contact the Division of Administrative Statistics and Labor Turnover at (202) 691–6567.

Job Openings and Labor Turnover Survey

Description of the series

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

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

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

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

Definitions

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

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

by 100.

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

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

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

Notes on the data

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

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

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

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

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

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

Compensation and Wage Data

(Tables 1–3; 30–37)

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

Employment Cost Index

Description of the series

The **Employment Cost Index** (ECI) is a quarterly measure of the rate of change in compensation per hour worked and includes wages, salaries, and employer costs of employee benefits. It is a Laspeyres Index that uses fixed employment weights to measure change in labor costs free from the influence of employment shifts among occupations and industries.

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

Sample establishments are classified by industry categories based on the 2007 North American Classification System (NAICS). Within a sample establishment, specific job categories are selected and classified into about 800 occupations according to the 2000 Standard Occupational Classification (SOC) System. Individual occupations are combined to represent one of ten intermediate

aggregations, such as professional and related occupations, or one of five higher level aggregations, such as management, professional, and related occupations.

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

Definitions

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

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

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

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

Notes on the data

The ECI data in these tables reflect the con-version to the 2002 North American Industry Classification System (NAICS) and the 2000 Standard Occupational Classification (SOC) system. The NAICS and SOC data shown prior to 2006 are for informational purposes only. ECI series based on NAICS and SOC became the official BLS estimates starting in March 2006.

The ECI for changes in wages and salaries in the private nonfarm economy was pub-

lished beginning in 1975. Changes in total compensation cost—wages and salaries and benefits combined—were published beginning in 1980. The series of changes in wages and salaries and for total compensation in the State and local government sector and in the civilian nonfarm economy (excluding Federal employees) were published beginning in 1981. Historical indexes (December 2005=100) are available on the Internet: **www.bls.gov/ect/**

ADDITIONAL INFORMATION on the Employment Cost Index is available at **www.bls.gov/ncs/ect/home.htm** or by telephone at (202) 691–6199.

National Compensation Survey Benefit Measures

Description of the series

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

Definitions

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

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

Employees in contributory plans are considered as **participating** in an insurance or retirement plan if they have paid required contributions and fulfilled any applicable

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

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

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

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

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

Notes on the data

ADDITIONAL INFORMATION ON THE NCS benefit measures is available at **www.bls.gov/ncs/ebs/home.htm** or by telephone at (202) 691–6199.

Work stoppages

Description of the series

Data on work stoppages measure the number and duration of major strikes or lockouts (involving 1,000 workers or more) occurring during the month (or year), the number of workers involved, and the amount of work time lost because of stoppage. These data are presented in table 37.

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

Definitions

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

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

Number of days idle: The aggregate number of workdays lost by workers involved

in the stoppages.

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

Notes on the data

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

ADDITIONAL INFORMATION on work stop-pages data is available at **www. bls. gov/cba/home.htm** or by telephone at (202) 691–6199.

Price Data

(Tables 2; 38–46)

Price data are gathered by the Bureau of Labor Statistics from retail and primary markets in the United States. Price indexes are given in relation to a base period—December 2003 = 100 for many Producer Price Indexes (unless otherwise noted), 1982–84 = 100 for many Consumer Price Indexes (unless otherwise noted), and 1990 = 100 for International Price Indexes.

Consumer Price Indexes

Description of the series

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

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

Data collected from more than 23,000 retail establishments and 5,800 housing units in 87 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 14 major urban centers are presented in table 39. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

Notes on the data

In January 1983, the Bureau changed the way in which homeownership costs are 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 North American Indus-

try Classification System and product codes developed by the U.S. Census Bureau.

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

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

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

International Price Indexes

Description of the series

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

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

To the extent possible, the data gathered refer to prices at the U.S. border for exports and at either the foreign border or the U.S. border for imports. For nearly all products, the prices refer to transactions completed during

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

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

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

Notes on the data

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

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

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

Productivity Data

(Tables 2; 47–50)

Business and major sectors

Description of the series

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

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

Definitions

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

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

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

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

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

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

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

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

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

Notes on the data

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

The productivity and associated cost measures in tables 47–50 describe the relationship between output in real terms and the labor and capital inputs involved in its production. They show the changes from period to period in the amount of goods and services produced per unit of input.

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

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

Industry productivity measures

Description of the series

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

The industry measures differ in methodology and data sources from the productivity measures for the major sectors because the industry measures are developed independently of the National Income and Product Accounts framework used for the major sector measures.

Definitions

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

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

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

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

fuels, and electricity.

Notes on the data

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

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

International Comparisons

(Tables 51–53)

Labor force and unemployment

Description of the series

Tables 51 and 52 present comparative measures of the labor force, employment, and unemployment adjusted to U.S. concepts for the United States, Canada, Australia, Japan, and six European countries. The Bureau adjusts the figures for these selected countries, for all known major definitional differences, to the extent that data to prepare adjustments are available. Although precise comparability may not be achieved, these adjusted figures provide a better basis for international comparisons than the figures regularly published by each country. For further information on adjustments and comparability issues, see Constance Sorrentino, "International unemployment rates: how comparable are they?" Monthly Labor Review, June 2000, pp. 3–20, available on the Internet at **www.bls.gov/opub/mlr/2000/06/art1full.pdf**.

Definitions

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

Notes on the data

Foreign-country data are adjusted as closely as possible to the U.S. definitions. Primary areas of adjustment address conceptual differences in upper age limits and definitions of employment and unemployment, provided that reliable data are available to make these adjustments. Adjustments are made where applicable to include employed and unemployed persons above upper age limits and to exclude active duty military

from employment figures, although a small number of career military may be included in some European countries. Adjustments are made to exclude unpaid family workers who worked fewer than 15 hours per week from employment figures; U.S. concepts do not include them in employment, whereas most foreign countries include all unpaid family workers regardless of the number of hours worked. Adjustments are made to include full-time students seeking work and available for work as unemployed when they are classified as not in the labor force.

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

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

The annual labor force measures are obtained from monthly, quarterly, or continuous household surveys and may be calculated as averages of monthly or quarterly data. Quarterly and monthly unemployment rates are based on household surveys. For some countries, they are calculated by applying annual adjustment factors to current published data and, therefore, are less precise indicators of unemployment under U.S. concepts than the annual figures.

The labor force measures may have breaks in series over time due to changes in surveys, sources, or estimation methods. Breaks are noted in data tables.

For up-to-date information on adjustments and breaks in series, see the Introduction and Appendix B. Country Notes in *International Comparisons of Annual Labor Force Statistics, Adjusted to U.S. Concepts, 10 Countries, 1997–2009*, on the Internet at **www.bls.gov/ilc/flscomparelf.htm**, and the Notes for Table 1 in the monthly report *International Unemployment Rates and Employment Indexes, Seasonally Adjusted, 2008–2010*,

on the Internet at **www.bls.gov/ilc/intl_un-employment_rates_monthly.htm**.

Manufacturing productivity and labor costs

Description of the series

Table 53 presents comparative indexes of manufacturing output per hour (labor productivity), output, total hours, compensation per hour, and unit labor costs for 19 countries. These measures are trend comparisons—that is, series that measure changes over time—rather than level comparisons. BLS does not recommend using these series for level comparisons because of technical problems.

BLS constructs the comparative indexes from three basic aggregate measures—output, total labor hours, and total compensation. The hours and compensation measures refer to employees (wage and salary earners) in Belgium and Taiwan. For all other economies, the measures refer to all employed persons, including employees, self-employed persons, and unpaid family workers.
The data for recent years are based on the United Nations System of National Accounts 1993 (SNA 93). Manufacturing is generally defined according to the International Standard Industrial Classification (ISIC). However, the measures for France include parts of mining as well. For the United States and Canada, manufacturing is defined according to the North American Industry Classification System (NAICS 97).

Definitions

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

For the United States, the output measure is a chain-weighted index of real value added produced by the Bureau of Economic Analysis. BLS uses this series here to preserve international comparability. However, for its domestic industry measures, shown in tables 47–50 in this section, BLS uses a different output measures called "sectoral output," which is gross output less intra-sector transactions.

Total hours refer to hours worked in all economies. The measures are developed from statistics of manufacturing employment and average hours. For most other economies, recent years' aggregate hours series are obtained from national statistical offices, usually from national accounts. However, for some economies and for earlier years, BLS calculates the aggregate hours series using employment figures published with the national accounts, or other comprehensive employment series, and data on average hours worked.

Hourly compensation is total compensation divided by total hours. Total compensation includes all payments in cash or in-kind made directly to employees plus employer expenditures for legally required insurance programs and contractual and private benefit plans. For Australia, Canada, France, Singapore, and Sweden, compensation is increased to account for important taxes on payroll or employment. For the Czech Republic, Finland, and the United Kingdom, compensation is reduced in certain years to account for subsidies.

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

Unit labor costs are defined as the cost of labor input required to produce one unit of output. They are computed as compensation in nominal terms divided by real output.

Notes on the data

The measures for recent years may be based on current indicators of manufacturing output (such as industrial production indexes), employment, average hours, and hourly compensation until national accounts and other statistics used for the long-term measures become available. For more in-depth information on sources and methods, see **http://www.bls.gov/news.release/prod4.toc.htm**.

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

Occupational Injury and Illness Data

(Tables 54–55)

Survey of Occupational Injuries and Illnesses

Description of the series

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

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

Definitions

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

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

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

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

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

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

Notes on the data

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

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

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

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

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

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

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

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

Census of Fatal Occupational Injuries

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

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

Definition

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

Notes on the data

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

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

1. Labor market indicators

Selected indicators	2009	2010	2009		2010				2011		
			III	IV	I	II	III	IV	I	II	III
Employment data											
Employment status of the civilian noninstitutional population (household survey):[1]											
Labor force participation rate..	65.4	64.7	65.3	64.9	64.8	64.9	64.7	64.5	64.2	64.1	64.0
Employment-population ratio...	59.3	58.5	59.0	58.4	58.5	58.6	58.5	58.3	58.4	58.3	58.2
Unemployment rate……………………………………………....	9.3	9.6	9.7	10.0	9.7	9.6	9.6	9.6	8.9	9.1	9.1
Men………………………………………………………………..	10.3	10.5	10.8	11.1	10.7	10.6	10.5	10.3	9.4	9.6	9.5
16 to 24 years...	20.1	20.8	20.7	22.0	21.5	20.9	20.7	20.2	19.0	18.8	19.1
25 years and older..	8.8	8.9	9.4	9.5	9.0	9.0	9.0	8.8	7.9	8.2	8.1
Women…………………………………………………………..	8.1	8.6	8.4	8.7	8.5	8.6	8.6	8.8	8.5	8.5	8.6
16 to 24 years...	14.9	15.8	15.6	15.9	15.5	16.0	15.5	16.4	16.5	15.8	15.7
25 years and older..	6.9	7.4	7.1	7.5	7.4	7.4	7.4	7.6	7.1	7.4	7.4
Employment, nonfarm (payroll data), in thousands:[1]											
Total nonfarm…………………………………………………...	130,807	129,818	129,726	129,320	129,438	129,981	129,844	130,260	130,757	131,047	131,436
Total private..	108,252	107,337	107,221	106,835	106,916	107,258	107,570	108,008	108,582	108,997	109,433
Goods-producing...	18,557	17,755	18,026	17,765	17,701	17,763	17,784	17,797	17,956	18,035	18,104
Manufacturing………………………..………………………...	11,847	11,524	11,579	11,456	11,471	11,548	11,545	11,565	11,675	11,724	11,754
Service-providing..	112,249	112,064	111,700	111,555	111,737	112,218	112,060	112,463	112,801	113,012	113,332
Average hours:											
Total private..	33.1	33.4	33.0	33.2	33.3	33.4	33.5	33.5	33.6	33.6	33.6
Manufacturing………..………………………………………..	39.8	41.1	40.0	40.6	41.0	41.0	41.3	41.3	41.4	41.4	41.3
Overtime……..…………………………..……………………..	2.9	3.8	3.0	3.5	3.7	3.8	3.9	4.0	4.2	4.0	4.0
Employment Cost Index[1, 2, 3]											
Total compensation:											
Civilian nonfarm[4]...	1.4	2.0	.5	.2	.7	.4	.5	.3	.7	.7	.3
Private nonfarm………………………………………………..	1.2	2.1	.4	.2	.8	.5	.4	.3	.7	.9	.3
Goods-producing[5]..	1.0	2.3	.2	.2	1.0	.5	.6	.1	.8	1.1	.2
Service-providing[5]..	1.3	2.0	.4	.3	.7	.4	.4	.4	.7	.7	.3
State and local government ………………………………….	2.3	1.8	1.0	.3	.3	.2	1.0	.3	.3	.1	.8
Workers by bargaining status (private nonfarm):											
Union………………………………………………………….	2.9	3.3	.6	.5	1.5	.8	.8	.2	.7	1.3	.3
Nonunion……………………………………………………….	.9	1.8	.3	.2	.7	.5	.4	.3	.8	.7	.4

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

[4] Excludes Federal and private household workers.
[5]   Goods-producing industries include mining, construction, and manufacturing. Service-providing industries include all other private sector industries.

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

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

Selected measures	2009	2010	2009		2010				2011		
			III	IV	I	II	III	IV	I	II	III
Compensation data[1, 2, 3]											
Employment Cost Index—compensation:											
Civilian nonfarm..	1.4	2.0	0.5	0.2	0.7	0.4	0.5	0.3	0.7	0.7	0.3
Private nonfarm..	1.2	2.1	.4	.2	.8	.5	.4	.3	.7	.9	.3
Employment Cost Index—wages and salaries:											
Civilian nonfarm..	1.5	1.6	.5	.3	.4	.4	.4	.4	.4	.4	.4
Private nonfarm..	1.3	1.8	.5	.3	.5	.4	.4	.4	.4	.5	.4
Price data[1]											
Consumer Price Index (All Urban Consumers): All Items......	-.4	1.6	.1	.0	.8	.2	.2	.3	2.0	1.0	.5
Producer Price Index:											
Finished goods..	-2.6	4.2	-.6	1.6	1.8	-.1	.6	1.4	3.6	1.2	.6
Finished consumer goods...	-3.9	5.6	-.7	1.9	2.4	-.1	.7	1.8	4.6	1.4	.7
Capital equipment..	1.9	.4	-.4	.8	.0	-.1	.0	.5	.6	.4	.1
Intermediate materials, supplies, and components............	-8.4	6.3	1.2	1.1	2.6	1.2	.4	2.0	5.2	2.9	.1
Crude materials...	-30.4	21.1	-3.5	12.7	8.8	-4.2	2.7	8.5	9.3	3.5	-1.5
Productivity data[4]											
Output per hour of all persons:											
Business sector...	2.4	4.1	7.0	5.3	4.3	1.1	2.5	1.7	-1.4	.1	2.8
Nonfarm business sector...	2.3	4.1	6.5	5.5	4.6	1.2	2.1	2.2	-.6	-.1	3.1
Nonfinancial corporations [5].......................................	1.6	5.3	9.3	10.5	9.3	-1.2	-.1	-3.1	2.3	4.2	_

[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] The Employment Cost Index data reflect the conversion to the 2002 North American Classification System (NAICS) and the 2000 Standard Occupational Classification (SOC) system. The NAICS and SOC data shown prior to 2006 are for informational purposes only. Series based on NAICS and SOC became the official BLS estimates starting in March 2006.
[4] 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.
[5] Output per hour of all employees.

3. Alternative measures of wage and compensation changes

Components	Quarterly change					Four quarters ending—				
	2010		2011			2010		2011		
	III	IV	I	II	III	III	IV	I	II	III
Average hourly compensation: [1]										
All persons, business sector..	2.2	0.4	5.4	3.1	0.3	1.7	1.5	2.6	2.7	2.3
All persons, nonfarm business sector...................................	1.9	.6	5.6	2.7	.6	1.8	1.6	2.6	2.7	2.3
Employment Cost Index—compensation: [2]										
Civilian nonfarm [3]..	.5	.3	.7	.7	.3	1.9	2.0	2.0	2.2	2.0
Private nonfarm...	.4	.3	.7	.9	.3	2.0	2.1	2.0	2.3	2.1
Union..	.8	.2	.7	1.3	.3	3.7	3.3	2.5	3.0	2.4
Nonunion...	.4	.3	.8	.7	.4	1.7	1.8	1.9	2.2	2.1
State and local government...	1.0	.3	.3	.1	.8	1.8	1.8	1.8	1.7	1.5
Employment Cost Index—wages and salaries: [2]										
Civilian nonfarm [3]..	.4	.4	.4	.4	.4	1.5	1.6	1.6	1.6	1.6
Private nonfarm...	.4	.4	.4	.5	.4	1.6	1.8	1.6	1.7	1.7
Union..	.5	.2	.6	.4	.5	2.3	1.8	1.9	1.7	1.7
Nonunion...	.4	.3	.4	.5	.4	1.6	1.6	1.6	1.7	1.7
State and local government...	.6	.2	.3	.1	.4	1.2	1.2	1.2	1.2	1.0

[1] Seasonally adjusted. "Quarterly average" is percent change from a quarter ago, at an annual rate.
[2] The Employment Cost Index data reflect the conversion to the 2002 North American Classification System (NAICS) and the 2000 Standard Occupational Classification (SOC) system. The NAICS and SOC data shown prior to 2006 are for informational purposes only. Series based on NAICS and SOC became the official BLS estimates starting in March 2006.
[3] Excludes Federal and private household workers.

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

[Numbers in thousands]

Employment status	Annual average		2010		2011										
	2010	2011	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
TOTAL															
Civilian noninstitutional population[1]........................	237,830	239,618	238,715	238,889	238,704	238,851	239,000	239,146	239,313	239,489	239,671	239,871	240,071	240,269	240,441
Civilian labor force..............	153,889	153,617	154,041	153,613	153,250	153,302	153,392	153,420	153,700	153,409	153,358	153,674	154,004	154,057	153,937
Participation rate..........	64.7	64.1	64.5	64.3	64.2	64.2	64.2	64.2	64.2	64.1	64.0	64.1	64.1	64.1	64.0
Employed......................	139,064	139,869	138,937	139,220	139,330	139,551	139,764	139,628	139,808	139,385	139,450	139,754	140,107	140,297	140,614
Employment-pop- ulation ratio[2]............	58.5	58.4	58.2	58.3	58.4	58.4	58.5	58.4	58.4	58.2	58.2	58.3	58.4	58.4	58.5
Unemployed..................	14,825	13,747	15,104	14,393	13,919	13,751	13,628	13,792	13,892	14,024	13,908	13,920	13,897	13,759	13,323
Unemployment rate.....	9.6	8.9	9.8	9.4	9.1	9.0	8.9	9.0	9.0	9.1	9.1	9.1	9.0	8.9	8.7
Not in the labor force........	83,941	86,001	84,674	85,276	85,454	85,550	85,608	85,726	85,613	86,080	86,313	86,198	86,067	86,213	86,503
Men, 20 years and over															
Civilian noninstitutional population[1]........................	106,596	107,736	107,114	107,216	107,203	107,292	107,381	107,469	107,566	107,668	107,773	107,884	107,994	108,104	108,203
Civilian labor force..............	78,994	79,080	78,970	78,884	78,594	78,832	78,805	78,895	79,204	79,116	78,977	79,089	79,241	79,291	79,440
Participation rate..........	74.1	73.4	73.7	73.6	73.3	73.5	73.4	73.4	73.6	73.5	73.3	73.3	73.4	73.3	73.4
Employed......................	71,230	72,182	71,128	71,494	71,593	71,901	71,918	71,942	72,161	71,981	71,930	72,098	72,340	72,379	72,846
Employment-pop- ulation ratio[2]............	66.8	67.0	66.4	66.7	66.8	67.0	67.0	66.9	67.1	66.9	66.7	66.8	67.0	67.0	67.3
Unemployed..................	7,763	6,898	7,842	7,390	7,001	6,931	6,887	6,953	7,043	7,135	7,047	6,991	6,901	6,912	6,594
Unemployment rate.....	9.8	8.7	9.9	9.4	8.9	8.8	8.7	8.8	8.9	9.0	8.9	8.8	8.7	8.7	8.3
Not in the labor force........	27,603	28,656	28,144	28,332	28,609	28,460	28,576	28,573	28,362	28,553	28,795	28,795	28,753	28,813	28,763
Women, 20 years and over															
Civilian noninstitutional population[1]........................	114,333	115,107	114,801	114,894	114,637	114,714	114,792	114,868	114,954	115,045	115,138	115,238	115,338	115,437	115,526
Civilian labor force..............	68,990	68,810	69,232	68,982	68,843	68,818	68,852	68,860	68,878	68,570	68,706	68,784	68,989	68,981	68,711
Participation rate..........	60.3	59.8	60.3	60.0	60.1	60.0	60.0	59.9	59.9	59.6	59.7	59.7	59.8	59.8	59.5
Employed......................	63,456	63,360	63,400	63,429	63,403	63,351	63,515	63,431	63,385	63,088	63,257	63,322	63,406	63,520	63,352
Employment-pop- ulation ratio[2]............	55.5	55.0	55.2	55.2	55.3	55.2	55.3	55.2	55.1	54.8	54.9	54.9	55.0	55.0	54.8
Unemployed..................	5,534	5,450	5,832	5,553	5,440	5,467	5,336	5,430	5,493	5,482	5,449	5,462	5,584	5,461	5,359
Unemployment rate.....	8.0	7.9	8.4	8.1	7.9	7.9	7.8	7.9	8.0	8.0	7.9	7.9	8.1	7.9	7.8
Not in the labor force........	45,343	46,297	45,569	45,912	45,794	45,896	45,940	46,008	46,077	46,475	46,432	46,454	46,349	46,457	46,815
Both sexes, 16 to 19 years															
Civilian noninstitutional population[1]........................	16,901	16,774	16,800	16,780	16,863	16,845	16,827	16,809	16,792	16,776	16,760	16,749	16,739	16,728	16,711
Civilian labor force..............	5,906	5,727	5,839	5,748	5,813	5,651	5,735	5,665	5,618	5,724	5,675	5,801	5,774	5,785	5,786
Participation rate..........	34.9	34.1	34.8	34.3	34.5	33.5	34.1	33.7	33.5	34.1	33.9	34.6	34.5	34.6	34.6
Employed......................	4,378	4,327	4,409	4,297	4,334	4,299	4,332	4,255	4,262	4,316	4,262	4,333	4,362	4,398	4,416
Employment-pop- ulation ratio[2]............	25.9	25.8	26.2	25.6	25.7	25.5	25.7	25.3	25.4	25.7	25.4	25.9	26.1	26.3	26.4
Unemployed..................	1,528	1,400	1,430	1,451	1,479	1,352	1,404	1,410	1,356	1,408	1,412	1,467	1,412	1,386	1,370
Unemployment rate.....	25.9	24.4	24.5	25.2	25.4	23.9	24.5	24.9	24.1	24.6	24.9	25.3	24.5	24.0	23.7
Not in the labor force........	10,995	11,048	10,961	11,032	11,050	11,194	11,092	11,145	11,174	11,052	11,085	10,949	10,965	10,943	10,925
White[3]															
Civilian noninstitutional population[1]........................	192,075	193,077	192,641	192,749	192,516	192,601	192,688	192,771	192,877	192,989	193,106	193,236	193,365	193,493	193,598
Civilian labor force..............	125,084	124,579	124,911	124,719	124,292	124,273	124,489	124,642	124,812	124,526	124,557	124,604	124,701	124,804	124,652
Participation rate..........	65.1	64.5	64.8	64.7	64.6	64.5	64.6	64.7	64.7	64.5	64.5	64.5	64.5	64.5	64.4
Employed......................	114,168	114,690	113,771	114,150	114,263	114,294	114,652	114,603	114,827	114,428	114,497	114,704	114,818	114,837	115,130
Employment-pop- ulation ratio[2]............	59.4	59.4	59.1	59.2	59.4	59.3	59.5	59.5	59.5	59.3	59.3	59.4	59.4	59.3	59.5
Unemployed..................	10,916	9,889	11,140	10,569	10,029	9,979	9,837	10,039	9,985	10,098	10,061	9,901	9,883	9,967	9,522
Unemployment rate.....	8.7	7.9	8.9	8.5	8.1	8.0	7.9	8.1	8.0	8.1	8.1	7.9	7.9	8.0	7.6
Not in the labor force........	66,991	68,498	67,730	68,030	68,225	68,328	68,199	68,129	68,065	68,463	68,549	68,631	68,664	68,689	68,945
Black or African American[3]															
Civilian noninstitutional population[1]........................	28,708	29,114	28,865	28,896	28,947	28,976	29,005	29,035	29,063	29,093	29,123	29,158	29,193	29,228	29,259
Civilian labor force..............	17,862	17,881	18,024	17,933	17,830	17,823	17,829	17,847	17,730	17,740	17,614	17,957	18,096	18,067	17,934
Participation rate..........	62.2	61.4	62.4	62.1	61.6	61.5	61.5	61.5	61.0	61.0	60.5	61.6	62.0	61.8	61.3
Employed......................	15,010	15,051	15,125	15,098	15,025	15,078	15,047	14,964	14,862	14,875	14,812	14,965	15,224	15,351	15,151
Employment-pop- ulation ratio[2]............	52.3	51.7	52.4	52.2	51.9	52.0	51.9	51.5	51.1	51.1	50.9	51.3	52.1	52.5	51.8
Unemployed..................	2,852	2,831	2,898	2,836	2,804	2,745	2,782	2,883	2,868	2,865	2,803	2,992	2,872	2,716	2,783
Unemployment rate.....	16.0	15.8	16.1	15.8	15.7	15.4	15.6	16.2	16.2	16.2	15.9	16.7	15.9	15.0	15.5
Not in the labor force........	10,846	11,233	10,841	10,963	11,117	11,153	11,176	11,187	11,333	11,353	11,509	11,202	11,097	11,161	11,325

See footnotes at end of table.

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

[Numbers in thousands]

Employment status	Annual average		2010		2011										
	2010	2011	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
Hispanic or Latino ethnicity															
Civilian noninstitutional population[1]	33,713	34,438	34,102	34,188	34,001	34,079	34,155	34,233	34,311	34,391	34,470	34,555	34,640	34,724	34,808
Civilian labor force	22,748	22,898	22,929	22,873	22,787	22,487	22,643	22,783	22,754	22,832	22,778	22,938	23,014	23,253	23,222
Participation rate	67.5	66.5	67.2	66.9	67.0	66.0	66.3	66.6	66.3	66.4	66.1	66.4	66.4	67.0	66.7
Employed	19,906	20,269	19,927	19,916	20,058	19,877	20,083	20,102	20,060	20,189	20,207	20,353	20,411	20,601	20,574
Employment-population ratio[2]	59.0	58.9	58.4	58.3	59.0	58.3	58.8	58.7	58.5	58.7	58.6	58.9	58.9	59.3	59.1
Unemployed	2,843	2,629	3,002	2,957	2,729	2,611	2,560	2,680	2,695	2,643	2,570	2,585	2,603	2,652	2,648
Unemployment rate	12.5	11.5	13.1	12.9	12.0	11.6	11.3	11.8	11.8	11.6	11.3	11.3	11.3	11.4	11.4
Not in the labor force	10,964	11,540	11,174	11,315	11,213	11,592	11,512	11,450	11,557	11,558	11,692	11,617	11,626	11,471	11,586

[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		2010		2011										
	2010	2011	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
Characteristic															
Employed, 16 years and older	139,064	139,869	138,937	139,220	139,330	139,551	139,764	139,628	139,808	139,385	139,450	139,754	140,107	140,297	140,614
Men	73,359	74,290	73,360	73,607	73,785	74,053	74,051	73,969	74,217	74,068	74,011	74,209	74,435	74,492	74,975
Women	65,705	65,579	65,577	65,613	65,546	65,498	65,714	65,659	65,591	65,316	65,439	65,545	65,672	65,805	65,639
Married men, spouse present	43,292	43,283	43,071	43,044	42,931	42,959	42,914	43,015	43,043	43,075	43,210	43,259	43,640	43,661	43,933
Married women, spouse present	34,582	34,110	34,466	34,520	34,461	34,384	34,173	34,029	33,847	33,723	33,809	33,947	34,091	34,225	34,442
Persons at work part time[1]															
All industries:															
Part time for economic reasons	8,874	8,560	8,893	8,869	8,449	8,383	8,459	8,571	8,541	8,545	8,437	8,787	9,270	8,790	8,469
Slack work or business conditions	6,174	5,711	5,988	5,954	5,772	5,661	5,634	5,714	5,836	5,807	5,695	5,815	5,900	5,839	5,578
Could only find part-time work	2,375	2,514	2,503	2,501	2,472	2,410	2,355	2,444	2,475	2,474	2,538	2,707	2,844	2,538	2,496
Part time for noneconomic reasons	18,251	18,334	18,305	18,189	17,923	18,280	18,425	18,326	18,481	18,461	18,280	18,276	18,329	18,401	18,363
Nonagricultural industries:															
Part time for economic reasons	8,744	8,423	8,752	8,720	8,315	8,293	8,297	8,453	8,396	8,400	8,264	8,640	9,115	8,664	8,358
Slack work or business conditions	6,087	5,617	5,894	5,847	5,685	5,595	5,542	5,602	5,729	5,704	5,586	5,714	5,803	5,762	5,502
Could only find part-time work	2,358	2,494	2,523	2,516	2,488	2,376	2,326	2,448	2,452	2,308	2,510	2,702	2,869	2,566	2,518
Part time for noneconomic reasons	17,911	17,957	17,932	17,863	17,588	17,930	18,035	18,004	18,113	18,093	17,883	17,867	17,915	18,003	17,941

[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		2010		2011										
	2010	2011	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
Characteristic															
Total, 16 years and older...........................	9.6	8.9	9.8	9.4	9.1	9.0	8.9	9.0	9.0	9.1	9.1	9.1	9.0	8.9	8.7
Both sexes, 16 to 19 years....................	25.9	24.4	24.5	25.2	25.4	23.9	24.5	24.9	24.1	24.6	24.9	25.3	24.5	24.0	23.7
Men, 20 years and older.......................	9.8	8.7	9.9	9.4	8.9	8.8	8.7	8.8	8.9	9.0	8.9	8.8	8.7	8.7	8.3
Women, 20 years and older..................	8.0	7.9	8.4	8.1	7.9	7.9	7.8	7.9	8.0	8.0	7.9	7.9	8.1	7.9	7.8
White, total[1].................................	8.7	7.9	8.9	8.5	8.1	8.0	7.9	8.1	8.0	8.1	8.1	7.9	7.9	8.0	7.6
Both sexes, 16 to 19 years...............	23.2	21.7	21.0	22.7	22.6	21.4	21.5	22.1	20.3	21.8	23.1	22.8	21.2	21.7	21.3
Men, 16 to 19 years.......................	26.3	24.5	23.2	25.9	24.3	22.9	23.4	24.9	22.5	25.0	25.3	26.8	24.9	25.5	24.6
Women, 16 to 19 years..................	20.0	18.9	18.6	19.4	20.7	19.7	19.5	19.4	18.3	18.6	20.8	18.5	17.4	17.7	18.0
Men, 20 years and older..................	8.9	7.7	9.2	8.5	7.9	7.9	7.8	8.0	7.9	8.0	7.9	7.7	7.7	7.8	7.3
Women, 20 years and older..............	7.2	7.0	7.6	7.2	7.0	7.1	6.9	7.0	7.1	7.0	7.0	7.0	7.1	7.0	6.9
Black or African American, total[1]........	16.0	15.8	16.1	15.8	15.7	15.4	15.6	16.2	16.2	16.2	15.9	16.7	15.9	15.0	15.5
Both sexes, 16 to 19 years...............	43.0	41.3	46.4	44.0	44.8	38.4	41.9	41.3	40.8	39.8	39.1	46.3	43.6	37.5	39.6
Men, 16 to 19 years.......................	45.4	43.1	48.9	41.4	47.2	41.6	40.3	45.5	44.8	41.3	37.9	44.9	43.5	38.7	42.7
Women, 16 to 19 years..................	40.5	39.4	43.8	46.3	42.3	35.2	43.5	37.3	36.3	38.3	40.3	48.0	43.6	36.4	36.8
Men, 20 years and older..................	17.3	16.7	16.3	16.8	16.6	16.4	16.6	17.0	17.4	16.9	17.0	18.0	16.6	16.0	16.4
Women, 20 years and older..............	12.8	13.2	13.3	13.0	12.8	13.0	12.5	13.5	13.4	13.7	13.4	13.4	13.2	12.6	13.0
Hispanic or Latino ethnicity................	12.5	11.5	13.1	12.9	12.0	11.6	11.3	11.8	11.8	11.6	11.3	11.3	11.3	11.4	11.4
Married men, spouse present..............	6.8	5.8	6.9	6.5	5.9	5.8	6.0	6.1	6.0	6.1	6.1	5.8	5.8	5.8	5.3
Married women, spouse present...........	5.9	5.6	5.8	5.6	5.6	5.4	5.7	5.7	5.8	5.6	5.6	5.7	5.8	5.7	5.3
Full-time workers..................................	10.4	9.6	10.7	10.2	9.7	9.5	9.5	9.6	9.7	9.7	9.8	9.7	9.8	9.5	9.2
Part-time workers.................................	6.3	6.3	5.9	6.1	6.2	6.5	6.3	6.3	6.2	6.7	6.1	6.5	6.0	6.4	6.0
Educational attainment[2]															
Less than a high school diploma...............	14.9	14.1	15.9	15.1	14.3	13.7	13.8	14.6	14.6	14.2	14.9	14.1	13.9	13.8	13.3
High school graduates, no college[3]........	10.3	9.4	10.0	9.8	9.4	9.5	9.5	9.7	9.5	10.0	9.3	9.5	9.6	9.5	8.8
Some college or associate degree...........	8.4	8.0	8.6	8.2	8.1	7.8	7.4	7.5	8.0	8.4	8.2	8.2	8.4	8.2	7.6
Bachelor's degree and higher[4]...............	4.7	4.3	5.0	4.8	4.2	4.3	4.4	4.5	4.5	4.4	4.3	4.3	4.2	4.4	4.4

[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.

7. Duration of unemployment, monthly data seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	Annual average		2010		2011										
	2010	2011	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
Less than 5 weeks...........................	2,771	2,677	2,875	2,701	2,659	2,408	2,437	2,725	2,687	3,068	2,675	2,734	2,743	2,676	2,510
5 to 14 weeks.................................	3,267	2,993	3,310	3,167	3,012	3,080	2,927	2,931	2,912	2,976	3,063	3,019	2,902	3,285	2,896
15 weeks and over..........................	8,786	8,077	8,747	8,613	8,458	8,208	8,122	7,919	8,197	8,137	8,134	8,218	8,227	7,869	7,766
15 to 26 weeks.............................	2,371	2,061	2,427	2,191	2,253	2,195	1,991	2,058	1,994	1,874	1,972	2,203	2,029	2,029	2,087
27 weeks and over........................	6,415	6,016	6,320	6,421	6,205	6,014	6,130	5,860	6,204	6,263	6,162	6,015	6,197	5,839	5,680
Mean duration, in weeks...................	33.0	39.3	34.2	34.9	37.1	37.4	38.9	38.3	39.6	39.8	40.2	40.3	40.4	39.2	40.9
Median duration, in weeks...............	21.4	21.4	21.5	22.3	21.7	21.1	21.6	20.8	21.9	22.1	21.2	21.7	21.8	20.8	21.5

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

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

[Numbers in thousands]

Reason for unemployment	Annual average		2010		2011										
	2010	2011	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
Job losers[1]............................	9,250	8,106	9,462	8,877	8,463	8,337	8,244	8,181	8,250	8,233	8,146	8,120	8,028	7,924	7,599
On temporary layoff..............	1,431	1,230	1,450	1,366	1,241	1,261	1,209	1,241	1,218	1,253	1,246	1,237	1,195	1,226	1,181
Not on temporary layoff........	7,819	6,876	8,012	7,511	7,222	7,076	7,035	6,941	7,031	6,980	6,900	6,883	6,833	6,699	6,418
Job leavers..............................	889	956	857	920	914	904	900	944	919	971	936	973	972	1,068	1,005
Reentrants................................	3,466	3,401	3,443	3,406	3,351	3,354	3,278	3,387	3,436	3,431	3,424	3,519	3,484	3,387	3,355
New entrants............................	1,220	1,284	1,274	1,306	1,337	1,315	1,335	1,322	1,229	1,227	1,274	1,249	1,323	1,291	1,276
Percent of unemployed															
Job losers[1]............................	62.4	59.0	62.9	61.2	60.2	59.9	59.9	59.1	59.6	59.4	59.1	58.6	58.1	58.0	57.4
On temporary layoff..............	9.6	8.9	9.6	9.4	8.8	9.1	8.8	9.0	8.8	9.0	9.0	8.9	8.7	9.0	8.9
Not on temporary layoff........	52.7	50.0	53.3	51.8	51.3	50.9	51.1	50.2	50.8	50.4	50.1	49.7	49.5	49.0	48.5
Job leavers..............................	6.0	7.0	5.7	6.3	6.5	6.5	6.5	6.8	6.6	7.0	6.8	7.0	7.0	7.8	7.6
Reentrants................................	23.4	24.7	22.9	23.5	23.8	24.1	23.8	24.5	24.8	24.8	24.8	25.4	25.2	24.8	25.3
New entrants............................	8.2	9.3	8.5	9.0	9.5	9.5	9.7	9.6	8.9	8.9	9.2	9.0	9.6	9.4	9.6
Percent of civilian labor force															
Job losers[1]............................	6.0	5.3	6.1	5.8	5.5	5.4	5.4	5.3	5.4	5.4	5.3	5.3	5.2	5.1	4.9
Job leavers..............................	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.7	.7
Reentrants................................	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2
New entrants............................	.8	.8	.8	.9	.9	.9	.9	.9	.8	.8	.8	.8	.8	.8	.8

[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		2010		2011										
	2010	2011	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
Total, 16 years and older.................	9.6	8.9	9.8	9.4	9.1	9.0	8.9	9.0	9.0	9.1	9.1	9.1	9.0	8.9	8.7
16 to 24 years............................	18.4	17.3	18.4	18.0	17.9	17.6	17.5	17.6	17.2	17.3	17.4	17.6	17.3	16.7	16.8
16 to 19 years..........................	25.9	24.4	24.5	25.2	25.4	23.9	24.5	24.9	24.1	24.6	24.9	25.3	24.5	24.0	23.7
16 to 17 years........................	29.1	27.7	25.8	27.3	27.8	28.8	28.7	30.7	28.9	27.9	28.2	28.7	26.3	25.2	23.3
18 to 19 years........................	24.2	22.9	23.6	24.6	24.1	21.6	22.5	22.3	22.0	22.8	23.2	24.4	23.2	23.2	23.4
20 to 24 years..........................	15.5	14.6	16.0	15.2	15.1	15.3	14.9	14.9	14.6	14.5	14.6	14.7	14.6	13.9	14.2
25 years and older......................	8.2	7.6	8.4	8.0	7.6	7.6	7.5	7.6	7.8	7.9	7.8	7.7	7.7	7.7	7.3
25 to 54 years..........................	8.6	7.9	8.8	8.4	7.9	7.9	7.8	8.0	8.1	8.2	8.0	8.1	8.1	8.0	7.6
55 years and older..................	7.0	6.6	7.2	6.9	6.7	6.5	6.5	6.5	6.7	6.9	6.8	6.6	6.7	7.0	6.4
Men, 16 years and older................	10.5	9.4	10.5	10.0	9.6	9.4	9.4	9.5	9.5	9.7	9.6	9.5	9.4	9.4	8.9
16 to 24 years............................	20.8	18.7	20.5	19.8	18.9	18.9	18.9	19.1	18.6	18.7	18.8	19.5	18.9	17.9	18.5
16 to 19 years..........................	28.8	27.2	26.4	27.8	27.2	25.9	26.4	28.1	27.0	27.4	27.2	28.1	27.8	27.3	26.6
16 to 17 years........................	31.8	29.1	29.5	28.5	28.9	28.6	28.4	32.3	31.0	30.2	29.4	28.2	27.6	27.4	26.7
18 to 19 years........................	27.4	26.3	25.3	27.7	26.4	24.9	25.4	26.4	25.3	25.8	25.7	28.9	27.1	27.4	26.7
20 to 24 years..........................	17.8	15.7	18.2	16.8	15.8	16.3	16.3	16.0	15.7	15.6	15.8	16.3	15.7	14.6	15.6
25 years and older......................	8.9	7.9	9.0	8.5	8.1	7.9	7.8	8.0	8.1	8.4	8.2	8.1	8.0	8.1	7.4
25 to 54 years..........................	9.3	8.2	9.3	8.9	8.3	8.1	8.1	8.3	8.4	8.6	8.4	8.4	8.3	8.4	7.7
55 years and older..................	7.7	7.0	7.9	7.3	7.2	7.1	6.8	6.9	7.0	7.8	7.3	6.9	6.9	7.2	6.7
Women, 16 years and older...........	8.6	8.5	9.0	8.6	8.5	8.5	8.3	8.4	8.5	8.5	8.5	8.5	8.6	8.4	8.3
16 to 24 years............................	15.8	15.7	16.1	16.1	16.9	16.2	16.0	15.9	15.7	15.7	15.9	15.6	15.6	15.2	15.0
16 to 19 years..........................	22.8	21.7	22.4	22.6	23.6	21.8	22.6	21.6	21.3	21.7	22.5	22.4	21.1	20.6	20.7
16 to 17 years........................	26.5	26.3	21.9	26.1	26.6	29.2	29.0	29.4	27.0	25.8	27.0	29.2	25.1	23.2	20.0
18 t0 19 years........................	20.9	19.3	21.8	21.4	21.7	18.1	19.6	18.0	18.7	19.7	20.6	19.3	19.0	18.6	20.1
20 to 24 years..........................	13.0	13.4	13.7	13.5	14.2	14.1	13.4	13.6	13.5	13.3	13.2	12.8	13.4	13.1	12.6
25 years and older......................	7.4	7.3	7.8	7.4	7.1	7.2	7.1	7.3	7.4	7.4	7.3	7.3	7.5	7.3	7.2
25 to 54 years..........................	7.8	7.6	8.1	7.8	7.4	7.7	7.5	7.6	7.7	7.8	7.6	7.7	7.8	7.5	7.5
55 years and older[1]..........	6.2	6.2	6.2	5.8	6.3	5.7	5.8	5.4	6.0	6.3	7.3	7.1	6.6	6.5	5.8

[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	Oct. 2010	Sept. 2011[p]	Oct. 2011[p]	State	Oct. 2010	Sept. 2011[p]	Oct. 2011[p]
Alabama	9.1	9.8	9.3	Missouri	9.6	8.7	8.5
Alaska	7.9	7.5	7.4	Montana	7.4	7.7	7.6
Arizona	9.8	9.1	9.0	Nebraska	4.4	4.2	4.2
Arkansas	7.9	8.3	8.2	Nevada	14.9	13.4	13.4
California	12.5	11.9	11.7	New Hampshire	5.7	5.4	5.3
Colorado	8.9	8.3	8.1	New Jersey	9.2	9.2	9.1
Connecticut	9.1	8.9	8.7	New Mexico	8.6	6.6	6.6
Delaware	8.4	8.1	7.9	New York	8.3	8.0	7.9
District of Columbia	9.7	11.2	11.0	North Carolina	9.9	10.5	10.4
Florida	11.8	10.6	10.4	North Dakota	3.9	3.5	3.5
Georgia	10.3	10.3	10.2	Ohio	9.7	9.1	9.0
Hawaii	6.5	6.4	6.5	Oklahoma	6.9	5.9	6.1
Idaho	9.6	9.0	8.8	Oregon	10.6	9.6	9.5
Illinois	9.6	10.0	10.1	Pennsylvania	8.5	8.3	8.1
Indiana	9.7	8.9	9.0	Rhode Island	11.5	10.5	10.4
Iowa	6.2	6.0	6.0	South Carolina	10.9	10.9	10.5
Kansas	6.9	6.7	6.7	South Dakota	4.6	4.6	4.5
Kentucky	10.2	9.7	9.6	Tennessee	9.4	9.8	9.5
Louisiana	7.7	6.9	7.0	Texas	8.2	8.5	8.4
Maine	7.6	7.5	7.3	Utah	7.6	7.4	7.0
Maryland	7.4	7.4	7.2	Vermont	5.9	5.8	5.6
Massachusetts	8.3	7.3	7.3	Virginia	6.7	6.5	6.4
Michigan	11.6	11.1	10.6	Washington	9.4	9.2	9.1
Minnesota	7.0	6.9	6.5	West Virginia	9.5	8.2	8.2
Mississippi	10.2	10.6	10.6	Wisconsin	7.7	7.8	7.7
				Wyoming	6.6	5.8	5.7

[p] = preliminary

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

State	Oct. 2010	Sept. 2011[p]	Oct. 2011[p]	State	Oct. 2010	Sept. 2011[p]	Oct. 2011[p]
Alabama	2,113,680	2,161,103	2,154,255	Missouri	3,003,360	3,041,214	3,053,432
Alaska	361,986	367,480	368,323	Montana	497,665	502,668	502,527
Arizona	3,173,342	3,151,435	3,153,983	Nebraska	974,876	995,250	999,737
Arkansas	1,356,018	1,351,465	1,358,248	Nevada	1,339,573	1,314,847	1,317,157
California	18,147,297	18,067,351	18,130,305	New Hampshire	743,119	742,481	744,584
Colorado	2,672,700	2,681,383	2,697,620	New Jersey	4,479,608	4,521,277	4,542,203
Connecticut	1,896,841	1,874,440	1,881,029	New Mexico	955,118	930,908	932,387
Delaware	422,743	425,846	426,542	New York	9,588,460	9,520,070	9,540,601
District of Columbia	331,197	332,237	333,298	North Carolina	4,466,925	4,507,377	4,506,202
Florida	9,256,419	9,217,946	9,229,279	North Dakota	370,523	376,372	378,414
Georgia	4,681,595	4,730,751	4,742,541	Ohio	5,889,379	5,861,816	5,853,315
Hawaii	629,447	632,005	633,851	Oklahoma	1,749,343	1,738,822	1,744,773
Idaho	758,388	758,518	759,180	Oregon	1,987,105	1,997,102	1,999,428
Illinois	6,651,327	6,619,046	6,627,169	Pennsylvania	6,323,359	6,335,625	6,354,691
Indiana	3,131,433	3,129,314	3,145,149	Rhode Island	576,897	560,432	561,577
Iowa	1,672,493	1,660,964	1,656,973	South Carolina	2,161,171	2,169,042	2,169,720
Kansas	1,500,032	1,503,512	1,509,365	South Dakota	444,724	447,670	448,923
Kentucky	2,085,272	2,095,594	2,097,173	Tennessee	3,056,032	3,117,138	3,112,404
Louisiana	2,088,218	2,038,387	2,042,928	Texas	12,173,004	12,300,180	12,340,013
Maine	696,805	694,697	694,815	Utah	1,359,171	1,341,676	1,336,622
Maryland	2,979,027	2,983,206	2,992,703	Vermont	360,442	362,055	362,768
Massachusetts	3,496,020	3,478,813	3,491,016	Virginia	4,179,613	4,227,524	4,243,646
Michigan	4,761,648	4,691,531	4,676,035	Washington	3,527,222	3,472,943	3,484,966
Minnesota	2,963,856	2,982,315	2,977,068	West Virginia	778,876	776,563	778,318
Mississippi	1,315,605	1,350,810	1,354,015	Wisconsin	3,046,346	3,057,796	3,056,951
				Wyoming	291,924	291,589	292,397

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

[p] = preliminary

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

[In thousands]

Industry	Annual average		2010		2011										
	2010	2011	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.[p]	Nov.[p]
TOTAL NONFARM..............	129,818	131,159	130,108	130,260	130,328	130,563	130,757	130,974	131,027	131,047	131,174	131,278	131,488	131,600	131,700
TOTAL PRIVATE.....................	107,337	109,080	107,841	108,008	108,102	108,363	108,582	108,823	108,922	108,997	109,170	109,242	109,462	109,596	109,716
GOODS-PRODUCING...............	17,755	18,037	17,793	17,797	17,835	17,916	17,956	17,999	18,019	18,035	18,088	18,075	18,111	18,117	18,111
Natural resources and															
mining…………….……..………	705	787	735	734	739	744	759	770	780	789	798	800	806	812	817
Logging...................................	49.5	47.7	47.8	47.2	48.1	48.4	49.8	47.6	47.4	46.9	47.7	47.1	47.3	46.1	47.9
Mining...	655.9	739.4	686.8	686.7	691.0	695.1	708.9	721.9	732.7	742.2	749.9	753.0	758.9	766.0	769.0
Oil and gas extraction.............	158.9	174.9	161.2	161.6	163.4	165.0	167.2	170.4	171.8	173.6	175.5	177.4	180.4	183.1	184.2
Mining, except oil and gas[1].....	202.9	211.8	206.1	205.6	205.1	206.1	208.1	210.4	212.4	214.0	212.7	214.4	213.7	214.7	213.6
Coal mining……………………	80.6	85.6	82.6	83.2	83.2	83.0	83.9	85.2	86.6	86.8	85.6	86.7	86.8	86.5	85.7
Support activities for mining…..	294.1	352.7	319.5	319.5	322.5	324.0	333.6	341.1	348.5	354.6	361.7	361.2	364.8	368.2	371.2
Construction............................	5,526	5,526	5,504	5,498	5,478	5,517	5,522	5,526	5,529	5,522	5,532	5,518	5,549	5,539	5,527
Construction of buildings...........	1,231.6	1,224.0	1,219.0	1,222.1	1,219.7	1,221.4	1,224.2	1,222.1	1,217.2	1,219.9	1,222.0	1,220.7	1,231.8	1,233.3	1,229.0
Heavy and civil engineering…..	828.6	843.8	845.7	834.2	830.5	839.0	839.3	849.7	848.3	845.7	844.9	843.0	845.5	850.7	845.8
Speciality trade contractors.......	3,465.5	3,458.4	3,439.7	3,441.2	3,427.8	3,456.5	3,458.0	3,453.8	3,463.7	3,456.5	3,464.7	3,454.3	3,471.3	3,455.4	3,452.3
Manufacturing..........................	11,524	11,723	11,554	11,565	11,618	11,655	11,675	11,703	11,710	11,724	11,758	11,757	11,756	11,766	11,767
Production workers...............	8,075	8,223	8,080	8,093	8,133	8,162	8,188	8,212	8,221	8,225	8,249	8,248	8,250	8,261	8,257
Durable goods..........................	7,067	7,284	7,113	7,126	7,183	7,211	7,232	7,253	7,271	7,288	7,313	7,308	7,314	7,329	7,342
Production workers...............	4,831	4,990	4,854	4,865	4,906	4,929	4,953	4,968	4,985	4,992	5,012	5,010	5,014	5,027	5,039
Wood products.........................	341.1	335.3	337.7	337.4	340.9	343.1	342.7	339.4	337.0	332.8	328.4	330.5	331.6	331.9	331.5
Nonmetallic mineral products	372.0	370.3	370.6	367.5	369.6	371.4	372.1	371.0	372.2	372.0	371.2	369.5	368.7	368.3	367.5
Primary metals......................	360.7	384.4	366.6	368.2	369.4	374.5	376.4	380.7	383.8	384.8	387.3	387.9	389.3	391.5	394.0
Fabricated metal products........	1,284.6	1,354.2	1,305.7	1,312.5	1,323.2	1,329.8	1,339.0	1,347.4	1,355.8	1,360.8	1,366.1	1,361.4	1,361.8	1,362.4	1,370.5
Machinery………..................	992.9	1,046.4	1,007.3	1,010.2	1,018.3	1,025.8	1,030.8	1,036.8	1,041.1	1,046.1	1,049.1	1,054.3	1,057.0	1,060.6	1,064.5
Computer and electronic															
products[1]……………………	1,100.1	1,124.4	1,106.7	1,111.1	1,115.2	1,117.9	1,119.6	1,123.0	1,123.4	1,125.6	1,128.7	1,129.6	1,129.2	1,128.5	1,124.0
Computer and peripheral															
equipment...........................	161.6	171.7	164.9	166.1	167.6	169.7	169.5	170.6	169.9	172.0	172.6	173.0	173.1	174.0	173.8
Communications equipment…	118.0	117.0	119.6	119.0	119.2	117.8	118.3	119.2	118.3	117.9	117.4	116.5	116.1	114.9	114.2
Semiconductors and															
electronic components.........	369.7	385.3	372.9	375.5	377.5	380.1	382.3	383.0	384.4	384.3	386.8	388.4	389.2	389.0	387.9
Electronic instruments..........	406.0	403.2	405.5	406.2	406.3	405.2	404.1	403.9	403.2	403.4	403.4	402.9	402.3	402.4	400.7
Electrical equipment and															
appliances...........................	360.7	370.5	365.2	367.7	368.2	368.5	368.1	369.3	370.0	370.8	371.8	371.7	371.0	371.4	371.5
Transportation equipment........	1,329.9	1,373.0	1,332.7	1,329.8	1,351.8	1,354.0	1,357.1	1,360.5	1,360.6	1,365.2	1,378.4	1,373.9	1,378.7	1,391.6	1,400.0
Furniture and related															
products......………………..	357.4	350.6	351.4	350.3	352.2	350.6	351.1	350.1	351.7	351.1	354.1	351.7	350.6	348.6	347.8
Miscellaneous manufacturing	567.6	575.4	569.5	571.2	574.2	575.5	575.0	575.1	575.7	579.2	578.3	577.7	575.8	574.4	570.8
Nondurable goods...................	4,457	4,439	4,441	4,439	4,435	4,444	4,443	4,450	4,439	4,436	4,445	4,449	4,442	4,437	4,425
Production workers...............	3,244	3,232	3,226	3,228	3,227	3,233	3,235	3,244	3,236	3,233	3,237	3,238	3,236	3,234	3,218
Food manufacturing.................	1,446.8	1,445.7	1,442.1	1,444.9	1,446.9	1,452.6	1,449.7	1,455.3	1,448.7	1,443.0	1,448.1	1,443.4	1,441.2	1,442.7	1,438.8
Beverages and tobacco															
products…………………………	182.3	184.7	183.8	182.4	177.6	180.2	179.8	181.7	182.9	185.8	186.2	189.4	188.2	187.4	188.2
Textile mills……………………	119.3	121.2	119.0	119.8	119.9	120.8	121.4	122.3	122.1	122.2	123.0	122.0	121.2	120.3	119.3
Textile product mills..................	118.5	115.0	115.8	116.3	115.6	116.4	116.4	116.4	116.4	116.5	115.7	116.1	113.7	113.0	112.8
Apparel………………………….	157.7	155.3	157.1	157.6	157.9	156.3	156.2	156.4	155.7	155.2	153.3	154.6	155.1	155.9	154.4
Leather and allied products.......	27.8	29.5	28.7	28.5	28.2	29.1	29.2	29.2	29.0	29.1	30.0	29.0	29.9	30.1	30.5
Paper and paper products........	396.8	398.2	396.2	396.8	396.5	397.4	397.5	398.2	396.4	397.9	398.1	399.2	399.3	398.9	398.5
Printing and related support															
activities……………………….	486.9	467.8	480.9	476.2	476.4	474.5	473.5	472.2	469.5	468.9	467.5	468.7	463.5	461.8	458.6
Petroleum and coal products.....	114.0	112.0	113.2	113.0	111.6	112.6	112.7	112.8	112.6	111.8	111.7	111.4	112.0	112.6	112.4
Chemicals...............................	783.8	779.8	777.8	777.5	773.9	774.9	776.1	777.8	776.1	778.3	780.3	783.2	785.5	784.2	781.9
Plastics and rubber products..	623.2	629.9	626.4	626.1	630.2	629.5	630.6	628.0	629.3	626.9	631.3	631.7	632.1	630.1	629.5
SERVICE-PROVIDING...................	112,064	113,123	112,315	112,463	112,493	112,647	112,801	112,975	113,008	113,012	113,086	113,203	113,377	113,483	113,589
PRIVATE SERVICE-															
PROVIDING………………………	89,582	91,043	90,048	90,211	90,267	90,447	90,626	90,824	90,903	90,962	91,082	91,167	91,351	91,479	91,605
Trade, transportation,															
and utilities..............................	24,605	24,921	24,684	24,746	24,740	24,775	24,791	24,870	24,893	24,919	24,942	24,957	24,978	25,010	25,052
Wholesale trade.......................	5,456.0	5,537.2	5,475.7	5,479.5	5,492.4	5,508.2	5,522.6	5,529.8	5,538.0	5,542.7	5,543.0	5,547.8	5,541.3	5,553.6	5,552.3
Durable goods…………………	2,719.4	2,770.8	2,733.7	2,736.0	2,744.6	2,755.9	2,764.0	2,767.6	2,773.6	2,777.4	2,774.4	2,776.9	2,773.7	2,779.0	2,777.2
Nondurable goods……………	1,931.6	1,949.5	1,932.7	1,935.5	1,939.6	1,941.7	1,945.7	1,947.3	1,948.3	1,947.0	1,950.3	1,952.8	1,950.9	1,954.8	1,953.2
Electronic markets and															
agents and brokers…………	805.1	817.0	809.3	808.0	808.2	810.6	812.9	814.9	816.1	818.3	818.3	818.1	816.7	819.8	821.9
Retail trade.............................	14,413.9	14,564.1	14,441.0	14,447.2	14,477.7	14,477.8	14,472.2	14,536.3	14,539.1	14,550.6	14,579.1	14,581.6	14,604.7	14,620.2	14,659.0
Motor vehicles and parts															
dealers[1]………………………	1,624.5	1,673.4	1,643.1	1,648.1	1,650.8	1,656.2	1,659.9	1,665.8	1,669.8	1,670.0	1,676.2	1,678.7	1,681.1	1,686.7	1,693.3
Automobile dealers................	1,006.4	1,039.9	1,018.7	1,021.4	1,023.3	1,026.9	1,030.1	1,034.0	1,037.3	1,039.5	1,041.6	1,043.7	1,046.0	1,050.1	1,053.7
Furniture and home															
furnishings stores...................	436.3	436.7	435.8	435.8	435.4	434.7	435.1	435.6	436.1	435.7	436.5	437.2	437.7	439.6	439.7
Electronics and appliance															
stores......................................	497.5	494.0	508.6	503.2	500.0	496.4	496.3	501.5	501.5	500.4	501.3	493.8	485.7	483.6	485.7

See notes at end of table.

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

Industry	Annual average		2010		2011										
	2010	2011	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.P	Nov.P
Building material and garden supply stores...........	1,125.7	1,121.5	1,112.0	1,112.0	1,117.3	1,115.2	1,124.1	1,131.2	1,122.3	1,121.6	1,119.0	1,119.9	1,119.6	1,121.2	1,124.3
Food and beverage stores............	2,810.5	2,835.9	2,810.9	2,814.1	2,816.1	2,818.1	2,819.9	2,833.2	2,830.6	2,835.1	2,837.1	2,840.1	2,845.5	2,847.5	2,848.0
Health and personal care stores....................................	978.9	974.3	976.4	970.9	971.9	971.1	969.7	971.5	972.7	969.4	976.9	977.5	979.7	978.8	977.5
Gasoline stations......................	816.4	819.1	815.3	816.1	814.9	813.2	814.5	817.1	820.1	822.6	820.6	821.2	816.9	820.6	824.7
Clothing and clothing accessories stores	1,376.5	1,436.7	1,404.4	1,405.4	1,412.1	1,417.0	1,418.5	1,422.5	1,427.2	1,431.5	1,431.1	1,436.5	1,456.7	1,458.1	1,473.1
Sporting goods, hobby, book, and music stores............	600.5	594.7	600.4	601.5	597.6	598.3	598.9	597.6	597.4	596.9	600.4	600.1	598.2	588.8	586.5
General merchandise stores1......	2,970.6	2,995.0	2,968.2	2,972.8	2,987.2	2,984.7	2,958.0	2,983.4	2,979.9	2,984.4	2,989.4	2,991.0	2,997.1	3,010.3	3,021.6
Department stores..................	1,487.6	1,502.5	1,484.3	1,484.2	1,498.9	1,499.5	1,488.4	1,495.9	1,493.8	1,494.6	1,499.8	1,500.2	1,501.6	1,508.9	1,514.3
Miscellaneous store retailers.......	760.4	765.6	754.9	753.9	758.7	758.9	762.8	763.0	765.0	766.3	774.0	766.7	768.0	765.7	765.1
Nonstore retailers.....................	416.1	417.2	411.0	413.4	415.7	414.0	414.5	413.9	416.5	416.7	416.6	418.9	418.5	419.3	419.5
Transportation and warehousing................................	4,183.5	4,267.0	4,218.3	4,268.4	4,221.2	4,238.2	4,246.2	4,252.4	4,264.4	4,273.6	4,267.8	4,274.5	4,277.5	4,282.1	4,285.2
Air transportation......................	464.2	474.1	466.9	467.7	469.3	470.5	472.6	469.7	475.7	476.9	478.8	475.7	475.9	474.9	471.9
Rail transportation.....................	214.9	224.1	219.0	218.5	219.1	220.1	221.5	222.4	223.5	225.7	224.7	226.5	225.9	226.6	226.5
Water transportation..................	62.8	64.3	64.2	64.7	65.1	66.2	64.6	64.0	64.0	63.2	63.1	63.6	64.2	65.0	64.8
Truck transportation..................	1,244.1	1,278.8	1,256.0	1,255.9	1,255.2	1,265.2	1,270.7	1,275.3	1,278.5	1,282.2	1,283.0	1,281.8	1,283.6	1,286.6	1,290.9
Transit and ground passenger transportation........................	432.4	443.1	444.3	445.2	443.9	445.1	444.8	447.6	446.3	447.0	440.3	445.0	442.9	442.0	439.9
Pipeline transportation...............	42.4	43.3	41.9	42.3	42.4	42.6	43.2	43.2	43.3	43.4	43.3	42.9	43.3	43.5	43.6
Scenic and sightseeing transportation.........................	27.3	28.0	27.1	26.7	27.1	27.2	28.0	27.1	29.2	29.6	28.5	28.9	28.1	29.0	26.7
Support activities for transportation.........................	540.1	555.6	540.6	542.0	546.1	550.5	552.3	555.3	554.7	554.9	555.0	556.1	558.2	560.6	563.3
Couriers and messengers............	527.1	526.2	527.3	573.6	524.9	522.2	521.6	521.0	521.8	522.5	521.1	521.9	523.3	522.9	525.6
Warehousing and storage............	628.3	629.6	631.0	631.8	628.1	628.6	626.9	627.4	627.4	628.2	630.0	632.1	632.1	631.0	632.0
Utilities....................................	551.9	552.4	549.3	551.2	548.9	550.6	550.1	551.4	551.6	552.1	552.1	552.6	554.3	554.1	555.0
Information............................	2,711	2,670	2,699	2,694	2,687	2,684	2,683	2,684	2,684	2,682	2,677	2,627	2,659	2,659	2,652
Publishing industries, except Internet...................................	761.0	755.2	757.2	756.9	756.2	757.7	756.1	756.7	755.4	755.5	756.0	755.3	753.5	754.7	751.7
Motion picture and sound recording industries.................	372.0	366.7	373.4	372.6	371.1	365.2	367.5	365.2	367.9	365.7	366.1	366.5	361.3	363.9	365.6
Broadcasting, except Internet.	294.5	294.5	296.3	295.7	295.8	297.1	296.1	296.0	295.1	294.9	295.0	294.3	294.2	293.7	291.3
Internet publishing and broadcasting.........................															
Telecommunications..................	899.7	855.8	886.0	881.8	876.8	875.9	872.4	873.1	869.7	867.5	859.1	809.6	849.5	843.6	840.2
ISPs, search portals, and data processing......................	242.0	239.5	240.4	241.0	239.8	239.8	240.1	239.8	240.4	239.6	239.7	239.5	238.4	238.9	239.1
Other information services..........	141.5	157.9	145.3	145.7	147.0	148.3	150.7	153.3	155.9	158.6	160.6	162.0	162.3	163.9	164.3
Financial activities	7,630	7,613	7,616	7,617	7,607	7,606	7,611	7,612	7,625	7,609	7,606	7,612	7,610	7,617	7,622
Finance and insurance...............	5,691.3	5,670.8	5,685.3	5,681.5	5,677.0	5,669.8	5,668.5	5,666.5	5,676.7	5,668.5	5,667.0	5,670.4	5,668.2	5,668.9	5,672.5
Monetary authorities— central bank...........................	20.8	21.5	21.1	21.2	21.1	21.0	21.1	21.0	21.2	21.2	21.5	21.8	21.7	21.9	21.9
Credit intermediation and related activities1...................	2,544.7	2,543.7	2,552.1	2,549.0	2,543.9	2,539.7	2,536.8	2,538.0	2,548.1	2,542.7	2,542.8	2,542.9	2,545.8	2,544.8	2,549.3
Depository credit intermediation1.....................	1,733.4	1,753.6	1,740.9	1,741.9	1,743.1	1,744.2	1,746.3	1,750.1	1,757.2	1,756.2	1,756.5	1,757.8	1,758.1	1,757.1	1,758.1
Commercial banking...............	1,308.4	1,323.2	1,314.4	1,316.4	1,315.8	1,316.3	1,317.6	1,321.2	1,327.3	1,324.5	1,324.9	1,325.8	1,325.7	1,325.0	1,326.9
Securities, commodity contracts, investments..............	800.9	807.6	801.2	803.1	804.7	806.7	807.4	808.5	808.9	809.9	811.0	811.7	808.5	806.7	806.3
Insurance carriers and related activities......................	2,238.0	2,211.8	2,224.0	2,221.7	2,220.1	2,215.1	2,215.9	2,212.3	2,211.6	2,208.6	2,204.3	2,208.2	2,206.6	2,209.9	2,209.8
Funds, trusts, and other financial vehicles.....................	86.9	86.3	86.9	86.5	87.2	87.3	87.3	86.7	86.9	86.1	87.4	85.8	85.6	85.6	85.2
Real estate and rental and leasing.............................	1,938.9	1,942.0	1,930.6	1,935.3	1,929.5	1,935.7	1,942.8	1,945.4	1,948.7	1,940.5	1,938.8	1,941.9	1,941.3	1,947.9	1,949.9
Real estate.............................	1,395.5	1,400.0	1,388.0	1,395.0	1,390.8	1,394.7	1,396.2	1,402.8	1,408.9	1,403.4	1,401.9	1,402.6	1,396.8	1,402.9	1,403.3
Rental and leasing services.........	518.2	516.3	517.3	515.0	513.0	515.4	520.9	516.9	514.1	511.4	511.4	513.5	518.6	519.0	520.6
Lessors of nonfinancial intangible assets....................	25.2	25.8	25.3	25.3	25.7	25.6	25.7	25.7	25.7	25.7	25.5	25.8	25.9	26.0	26.0
Professional and business services....................................	16,688	17,186	16,844	16,902	16,953	16,991	17,066	17,111	17,155	17,155	17,194	17,239	17,293	17,323	17,342
Professional and technical services1...............................	7,424.0	7,624.8	7,455.1	7,469.4	7,486.6	7,507.1	7,549.6	7,581.4	7,619.9	7,628.1	7,642.4	7,661.0	7,685.3	7,697.8	7,707.1
Legal services.........................	1,113.7	1,112.8	1,116.1	1,113.7	1,115.1	1,113.5	1,112.1	1,111.2	1,113.5	1,109.7	1,113.8	1,113.7	1,112.5	1,112.4	1,112.8
Accounting and bookkeeping services..............................	888.3	919.4	893.3	881.8	883.3	879.5	904.3	911.5	929.2	928.0	924.2	924.6	930.8	936.8	940.1
Architectural and engineering services...........................	1,276.7	1,297.6	1,273.9	1,278.5	1,280.5	1,289.2	1,291.3	1,294.2	1,295.0	1,295.8	1,297.5	1,301.5	1,304.5	1,303.9	1,304.6

See notes at end of table.

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

[In thousands]

Industry	Annual average 2010	Annual average 2011	2010 Nov.	2010 Dec.	2011 Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.p	Nov.p
Computer systems design and related services...........	1,441.5	1,504.4	1,459.6	1,464.9	1,472.1	1,477.6	1,485.7	1,492.7	1,499.8	1,505.6	1,511.4	1,515.2	1,519.2	1,520.4	1,523.9
Management and technical consulting services............	991.4	1,043.0	1,000.3	1,008.1	1,011.8	1,020.4	1,022.7	1,032.4	1,038.5	1,040.2	1,045.4	1,053.6	1,057.1	1,062.0	1,064.7
Management of companies and enterprises..................	1,863.0	1,884.8	1,870.8	1,873.3	1,871.4	1,870.5	1,875.8	1,877.3	1,883.5	1,882.5	1,885.4	1,887.8	1,892.0	1,894.7	1,897.1
Administrative and waste services....................	7,401.0	7,676.6	7,517.9	7,559.6	7,594.6	7,613.6	7,641.0	7,651.9	7,651.2	7,644.2	7,666.2	7,690.1	7,716.1	7,730.7	7,737.4
Administrative and support services[1].....................	7,044.3	7,312.1	7,159.1	7,199.8	7,234.7	7,252.3	7,279.4	7,290.2	7,288.4	7,280.9	7,301.4	7,323.6	7,347.9	7,363.0	7,371.7
Employment services[1]........	2,716.7	2,926.8	2,808.0	2,843.6	2,867.1	2,881.2	2,910.3	2,907.4	2,905.3	2,900.2	2,917.4	2,937.0	2,960.6	2,960.9	2,968.3
Temporary help services......	2,078.8	2,262.9	2,164.1	2,207.2	2,206.1	2,217.6	2,247.6	2,242.2	2,241.2	2,234.2	2,247.7	2,270.3	2,295.0	2,300.0	2,311.2
Business support services......	806.4	804.8	808.8	805.2	805.4	806.1	802.3	803.2	803.1	804.8	803.3	804.4	803.6	804.0	807.3
Services to buildings and dwellings...................	1,742.5	1,768.5	1,754.5	1,765.0	1,770.5	1,765.1	1,763.3	1,767.6	1,765.8	1,762.3	1,763.8	1,765.3	1,767.7	1,776.9	1,778.8
Waste management and remediation services............	356.7	364.5	358.8	359.8	359.9	361.3	361.6	361.7	362.8	363.3	364.8	366.5	368.2	367.7	365.7
Educational and health services..................	19,564	19,987	19,732	19,760	19,789	19,832	19,865	19,905	19,926	19,944	19,998	20,036	20,088	20,125	20,158
Educational services...............	3,149.6	3,222.2	3,176.9	3,179.5	3,190.0	3,205.6	3,203.1	3,209.3	3,204.4	3,203.5	3,219.3	3,225.7	3,235.9	3,243.4	3,255.7
Health care and social assistance..........................	16,414.5	16,765.0	16,555.3	16,580.6	16,598.5	16,626.1	16,662.1	16,696.0	16,722.0	16,740.8	16,778.2	16,810.5	16,852.4	16,882.0	16,902.2
Ambulatory health care services[1].....................	5,975.8	6,149.0	6,039.7	6,051.3	6,056.1	6,073.0	6,088.5	6,107.0	6,117.5	6,135.6	6,157.8	6,178.0	6,201.4	6,219.2	6,227.0
Offices of physicians............	2,315.8	2,364.4	2,324.5	2,330.0	2,333.4	2,334.4	2,343.4	2,347.5	2,351.0	2,356.5	2,365.2	2,373.3	2,383.0	2,391.9	2,395.7
Outpatient care centers.........	599.6	622.4	607.2	611.4	611.8	614.7	615.6	617.2	619.2	619.1	619.6	622.4	627.1	630.7	633.9
Home health care services.....	1,080.6	1,125.5	1,099.6	1,102.3	1,105.0	1,113.4	1,112.8	1,116.1	1,116.6	1,123.0	1,127.7	1,133.9	1,140.4	1,140.3	1,139.1
Hospitals............................	4,685.3	4,752.8	4,701.5	4,708.0	4,712.0	4,718.8	4,728.6	4,738.2	4,743.8	4,741.9	4,754.0	4,758.0	4,774.5	4,780.1	4,787.3
Nursing and residential care facilities[1]..................	3,129.1	3,187.9	3,153.6	3,163.1	3,167.7	3,171.0	3,175.6	3,180.4	3,184.1	3,190.5	3,192.3	3,195.7	3,198.9	3,199.2	3,200.2
Nursing care facilities............	1,660.8	1,681.3	1,674.1	1,674.8	1,679.4	1,677.5	1,680.3	1,681.2	1,681.1	1,686.3	1,684.5	1,683.6	1,683.2	1,682.5	1,679.4
Social assistance[1]...............	2,624.3	2,675.3	2,660.5	2,658.2	2,662.7	2,663.3	2,669.4	2,670.4	2,676.6	2,672.8	2,674.1	2,678.8	2,677.6	2,683.5	2,687.7
Child day care services.........	851.8	854.3	858.4	856.6	860.2	858.3	860.5	860.3	860.0	850.8	852.0	853.9	852.3	851.5	849.6
Leisure and hospitality..........	13,020	13,219	13,057	13,074	13,071	13,125	13,171	13,200	13,175	13,202	13,217	13,240	13,264	13,291	13,321
Arts, entertainment, and recreation......................	1,908.6	1,895.5	1,895.0	1,896.4	1,886.5	1,897.0	1,904.7	1,905.5	1,885.4	1,891.9	1,897.3	1,897.5	1,895.9	1,895.2	1,894.1
Performing arts and spectator sports...................	410.0	407.1	410.6	410.5	406.8	413.8	415.6	410.6	399.5	402.4	401.0	401.6	408.3	405.9	408.0
Museums, historical sites, zoos, and parks...................	127.3	131.1	126.6	127.2	128.0	129.5	129.7	131.5	129.5	130.5	130.8	131.7	130.8	132.4	133.0
Amusements, gambling, and recreation..........................	1,371.3	1,357.4	1,357.8	1,358.7	1,351.7	1,353.7	1,359.4	1,363.4	1,356.4	1,359.0	1,365.5	1,364.2	1,356.8	1,356.9	1,353.1
Accommodations and food services........................	11,110.9	11,323.6	11,162.0	11,177.4	11,184.3	11,228.2	11,266.3	11,294.6	11,289.7	11,310.1	11,320.1	11,342.7	11,367.8	11,395.8	11,426.4
Accommodations..................	1,759.1	1,797.3	1,759.3	1,763.3	1,769.0	1,773.1	1,783.4	1,789.0	1,790.0	1,806.2	1,811.0	1,811.9	1,806.8	1,811.7	1,805.9
Food services and drinking places........................	9,351.8	9,526.3	9,402.7	9,414.1	9,415.3	9,455.1	9,482.9	9,505.6	9,499.7	9,503.9	9,509.1	9,530.8	9,561.0	9,584.1	9,620.5
Other services......................	5,364	5,447	5,416	5,418	5,420	5,434	5,439	5,442	5,445	5,451	5,448	5,456	5,459	5,454	5,458
Repair and maintenance..........	1,136.8	1,153.7	1,144.7	1,142.3	1,148.5	1,149.8	1,152.2	1,149.6	1,152.3	1,152.8	1,152.0	1,152.7	1,156.2	1,157.2	1,159.6
Personal and laundry services	1,264.8	1,281.3	1,269.9	1,271.6	1,268.0	1,276.0	1,278.5	1,279.1	1,281.7	1,284.1	1,286.4	1,287.1	1,290.9	1,285.4	1,282.3
Membership associations and organizations......................	2,962.3	3,011.7	3,001.4	3,004.1	3,003.3	3,007.8	3,008.7	3,012.8	3,010.8	3,013.7	3,010.0	3,016.2	3,011.7	3,011.4	3,016.2
Government..............................	22,482	22,080	22,267	22,252	22,226	22,200	22,175	22,151	22,105	22,050	22,004	22,036	22,026	22,004	21,984
Federal.......................	2,968	2,832	2,844	2,853	2,850	2,853	2,854	2,846	2,845	2,829	2,824	2,818	2,817	2,819	2,815
Federal, except U.S. Postal Service.................................	2,311.7	2,207.3	2,200.4	2,210.0	2,210.8	2,216.5	2,220.3	2,214.2	2,214.9	2,202.2	2,199.3	2,197.3	2,202.7	2,201.0	2,202.1
U.S. Postal Service.................	656.4	624.4	643.1	643.4	639.1	636.5	633.7	632.2	630.5	626.6	624.5	620.7	614.6	617.6	612.9
State.......................	5,142	5,098	5,144	5,140	5,136	5,121	5,119	5,109	5,093	5,091	5,076	5,086	5,094	5,079	5,077
Education...............................	2,377.1	2,399.0	2,392.9	2,392.6	2,396.0	2,393.3	2,397.2	2,391.9	2,387.2	2,387.0	2,394.3	2,402.7	2,408.1	2,402.9	2,404.0
Other State government.........	2,764.4	2,699.1	2,751.4	2,747.3	2,739.6	2,728.0	2,721.4	2,717.5	2,705.7	2,704.0	2,681.7	2,682.8	2,686.0	2,676.1	2,672.6
Local.......................	14,372	14,150	14,279	14,259	14,240	14,226	14,202	14,196	14,167	14,130	14,104	14,132	14,115	14,106	14,092
Education...............................	8,010.4	7,883.8	7,961.9	7,951.8	7,939.3	7,932.2	7,918.0	7,919.1	7,895.9	7,866.6	7,846.4	7,874.5	7,862.0	7,857.6	7,848.1
Other local government...........	6,361.2	6,266.2	6,316.6	6,307.3	6,300.8	6,293.3	6,284.4	6,277.0	6,270.6	6,263.2	6,257.8	6,257.6	6,252.7	6,248.3	6,243.7

[1] Includes other industries not shown separately.

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

p = preliminary.

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

Industry	Annual average		2010		2011										
	2010	2011	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.P	Nov.P
TOTAL PRIVATE.............................	33.4	33.6	33.5	33.5	33.4	33.6	33.6	33.6	33.6	33.6	33.6	33.5	33.6	33.7	33.6
GOODS-PRODUCING...........................	40.4	40.9	40.5	40.5	40.2	40.7	40.7	40.8	40.9	40.9	40.9	40.8	40.9	40.9	40.9
Natural resources and mining.............	44.6	46.7	44.7	44.9	46.2	45.9	46.0	46.6	46.5	47.3	46.3	46.3	46.9	47.6	47.2
Construction................................	38.4	39.0	38.7	38.6	37.6	38.7	38.6	38.8	39.1	39.0	39.1	39.0	39.1	38.9	39.1
Manufacturing..................…..........	41.1	41.4	41.2	41.3	41.1	41.3	41.4	41.4	41.4	41.4	41.4	41.3	41.3	41.5	41.4
Overtime hours................................	3.8	4.1	4.0	4.0	4.1	4.2	4.2	4.2	4.1	4.0	4.1	4.1	4.0	4.1	4.1
Durable goods….....................………	41.3	41.8	41.6	41.6	41.5	41.7	41.9	41.7	41.8	41.8	41.8	41.7	41.8	41.8	41.7
Overtime hours................................	3.8	4.2	4.0	4.1	4.1	4.3	4.4	4.2	4.2	4.2	4.2	4.2	4.1	4.2	4.1
Wood products...................................	39.1	39.7	39.4	39.4	39.4	39.3	40.2	40.0	39.4	39.3	39.3	39.4	39.9	39.6	39.8
Nonmetallic mineral products.............	41.7	42.4	42.0	41.9	41.3	41.9	42.4	42.2	42.9	42.5	42.7	42.5	42.6	42.1	42.1
Primary metals....................................	43.7	44.6	44.3	44.7	44.1	44.6	44.9	45.1	45.3	45.3	44.8	44.5	44.1	44.0	43.8
Fabricated metal products...................	41.4	42.0	41.8	41.9	41.8	41.7	41.9	42.1	42.0	42.2	42.1	41.9	41.9	42.0	42.1
Machinery………………………....…	42.1	43.1	42.6	42.9	43.1	43.1	43.0	42.9	43.3	43.3	43.1	43.2	43.0	42.9	42.9
Computer and electronic products......	40.9	40.4	40.5	40.6	40.4	40.4	40.3	40.3	40.4	40.2	40.6	40.4	40.3	40.6	40.0
Electrical equipment and appliances…	41.1	40.7	41.2	41.1	40.9	40.4	41.2	40.7	40.8	41.1	40.1	40.3	40.3	41.3	40.5
Transportation equipment....................	42.9	43.1	43.0	42.6	42.4	43.2	43.5	42.8	42.7	42.9	43.1	42.9	43.2	43.3	43.3
Furniture and related products...........	38.5	39.9	39.7	39.6	39.5	39.9	40.1	40.0	40.0	39.4	39.7	40.1	39.9	39.9	40.0
Miscellaneous manufacturing.............	38.7	39.0	38.6	38.9	38.8	39.3	38.8	38.7	38.7	38.6	38.8	38.6	38.9	39.2	39.1
Nondurable goods................................	40.8	40.8	40.6	40.7	40.5	40.8	40.7	40.9	40.9	40.7	40.8	40.6	40.7	40.9	40.8
Overtime hours.................................	3.8	4.0	3.9	3.9	4.0	4.0	4.0	4.1	4.0	3.8	4.0	4.0	3.9	4.0	4.0
Food manufacturing.............................	40.7	40.1	40.3	40.2	39.9	39.9	39.8	40.3	39.9	40.0	40.2	40.0	40.2	40.2	40.3
Beverage and tobacco products..........	37.5	39.4	37.5	38.2	38.3	38.7	39.0	38.9	39.3	39.0	39.9	38.6	39.2	39.9	40.2
Textile mills……………………………	41.3	41.6	40.1	40.9	39.0	41.6	41.2	41.8	42.0	41.7	41.7	41.6	41.5	42.3	41.5
Textile product mills…………………….	39.0	39.0	39.4	39.2	37.9	39.1	39.2	39.1	38.6	38.5	37.9	39.0	39.6	39.8	39.8
Apparel………………….......................	36.6	38.2	37.2	37.8	37.6	38.7	38.4	38.4	38.8	38.8	38.5	38.4	37.5	37.8	37.1
Leather and allied products.................	39.1	39.6	40.4	40.3	41.1	40.0	39.0	39.1	39.4	40.2	39.8	39.3	39.1	39.6	40.0
Paper and paper products.................	42.9	42.9	42.7	43.2	42.6	43.5	43.7	42.8	43.3	42.9	43.1	42.8	42.7	42.7	42.8
Printing and related support activities...	38.2	37.9	37.6	37.8	37.7	38.2	37.9	38.0	38.1	37.9	38.2	37.7	37.6	37.8	37.7
Petroleum and coal products…………	43.0	43.6	43.5	42.3	42.8	42.7	42.6	43.5	44.5	43.6	44.2	43.5	42.8	44.1	43.5
Chemicals……………………………….	42.2	42.5	42.4	42.5	42.7	42.5	42.7	43.4	43.1	42.5	42.2	42.2	42.3	42.6	41.9
Plastics and rubber products…………	41.9	42.1	42.0	41.9	42.0	42.0	42.0	41.9	42.1	41.9	41.9	41.9	41.7	42.3	42.1
PRIVATE SERVICE-PROVIDING…………………………….	32.2	32.4	32.3	32.3	32.3	32.4	32.4	32.4	32.3	32.4	32.4	32.3	32.4	32.4	32.4
Trade, transportation, and utilities.......………………………….	33.3	33.7	33.5	33.6	33.5	33.6	33.6	33.7	33.6	33.7	33.7	33.6	33.6	33.8	33.7
Wholesale trade.....…………………..	37.9	38.5	38.1	38.2	38.3	38.4	38.5	38.5	38.5	38.5	38.5	38.4	38.6	38.6	38.5
Retail trade……………………………..	30.2	30.4	30.3	30.5	30.4	30.3	30.3	30.5	30.3	30.4	30.5	30.4	30.4	30.6	30.6
Transportation and warehousing………	37.1	37.8	37.6	37.7	37.4	38.0	38.0	38.0	37.8	37.9	37.7	37.7	37.6	37.7	37.8
Utilities………………………………..	42.1	42.1	42.3	42.2	42.4	42.3	42.7	42.8	42.4	42.0	41.9	42.0	42.2	41.8	41.7
Information……………………………….	36.3	36.2	36.4	36.1	36.3	36.4	36.3	36.4	36.4	36.3	36.2	35.9	36.0	36.2	36.1
Financial activities………………………	36.1	36.3	36.2	36.3	36.3	36.3	36.2	36.3	36.2	36.3	36.4	36.3	36.5	36.5	36.3
Professional and business services………………………………..	35.1	35.2	35.2	35.3	35.1	35.2	35.1	35.2	35.1	35.2	35.1	35.1	35.2	35.2	35.2
Education and health services…………	32.1	32.3	32.1	32.1	32.1	32.2	32.2	32.2	32.3	32.3	32.4	32.3	32.3	32.3	32.3
Leisure and hospitality…………………	24.8	24.8	24.9	24.7	24.7	24.8	24.9	24.9	24.8	24.7	24.8	24.7	24.7	24.8	24.8
Other services……………….................	30.7	30.7	30.6	30.7	30.7	30.8	30.8	30.7	30.7	30.8	30.7	30.7	30.7	30.8	30.8

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

p = preliminary.

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

Industry	Annual average		2010		2011										
	2010	2011	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.[P]	Nov.[P]
TOTAL PRIVATE															
Current dollars..........................	$19.07	$19.44	$19.24	$19.23	$19.31	$19.32	$19.32	$19.37	$19.42	$19.43	$19.49	$19.47	$19.49	$19.53	$19.54
Constant (1982) dollars..............	8.91	–	8.94	8.89	8.88	8.83	8.78	8.76	8.77	8.80	8.78	8.73	8.71	8.74	8.75
GOODS-PRODUCING.............................	20.28	20.68	20.45	20.49	20.55	20.57	20.59	20.60	20.64	20.63	20.69	20.71	20.69	20.76	20.77
Natural resources and mining..............	23.83	24.49	24.02	24.02	24.14	24.18	24.33	23.99	24.47	24.42	24.60	24.54	24.69	24.79	24.89
Construction...	23.22	23.66	23.42	23.44	23.48	23.51	23.49	23.56	23.56	23.57	23.65	23.79	23.73	23.74	23.76
Manufacturing......................................	18.61	18.94	18.75	18.80	18.91	18.89	18.91	18.91	18.94	18.91	18.96	18.92	18.89	19.00	18.98
Excluding overtime..........................	17.78	18.04	17.88	17.93	18.01	17.98	18.00	18.00	18.05	18.04	18.07	18.03	18.02	18.11	18.08
Durable goods................................	19.80	20.11	19.94	20.03	20.14	20.12	20.12	20.13	20.14	20.08	20.14	20.08	20.06	20.19	20.15
Nondurable goods...........................	16.80	17.07	16.91	16.91	16.99	16.98	17.01	17.01	17.04	17.06	17.08	17.07	17.04	17.11	17.12
PRIVATE SERVICE-PRIVATE SERVICE-PROVIDING.........……………….........	18.81	19.18	18.98	18.97	19.05	19.05	19.05	19.11	19.16	19.17	19.24	19.21	19.24	19.26	19.28
Trade,transportation, and utilities………………………………….....	16.83	17.13	16.96	16.97	17.04	17.05	17.07	17.11	17.13	17.14	17.20	17.15	17.19	17.20	17.21
Wholesale trade..................................	21.53	21.94	21.73	21.79	21.90	21.86	21.84	21.94	21.98	21.99	22.13	21.98	21.99	22.02	21.99
Retail trade..	13.24	13.46	13.37	13.36	13.37	13.39	13.41	13.43	13.41	13.44	13.48	13.46	13.47	13.53	13.58
Transportation and warehousing........	19.17	19.48	19.22	19.28	19.47	19.36	19.31	19.37	19.48	19.46	19.53	19.52	19.62	19.59	19.53
Utilities……………………………………	30.04	30.84	30.26	30.13	30.23	30.33	30.74	31.08	30.80	30.80	30.96	30.94	31.18	30.93	31.33
Information...	25.86	26.56	26.13	26.09	26.23	26.35	26.51	26.68	26.57	26.33	26.48	26.53	26.63	26.73	26.72
Financial activities...............................	21.49	21.82	21.69	21.63	21.74	21.62	21.71	21.79	21.74	21.67	21.78	21.75	21.87	21.94	22.05
Professional and business services..	22.78	23.13	22.96	22.84	23.02	23.03	23.00	23.09	23.11	23.18	23.24	23.14	23.12	23.15	23.18
Education and health services..	20.12	20.70	20.37	20.42	20.48	20.49	20.46	20.49	20.64	20.68	20.79	20.83	20.84	20.87	20.87
Leisure and hospitality.........................	11.31	11.45	11.30	11.31	11.32	11.36	11.40	11.43	11.50	11.47	11.49	11.47	11.45	11.49	11.49
Other services.....................................	17.08	17.25	17.26	17.24	17.22	17.24	17.14	17.20	17.21	17.23	17.25	17.25	17.27	17.30	17.33

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

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

Industry	Annual average		2010		2011										
	2010	2011	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.P	Nov.P
TOTAL PRIVATE..................................	$19.07	$19.44	$19.23	$19.24	$19.51	$19.39	$19.32	$19.39	$19.44	$19.28	$19.38	$19.35	$19.51	$19.65	$19.54
Seasonally adjusted........................	–	–	19.24	19.23	19.31	19.32	19.32	19.37	19.42	19.43	19.49	19.47	19.49	19.53	19.54
GOODS-PRODUCING....................................	20.28	20.68	20.48	20.50	20.48	20.46	20.48	20.56	20.61	20.62	20.74	20.77	20.82	20.85	20.79
Natural resources and mining................	23.83	24.49	23.91	24.25	24.38	24.28	24.69	24.09	24.31	24.16	24.57	24.42	24.57	24.72	24.85
Construction………..............................	23.22	23.66	23.47	23.48	23.39	23.42	23.37	23.48	23.47	23.48	23.67	23.91	23.90	23.91	23.80
Manufacturing…………...........................	18.61	18.94	18.74	18.86	18.97	18.93	18.89	18.92	18.91	18.87	18.90	18.83	18.94	18.97	18.97
Durable goods………………...................	19.80	20.11	19.94	20.14	20.17	20.17	20.11	20.13	20.09	20.03	20.03	19.97	20.12	20.18	20.14
Wood products	14.85	14.83	14.98	14.97	14.96	14.89	14.82	14.93	14.83	14.81	14.93	14.85	14.77	14.79	14.77
Nonmetallic mineral products	17.49	18.23	17.64	17.72	17.81	17.94	17.84	18.08	18.07	18.27	18.38	18.47	18.36	18.57	18.57
Primary metals	20.11	19.88	19.94	20.25	20.14	20.14	19.95	20.11	19.98	20.06	20.13	19.77	19.66	19.65	19.48
Fabricated metal products	17.94	18.13	17.98	18.20	18.16	18.09	18.08	18.06	18.12	18.06	18.12	18.06	18.15	18.20	18.14
Machinery ……………………..................	18.96	19.53	19.26	19.36	19.49	19.38	19.38	19.40	19.39	19.30	19.40	19.50	19.69	19.75	19.83
Computer and electronic products	22.79	23.32	22.97	23.31	23.54	23.42	23.23	23.41	23.45	23.20	23.26	23.09	23.25	23.36	23.14
Electrical equipment and appliances	16.87	17.99	17.07	17.53	17.81	18.15	17.99	17.92	17.84	17.87	17.86	17.91	17.95	18.03	18.13
Transportation equipment	25.22	25.36	25.43	25.60	25.42	25.45	25.48	25.52	25.57	25.48	25.31	25.02	25.40	25.32	25.18
Furniture and related products	15.05	15.24	15.16	15.10	15.14	15.11	15.22	15.36	15.21	15.03	15.16	15.14	15.20	15.32	15.47
Miscellaneous manufacturing	16.55	16.81	16.81	16.96	17.08	17.00	16.91	16.90	16.70	16.64	16.72	16.75	16.67	16.74	16.81
Nondurable goods…………………...........	16.80	17.07	16.90	16.88	17.08	16.97	16.97	17.00	17.04	17.03	17.13	17.02	17.09	17.07	17.09
Food manufacturing	14.40	14.58	14.49	14.51	14.62	14.53	14.52	14.58	14.56	14.54	14.63	14.58	14.63	14.52	14.56
Beverages and tobacco products	21.78	20.01	21.46	21.03	20.79	20.77	20.58	20.35	19.95	19.68	19.81	19.75	19.74	19.85	19.71
Textile mills	13.55	13.78	13.64	13.66	14.08	14.09	13.94	13.89	13.81	13.75	13.70	13.70	13.70	13.44	13.64
Textile product mills	11.80	12.23	12.01	11.83	11.74	12.08	12.20	12.33	12.17	12.22	12.38	12.17	12.21	12.36	12.33
Apparel	11.43	11.96	11.65	11.47	12.06	11.90	11.72	11.64	11.69	11.76	11.82	11.88	12.07	12.24	12.26
Leather and allied products	13.03	13.54	13.20	12.96	13.03	13.05	13.35	13.28	13.38	13.41	13.59	13.48	13.76	13.75	14.15
Paper and paper products	20.03	20.25	19.95	20.13	20.25	20.10	19.95	20.13	20.19	20.09	20.39	20.31	20.50	20.38	20.38
Printing and related support activities......	16.92	17.23	17.01	16.98	17.29	17.31	17.25	17.19	17.24	17.16	17.14	17.26	17.27	17.16	17.27
Petroleum and coal products	31.34	31.92	31.72	32.01	32.15	32.24	31.88	31.89	32.00	32.08	32.06	31.59	31.45	31.69	31.79
Chemicals ……………………..................	21.08	21.57	21.22	21.22	21.42	21.13	21.38	21.29	21.51	21.64	21.84	21.50	21.53	21.53	21.47
Plastics and rubber products	15.71	16.00	15.80	15.89	16.10	15.94	15.85	15.85	15.86	15.92	15.90	15.91	16.04	16.02	16.08
PRIVATE SERVICE-PROVIDING ………………………….......…	18.81	19.18	18.97	18.97	19.31	19.17	19.08	19.15	19.19	18.99	19.09	19.03	19.21	19.39	19.27
Trade, transportation, and utilities……………..................................	16.83	17.13	16.89	16.81	17.17	17.13	17.05	17.16	17.16	17.05	17.14	17.10	17.23	17.31	17.14
Wholesale trade	21.53	21.94	21.74	21.86	22.07	21.95	21.67	21.93	21.95	21.79	22.07	21.87	21.91	22.06	21.99
Retail trade	13.24	13.46	13.27	13.20	13.47	13.42	13.42	13.50	13.42	13.40	13.46	13.42	13.55	13.65	13.50
Transportation and warehousing	19.17	19.48	19.23	19.19	19.54	19.44	19.28	19.35	19.49	19.39	19.57	19.57	19.62	19.61	19.51
Utilities …………...….………....................	30.04	30.84	30.37	30.19	30.17	29.92	30.83	31.28	30.98	30.40	30.79	30.78	31.38	31.02	31.46
Information……………………...................	25.86	26.56	26.13	25.98	26.51	26.33	26.37	26.66	26.78	26.10	26.35	26.39	26.74	27.20	26.69
Financial activities……….…...................	21.49	21.82	21.65	21.60	21.92	21.61	21.72	21.82	21.86	21.52	21.67	21.64	21.86	22.06	22.04
Professional and business services……………..................................	22.78	23.13	22.87	22.87	23.50	23.23	23.00	23.08	23.24	22.96	23.10	22.87	22.95	23.31	23.10
Education and health services……………..................................	20.12	20.70	20.35	20.46	20.53	20.48	20.46	20.51	20.58	20.61	20.85	20.81	20.87	20.91	20.86
Leisure and hospitality ………………………	11.31	11.45	11.34	11.43	11.39	11.46	11.42	11.43	11.51	11.38	11.36	11.37	11.45	11.51	11.52
Other services……………..........................	17.08	17.25	17.23	17.24	17.31	17.23	17.22	17.26	17.27	17.16	17.11	17.09	17.26	17.31	17.35

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.

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

Industry	Annual average		2010		2011										
	2010	2011	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.[p]	Nov.[p]
TOTAL PRIVATE..................	$636.91	$653.16	$644.21	$644.54	$649.68	$643.75	$643.36	$649.57	$657.07	$649.74	$653.11	$652.10	$655.54	$668.10	$656.54
Seasonally adjusted.........	–	–	644.54	644.21	644.95	649.15	649.15	650.83	652.51	652.85	654.86	652.25	654.86	658.16	656.54
GOODS-PRODUCING................	819.18	845.25	835.58	836.40	813.06	818.40	829.44	836.79	847.07	849.54	848.27	857.80	859.87	861.11	856.55
Natural resources and mining.........................	1063.28	1144.27	1075.95	1083.98	1114.17	1095.03	1120.93	1117.78	1132.85	1162.10	1135.13	1150.18	1152.33	1191.50	1180.38
CONSTRUCTION	891.85	923.33	910.64	899.28	853.74	871.22	890.40	911.02	927.07	934.50	939.70	961.18	953.61	946.84	935.34
Manufacturing.......................	765.08	784.02	779.58	788.35	772.08	774.24	780.16	781.40	784.77	783.11	776.79	779.56	789.80	791.05	791.05
Durable goods........................	818.75	840.85	837.48	847.89	828.99	833.02	840.60	839.42	841.77	839.26	829.24	836.74	845.04	847.56	847.89
Wood products	580.39	588.87	593.21	588.32	574.46	570.29	588.35	597.20	599.13	595.36	588.24	591.03	592.28	587.16	589.32
Nonmetallic mineral products....	728.96	771.91	753.23	737.15	705.28	719.39	738.58	762.98	778.82	789.26	799.53	812.68	800.50	800.37	792.94
Primary metals.....................	879.35	886.41	893.31	919.35	888.17	892.20	899.75	908.97	905.09	908.72	893.77	881.74	867.01	856.74	857.12
Fabricated metal products.........	742.82	761.85	758.76	773.50	751.82	745.31	755.74	760.33	761.04	763.94	759.23	760.33	762.30	768.04	769.14
Machinery............................	797.56	841.79	828.18	844.10	843.92	837.22	835.28	832.26	837.65	833.76	826.44	834.60	850.61	849.25	856.66
Computer and electronic products..................................	932.33	941.75	946.36	953.38	946.31	939.14	936.17	938.74	947.38	934.96	932.73	930.53	941.63	953.09	939.48
Electrical equipment and appliances...............................	693.52	731.59	711.82	725.74	726.65	722.37	737.59	731.14	731.44	736.24	707.26	718.19	725.18	751.85	743.33
Transportation equipment........	1081.28	1094.13	1101.12	1116.16	1067.64	1099.44	1108.38	1089.70	1091.84	1095.64	1065.55	1080.86	1107.44	1103.95	1095.33
Furniture and related products............................	579.55	607.51	601.85	608.53	584.40	593.82	614.89	614.40	614.48	593.69	601.85	611.66	606.48	605.14	618.80
Miscellaneous manufacturing........................	640.57	655.39	650.55	663.14	659.29	664.70	657.80	655.72	647.96	648.96	642.05	648.23	651.80	657.88	658.95
Nondurable goods.....................	685.16	696.02	692.90	695.46	686.62	683.89	687.29	691.90	696.94	694.82	695.48	692.71	702.40	703.28	702.40
Food manufacturing..................	585.83	584.49	589.74	589.11	577.49	569.58	572.09	578.83	580.94	581.60	586.66	586.12	601.29	590.96	594.05
Beverages and tobacco products..................................	816.49	787.28	804.75	790.73	779.63	793.41	798.50	787.55	792.02	781.30	806.27	778.15	769.86	807.90	796.28
Textile mills...........................	558.84	573.15	561.97	561.43	530.82	581.92	568.75	587.55	589.69	580.25	569.92	578.14	576.77	568.51	568.79
Textile product mills................	459.53	477.06	476.80	467.29	436.73	472.33	480.68	479.64	470.98	471.69	466.73	473.41	487.18	489.46	495.67
Apparel................................	418.33	456.85	438.04	441.60	452.25	456.96	452.39	451.63	455.91	459.82	452.71	457.38	445.38	461.45	457.30
Leather and allied products.......	509.22	536.50	529.32	524.88	535.53	522.00	524.66	521.90	528.51	540.42	536.81	531.11	535.26	547.25	567.42
Paper and paper products.......	858.68	868.10	859.85	885.72	860.63	866.31	863.84	857.54	870.19	863.87	872.69	867.24	881.50	876.34	882.45
Printing and related support activities..................	646.26	652.73	646.38	646.94	643.19	650.86	652.05	651.50	653.40	643.50	647.89	654.15	663.17	653.80	654.53
Petroleum and coal products............................	1347.00	1390.29	1386.16	1338.02	1369.59	1347.63	1332.58	1374.46	1427.20	1401.90	1455.52	1383.64	1377.51	1419.71	1382.87
Chemicals............................	888.84	916.16	908.22	914.58	916.78	895.91	910.79	919.73	924.93	917.54	915.10	903.00	908.57	917.18	906.03
Plastics and rubber products............................	658.69	673.69	666.76	675.33	674.59	664.70	664.12	665.70	667.71	670.23	659.85	666.63	672.08	677.65	680.18
PRIVATE SERVICE- PROVIDING………..................	606.11	621.09	610.83	612.73	623.71	615.36	612.47	618.55	625.59	615.28	620.43	616.57	620.48	635.99	622.42
Trade, transportation, and utilities.........................	559.62	576.50	562.44	566.50	570.04	565.29	569.47	576.58	580.01	576.29	582.76	576.27	580.65	586.81	575.90
Wholesale trade......…………......	816.15	843.97	826.12	832.87	847.49	834.10	827.79	842.11	856.05	841.09	845.28	837.62	843.54	862.55	844.42
Retail trade............................	399.74	409.76	399.43	405.24	402.75	398.57	402.60	409.05	407.97	408.70	418.61	410.65	413.28	417.69	409.05
Transportation and warehousing.........................	710.63	735.39	728.82	727.30	724.93	725.11	724.93	727.56	736.72	734.88	741.70	743.66	739.67	747.14	741.38
Utilities…………………………...	1263.33	1299.28	1293.76	1277.04	1270.16	1268.61	1307.19	1345.04	1316.65	1276.80	1283.94	1289.68	1333.65	1305.94	1321.32
Information............................	938.89	961.30	951.13	935.28	967.62	953.15	949.32	962.43	980.15	939.60	956.51	947.40	962.64	998.24	963.51
Financial activities..................	776.82	792.45	779.40	777.60	813.23	780.12	777.58	787.70	806.63	776.87	782.29	783.37	791.33	818.43	795.64
Professional and business services..................	798.59	813.76	802.74	802.74	824.85	810.73	802.70	812.42	827.34	810.49	808.50	805.02	805.55	832.17	810.81
Education and health services......................	646.52	667.97	653.24	656.77	665.17	655.36	654.72	656.32	666.79	663.64	677.63	672.16	674.10	679.58	673.78
Leisure and hospitality.............	280.87	283.77	278.96	277.75	274.50	279.62	282.07	282.32	287.75	284.50	288.54	287.66	281.67	288.90	282.24
Other services.......................	524.01	530.12	525.52	525.82	531.42	527.24	526.93	528.16	533.64	526.81	526.99	528.08	529.88	536.61	530.91

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: 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:												
2007...	60.1	55.8	58.1	51.9	54.7	47.9	48.7	43.1	53.7	54.1	54.5	50.7
2008...	50.6	47.6	50.2	42.1	41.9	34.5	30.5	33.1	30.0	32.0	23.4	20.6
2009...	19.5	18.5	17.0	18.2	27.9	25.5	30.0	33.3	34.3	29.0	38.8	38.4
2010...	46.1	48.3	58.8	63.9	56.0	55.2	56.4	53.7	51.9	58.2	57.7	58.6
2011...	60.5	70.8	65.7	65.2	55.4	56.2	61.4	57.1	58.4	56.6	50.7	
Over 3-month span:												
2007...	60.7	59.0	62.0	57.5	58.1	54.5	51.7	48.1	49.6	47.6	57.1	53.2
2008...	57.1	47.6	47.9	43.3	37.6	32.4	30.9	27.7	26.0	26.0	22.1	19.9
2009...	18.4	13.3	12.5	14.2	17.8	20.4	20.6	20.6	28.3	25.1	27.7	28.3
2010...	32.2	39.7	50.9	59.0	64.0	60.7	56.9	56.4	56.0	58.8	59.2	62.9
2011...	61.8	66.5	72.1	71.3	68.7	62.9	64.8	61.0	61.6	61.0	59.7	
Over 6-month span:												
2007...	59.9	59.4	63.5	62.4	59.4	58.8	55.6	54.3	56.4	51.1	53.0	52.1
2008...	50.6	51.7	51.7	49.4	42.3	36.1	33.1	29.6	26.6	27.2	23.6	22.3
2009...	19.1	15.5	13.3	11.6	13.9	12.4	14.2	16.1	18.5	20.4	22.7	24.2
2010...	25.1	26.4	34.1	45.5	51.9	55.6	58.8	63.1	63.3	58.4	59.6	61.8
2011...	64.8	68.0	71.5	71.3	71.5	69.9	71.9	65.0	66.7	63.7	64.0	
Over 12-month span:												
2007...	63.5	59.2	60.9	59.7	59.4	58.4	56.9	57.1	59.9	59.4	58.6	60.1
2008...	54.9	56.6	53.0	47.0	48.1	43.8	40.6	39.7	36.0	32.6	28.5	26.6
2009...	24.9	17.4	15.2	15.0	15.4	15.7	14.4	12.7	13.9	14.4	13.9	15.5
2010...	15.7	15.5	18.9	23.4	28.1	35.0	41.8	42.1	45.1	50.6	54.7	58.6
2011...	60.1	67.4	67.8	65.9	70.0	68.2	69.7	68.5	68.7	68.4	69.1	
	Manufacturing payrolls, 84 industries											
Over 1-month span:												
2007...	54.9	43.2	37.0	28.4	40.1	34.6	38.9	26.5	35.2	36.4	52.5	41.4
2008...	41.4	36.4	43.8	35.8	41.4	24.7	17.9	22.2	19.1	22.2	11.1	7.4
2009...	6.8	10.5	7.4	16.0	8.0	9.3	24.7	25.3	22.2	23.5	32.7	37.7
2010...	38.9	53.1	53.7	66.7	62.3	51.2	51.9	44.4	49.4	45.1	58.0	59.3
2011...	73.5	67.9	63.0	66.7	53.1	57.4	60.5	49.4	54.3	48.1	40.7	
Over 3-month span:												
2007...	42.0	35.8	46.9	32.1	33.3	35.2	30.9	29.6	24.1	23.5	35.8	40.1
2008...	50.0	37.7	35.8	33.3	34.0	27.2	19.8	11.7	15.4	13.6	13.6	7.4
2009...	5.6	2.5	4.3	8.6	7.4	6.8	4.9	8.0	17.9	14.2	20.4	24.1
2010...	29.6	43.8	48.8	60.5	65.4	63.0	56.8	51.2	49.4	44.4	54.9	56.2
2011...	64.2	72.8	75.9	69.1	63.6	61.1	64.2	63.6	58.6	54.9	48.8	
Over 6-month span:												
2007...	35.2	32.1	33.3	35.2	34.6	38.9	34.0	27.2	27.2	23.5	30.2	24.7
2008...	25.9	28.4	41.4	39.5	35.8	29.6	22.2	18.5	10.5	15.4	13.6	11.7
2009...	7.4	4.9	2.5	4.3	2.5	6.2	8.6	6.2	6.2	6.2	8.6	14.2
2010...	16.7	19.8	30.2	42.0	49.4	54.3	60.5	61.7	61.7	48.8	51.9	54.9
2011...	59.9	66.7	69.1	71.6	74.7	71.0	72.8	63.0	69.1	58.6	56.2	
Over 12-month span:												
2007...	39.5	36.4	37.0	31.5	29.6	30.2	30.2	28.4	32.7	29.6	35.2	36.4
2008...	28.4	29.6	26.5	24.7	30.2	25.9	22.2	19.8	23.5	19.1	15.4	13.6
2009...	7.4	3.7	4.9	6.2	3.7	4.9	7.4	3.7	4.9	4.9	3.7	4.3
2010...	5.6	1.2	6.2	7.4	18.5	25.9	35.8	35.2	40.1	45.7	48.8	54.9
2011...	58.6	63.0	63.6	61.7	66.7	62.3	67.3	63.0	66.7	67.3	64.2	

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[1] (in thousands) 2011							Percent 2011						
	May	June	July	Aug.	Sept.	Oct.[P]	Nov.[P]	May	June	July	Aug.	Sept.	Oct.[P]	Nov.[P]
Total[2]..	3,034	3,169	3,213	3,129	3,377	3,224	3,161	2.3	2.4	2.4	2.3	2.5	2.4	2.3
Industry														
Total private[2].....................................	2,725	2,835	2,905	2,799	3,003	2,864	2,819	2.4	2.5	2.6	2.5	2.7	2.5	2.5
Construction...................................	100	68	75	102	70	84	87	1.8	1.2	1.3	1.8	1.3	1.5	1.6
Manufacturing................................	211	217	252	232	235	232	227	1.8	1.8	2.1	1.9	2.0	1.9	1.9
Trade, transportation, and utilities.......	484	515	540	490	561	552	556	1.9	2.0	2.1	1.9	2.2	2.2	2.2
Professional and business services.....	615	616	640	621	675	576	517	3.5	3.5	3.6	3.5	3.8	3.2	2.9
Education and health services...........	594	596	604	609	616	593	606	2.9	2.9	2.9	2.9	3.0	2.9	2.9
Leisure and hospitality.....................	298	360	338	351	383	374	406	2.2	2.6	2.5	2.6	2.8	2.7	3.0
Government......................................	309	334	309	329	374	360	342	1.4	1.5	1.4	1.5	1.7	1.6	1.5
Region[3]														
Northeast......................................	586	522	570	589	586	552	631	2.3	2.0	2.2	2.3	2.3	2.1	2.4
South..	1,087	1,109	1,192	1,108	1,273	1,223	1,251	2.2	2.3	2.4	2.3	2.6	2.5	2.6
Midwest...	730	686	714	732	704	725	742	2.4	2.3	2.3	2.4	2.3	2.4	2.4
West...	719	753	753	775	818	810	637	2.4	2.5	2.5	2.6	2.8	2.7	2.2

[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[1] (in thousands) 2011							Percent 2011						
	May	June	July	Aug.	Sept.	Oct.[P]	Nov.[P]	May	June	July	Aug.	Sept.	Oct.[P]	Nov.[P]
Total[2]..	4,129	4,058	3,976	4,060	4,150	4,042	4,149	3.2	3.1	3.0	3.1	3.2	3.1	3.2
Industry														
Total private[2].....................................	3,870	3,797	3,733	3,785	3,885	3,785	3,865	3.6	3.5	3.4	3.5	3.6	3.5	3.5
Construction...................................	371	360	334	309	367	339	309	6.7	6.5	6.0	5.6	6.6	6.1	5.6
Manufacturing................................	263	260	259	249	234	235	237	2.2	2.2	2.2	2.1	2.0	2.0	2.0
Trade, transportation, and utilities.......	804	802	767	779	778	816	813	3.2	3.2	3.1	3.1	3.1	3.3	3.2
Professional and business services.....	902	806	819	863	895	846	841	5.3	4.7	4.8	5.0	5.2	4.9	4.8
Education and health services............	480	485	472	481	482	471	469	2.4	2.4	2.4	2.4	2.4	2.3	2.3
Leisure and hospitality.....................	629	689	682	679	698	666	734	4.8	5.2	5.2	5.1	5.3	5.0	5.5
Government......................................	259	261	243	275	264	257	284	1.2	1.2	1.1	1.2	1.2	1.2	1.3
Region[3]														
Northeast......................................	675	681	675	604	662	667	680	2.7	2.7	2.7	2.4	2.6	2.7	2.7
South..	1,643	1,503	1,488	1,526	1,592	1,577	1,566	3.5	3.2	3.1	3.2	3.3	3.3	3.3
Midwest...	890	908	910	919	987	949	988	3.0	3.1	3.1	3.1	3.3	3.2	3.3
West...	826	910	893	868	969	904	919	2.9	3.2	3.1	3.0	3.4	3.1	3.2

[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[1] (in thousands)							Percent						
	2011							2011						
	May	June	July	Aug.	Sept.	Oct.[p]	Nov.[p]	May	June	July	Aug.	Sept.	Oct.[p]	Nov.[p]
Total[2]...	4,145	3,993	3,962	3,960	4,052	3,898	3,995	3.2	3.0	3.0	3.0	3.1	3.0	3.0
Industry														
Total private[2].....................................	3,844	3,687	3,659	3,688	3,763	3,617	3,696	3.5	3.4	3.4	3.4	3.4	3.3	3.4
Construction.....................................	376	371	327	320	338	328	318	6.8	6.7	5.9	5.8	6.1	5.9	5.8
Manufacturing...................................	272	252	239	250	238	216	220	2.3	2.2	2.0	2.1	2.0	1.8	1.9
Trade, transportation, and utilities.......	799	785	770	762	782	767	728	3.2	3.1	3.1	3.1	3.1	3.1	2.9
Professional and business services.....	892	766	806	824	850	817	806	5.2	4.5	4.7	4.8	4.9	4.7	4.6
Education and health services...........	450	459	431	444	414	440	453	2.3	2.3	2.2	2.2	2.1	2.2	2.2
Leisure and hospitality.....................	652	653	670	689	693	634	708	4.9	4.9	5.1	5.2	5.2	4.8	5.3
Government......................................	301	306	302	272	289	281	299	1.4	1.4	1.4	1.2	1.3	1.3	1.4
Region[3]														
Northeast......................................	757	634	665	627	687	638	676	3.0	2.5	2.7	2.5	2.7	2.5	2.7
South..	1,528	1,421	1,482	1,463	1,519	1,447	1,557	3.2	3.0	3.1	3.1	3.2	3.0	3.3
Midwest...	942	934	905	903	877	846	816	3.2	3.1	3.0	3.0	2.9	2.8	2.7
West..	974	863	853	812	901	814	860	3.4	3.0	3.0	2.8	3.1	2.8	3.0

[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 entire month; the total separations rate is the number of total separations during the entire 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)							Percent						
	2011							2011						
	May	June	July	Aug.	Sept.	Oct.[p]	Nov.[p]	May	June	July	Aug.	Sept.	Oct.[p]	Nov.[p]
Total[2]...	2,000	1,904	1,969	2,006	2,000	1,923	1,964	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Industry														
Total private[2].....................................	1,877	1,786	1,839	1,889	1,884	1,808	1,841	1.7	1.6	1.7	1.7	1.7	1.7	1.7
Construction.....................................	92	75	71	66	84	75	79	1.7	1.3	1.3	1.2	1.5	1.4	1.4
Manufacturing...................................	109	109	101	98	97	102	118	.9	.9	.9	.8	.8	.9	1.0
Trade, transportation, and utilities.......	463	432	412	422	437	439	401	1.9	1.7	1.7	1.7	1.8	1.8	1.6
Professional and business services.....	372	330	391	383	391	341	387	2.2	1.9	2.3	2.2	2.3	2.0	2.2
Education and health services...........	253	264	238	268	246	239	245	1.3	1.3	1.2	1.3	1.2	1.2	1.2
Leisure and hospitality.....................	388	395	401	432	406	381	390	2.9	3.0	3.0	3.3	3.1	2.9	2.9
Government......................................	123	117	130	117	116	114	123	.6	.5	.6	.5	.5	.5	.6
Region[3]														
Northeast......................................	330	264	264	285	275	259	268	1.3	1.1	1.1	1.1	1.1	1.0	1.1
South..	816	744	782	821	836	764	800	1.7	1.6	1.6	1.7	1.8	1.6	1.7
Midwest...	484	465	476	495	440	437	430	1.6	1.6	1.6	1.7	1.5	1.5	1.4
West..	460	406	460	447	433	423	419	1.6	1.4	1.6	1.5	1.5	1.5	1.4

[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, third quarter 2010.

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

See footnotes at end of table.

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

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

[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, third quarter 2010.

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

[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)				
2000	7,879,116	129,877,063	$4,587,708,584	$35,323	$679
2001	7,984,529	129,635,800	4,695,225,123	36,219	697
2002	8,101,872	128,233,919	4,714,374,741	36,764	707
2003	8,228,840	127,795,827	4,826,251,547	37,765	726
2004	8,364,795	129,278,176	5,087,561,796	39,354	757
2005	8,571,144	131,571,623	5,351,949,496	40,677	782
2006	8,784,027	133,833,834	5,692,569,465	42,535	818
2007	8,971,897	135,366,106	6,018,089,108	44,458	855
2008	9,082,049	134,805,659	6,142,159,200	45,563	876
2009	9,003,197	128,607,842	5,859,232,422	45,559	876
	UI covered				
2000	7,828,861	127,005,574	$4,454,966,824	$35,077	$675
2001	7,933,536	126,883,182	4,560,511,280	35,943	691
2002	8,051,117	125,475,293	4,570,787,218	36,428	701
2003	8,177,087	125,031,551	4,676,319,378	37,401	719
2004	8,312,729	126,538,579	4,929,262,369	38,955	749
2005	8,518,249	128,837,948	5,188,301,929	40,270	774
2006	8,731,111	131,104,860	5,522,624,197	42,124	810
2007	8,908,198	132,639,806	5,841,231,314	44,038	847
2008	9,017,717	132,043,604	5,959,055,276	45,129	868
2009	8,937,616	125,781,130	5,667,704,722	45,060	867
	Private industry covered				
2000	7,622,274	110,015,333	$3,887,626,769	$35,337	$680
2001	7,724,965	109,304,802	3,952,152,155	36,157	695
2002	7,839,903	107,577,281	3,930,767,025	36,539	703
2003	7,963,340	107,065,553	4,015,823,311	37,508	721
2004	8,093,142	108,490,066	4,245,640,890	39,134	753
2005	8,294,662	110,611,016	4,480,311,193	40,505	779
2006	8,505,496	112,718,858	4,780,833,389	42,414	816
2007	8,681,001	114,012,221	5,057,840,759	44,362	853
2008	8,789,360	113,188,643	5,135,487,891	45,371	873
2009	8,709,115	106,947,104	4,829,211,805	45,155	868
	State government covered				
2000	65,096	4,370,160	$158,618,365	$36,296	$698
2001	64,583	4,452,237	168,358,331	37,814	727
2002	64,447	4,485,071	175,866,492	39,212	754
2003	64,467	4,481,845	179,528,728	40,057	770
2004	64,544	4,484,997	184,414,992	41,118	791
2005	66,278	4,527,514	191,281,126	42,249	812
2006	66,921	4,565,908	200,329,294	43,875	844
2007	67,381	4,611,395	211,677,002	45,903	883
2008	67,675	4,642,650	222,754,925	47,980	923
2009	67,075	4,639,715	226,148,903	48,742	937
	Local government covered				
2000	141,491	12,620,081	$408,721,690	$32,387	$623
2001	143,989	13,126,143	440,000,795	33,521	645
2002	146,767	13,412,941	464,153,701	34,605	665
2003	149,281	13,484,153	480,967,339	35,669	686
2004	155,043	13,563,517	499,206,488	36,805	708
2005	157,309	13,699,418	516,709,610	37,718	725
2006	158,695	13,820,093	541,461,514	39,179	753
2007	159,816	14,016,190	571,713,553	40,790	784
2008	160,683	14,212,311	600,812,461	42,274	813
2009	161,427	14,194,311	612,344,014	43,140	830
	Federal government covered (UCFE)				
2000	50,256	2,871,489	$132,741,760	$46,228	$889
2001	50,993	2,752,619	134,713,843	48,940	941
2002	50,755	2,758,627	143,587,523	52,050	1,001
2003	51,753	2,764,275	149,932,170	54,239	1,043
2004	52,066	2,739,596	158,299,427	57,782	1,111
2005	52,895	2,733,675	163,647,568	59,864	1,151
2006	52,916	2,728,974	169,945,269	62,274	1,198
2007	63,699	2,726,300	176,857,794	64,871	1,248
2008	64,332	2,762,055	183,103,924	66,293	1,275
2009	65,581	2,826,713	191,527,700	67,756	1,303

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

25. Annual data: Quarterly Census of Employment and Wages, establishment size and employment, private ownership, by supersector, first quarter 2009

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

[1] Includes establishments that reported no workers in March 2009.

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

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

26. Average annual wages for 2008 and 2009 for all covered workers[1] by metropolitan area

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

See footnotes at end of table.

26. Continued — Average annual wages for 2008 and 2009 for all covered workers[1] by metropolitan area

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

See footnotes at end of table.

26. Continued — Average annual wages for 2008 and 2009 for all covered workers[1] by metropolitan area

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

See footnotes at end of table.

26. Continued — Average annual wages for 2008 and 2009 for all covered workers[1] by metropolitan area

Metropolitan area[2]	Average annual wages[3]		
	2008	2009	Percent change, 2008-09
Ocean City, NJ	$33,529	$33,477	-0.2
Odessa, TX	44,316	42,295	-4.6
Ogden-Clearfield, UT	34,778	35,562	2.3
Oklahoma City, OK	39,363	39,525	0.4
Olympia, WA	40,714	41,921	3.0
Omaha-Council Bluffs, NE-IA	40,097	40,555	1.1
Orlando, FL	39,322	39,225	-0.2
Oshkosh-Neenah, WI	41,781	41,300	-1.2
Owensboro, KY	34,956	35,264	0.9
Oxnard-Thousand Oaks-Ventura, CA	46,490	47,066	1.2
Palm Bay-Melbourne-Titusville, FL	42,089	43,111	2.4
Panama City-Lynn Haven, FL	34,361	34,857	1.4
Parkersburg-Marietta, WV-OH	35,102	35,650	1.6
Pascagoula, MS	42,734	43,509	1.8
Pensacola-Ferry Pass-Brent, FL	34,829	35,683	2.5
Peoria, IL	44,562	44,747	0.4
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	51,814	52,237	0.8
Phoenix-Mesa-Scottsdale, AZ	44,482	44,838	0.8
Pine Bluff, AR	34,106	34,588	1.4
Pittsburgh, PA	44,124	44,234	0.2
Pittsfield, MA	38,957	38,690	-0.7
Pocatello, ID	30,608	30,690	0.3
Ponce, PR	21,818	22,556	3.4
Portland-South Portland-Biddeford, ME	39,711	40,012	0.8
Portland-Vancouver-Beaverton, OR-WA	45,326	45,544	0.5
Port St. Lucie-Fort Pierce, FL	36,174	36,130	-0.1
Poughkeepsie-Newburgh-Middletown, NY	42,148	43,054	2.1
Prescott, AZ	33,004	32,927	-0.2
Providence-New Bedford-Fall River, RI-MA	42,141	42,428	0.7
Provo-Orem, UT	35,516	35,695	0.5
Pueblo, CO	34,055	34,889	2.4
Punta Gorda, FL	32,927	32,563	-1.1
Racine, WI	41,232	40,623	-1.5
Raleigh-Cary, NC	43,912	44,016	0.2
Rapid City, SD	32,227	32,821	1.8
Reading, PA	40,691	41,083	1.0
Redding, CA	35,655	35,912	0.7
Reno-Sparks, NV	42,167	42,232	0.2
Richmond, VA	45,244	44,960	-0.6
Riverside-San Bernardino-Ontario, CA	38,617	38,729	0.3
Roanoke, VA	36,475	37,153	1.9
Rochester, MN	46,196	46,999	1.7
Rochester, NY	41,728	41,761	0.1
Rockford, IL	39,210	38,843	-0.9
Rocky Mount, NC	33,110	33,613	1.5
Rome, GA	35,229	35,913	1.9
Sacramento--Arden-Arcade--Roseville, CA	47,924	48,204	0.6
Saginaw-Saginaw Township North, MI	37,549	38,009	1.2
St. Cloud, MN	35,069	35,883	2.3
St. George, UT	29,291	29,608	1.1
St. Joseph, MO-KS	32,651	33,555	2.8
St. Louis, MO-IL	45,419	44,080	-2.9
Salem, OR	34,891	35,691	2.3
Salinas, CA	40,235	40,258	0.1
Salisbury, MD	35,901	36,396	1.4
Salt Lake City, UT	41,628	42,613	2.4
San Angelo, TX	32,852	33,043	0.6
San Antonio, TX	38,876	39,596	1.9
San Diego-Carlsbad-San Marcos, CA	49,079	49,240	0.3
Sandusky, OH	33,760	33,117	-1.9
San Francisco-Oakland-Fremont, CA	65,100	65,367	0.4
San German-Cabo Rojo, PR	19,875	20,452	2.9
San Jose-Sunnyvale-Santa Clara, CA	80,063	79,609	-0.6
San Juan-Caguas-Guaynabo, PR	26,839	27,620	2.9
San Luis Obispo-Paso Robles, CA	38,134	38,913	2.0
Santa Barbara-Santa Maria-Goleta, CA	42,617	43,257	1.5
Santa Cruz-Watsonville, CA	41,471	40,880	-1.4
Santa Fe, NM	38,646	39,536	2.3
Santa Rosa-Petaluma, CA	43,757	43,274	-1.1
Sarasota-Bradenton-Venice, FL	36,781	36,856	0.2
Savannah, GA	37,846	38,343	1.3
Scranton--Wilkes-Barre, PA	34,902	35,404	1.4
Seattle-Tacoma-Bellevue, WA	53,667	54,650	1.8
Sheboygan, WI	37,834	38,114	0.7
Sherman-Denison, TX	36,081	36,151	0.2
Shreveport-Bossier City, LA	36,308	36,706	1.1
Sioux City, IA-NE-SD	34,326	34,087	-0.7
Sioux Falls, SD	36,982	37,562	1.6
South Bend-Mishawaka, IN-MI	37,654	37,811	0.4
Spartanburg, SC	39,313	39,104	-0.5

See footnotes at end of table.

26. Continued — Average annual wages for 2008 and 2009 for all covered workers[1] by metropolitan area

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

[1] Includes workers covered by Unemployment Insurance (UI) and Unemployment Compensation for Federal Employees (UCFE) programs.

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

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

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

27. Annual data: Employment status of the population

[Numbers in thousands]

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

[1] Not strictly comparable with prior years.

28. Annual data: Employment levels by industry

[In thousands]

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

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

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

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

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

[December 2005 = 100]

Series	2009		2010				2011			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 2011	
Civilian workers[2]	110.8	111.0	111.8	112.3	112.9	113.2	114.0	114.8	115.2	0.3	2.0
Workers by occupational group											
Management, professional, and related	111.5	111.6	112.4	112.8	113.4	113.7	114.7	115.2	115.6	.3	1.9
Management, business, and financial	110.2	110.4	111.6	112.1	112.3	112.7	113.9	114.7	115.1	.3	2.5
Professional and related	112.2	112.3	112.9	113.2	114.1	114.3	115.1	115.4	115.9	.4	1.6
Sales and office	109.3	109.7	110.3	111.2	111.6	112.1	112.6	113.7	114.2	.4	2.3
Sales and related	105.4	105.8	105.9	107.5	107.4	108.1	107.9	109.8	110.4	.5	2.8
Office and administrative support	111.8	112.1	113.0	113.4	114.1	114.4	115.4	116.1	116.6	.4	2.2
Natural resources, construction, and maintenance	111.2	111.5	112.5	112.9	113.4	113.6	114.2	115.2	115.8	.5	2.1
Construction and extraction	112.2	112.5	113.1	113.7	114.4	114.5	114.9	115.6	116.1	.4	1.5
Installation, maintenance, and repair	110.0	110.4	111.6	112.0	112.2	112.6	113.3	114.7	115.5	.7	2.9
Production, transportation, and material moving	109.0	109.2	110.2	110.8	111.7	111.9	112.7	113.9	114.2	.3	2.2
Production	108.1	108.3	109.6	110.0	110.8	110.9	111.8	113.2	113.4	.2	2.3
Transportation and material moving	110.2	110.4	111.1	111.9	112.9	113.3	113.8	114.7	115.1	.3	1.9
Service occupations	112.6	112.9	113.4	113.7	114.6	114.9	115.7	115.9	116.2	.3	1.4
Workers by industry											
Goods-producing	108.4	108.6	109.8	110.3	111.0	111.1	112.1	113.2	113.5	.3	2.3
Manufacturing	106.8	107.0	108.4	109.1	109.9	110.0	111.4	112.7	112.8	.1	2.6
Service-providing	111.2	111.5	112.1	112.6	113.3	113.6	114.3	115.0	115.5	.4	1.9
Education and health services	113.1	113.4	113.7	113.9	114.8	115.2	115.5	115.7	116.5	.7	1.5
Health care and social assistance	112.8	113.1	113.7	114.1	114.6	115.0	115.5	115.9	116.4	.4	1.6
Hospitals	112.9	113.4	114.1	114.7	115.2	115.9	116.5	116.9	117.4	.4	1.9
Nursing and residential care facilities	111.2	111.4	111.9	112.2	112.7	112.7	113.4	113.9	114.3	.4	1.4
Education services	113.5	113.6	113.7	113.8	115.1	115.3	115.5	115.5	116.6	1.0	1.3
Elementary and secondary schools	114.0	114.1	114.1	114.2	115.5	115.5	115.7	115.7	116.7	.9	1.0
Public administration[3]	114.2	114.6	115.1	115.4	116.6	116.8	117.5	117.6	118.1	.4	1.3
Private industry workers	110.0	110.2	111.1	111.7	112.2	112.5	113.3	114.3	114.6	.3	2.1
Workers by occupational group											
Management, professional, and related	110.6	110.7	111.8	112.2	112.7	113.0	114.1	114.8	115.1	.3	2.1
Management, business, and financial	109.7	109.9	111.3	111.7	112.0	112.3	113.6	114.5	114.8	.3	2.5
Professional and related	111.4	111.4	112.2	112.6	113.3	113.5	114.6	115.1	115.4	.3	1.9
Sales and office	108.8	109.2	109.8	110.8	111.1	111.6	112.1	113.3	113.8	.4	2.4
Sales and related	105.3	105.8	105.8	107.5	107.4	108.1	107.8	109.8	110.3	.5	2.7
Office and administrative support	111.3	111.6	112.6	113.1	113.7	114.0	115.1	115.8	116.2	.3	2.2
Natural resources, construction, and maintenance	110.8	111.2	112.2	112.7	113.1	113.3	113.8	114.9	115.5	.5	2.1
Construction and extraction	112.0	112.4	113.1	113.6	114.3	114.4	114.8	115.5	116.0	.4	1.5
Installation, maintenance, and repair	109.4	109.8	111.1	111.5	111.6	111.9	112.6	114.2	114.9	.6	3.0
Production, transportation, and material moving	108.6	108.9	109.9	110.5	111.3	111.5	112.2	113.5	113.8	.3	2.2
Production	108.0	108.2	109.5	110.0	110.7	110.8	111.7	113.2	113.4	.2	2.4
Transportation and material moving	109.6	109.7	110.4	111.2	112.2	112.5	113.0	114.0	114.4	.4	2.0
Service occupations	111.7	111.8	112.4	112.7	113.3	113.5	114.5	114.7	115.0	.3	1.5
Workers by industry and occupational group											
Goods-producing industries	108.4	108.6	109.7	110.3	111.0	111.1	112.0	113.2	113.4	.2	2.2
Management, professional, and related	106.5	106.4	108.0	108.6	109.2	109.1	110.8	112.1	112.0	-.1	2.6
Sales and office	107.5	107.8	108.2	108.8	109.7	110.2	110.4	111.4	111.8	.4	1.9
Natural resources, construction, and maintenance	111.3	111.7	112.6	113.0	113.6	113.7	114.2	115.2	115.6	.3	1.8
Production, transportation, and material moving	107.8	108.0	109.3	109.8	110.6	110.8	111.6	113.0	113.1	.1	2.3
Construction	111.5	111.7	112.1	112.3	112.8	112.7	112.8	113.6	113.9	.3	1.0
Manufacturing	106.8	107.0	108.4	109.1	109.9	110.0	111.4	112.7	112.8	.1	2.6
Management, professional, and related	105.4	105.5	107.2	108.0	108.8	108.8	110.9	112.0	112.0	.0	2.9
Sales and office	107.2	107.5	108.1	109.0	110.3	110.8	112.2	113.2	113.3	.1	2.7
Natural resources, construction, and maintenance	107.4	107.7	109.5	110.1	110.9	110.9	112.0	114.0	114.3	.3	3.1
Production, transportation, and material moving	107.5	107.7	109.1	109.6	110.3	110.5	111.4	112.8	112.9	.1	2.4
Service-providing industries	110.5	110.8	111.6	112.1	112.6	113.0	113.8	114.6	115.0	.3	2.1
Management, professional, and related	111.4	111.6	112.5	112.9	113.4	113.7	114.8	115.4	115.7	.3	2.0
Sales and office	109.0	109.4	110.0	111.0	111.3	111.8	112.3	113.6	114.0	.4	2.4
Natural resources, construction, and maintenance	110.1	110.4	111.7	112.2	112.2	112.6	113.2	114.4	115.5	1.0	2.9
Production, transportation, and material moving	109.7	109.9	110.6	111.3	112.3	112.5	113.1	114.2	114.6	.4	2.0
Service occupations	111.7	111.9	112.4	112.7	113.3	113.5	114.5	114.7	114.9	.2	1.4
Trade, transportation, and utilities	108.6	108.8	109.9	110.9	111.1	111.4	112.0	113.2	113.8	.5	2.4

See footnotes at end of table.

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

[December 2005 = 100]

Series	2009		2010				2011			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 2011	
Wholesale trade..	106.8	107.0	108.0	108.9	108.7	109.5	109.9	111.4	112.2	0.7	3.2
Retail trade...	109.7	110.0	110.9	111.9	112.0	112.0	112.4	113.5	114.0	.4	1.8
Transportation and warehousing...........................	108.3	108.2	109.0	110.0	110.9	111.3	112.5	113.1	113.6	.4	2.4
Utilities...	111.2	112.0	115.3	117.0	117.8	117.5	119.3	120.9	121.5	.5	3.1
Information..	108.0	108.3	109.0	109.8	110.2	110.0	111.6	112.3	112.4	.1	2.0
Financial activities...	108.3	108.6	109.8	110.5	110.6	111.4	112.9	113.8	114.3	.4	3.3
Finance and insurance....................................	108.6	108.8	110.0	111.0	111.0	111.8	113.3	114.3	114.7	.3	3.3
Real estate and rental and leasing......................	107.4	107.7	109.0	108.4	108.8	109.4	110.8	111.4	112.5	1.0	3.4
Professional and business services.......................	112.0	112.4	113.0	113.4	114.0	114.6	115.5	116.6	116.7	.1	2.4
Education and health services..............................	112.6	112.8	113.3	113.7	114.3	114.7	115.1	115.5	116.0	.4	1.5
Education services..	113.2	113.2	113.2	113.3	114.7	115.0	115.2	115.6	116.8	1.0	1.8
Health care and social assistance......................	112.5	112.8	113.3	113.7	114.2	114.6	115.0	115.5	115.8	.3	1.4
Hospitals..	112.6	113.2	113.9	114.5	115.0	115.6	116.2	116.6	117.0	.3	1.7
Leisure and hospitality......................................	112.7	112.7	113.4	113.4	113.9	114.1	114.5	114.6	115.1	.4	1.1
Accommodation and food services.....................	113.4	113.5	114.0	114.1	114.6	114.8	115.4	115.3	115.9	.5	1.1
Other services, except public administration............	111.8	111.5	112.1	112.7	113.3	113.2	114.4	114.5	115.0	.4	1.5
State and local government workers............................	113.9	114.2	114.5	114.7	115.9	116.2	116.6	116.7	117.6	.8	1.5
Workers by occupational group											
Management, professional, and related......................	113.6	113.8	114.0	114.2	115.3	115.5	115.9	116.0	116.9	.8	1.4
Professional and related...	113.6	113.9	114.0	114.2	115.3	115.5	115.9	115.9	116.8	.8	1.3
Sales and office...	114.1	114.4	115.0	115.2	116.4	116.6	117.1	117.3	118.4	.9	1.7
Office and administrative support...........................	114.4	114.7	115.3	115.6	116.8	116.9	117.5	117.7	118.7	.8	1.6
Service occupations...	114.7	115.3	115.8	116.2	117.6	118.0	118.5	118.6	119.2	.5	1.4
Workers by industry											
Education and health services.................................	113.7	113.9	114.0	114.2	115.4	115.6	115.9	115.9	116.9	.9	1.3
Education services...	113.5	113.7	113.8	113.9	115.1	115.3	115.5	115.5	116.5	.9	1.2
Schools...	113.5	113.7	113.8	113.9	115.1	115.3	115.5	115.5	116.5	.9	1.2
Elementary and secondary schools...................	114.0	114.1	114.1	114.3	115.6	115.6	115.8	115.8	116.8	.9	1.0
Health care and social assistance.........................	115.1	115.4	115.9	116.3	117.2	117.9	119.0	119.2	119.9	.6	2.3
Hospitals..	113.9	114.3	115.1	115.6	116.1	117.0	118.2	118.3	118.9	.5	2.4
Public administration [3]..	114.2	114.6	115.1	115.4	116.6	116.8	117.5	117.6	118.1	.4	1.3

[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.

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

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

Series	2009		2010				2011			Percent change	
										3 months ended	12 months ended
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Sept. 2011	
Civilian workers[1]	110.9	111.2	111.6	112.1	112.6	113.0	113.4	113.9	114.4	0.4	1.6
Workers by occupational group											
Management, professional, and related	111.5	111.7	112.4	112.8	113.4	113.7	114.2	114.6	115.0	.3	1.4
Management, business, and financial	110.6	110.9	112.1	112.6	112.8	113.2	113.9	114.3	114.8	.4	1.8
Professional and related	112.1	112.2	112.7	112.9	113.7	113.9	114.4	114.7	115.2	.4	1.3
Sales and office	109.2	109.6	109.9	110.8	111.1	111.7	111.7	112.7	113.3	.5	2.0
Sales and related	105.7	106.2	106.2	108.0	107.7	108.6	107.8	109.7	110.3	.5	2.4
Office and administrative support	111.5	111.9	112.3	112.7	113.3	113.6	114.3	114.7	115.3	.5	1.8
Natural resources, construction, and maintenance	111.7	112.1	112.6	112.9	113.2	113.4	113.8	114.5	115.2	.6	1.8
Construction and extraction	112.3	112.7	112.8	113.2	113.8	113.9	114.4	114.8	115.3	.4	1.3
Installation, maintenance, and repair	111.1	111.5	112.3	112.4	112.5	112.8	113.1	114.1	115.2	1.0	2.4
Production, transportation, and material moving	109.6	109.8	110.1	110.5	111.3	111.5	111.8	112.2	112.7	.4	1.3
Production	109.1	109.3	109.7	110.1	110.6	110.6	111.2	111.6	112.1	.4	1.4
Transportation and material moving	110.2	110.4	110.6	111.1	112.1	112.5	112.6	113.1	113.4	.3	1.2
Service occupations	112.4	112.6	112.9	113.1	113.7	113.9	114.5	114.6	115.0	.3	1.1
Workers by industry											
Goods-producing	109.8	110.1	110.5	110.9	111.5	111.6	112.2	112.7	113.2	.4	1.5
Manufacturing	108.6	108.9	109.4	110.0	110.6	110.7	111.5	112.0	112.5	.4	1.7
Service-providing	111.1	111.4	111.9	112.4	112.9	113.2	113.6	114.1	114.6	.4	1.5
Education and health services	112.3	112.5	112.8	113.0	113.7	114.0	114.2	114.4	115.0	.5	1.1
Health care and social assistance	112.8	113.1	113.6	113.9	114.3	114.7	114.9	115.4	115.8	.3	1.3
Hospitals	113.2	113.6	114.0	114.5	114.9	115.4	115.8	116.2	116.7	.4	1.6
Nursing and residential care facilities	111.3	111.6	111.9	112.2	112.6	112.6	113.0	113.5	113.7	.2	1.0
Education services	111.8	112.0	112.2	112.3	113.2	113.4	113.6	113.6	114.4	.7	1.1
Elementary and secondary schools	112.0	112.1	112.3	112.5	113.4	113.4	113.6	113.6	114.2	.5	.7
Public administration [2]	112.5	112.8	113.2	113.4	113.8	114.0	114.4	114.5	114.8	.3	.9
Private industry workers	110.6	110.8	111.4	111.9	112.4	112.8	113.2	113.8	114.3	.4	1.7
Workers by occupational group											
Management, professional, and related	111.3	111.5	112.5	112.9	113.4	113.7	114.4	114.9	115.3	.3	1.7
Management, business, and financial	110.4	110.8	112.0	112.6	112.8	113.2	113.9	114.4	114.9	.4	1.9
Professional and related	112.1	112.1	112.8	113.2	113.9	114.1	114.8	115.2	115.6	.3	1.5
Sales and office	109.0	109.4	109.6	110.7	110.9	111.5	111.6	112.7	113.2	.4	2.1
Sales and related	105.7	106.2	106.2	108.0	107.8	108.7	107.8	109.8	110.4	.5	2.4
Office and administrative support	111.4	111.8	112.2	112.6	113.3	113.6	114.4	114.8	115.4	.5	1.9
Natural resources, construction, and maintenance	111.6	112.0	112.5	112.8	113.1	113.3	113.7	114.4	115.2	.7	1.9
Construction and extraction	112.3	112.7	112.9	113.3	113.9	114.0	114.5	114.9	115.4	.4	1.3
Installation, maintenance, and repair	110.7	111.2	112.1	112.1	112.1	112.5	112.7	113.9	115.0	1.0	2.6
Production, transportation, and material moving	109.4	109.6	109.8	110.3	111.1	111.3	111.6	112.0	112.5	.4	1.3
Production	109.0	109.3	109.6	110.0	110.5	110.5	111.1	111.5	112.0	.4	1.4
Transportation and material moving	109.9	110.1	110.2	110.8	111.8	112.2	112.2	112.8	113.2	.4	1.3
Service occupations	112.1	112.3	112.6	112.7	113.3	113.5	114.2	114.2	114.6	.4	1.1
Workers by industry and occupational group											
Goods-producing industries	109.8	110.0	110.5	110.9	111.5	111.6	112.2	112.7	113.2	.4	1.5
Management, professional, and related	109.4	109.4	110.5	111.0	111.6	111.4	112.5	113.2	113.5	.3	1.7
Sales and office	108.4	108.7	108.4	108.9	109.9	110.5	110.0	110.9	111.5	.5	1.5
Natural resources, construction, and maintenance	111.9	112.3	112.6	112.9	113.5	113.5	114.0	114.6	115.0	.3	1.3
Production, transportation, and material moving	108.9	109.1	109.4	109.9	110.4	110.5	111.1	111.4	111.9	.4	1.4
Construction	111.7	111.9	112.1	112.2	112.8	112.7	112.7	113.2	113.6	.4	.7
Manufacturing	108.6	108.9	109.4	110.0	110.6	110.7	111.5	112.0	112.5	.4	1.7
Management, professional, and related	108.6	108.7	110.0	110.7	111.2	111.2	112.3	112.9	113.3	.4	1.9
Sales and office	108.2	108.6	108.3	109.0	110.4	111.1	111.9	112.8	113.1	.3	2.4
Natural resources, construction, and maintenance	109.7	109.9	110.4	110.9	111.4	111.4	112.2	112.9	113.8	.8	2.2
Production, transportation, and material moving	108.6	108.9	109.2	109.6	110.1	110.2	110.8	111.2	111.7	.4	1.5
Service-providing industries	110.8	111.1	111.7	112.3	112.7	113.1	113.5	114.1	114.6	.4	1.7
Management, professional, and related	111.7	111.9	112.8	113.2	113.7	114.1	114.8	115.2	115.6	.3	1.7
Sales and office	109.0	109.5	109.8	110.9	111.0	111.6	111.7	112.9	113.4	.4	2.2
Natural resources, construction, and maintenance	111.2	111.6	112.5	112.7	112.6	113.0	113.2	114.2	115.5	1.1	2.6
Production, transportation, and material moving	110.0	110.2	110.4	110.9	111.9	112.2	112.2	112.7	113.2	.4	1.2
Service occupations	112.2	112.3	112.6	112.8	113.3	113.5	114.2	114.2	114.6	.4	1.1
Trade, transportation, and utilities	108.7	108.9	109.5	110.5	110.6	111.0	110.9	111.7	112.5	.7	1.7

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

[December 2005 = 100]

Series	2009		2010				2011			Percent change	
										3 months ended	12 months ended
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Sept. 2011	
Wholesale trade	106.2	106.4	107.1	108.1	107.7	108.5	107.8	108.5	109.5	0.9	1.7
Retail trade	110.0	110.4	111.0	112.0	112.0	112.0	112.2	113.1	114.0	.8	1.8
Transportation and warehousing	108.3	108.3	108.7	109.5	110.6	111.0	111.2	111.8	112.2	.4	1.4
Utilities	112.2	113.3	113.9	114.7	115.4	115.6	116.9	118.1	118.5	.3	2.7
Information	108.7	109.1	109.6	110.3	110.8	110.5	112.0	112.3	112.5	.2	1.5
Financial activities	108.5	108.9	109.8	111.0	111.1	112.0	112.9	113.4	114.0	.5	2.6
Finance and insurance	109.0	109.4	110.2	111.9	112.0	113.0	113.9	114.3	114.8	.4	2.5
Real estate and rental and leasing	106.3	106.8	108.0	107.2	107.5	108.1	109.2	109.6	110.8	1.1	3.1
Professional and business services	112.3	112.7	113.3	113.6	114.3	115.0	115.6	116.6	116.7	.1	2.1
Education and health services	112.5	112.8	113.2	113.5	114.1	114.5	114.6	115.1	115.6	.4	1.3
Education services	112.2	112.6	112.5	112.6	114.2	114.5	114.7	114.9	116.2	1.1	1.8
Health care and social assistance	112.5	112.8	113.3	113.7	114.1	114.4	114.6	115.1	115.5	.3	1.2
Hospitals	112.9	113.4	113.7	114.3	114.7	115.2	115.6	116.0	116.6	.5	1.7
Leisure and hospitality	113.7	113.8	114.5	114.3	114.8	115.0	115.2	115.1	115.8	.6	.9
Accommodation and food services	114.2	114.3	114.7	114.6	115.1	115.3	115.7	115.6	116.4	.7	1.1
Other services, except public administration	112.5	112.1	112.3	112.7	113.4	113.2	114.2	114.1	114.8	.6	1.2
State and local government workers	112.2	112.5	112.7	112.9	113.6	113.8	114.1	114.2	114.7	.4	1.0
Workers by occupational group											
Management, professional, and related	112.0	112.2	112.4	112.6	113.3	113.5	113.8	113.8	114.4	.5	1.0
Professional and related	112.0	112.3	112.4	112.6	113.3	113.6	113.8	113.8	114.5	.6	1.1
Sales and office	111.9	112.1	112.5	112.5	113.1	113.2	113.5	113.7	114.2	.4	1.0
Office and administrative support	112.3	112.5	113.0	113.0	113.5	113.6	113.9	114.1	114.7	.5	1.1
Service occupations	113.1	113.5	114.0	114.2	114.9	115.1	115.4	115.5	115.9	.3	.9
Workers by industry											
Education and health services	112.0	112.3	112.5	112.6	113.4	113.6	113.8	113.8	114.4	.5	.9
Education services	111.7	111.9	112.1	112.2	113.0	113.2	113.4	113.4	114.0	.5	.9
Schools	111.7	111.9	112.1	112.2	113.0	113.2	113.4	113.4	114.0	.5	.9
Elementary and secondary schools	112.0	112.1	112.3	112.5	113.4	113.5	113.6	113.6	114.2	.5	.7
Health care and social assistance	115.0	115.2	115.5	115.8	116.2	116.8	117.3	117.4	117.9	.4	1.5
Hospitals	114.2	114.7	115.2	115.5	115.7	116.3	117.0	116.9	117.3	.3	1.4
Public administration [2]	112.5	112.8	113.2	113.4	113.8	114.0	114.4	114.5	114.8	.3	.9

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

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

[December 2005 = 100]

Series	2009		2010				2011			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 2011	
Civilian workers..	110.5	110.7	112.1	112.7	113.6	113.9	115.5	116.8	117.2	0.3	3.2
Private industry workers..................................	108.7	108.7	110.4	111.0	111.7	111.9	113.7	115.4	115.4	.0	3.3
Workers by occupational group											
Management, professional, and related.........................	108.9	108.8	110.2	110.5	111.0	111.2	113.4	114.8	114.7	-.1	3.3
Sales and office...	108.5	108.7	110.2	111.1	111.6	111.8	113.4	115.0	115.2	.2	3.2
Natural resources, construction, and maintenance...........	109.2	109.5	111.5	112.4	113.0	113.2	114.1	115.9	116.2	.3	2.8
Production, transportation, and material moving..............	107.1	107.4	110.0	110.8	111.8	112.0	113.5	116.5	116.3	-.2	4.0
Service occupations..	110.4	110.5	111.7	112.5	113.2	113.5	115.5	116.1	115.9	-.2	2.4
Workers by industry											
Goods-producing..	105.7	105.8	108.4	109.0	110.0	110.1	111.7	114.1	113.9	-.2	3.5
Manufacturing...	103.4	103.6	106.6	107.4	108.7	108.8	111.1	114.0	113.4	-.5	4.3
Service-providing...	109.9	109.9	111.3	111.9	112.3	112.6	114.5	115.9	116.0	.1	3.3
State and local government workers...........................	117.4	117.7	118.1	118.6	120.7	121.1	122.0	122.1	123.7	1.3	2.5

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

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

[December 2005 = 100]

Series	2009		2010				2011			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 2011	
COMPENSATION											
Workers by bargaining status[1]											
Union..	110.5	111.1	112.8	113.7	114.6	114.8	115.6	117.1	117.4	0.3	2.4
Goods-producing....................................	109.5	110.0	111.9	112.6	113.8	113.9	114.3	116.4	116.3	-.1	2.2
Manufacturing....................................	105.3	105.8	108.6	109.1	110.5	110.5	110.9	113.8	113.2	-.5	2.4
Service-providing..................................	111.3	111.9	113.4	114.5	115.2	115.5	116.8	117.7	118.3	.5	2.7
Nonunion...	109.9	110.1	110.9	111.4	111.8	112.1	113.0	113.8	114.2	.4	2.1
Goods-producing....................................	108.0	108.2	109.1	109.5	110.1	110.2	111.3	112.2	112.5	.3	2.2
Manufacturing....................................	107.3	107.5	108.5	109.2	109.9	110.0	111.6	112.5	112.8	.3	2.6
Service-providing..................................	110.4	110.6	111.3	111.9	112.3	112.7	113.5	114.3	114.7	.3	2.1
Workers by region[1]											
Northeast...	110.7	111.0	111.8	112.7	113.1	113.6	114.4	115.3	115.7	.3	2.3
South...	110.6	110.7	111.5	112.0	112.5	112.8	113.4	114.3	114.7	.3	2.0
Midwest..	108.4	108.6	109.9	110.4	111.0	111.3	112.2	113.3	113.6	.3	2.3
West...	110.3	110.6	111.3	111.7	112.3	112.5	113.5	114.3	114.6	.3	2.0
WAGES AND SALARIES											
Workers by bargaining status[1]											
Union..	110.2	110.9	111.5	112.1	112.7	112.9	113.6	114.0	114.6	.5	1.7
Goods-producing....................................	109.5	109.8	110.2	110.7	111.1	111.2	111.7	112.1	112.8	.6	1.5
Manufacturing....................................	107.0	107.3	107.8	108.2	108.6	108.7	109.4	109.8	110.6	.7	1.8
Service-providing..................................	110.8	111.6	112.4	113.1	113.8	114.2	115.0	115.3	115.8	.4	1.8
Nonunion...	110.6	110.9	111.4	111.9	112.4	112.7	113.2	113.8	114.3	.4	1.7
Goods-producing....................................	109.9	110.1	110.6	111.0	111.6	111.7	112.3	112.9	113.3	.4	1.5
Manufacturing....................................	109.1	109.3	109.8	110.5	111.1	111.2	112.1	112.6	113.0	.4	1.7
Service-providing..................................	110.8	111.0	111.6	112.2	112.6	113.0	113.4	114.0	114.5	.4	1.7
Workers by region[1]											
Northeast...	110.8	111.1	111.7	112.6	112.9	113.4	113.7	114.6	114.9	.3	1.8
South...	111.3	111.5	111.9	112.4	112.9	113.4	113.7	114.4	115.0	.5	1.9
Midwest..	108.9	109.2	109.9	110.4	110.9	111.2	111.8	112.2	112.7	.4	1.6
West...	111.2	111.6	112.0	112.4	112.9	113.0	113.6	114.1	114.5	.4	1.4

[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.

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

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

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

See footnotes at end of table.

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

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

See footnotes at end of table.

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

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

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

[2] The white-collar and blue-collar occupation series were discontinued effective 2007.

[3] The take-up rate is an estimate of the percentage of workers with access to a plan who participate in the plan.

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

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

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

See footnotes at end of table.

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

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

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

[2] The white-collar and blue-collar occupation series were discontinued effective 2007.

[3] The take-up rate is an estimate of the percentage of workers with access to a plan who participate in the plan.

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

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

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

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

37. Work stoppages involving 1,000 workers or more

Measure	Annual average		2010		2011									
	2009	2010	Nov.	Dec.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.[P]	Nov.[P]
Number of stoppages:														
Beginning in period…………………………	5	11	0	1	0	4	1	3	3	0	2	4	0	1
In effect during period………………………	5	11	0	1	0	4	2	4	4	3	2	5	1	2
Workers involved:														
Beginning in period (in thousands)……	12.5	44.5	0.0	1.1	0.0	5.3	1.5	7.5	5.0	0.0	46.3	39.9	0.0	1.0
In effect during period (in thousands).	16.9	47.7	0.0	1.1	0.0	5.3	3.4	9.4	6.9	5.4	46.3	41.2	1.3	2.3
Days idle:														
Number (in thousands)……………………	124.1	302.3	0.0	2.2	0.0	33.5	56.4	120.3	75.3	80.9	479.9	98.5	26.0	29.0
Percent of estimated working time [1] …	0	0	0	0	0	0	0	0	0	0	0	0	0	0

[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 Revie*
October 1968, pp. 54–56.

NOTE: p = preliminary.

38. Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers:

U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		2010		2011										
	2009	2010	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS															
All items..	214.537	218.056	218.803	219.179	220.223	221.309	223.467	224.906	225.964	225.722	225.922	226.545	226.889	226.421	226.230
All items (1967 = 100)....................................	642.658	653.198	655.438	656.563	659.692	662.943	669.409	673.717	676.887	676.162	676.762	678.628	679.658	678.258	677.684
Food and beverages......................................	218.249	219.984	220.991	221.278	223.160	224.039	225.479	226.248	227.082	227.451	228.323	229.490	230.448	230.885	230.656
Food..	217.955	219.625	220.617	220.946	222.912	223.799	225.350	226.150	226.976	227.360	228.316	229.554	230.573	231.017	230.790
Food at home...	215.124	215.836	216.538	216.955	220.016	221.241	223.430	224.233	225.356	225.588	226.891	228.354	229.739	230.196	229.380
Cereals and bakery products......................	252.567	250.449	249.944	250.592	253.349	254.238	255.482	255.956	259.140	260.563	260.921	262.970	264.135	265.433	265.552
Meats, poultry, fish, and eggs..................	203.805	207.694	212.957	212.019	214.344	216.175	218.808	220.747	223.227	223.105	224.394	225.651	227.194	227.853	227.583
Dairy and related products[1]...................	197.013	199.245	201.277	202.056	202.349	203.510	206.161	209.707	211.327	212.286	214.781	216.720	219.381	219.493	218.767
Fruits and vegetables..............................	272.945	273.458	269.917	277.089	285.619	286.766	290.279	286.501	284.174	280.721	282.018	282.579	286.865	284.269	282.605
Nonalcoholic beverages and beverage materials...	163.034	161.602	161.427	159.229	164.019	163.734	165.038	166.086	165.862	166.197	167.802	168.268	168.213	169.137	168.606
Other foods at home................................	191.220	191.124	190.152	190.147	191.468	193.055	194.747	195.239	196.161	197.270	198.152	200.054	200.347	201.315	199.924
Sugar and sweets..................................	196.933	201.242	200.586	203.098	202.648	204.168	205.505	203.783	205.285	207.672	207.321	209.780	213.330	213.602	210.039
Fats and oils.......................................	201.224	200.587	202.375	200.476	207.813	210.508	214.352	213.818	216.486	218.771	221.325	223.509	224.770	226.216	224.907
Other foods..	205.497	204.553	202.988	202.776	203.610	205.174	206.743	207.892	208.518	209.259	210.202	212.114	211.619	212.737	211.649
Other miscellaneous foods[1,2]..............	122.393	121.683	120.623	122.419	120.930	121.438	122.665	123.769	123.343	123.692	124.418	125.193	125.044	125.461	125.702
Food away from home[1].............................	223.272	226.114	227.512	227.722	228.181	228.606	229.282	230.082	230.501	231.097	231.580	232.513	233.032	233.459	234.046
Other food away from home[1,2]................	155.852	159.276	160.392	160.681	160.643	161.836	161.886	162.218	162.483	162.494	162.971	163.468	163.334	163.978	164.120
Alcoholic beverages...................................	220.751	223.291	224.490	224.215	224.975	225.749	225.693	226.053	226.989	227.154	226.908	227.126	227.265	227.606	227.363
Housing..	217.057	216.256	215.830	216.142	216.739	217.259	217.707	217.901	218.484	219.553	220.230	220.506	220.540	220.138	219.969
Shelter...	249.354	248.396	248.738	248.972	249.462	249.886	250.310	250.447	250.745	251.422	252.155	252.546	252.647	253.101	253.312
Rent of primary residence.......................	248.812	249.385	250.317	250.986	251.555	251.829	252.145	252.221	252.393	252.592	253.085	254.003	254.628	255.651	256.367
Lodging away from home..........................	134.243	133.656	126.704	125.665	128.630	131.572	136.486	136.597	139.094	145.608	150.095	145.100	140.259	136.551	130.687
Owners' equivalent rent of primary residence[3]...	256.610	256.584	257.202	257.452	257.775	258.073	258.263	258.400	258.587	259.010	259.573	260.178	260.459	261.034	261.503
Tenants' and household insurance[1,2].........	121.487	125.682	127.501	126.194	126.192	126.529	125.863	126.574	126.780	127.155	127.278	127.581	127.922	128.416	128.777
Fuels and utilities..................................	210.696	214.187	210.978	212.505	214.045	215.587	216.672	217.254	219.956	225.022	226.643	226.493	226.409	220.450	218.199
Fuels..	188.113	189.286	184.764	186.338	187.704	189.006	190.071	190.622	193.498	199.122	200.587	200.144	199.814	193.058	190.444
Fuel oil and other fuels........................	239.778	275.132	286.367	298.037	314.130	326.919	341.884	348.657	347.002	340.775	336.894	335.995	334.735	345.418	342.823
Gas (piped) and electricity....................	193.563	192.886	187.335	188.443	189.088	189.837	190.213	190.459	193.698	200.191	200.202	201.564	201.270	193.843	190.572
Household furnishings and operations...............	128.701	125.490	124.121	123.931	124.342	124.576	124.735	124.893	125.141	125.048	124.959	125.138	125.013	125.223	125.073
Apparel	120.078	119.503	121.498	118.071	116.664	118.369	121.286	122.226	122.271	120.578	118.770	121.547	125.272	127.590	127.285
Men's and boys' apparel.............................	113.628	111.914	112.824	109.711	109.985	110.962	112.337	113.487	114.976	114.279	113.914	114.399	116.602	119.506	119.930
Women's and girls' apparel.........................	108.091	107.081	109.778	105.739	102.438	105.076	109.544	110.144	109.237	106.746	103.349	107.780	113.304	115.851	115.603
Infants' and toddlers' apparel[1].................	114.489	114.180	115.106	112.558	110.096	110.101	111.547	112.323	111.199	110.011	111.541	114.563	116.615	118.048	118.775
Footwear..	126.854	127.988	129.368	126.585	126.286	126.830	128.518	128.581	129.618	128.054	126.092	127.500	130.921	130.886	130.293
Transportation..	179.252	193.396	195.659	198.280	200.835	203.037	211.014	216.867	220.270	216.880	216.164	216.057	215.198	212.127	211.358
Private transportation................................	174.762	188.747	190.915	193.545	196.087	198.073	206.165	212.210	215.829	212.216	211.432	211.315	210.513	207.404	206.635
New and used motor vehicles[2].................	93.486	97.149	96.936	97.046	97.128	97.633	98.275	98.972	99.915	101.004	101.442	101.524	100.988	100.540	100.021
New vehicles......................................	135.623	138.005	138.222	138.567	138.925	140.158	140.860	141.462	142.494	143.054	142.763	142.327	142.334	142.535	142.736
Used cars and trucks[1].........................	126.973	143.128	142.250	142.454	142.555	142.937	144.072	145.968	148.361	151.776	154.184	155.823	153.586	151.494	149.230
Motor fuel...	201.978	239.178	245.165	256.025	265.703	271.843	303.565	326.024	337.359	318.242	313.488	311.962	309.745	296.944	294.049
Gasoline (all types)................................	201.555	238.594	244.345	255.319	264.979	270.822	302.574	325.282	336.999	317.543	312.760	311.269	309.018	295.877	292.486
Motor vehicle parts and equipment...............	134.050	136.995	138.768	139.223	140.487	140.912	140.686	141.590	143.328	144.618	144.960	145.537	145.646	145.308	146.338
Motor vehicle maintenance and repair...........	243.337	247.954	249.872	250.134	250.726	250.851	250.820	251.458	252.376	252.529	252.769	253.337	255.244	255.774	255.663
Public transportation..................................	236.348	251.351	254.995	257.172	259.634	265.327	270.366	272.187	271.417	272.297	272.868	272.949	271.199	269.158	268.478
Medical care..	375.613	388.436	391.946	391.946	397.065	397.065	398.813	399.375	399.552	400.305	400.874	401.605	403.430	404.858	
Medical care commodities............................	305.108	314.717	316.794	317.199	318.929	321.186	322.691	324.241	324.399	324.102	324.159	324.395	325.130	325.962	326.624
Medical care services.................................	397.299	411.208	414.850	415.079	417.025	420.567	420.852	421.716	422.438	422.813	423.847	424.546	425.258	427.467	429.191
Professional services..............................	319.372	328.186	330.508	330.651	331.921	334.296	334.671	334.978	335.132	335.494	336.150	336.378	336.461	337.257	337.347
Hospital and related services.....................	567.879	607.679	619.747	621.176	625.897	633.413	634.387	637.188	639.456	639.728	641.712	643.600	645.026	649.496	654.117
Recreation [2]...	114.272	113.313	112.839	112.345	112.638	113.183	113.261	113.368	113.659	113.654	113.492	113.592	113.440	113.270	113.232
Video and audio[1,2].................................	101.276	99.122	98.214	97.167	97.325	98.268	98.719	98.918	98.707	98.373	98.672	98.222	98.491	98.572	98.315
Education and communication[2].....................	127.393	129.919	130.894	130.548	130.665	130.692	130.682	130.643	130.600	130.568	130.859	132.028	132.627	132.755	132.750
Education [2]...	190.857	199.337	203.139	203.343	204.057	204.153	204.251	204.316	204.668	204.821	206.158	210.266	212.348	212.680	212.751
Educational books and supplies..................	482.072	505.569	510.185	513.904	522.026	520.778	522.903	522.440	523.640	524.307	525.981	530.785	538.887	540.431	541.618
Tuition, other school fees, and child care........	548.971	573.174	584.509	584.840	586.386	586.782	586.914	587.151	588.138	588.556	592.539	604.798	610.562	611.458	611.581
Communication[1,2]...................................	84.954	84.681	84.423	83.913	83.783	83.779	83.730	83.655	83.466	83.367	83.211	83.077	83.017	83.049	83.016
Information and information processing[1,2]......	81.944	81.513	81.250	80.730	80.422	80.417	80.364	80.281	80.081	79.980	79.822	79.687	79.625	79.659	79.625
Telephone services[1,2].........................	102.392	102.379	102.329	101.739	101.412	101.316	101.258	101.191	101.159	101.204	100.961	101.006	101.084	101.257	101.259
Information and information processing other than telephone services[1,4]...	9.672	9.413	9.309	9.232	9.181	9.204	9.196	9.176	9.096	9.038	9.032	8.960	8.912	8.882	8.866
Personal computers and peripheral equipment[1,2]...	82.304	76.377	74.969	73.559	72.947	72.709	72.073	72.010	70.898	69.125	68.788	66.753	65.796	65.511	65.849
Other goods and services...............................	368.586	381.291	383.633	384.502	384.689	385.397	385.637	386.226	385.476	386.171	386.494	387.053	388.627	389.119	390.761
Tobacco and smoking products........................	730.316	807.330	820.854	827.680	828.079	829.535	830.693	827.287	825.690	828.860	833.067	837.427	843.141	842.785	843.604
Personal care [1].....................................	204.587	206.643	207.162	207.196	207.298	207.685	207.758	208.485	208.080	208.307	208.174	208.199	208.843	209.232	210.354
Personal care products[1].........................	162.578	161.062	160.401	160.656	160.920	161.325	160.981	161.418	159.478	160.163	159.763	159.017	160.162	160.705	161.585
Personal care services[1].........................	227.588	229.614	229.623	230.159	229.933	230.177	230.034	230.380	230.505	230.614	230.454	230.779	230.974	231.238	232.216

See footnotes at end of table.

38. Continued—Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers

U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average 2009	2010	2010 Nov.	Dec.	2011 Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
Miscellaneous personal services...........	344.469	354.052	357.061	356.475	357.576	358.521	359.096	361.062	361.786	362.435	362.905	364.545	365.351	365.905	367.157
Commodity and service group:															
Commodities...........	169.698	174.566	175.415	176.015	177.480	178.874	182.728	185.311	186.804	185.266	184.931	185.566	186.015	185.236	184.791
Food and beverages...........	218.249	219.984	220.991	221.278	223.160	224.039	225.479	226.248	227.082	227.451	228.323	229.490	230.448	230.885	230.656
Commodities less food and beverages..........	144.395	150.392	151.148	151.854	153.102	154.657	159.351	162.578	164.286	162.032	161.222	161.621	161.850	160.608	160.091
Nondurables less food and beverages..........	178.959	189.916	192.320	193.856	196.248	198.885	208.134	214.256	217.037	211.621	209.739	210.546	211.709	209.518	208.902
Apparel	120.078	119.503	121.498	118.071	116.664	118.369	121.286	122.226	122.271	120.578	118.770	121.547	125.272	127.590	127.285
Non durables less food, beverages, and apparel...........	219.592	238.053	240.762	245.458	250.293	253.570	266.993	276.504	281.064	273.195	271.228	270.809	270.380	265.302	264.478
Durables...........	109.859	111.324	110.573	110.512	110.696	111.237	111.707	112.242	112.941	113.598	113.778	113.799	113.177	112.822	112.405
Services...........	259.154	261.274	261.921	262.074	262.701	263.480	263.956	264.256	264.883	265.928	266.660	267.271	267.510	267.352	267.413
Rent of shelter[3]...........	259.924	258.823	259.142	259.418	259.934	260.373	260.834	260.963	261.272	261.977	262.747	263.152	263.251	263.717	263.931
Transportation services...........	251.031	259.823	263.265	263.264	263.984	265.354	266.754	267.587	267.832	268.488	268.642	268.940	268.979	269.487	270.117
Other services...........	303.992	309.602	311.499	310.824	311.299	311.975	312.310	312.593	313.205	313.332	313.703	315.791	316.708	316.933	317.275
Special indexes:															
All items less food...........	214.008	217.828	218.538	218.921	219.820	220.937	223.192	224.731	225.826	225.485	225.566	226.092	226.329	225.717	225.532
All items less shelter...........	203.301	208.643	209.560	209.996	211.273	212.633	215.505	217.475	218.847	218.239	218.230	218.952	219.396	218.558	218.205
All items less medical care...........	206.555	209.689	210.336	210.712	211.714	212.709	214.907	216.346	217.414	217.158	217.336	217.955	218.281	217.730	217.479
Commodities less food...........	147.071	152.990	153.761	154.443	155.682	157.221	161.804	164.964	166.657	164.461	163.664	164.059	164.287	163.084	162.572
Nondurables less food...........	181.453	191.927	194.266	195.703	198.007	200.543	209.282	215.090	217.771	212.660	210.867	211.642	212.750	210.697	210.101
Nondurables less food and apparel...........	218.687	235.601	238.165	242.401	246.854	249.895	262.068	270.729	274.948	267.823	266.018	265.656	265.279	260.703	259.934
Nondurables...........	198.548	205.271	207.053	208.028	210.205	212.056	217.791	221.504	223.413	220.611	219.979	220.958	222.036	221.035	220.592
Services less rent of shelter[3]...........	278.064	284.368	285.467	285.481	286.292	287.547	288.077	288.612	289.676	291.219	291.961	292.871	293.301	292.365	292.242
Services less medical care services...........	248.122	249.569	250.044	250.191	250.737	251.354	251.834	252.100	252.713	253.781	254.487	255.085	255.295	255.009	254.978
Energy...........	193.126	211.449	211.970	217.953	223.266	226.860	242.516	253.495	260.376	254.170	252.661	251.706	250.480	240.902	238.177
All items less energy...........	218.433	220.458	221.235	221.045	221.666	222.506	223.315	223.798	224.275	224.635	225.010	225.797	226.303	226.754	226.818
All items less food and energy...........	219.235	221.337	222.077	221.795	222.177	223.011	223.690	224.118	224.534	224.891	225.164	225.874	226.289	226.743	226.859
Commodities less food and energy...........	142.041	143.588	143.594	142.830	142.845	143.712	144.632	145.214	145.657	145.741	145.486	146.159	146.734	147.068	146.811
Energy commodities...........	205.281	242.636	248.928	259.903	269.970	276.485	307.589	329.419	340.183	321.578	316.835	315.330	313.145	300.916	298.530
Services less energy...........	265.875	268.278	269.509	269.572	270.199	270.982	271.468	271.775	272.158	272.695	273.327	274.038	274.327	274.851	275.224
CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS															
All items...........	209.630	213.967	214.750	215.262	216.400	217.535	220.024	221.743	222.954	222.522	222.686	223.326	223.688	223.043	222.813
All items (1967 = 100)...........	624.423	637.342	639.673	641.200	644.591	647.969	655.385	660.503	664.113	662.826	663.314	665.221	666.299	664.376	663.692
Food and beverages...........	217.480	219.182	220.245	220.508	222.385	223.273	224.825	225.667	226.473	226.813	227.701	228.957	229.965	230.420	230.186
Food...........	217.118	218.730	219.768	220.062	222.039	222.942	224.577	225.439	226.257	226.610	227.585	228.911	229.967	230.406	230.143
Food at home...........	213.908	214.638	215.414	215.748	218.804	220.110	222.391	223.245	224.386	224.580	225.889	227.388	228.777	229.269	228.405
Cereals and bakery products...........	253.214	251.024	250.648	251.419	253.991	254.963	256.227	256.912	259.862	261.297	261.564	263.608	264.869	266.335	266.639
Meats, poultry, fish, and eggs...........	203.394	207.431	212.693	211.858	214.127	216.062	218.848	220.753	223.356	223.250	224.421	225.682	227.285	228.019	227.643
Dairy and related products[1]...........	195.679	197.992	200.084	200.958	201.170	202.335	205.163	208.951	210.488	211.374	213.957	215.910	218.406	218.451	217.557
Fruits and vegetables...........	270.562	270.713	266.802	273.977	282.396	284.132	288.168	284.147	281.424	277.853	279.494	280.617	284.884	282.345	279.989
Nonalcoholic beverages and beverage materials...........	162.598	161.214	160.999	158.654	163.586	163.262	164.583	165.553	165.160	165.380	166.890	167.391	167.416	168.262	167.739
Other foods at home...........	190.519	190.294	189.265	189.176	190.656	192.187	193.787	194.281	195.396	196.454	197.389	199.201	199.519	200.430	199.146
Sugar and sweets...........	195.702	200.035	199.542	202.206	201.824	203.373	204.408	202.613	204.161	206.402	206.103	208.537	211.591	212.276	209.091
Fats and oils...........	202.003	200.909	202.668	200.925	208.026	210.741	214.457	214.363	216.820	219.304	221.982	224.327	225.698	227.230	226.119
Other foods...........	205.573	204.577	202.901	202.520	203.614	205.098	206.624	207.711	208.632	209.328	210.318	212.092	212.673	211.618
Other miscellaneous foods[1,2]...........	122.753	121.872	120.723	122.267	121.161	121.605	122.850	123.797	123.673	123.911	124.607	125.327	125.167	125.681	125.761
Food away from home[1]...........	223.383	226.204	227.634	227.871	228.279	228.596	229.293	230.174	230.521	231.112	231.603	232.682	233.257	233.622	234.240
Other food away from home[1,2]...........	155.607	159.794	161.428	161.657	161.635	162.728	162.850	163.275	163.498	163.524	164.167	164.551	164.421	165.008	165.228
Alcoholic beverages...........	221.325	224.368	225.771	225.592	225.994	226.675	227.022	227.552	228.197	228.331	227.956	228.213	228.513	229.194	229.379
Housing...........	213.144	212.880	212.490	212.861	213.442	213.931	214.323	214.523	215.135	216.263	216.917	217.235	217.371	216.843	216.723
Shelter...........	242.637	242.309	242.806	243.120	243.569	243.961	244.270	244.420	244.618	245.112	245.705	246.187	246.372	246.922	247.313
Rent of primary residence...........	247.401	247.725	248.553	249.246	249.848	250.128	250.445	250.579	250.704	250.843	251.271	252.195	252.771	253.727	254.446
Lodging away from home[2]...........	135.163	135.119	128.305	127.369	130.091	133.181	138.131	138.699	140.814	147.508	151.939	146.163	140.665	137.128	131.860
Owners' equivalent rent of primary residence[3]...........	232.499	232.461	233.047	233.278	233.565	233.872	234.018	234.133	234.272	234.634	235.116	235.645	235.886	236.407	236.869
Tenants' and household insurance[1,2]...........	121.935	126.739	128.556	127.674	127.690	128.035	126.914	127.654	127.859	128.242	128.377	128.727	129.090	129.562	129.912
Fuels and utilities...........	209.595	212.885	209.449	210.860	212.409	213.775	214.774	215.338	218.216	223.834	225.589	225.399	225.398	218.952	216.546
Fuels...........	186.229	187.272	182.634	184.079	185.463	186.578	187.561	188.078	191.103	197.253	198.857	198.396	198.168	190.976	188.244
Fuel oil and other fuels...........	243.003	277.433	287.994	299.558	315.348	326.950	341.440	347.371	345.830	339.095	335.796	334.935	334.361	334.886	342.717
Gas (piped) and electricity...........	191.981	191.552	186.023	187.077	187.874	188.567	188.985	189.281	192.646	199.650	201.547	201.084	200.861	193.001	189.671
Household furnishings and operations...........	124.632	121.555	120.257	120.007	120.345	120.518	120.765	120.873	121.238	121.152	121.185	121.325	121.399	121.642	121.459
Apparel...........	119.847	118.733	120.628	117.127	115.649	117.507	120.091	121.140	121.312	119.720	117.830	120.624	124.716	126.966	126.764
Men's and boys' apparel...........	114.340	111.811	112.815	109.849	110.386	111.528	112.360	113.477	115.079	114.172	113.565	114.068	116.854	120.512	120.739
Women's and girls' apparel...........	107.602	106.360	109.388	104.988	101.701	104.611	108.551	109.589	108.704	106.263	102.841	107.359	113.333	115.638	115.324
Infants' and toddlers' apparel[1]...........	117.202	117.415	117.900	115.832	113.268	112.814	114.446	115.274	114.150	113.203	114.220	118.265	119.921	121.409	122.228
Footwear...........	127.183	127.593	128.216	125.691	125.474	126.363	128.077	128.602	129.810	128.533	126.679	128.108	131.035	130.799	130.676
Transportation...........	176.729	192.560	194.884	197.832	200.635	202.910	211.774	218.352	222.153	218.155	217.466	217.491	216.474	213.013	212.119
Private transportation...........	173.491	189.257	191.524	194.477	197.275	199.417	208.361	215.044	218.946	214.837	214.119	214.131	213.141	209.647	208.743
New and used motor vehicles[2]...........	91.308	96.271	96.024	96.151	96.227	96.734	97.405	98.172	99.236	100.485	101.093	101.393	100.736	100.187	99.539

See footnotes at end of table.

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		2010		2011										
	2009	2010	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
New vehicles	136.711	139.044	139.224	139.567	139.871	141.114	141.899	142.475	143.476	143.995	143.687	143.276	143.290	143.539	143.778
Used cars and trucks[1]	127.687	144.007	143.176	143.377	143.479	143.868	145.014	146.907	149.304	152.759	155.201	156.860	154.645	152.569	150.310
Motor fuel	202.695	240.094	245.957	257.025	266.820	273.013	305.066	327.663	338.832	319.323	314.806	313.307	310.810	297.935	295.069
Gasoline (all types)	202.375	239.629	245.250	256.443	266.224	272.117	304.224	327.095	338.656	318.779	314.232	312.768	310.227	296.999	293.628
Motor vehicle parts and equipment	134.133	136.998	138.654	139.150	140.289	140.763	140.693	141.505	143.257	144.458	144.840	145.390	145.652	145.326	146.151
Motor vehicle maintenance and repair	245.795	250.543	252.610	252.759	253.310	253.524	253.391	253.990	255.042	255.133	255.509	256.077	258.001	258.440	258.342
Public transportation	234.661	248.713	252.230	254.312	256.604	262.444	266.726	268.501	268.226	268.615	269.003	269.427	267.826	266.204	265.815
Medical care	376.064	389.766	393.277	393.616	395.536	398.908	399.516	400.683	401.316	401.398	402.160	402.783	403.433	405.472	407.128
Medical care commodities	296.724	306.257	308.332	308.823	310.488	312.764	314.190	315.798	316.099	315.710	315.957	316.299	316.869	317.901	318.671
Medical care services	399.165	414.273	418.307	418.568	420.540	424.289	424.516	425.450	426.210	426.498	427.464	428.190	428.856	431.274	433.269
Professional services	322.127	331.456	333.868	334.032	335.368	337.901	338.225	338.558	338.828	339.198	339.756	340.053	340.195	341.110	341.148
Hospital and related services	565.029	608.516	622.116	623.692	628.321	636.256	637.216	640.223	642.422	642.513	644.693	646.560	647.586	652.231	657.707
Recreation[2]	111.015	109.812	109.082	108.561	109.039	109.693	109.848	109.933	110.219	110.216	110.134	110.146	109.995	109.869	109.723
Video and audio[1,2]	101.602	99.643	98.774	97.753	97.925	98.897	99.398	99.523	99.331	99.005	99.417	98.939	99.148	99.339	99.095
Education and communication[2]	123.017	124.891	125.526	125.089	125.065	125.069	125.047	124.993	124.934	124.906	124.994	125.797	126.219	126.415	126.392
Education[2]	188.143	196.606	200.228	200.496	201.353	201.500	201.588	201.611	202.023	202.119	203.181	206.790	208.721	209.343	209.453
Educational books and supplies	485.025	508.386	513.546	515.937	526.152	526.197	527.623	526.990	528.326	529.103	529.929	536.250	544.702	546.888	548.418
Tuition, other school fees, and child care	529.316	552.958	563.563	564.149	565.760	566.205	566.335	566.469	567.600	567.816	570.995	581.447	586.531	588.222	588.409
Communication[1,2]	87.662	87.317	87.040	86.472	86.209	86.174	86.124	86.057	85.877	85.819	85.628	85.545	85.492	85.543	85.486
Information and information processing[1,2]	85.571	85.126	84.846	84.271	83.881	83.844	83.793	83.719	83.534	83.474	83.282	83.198	83.144	83.196	83.139
Telephone services[1,2]	102.341	102.086	101.975	101.327	100.882	100.768	100.701	100.643	100.610	100.657	100.366	100.405	100.475	100.616	100.620
Information and information processing other than telephone services[1,4]	10.178	9.960	9.849	9.767	9.713	9.734	9.729	9.710	9.623	9.575	9.573	9.514	9.462	9.440	9.408
Personal computers and peripheral equipment[1,2]	82.104	76.273	74.615	73.078	72.433	72.138	71.404	71.220	70.071	68.426	68.230	66.530	65.435	65.342	65.613
Other goods and services	391.628	409.278	412.383	414.002	414.263	415.088	415.318	415.578	414.594	415.514	416.166	416.896	418.837	419.067	420.462
Tobacco and smoking products	735.056	812.347	825.644	832.741	832.904	834.343	835.368	832.003	830.137	833.452	837.692	842.479	848.513	847.868	848.791
Personal care[1]	202.490	204.299	204.830	205.084	205.264	205.705	205.738	206.422	205.919	206.165	206.069	205.957	206.615	206.887	207.847
Personal care products[1]	162.557	161.174	160.801	161.217	161.462	161.974	161.667	162.088	160.083	160.780	160.567	159.655	160.623	160.970	161.716
Personal care services[1]	227.804	229.824	229.855	230.332	230.140	230.418	230.252	230.597	230.709	230.814	230.579	230.907	231.139	231.409	232.222
Miscellaneous personal services	346.500	355.502	358.407	358.380	359.587	360.528	360.881	362.774	363.466	364.113	364.597	365.826	366.656	366.867	368.036
Commodity and service group:															
Commodities	171.452	177.545	178.504	179.331	180.958	182.442	186.832	189.816	191.543	189.779	189.508	190.217	190.644	189.605	189.073
Food and beverages	217.480	219.182	220.245	220.508	222.385	223.273	224.825	225.667	226.473	226.813	227.701	228.957	229.965	230.420	230.186
Commodities less food and beverages	147.327	155.064	155.953	156.997	158.473	160.171	165.647	169.461	171.531	168.922	168.166	168.623	168.793	167.147	166.502
Nondurables less food and beverages	185.579	198.517	201.110	203.292	206.142	209.079	219.775	226.985	230.306	223.944	221.945	222.704	223.817	220.916	220.183
Apparel	119.847	118.733	120.628	117.127	115.649	117.507	120.091	121.140	121.312	119.720	117.830	120.624	124.716	126.966	126.764
Nondurables less food, beverages, and apparel	230.503	252.481	255.572	261.243	266.785	270.459	286.361	297.497	302.815	293.390	291.265	290.820	290.172	284.081	283.006
Durables	109.610	112.513	111.813	111.789	111.973	112.498	113.063	113.678	114.560	115.461	115.866	116.037	115.332	114.872	114.319
Services	254.267	256.628	257.219	257.382	257.982	258.732	259.108	259.419	260.062	261.122	261.777	262.344	262.636	262.427	262.535
Rent of shelter[3]	233.917	233.507	233.956	234.278	234.715	235.090	235.413	235.544	235.734	236.207	236.781	237.244	237.418	237.944	238.318
Transporation services	250.960	259.985	263.804	263.648	264.313	265.521	266.383	267.258	267.729	268.122	268.170	268.778	269.151	270.160	271.172
Other services	291.572	296.066	297.313	296.508	296.924	297.671	298.010	298.262	298.779	298.819	299.077	300.411	301.130	301.477	301.609
Special indexes:															
All items less food	208.128	212.938	213.675	214.225	215.215	216.389	219.027	220.894	222.174	221.604	221.625	222.144	222.384	221.548	221.324
All items less shelter	199.860	205.943	206.838	207.428	208.828	210.242	213.549	215.853	217.445	216.673	216.683	217.387	217.817	216.732	216.274
All items less medical care	202.810	206.828	207.523	208.036	209.141	210.198	212.722	214.442	215.660	215.216	215.361	215.996	216.346	215.626	215.342
Commodities less food	149.780	157.422	158.328	159.342	160.795	162.470	167.826	171.564	173.603	171.059	170.311	170.764	170.938	169.349	168.725
Nondurables less food	187.718	200.147	202.679	204.737	207.458	210.278	220.431	227.290	230.472	224.451	222.537	223.269	224.341	221.629	220.944
Nondurables less food and apparel	228.679	248.965	251.899	257.051	262.134	265.539	280.056	290.247	295.146	286.570	284.603	284.219	283.654	278.162	277.198
Nondurables	201.628	209.360	211.249	212.541	214.950	216.941	223.402	227.661	229.820	226.570	225.916	226.913	227.983	226.642	226.140
Services less rent of shelter[3]	245.814	251.210	251.894	251.847	252.563	253.664	254.057	254.540	255.643	257.266	257.932	258.552	258.945	257.887	257.664
Services less medical care services	243.796	245.533	245.958	246.115	246.643	247.244	247.622	247.899	248.528	249.607	250.237	250.789	251.058	250.733	250.753
Energy	192.594	211.926	212.622	218.896	224.500	228.160	244.773	256.860	263.494	256.663	255.159	254.191	252.823	242.844	240.073
All items less energy	212.652	215.173	215.970	215.786	216.389	217.222	218.011	218.537	219.041	219.383	219.748	220.587	221.161	221.643	221.720
All items less food and energy	212.126	214.835	215.584	215.303	215.627	216.448	217.067	217.525	217.966	218.306	218.548	219.290	219.766	220.258	220.404
Commodities less food and energy	143.099	145.728	145.757	145.037	145.024	145.909	146.835	147.472	148.045	148.321	148.206	149.003	149.633	149.890	149.572
Energy commodities	205.325	242.805	248.880	260.026	270.105	276.539	308.083	330.157	340.895	321.775	317.281	315.799	313.363	300.937	298.469
Services less energy	261.022	263.713	265.001	265.062	265.639	266.394	266.766	267.077	267.410	267.791	268.303	268.988	269.337	270.000	270.500

[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.

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

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

[1982–84 = 100, unless otherwise indicated]

	Pricing sched- ule[1]	All Urban Consumers						Urban Wage Earners					
		2011						2011					
		June	July	Aug.	Sept.	Oct.	Nov.	June	July	Aug.	Sept.	Oct.	Nov.
U.S. city average………………………………………	M	225.722	225.922	226.545	226.889	226.421	226.230	222.522	222.686	223.326	223.688	223.043	222.813
Region and area size[2]													
Northeast urban...	M	241.690	242.282	243.033	243.323	243.014	242.652	240.158	240.707	241.431	241.838	241.549	241.167
Size A—More than 1,500,000...........................	M	243.257	243.806	244.601	244.983	244.534	244.076	239.972	240.475	241.191	241.752	241.355	240.912
Size B/C—50,000 to 1,500,000[3].....................................	M	144.525	144.952	145.339	145.369	145.404	145.335	146.144	146.536	146.985	147.039	146.999	146.843
Midwest urban[4]..	M	215.954	216.099	216.586	216.968	215.653	215.614	212.556	212.718	213.212	213.626	212.038	211.969
Size A—More than 1,500,000...........................	M	216.290	216.350	216.870	217.360	216.130	216.097	212.147	212.211	212.589	213.070	211.604	211.505
Size B/C—50,000 to 1,500,000[3]	M	139.115	139.222	139.451	139.542	138.573	138.453	139.738	139.835	140.207	140.363	139.157	139.048
Size D—Nonmetropolitan (less than 50,000)……………	M	211.717	212.261	213.009	213.606	212.476	212.907	210.516	211.120	211.873	212.520	211.193	211.533
South urban………………………………………………	M	219.318	219.682	220.471	220.371	219.969	219.961	217.722	218.087	218.947	218.787	218.109	218.030
Size A—More than 1,500,000...........................	M	220.481	220.897	221.685	221.242	220.515	220.654	219.263	219.543	220.583	220.130	219.075	219.215
Size B/C—50,000 to 1,500,000[3]....................................	M	139.639	139.783	140.378	140.471	140.303	140.218	139.407	139.584	140.190	140.229	139.879	139.721
Size D—Nonmetropolitan (less than 50,000)……………	M	223.675	224.681	224.613	224.462	224.574	224.714	224.807	225.923	225.793	225.478	225.364	225.404
West urban………………………………………………	M	228.075	227.805	228.222	229.147	229.195	228.771	223.237	222.815	223.204	224.237	224.268	223.785
Size A—More than 1,500,000...........................	M	232.010	231.666	232.219	233.221	233.259	232.851	225.670	225.152	225.662	226.764	226.759	226.250
Size B/C—50,000 to 1,500,000[3].....................................	M	138.269	138.128	138.171	138.564	138.696	138.411	138.392	138.151	138.255	138.770	138.884	138.587
Size classes:													
A[5]	M	205.792	205.928	206.524	206.883	206.393	206.201	205.415	205.474	206.077	206.484	205.846	205.627
B/C[3]………………………………………………………….	M	139.935	140.057	140.440	140.584	140.355	140.225	140.179	140.288	140.723	140.883	140.505	140.330
D…………………….......……………………………………	M	218.862	219.465	219.856	220.391	219.959	220.020	218.067	218.791	219.093	219.494	218.914	218.973
Selected local areas[6]													
Chicago–Gary–Kenosha, IL–IN–WI.…………………	M	220.182	219.277	219.688	220.027	219.592	219.181	215.325	214.437	214.740	215.005	214.145	213.704
Los Angeles–Riverside–Orange County, CA…………………	M	232.328	231.303	231.833	233.022	233.049	232.731	225.461	224.277	224.665	226.096	226.116	225.786
New York, NY–Northern NJ–Long Island, NY–NJ–CT–PA..	M	248.505	249.164	250.058	250.559	250.051	249.317	244.601	245.265	246.025	246.877	246.297	245.546
Boston–Brockton–Nashua, MA–NH–ME–CT…………………	1	–	244.256	–	245.310	–	245.030	–	245.949	–	246.424	–	246.349
Cleveland–Akron, OH…………………………………………	1	–	211.686	–	213.004	–	211.225	–	203.660	–	204.981	–	202.824
Dallas–Ft Worth, TX…………………………………………	1	–	208.602	–	209.255	–	209.283	–	213.480	–	214.567	–	214.581
Washington–Baltimore, DC–MD–VA–WV [7]........................	1	–	147.747	–	147.658	–	147.565	–	148.294	–	148.352	–	148.038
Atlanta, GA……………………………………………………	2	211.074	–	212.335	–	209.182	–	210.598	–	212.325	–	208.362	–
Detroit–Ann Arbor–Flint, MI…………………………………	2	213.506	–	213.924	–	212.927	–	210.354	–	210.377	–	209.427	–
Houston–Galveston–Brazoria, TX……………………………	2	201.309	–	202.445	–	201.398	–	200.444	–	201.772	–	200.464	–
Miami–Ft. Lauderdale, FL……………………………………	2	231.197	–	232.749	–	232.141	–	229.353	–	231.448	–	230.728	–
Philadelphia–Wilmington–Atlantic City, PA–NJ–DE–MD…..	2	234.463	–	236.196	–	235.440	–	234.965	–	236.583	–	236.478	–
San Francisco–Oakland–San Jose, CA………………………	2	233.646	–	234.608	–	235.331	–	230.605	–	231.445	–	232.371	–
Seattle–Tacoma–Bremerton, WA……………...……………	2	233.250	–	233.810	–	235.916	–	230.072	–	230.558	–	232.697	–

[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.

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

[1982–84 = 100]

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

41. Producer Price Indexes, by stage of processing

[1982 = 100]

Grouping	Annual average		2010		2011										
	2009	2010	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.[p]	Sept.[p]	Oct.[p]	Nov.[p]
Finished goods.....………….........…….	172.5	179.8	181.6	182.6	184.4	186.6	189.1	191.4	192.5	191.4	192.2	191.6	192.5	191.9	192.0
Finished consumer goods........................	179.1	189.1	191.4	192.9	195.2	198.2	201.8	204.8	206.3	204.7	205.7	204.9	206.1	204.7	204.8
Finished consumer foods.......................	175.5	182.4	183.9	186.0	186.9	193.4	192.9	193.0	191.0	192.4	193.5	195.3	196.5	195.8	198.2
Finished consumer goods															
excluding foods................................	179.4	190.4	193.0	194.2	197.0	198.7	203.7	207.8	210.5	207.8	208.8	207.1	208.4	206.8	206.0
Nondurable goods less food.................	194.1	210.1	213.7	215.7	219.7	222.1	229.5	235.2	239.4	235.2	236.6	234.1	236.0	232.3	231.1
Durable goods.....................................	144.3	144.9	145.6	145.3	145.7	146.0	146.2	146.8	146.6	146.9	147.2	147.0	147.1	149.5	149.5
Capital equipment..................................	156.7	157.3	157.8	157.8	158.4	158.7	158.8	159.2	159.2	159.5	159.7	159.6	159.6	161.2	161.2
Intermediate materials,															
supplies, and components.......…………	172.5	183.4	186.4	187.8	190.6	193.7	197.6	201.0	203.2	203.3	204.1	202.9	203.5	200.7	200.7
Materials and components															
for manufacturing.....................................	162.7	174.0	177.0	178.4	181.5	185.2	187.7	191.1	192.6	192.4	193.3	192.7	193.4	191.4	190.2
Materials for food manufacturing..............	165.1	174.4	180.3	179.3	180.4	186.4	190.5	193.3	192.9	193.8	195.9	198.4	198.5	195.6	197.2
Materials for nondurable manufacturing...	191.6	215.4	221.4	225.4	231.9	238.5	244.0	251.9	257.3	256.3	257.8	255.1	258.2	253.7	250.3
Materials for durable manufacturing.........	168.9	186.6	190.5	191.8	196.0	202.0	204.2	208.0	207.8	206.8	207.9	207.5	206.2	203.3	201.5
Components for manufacturing................	141.0	142.2	142.6	142.8	143.8	144.3	144.7	145.4	145.7	146.1	146.4	146.4	146.6	146.8	146.6
Materials and components															
for construction......................................	202.9	205.7	206.3	207.0	208.3	209.5	210.9	212.1	212.8	213.7	214.7	214.8	213.9	214.2	214.1
Processed fuels and lubricants...................	161.9	185.2	189.5	192.2	196.2	200.9	212.0	218.6	224.3	224.2	225.1	220.3	221.6	213.3	216.1
Containers...	195.8	201.2	202.5	202.7	203.4	203.9	204.4	204.9	206.4	206.8	207.1	206.8	206.5	206.0	205.9
Supplies...	172.2	175.0	177.5	178.1	179.6	180.9	182.3	183.9	184.5	185.2	185.7	186.0	186.5	185.4	185.4
Crude materials for further															
processing..................………….....……	175.2	212.2	217.2	227.0	235.9	242.8	248.2	261.3	255.5	256.8	256.9	250.7	253.0	242.5	250.0
Foodstuffs and feedstuffs...........................	134.5	152.4	162.3	164.6	171.6	184.4	185.7	193.1	190.3	195.3	192.6	196.3	192.1	186.4	188.0
Crude nonfood materials............................	197.5	249.3	249.1	265.2	274.9	275.5	284.4	301.7	293.6	291.3	293.9	278.8	287.2	273.2	285.5
Special groupings:															
Finished goods, excluding foods................	171.1	178.3	180.2	181.0	183.0	184.2	187.4	190.1	191.9	190.3	191.0	189.9	190.7	190.2	189.7
Finished energy goods...............................	146.9	166.9	170.5	172.9	177.4	180.6	191.6	200.0	206.1	199.5	200.3	196.6	199.1	192.9	190.7
Finished goods less energy........................	172.3	175.5	176.7	177.3	178.2	180.0	180.1	180.5	180.0	180.6	181.4	181.7	182.1	183.2	183.9
Finished consumer goods less energy.......	179.2	183.9	185.4	186.4	187.5	190.2	190.2	190.5	189.9	190.6	191.7	192.2	192.8	193.7	194.7
Finished goods less food and energy.........	171.5	173.6	174.7	174.8	175.8	176.1	176.4	176.9	176.9	177.2	177.9	177.8	177.9	179.6	179.7
Finished consumer goods less food															
and energy...	181.6	185.1	186.6	186.9	188.2	188.7	189.0	189.5	189.7	189.9	191.0	190.9	191.1	192.9	193.1
Consumer nondurable goods less food															
and energy...	214.3	220.8	223.3	224.2	226.6	227.2	227.6	228.0	228.4	228.7	230.6	230.5	231.0	231.9	232.4
Intermediate materials less foods															
and feeds...	173.0	184.4	187.0	188.6	191.4	194.4	198.2	201.7	204.0	204.0	204.8	203.3	203.8	201.1	201.1
Intermediate foods and feeds....................	166.0	171.7	178.3	178.3	180.2	185.0	189.1	192.5	192.9	194.1	195.3	197.6	198.6	194.1	194.8
Intermediate energy goods........................	162.5	187.8	192.4	195.7	199.5	204.7	216.6	223.6	229.4	229.1	230.8	224.9	226.6	218.5	221.2
Intermediate goods less energy.................	172.8	180.0	182.6	183.5	185.9	188.5	190.2	192.7	193.8	194.1	194.6	194.7	195.0	193.6	192.8
Intermediate materials less foods															
and energy...	173.4	180.8	182.9	183.9	186.4	188.7	190.2	192.5	193.8	193.9	194.4	194.2	194.4	193.3	192.4
Crude energy materials..............................	176.8	216.7	207.3	225.1	232.0	229.1	241.5	260.6	251.9	246.9	249.9	230.0	239.8	228.0	246.8
Crude materials less energy......................	164.8	197.0	210.2	214.6	224.1	236.9	237.2	245.8	242.3	247.7	245.7	249.0	245.9	237.0	236.4
Crude nonfood materials less energy.........	248.4	329.1	352.5	364.0	381.1	391.6	387.8	399.1	393.8	399.6	401.0	402.1	403.7	384.3	375.7

p = preliminary.

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

[December 2003 = 100, unless otherwise indicated]

NAICS	Industry	2010		2011										
		Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.p	Sept.p	Oct.p	Nov.p
	Total mining industries (December 1984=100)............................	214.1	227.3	232.7	232.4	241.7	256.6	251.0	247.2	251.2	240.3	248.8	239.3	252.1
211	Oil and gas extraction (December 1985=100)	235.6	256.4	261.7	259.7	275.0	297.6	289.1	281.9	286.8	268.8	282.3	269.3	288.7
212	Mining, except oil and gas..	213.3	214.3	221.8	225.4	224.9	227.9	225.6	227.6	231.0	232.9	233.2	226.4	227.4
213	Mining support activities………………………………………	103.8	105.4	106.6	107.7	107.1	108.9	109.9	110.7	112.0	112.1	112.7	113.7	115.8
	Total manufacturing industries (December 1984=100)...............	178.2	179.1	181.1	183.3	187.3	190.2	191.9	191.1	191.7	190.6	191.2	190.1	190.7
311	Food manufacturing (December 1984=100)…………………………	179.4	179.8	181.1	184.6	187.8	190.8	191.2	191.8	193.4	195.1	195.9	193.8	195.1
312	Beverage and tobacco manufacturing...	124.8	125.7	126.3	126.7	126.7	125.8	126.5	126.7	128.3	128.3	128.5	129.6	129.7
313	Textile mills..	118.6	120.0	123.1	125.4	128.7	130.4	132.6	132.5	132.2	133.0	132.5	132.3	131.8
315	Apparel manufacturing……………………………………………	103.4	103.5	103.7	104.4	104.7	105.0	105.7	105.9	106.3	106.2	106.7	106.3	106.8
316	Leather and allied product manufacturing (December 1984=100)	158.8	159.2	160.5	161.6	162.0	162.7	163.8	164.9	166.2	165.7	165.7	165.8	164.7
321	Wood products manufacturing...	106.7	107.3	108.0	108.3	108.6	108.6	107.7	107.6	107.8	108.1	107.8	108.2	108.0
322	Paper manufacturing..	130.1	130.2	130.3	130.3	130.9	131.1	131.4	131.7	132.1	132.3	132.4	132.1	132.1
323	Printing and related support activities......................................	110.7	110.7	110.7	110.9	111.1	111.7	111.7	111.7	111.8	111.9	112.5	112.6	112.5
324	Petroleum and coal products manufacturing	302.8	310.4	321.1	335.4	371.4	393.8	409.3	396.6	396.1	379.5	384.9	368.7	373.4
	(December 1984=100)													
325	Chemical manufacturing (December 1984=100)………………………	236.8	237.6	242.6	245.0	247.6	250.2	252.8	253.4	255.1	254.8	256.2	255.9	256.2
326	Plastics and rubber products manufacturing	167.8	168.6	170.6	171.6	173.0	174.4	176.4	178.4	178.8	178.5	178.6	178.5	178.0
	(December 1984=100)………………………………………													
331	Primary metal manufacturing (December 1984=100)………………	202.0	203.4	208.0	215.7	218.1	223.0	221.8	220.2	221.6	220.3	218.9	215.0	212.6
332	Fabricated metal product manufacturing (December 1984=100).	177.0	177.5	178.7	179.8	180.9	182.1	182.9	183.5	184.0	184.1	184.5	184.6	184.5
333	Machinery manufacturing…………………………………………	120.9	121.1	121.7	122.0	122.4	122.9	123.2	123.5	123.8	123.9	124.1	124.3	124.5
334	Computer and electronic products manufacturing………………	90.2	90.1	90.3	90.4	90.3	90.3	90.3	90.2	90.0	90.3	90.0	90.0	89.7
335	Electrical equipment, appliance, and components manufacturing	133.1	133.6	134.3	134.7	135.3	135.8	136.0	136.6	137.1	137.4	136.4	136.1	136.6
336	Transportation equipment manufacturing…………………………	110.9	110.8	111.2	111.3	111.6	112.0	111.8	112.1	112.2	112.1	111.9	113.8	113.8
337	Furniture and related product manufacturing	177.9	177.7	178.2	178.9	179.9	180.2	180.5	180.8	181.5	181.4	182.0	182.5	182.8
	(December 1984=100)													
339	Miscellaneous manufacturing………………………………………	113.9	113.9	114.4	114.9	115.1	115.5	115.5	115.8	116.1	116.3	116.5	116.5	116.6
	Retail trade													
441	Motor vehicle and parts dealers………………………………………	124.5	124.6	127.9	128.2	128.5	128.2	128.2	128.9	129.0	128.7	129.0	127.4	128.4
442	Furniture and home furnishings stores………………………………	122.1	122.4	122.1	122.1	122.5	121.9	122.4	124.8	125.7	126.9	127.9	128.7	128.5
443	Electronics and appliance stores…………………………………	97.6	87.8	87.7	93.6	86.7	92.3	94.2	90.4	87.2	87.4	88.2	82.6	88.1
446	Health and personal care stores………………………………	133.5	133.0	133.7	129.3	130.0	131.0	130.9	130.9	129.2	130.4	136.7	134.9	134.5
447	Gasoline stations (June 2001=100)…………………………………	70.5	68.2	68.6	70.0	71.2	70.5	81.1	84.5	76.2	82.8	83.8	75.4	79.8
454	Nonstore retailers……………………………………………………	137.3	140.5	137.8	144.0	147.6	141.3	141.9	142.1	141.9	143.2	142.2	143.0	141.6
	Transportation and warehousing													
481	Air transportation (December 1992=100)…………………………	202.5	202.6	208.0	211.0	220.2	219.6	218.9	219.5	220.0	225.5	215.3	219.9	216.3
483	Water transportation………………………………………………	128.8	129.1	130.4	132.5	134.4	135.3	136.4	136.5	134.3	132.7	134.1	133.2	131.5
491	Postal service (June 1989=100)…………………………………	187.7	187.7	188.5	188.5	188.5	188.5	191.6	191.6	191.6	191.6	191.6	191.6	191.6
	Utilities													
221	Utilities………………………………………………………………	130.5	132.4	134.4	135.0	133.2	133.5	134.7	138.8	140.4	141.9	139.8	133.7	132.2
	Health care and social assistance													
6211	Office of physicians (December 1996=100)…………………………	130.6	130.6	130.6	131.1	131.2	131.3	131.3	131.5	131.6	131.7	132.4	132.4	132.2
6215	Medical and diagnostic laboratories……………………………	108.5	108.2	107.9	107.9	107.9	108.6	108.6	108.9	108.9	108.9	108.8	108.9	109.0
6216	Home health care services (December 1996=100)………………	129.8	129.9	129.8	129.5	129.6	129.5	129.5	129.5	129.5	129.5	129.7	130.5	129.8
622	Hospitals (December 1992=100)…………………………………	174.4	174.4	175.2	175.7	176.1	176.2	176.3	176.5	176.8	176.8	177.0	177.8	178.8
6231	Nursing care facilities………………………………………………	127.0	127.2	128.3	128.3	128.8	128.9	128.9	128.7	129.3	129.1	129.2	128.4	128.2
62321	Residential mental retardation facilities………………………………	134.2	134.5	134.7	135.7	135.4	135.5	135.7	135.7	137.1	135.6	136.7	137.2	137.3
	Other services industries													
511	Publishing industries, except Internet ………………………………	110.4	110.5	110.9	111.0	110.8	111.0	111.1	111.0	111.3	111.0	111.4	111.2	111.4
515	Broadcasting, except Internet……………………………………	116.1	112.9	109.8	111.5	112.4	113.4	114.5	114.8	110.3	111.0	108.7	114.0	114.8
517	Telecommunications……………………………………………	101.5	101.4	101.4	100.9	101.1	101.1	101.5	101.4	101.7	102.1	101.8	102.0	102.0
5182	Data processing and related services………………………………	101.7	101.7	101.9	101.7	101.7	101.7	101.8	101.9	102.0	101.9	102.0	102.0	102.0
523	Security, commodity contracts, and like activity…………………	123.0	123.0	125.1	125.7	126.9	127.5	127.5	127.7	128.0	127.9	127.1	125.5	124.6
53112	Lessors or nonresidental buildings (except miniwarehouse)……	109.0	109.0	108.9	108.9	109.0	109.0	109.7	109.8	109.9	110.3	110.0	110.9	110.8
5312	Offices of real estate agents and brokers…………………………	99.4	99.1	99.0	98.8	98.5	97.9	98.0	97.7	97.8	97.4	97.7	97.5	96.8
5313	Real estate support activities………………………………………	106.9	106.9	107.3	107.0	106.8	107.1	107.0	106.0	105.5	105.4	105.4	105.7	106.2
5321	Automotive equipment rental and leasing (June 2001=100)………	133.3	129.4	129.4	131.1	137.0	129.0	126.4	132.7	143.2	143.1	134.4	132.0	132.2
5411	Legal services (December 1996=100)……………………………	173.3	173.4	176.6	177.1	177.3	177.8	177.8	178.0	178.2	178.3	178.4	178.5	178.7
541211	Offices of certified public accountants……………………………	113.1	113.6	113.3	113.1	112.2	112.0	111.5	111.5	111.8	112.0	111.7	110.9	110.7
5413	Architectural, engineering, and related services													
	(December 1996=100)……………………………………………	144.0	144.0	144.3	144.5	144.7	144.8	144.8	145.3	145.8	146.1	145.9	146.1	146.5
54181	Advertising agencies………………………………………………	105.4	105.4	105.4	105.4	105.7	105.6	105.6	105.6	106.3	105.6	105.6	105.9	106.3
5613	Employment services (December 1996=100)………………………	125.3	125.3	125.5	125.6	125.6	125.4	125.3	125.4	125.1	125.5	124.9	125.3	125.3
56151	Travel agencies……………………………………………………	100.5	100.4	100.4	100.5	100.5	100.5	100.5	100.6	100.6	100.5	102.4	101.7	101.7
56172	Janitorial services…………………………………………………	111.3	111.3	111.6	111.7	111.5	111.5	111.9	112.0	112.5	112.1	112.6	112.6	113.7
5621	Waste collection……………………………………………………	118.9	118.3	118.9	119.2	120.6	120.7	121.1	120.4	120.3	120.7	121.5	121.6	121.4
721	Accommodation (December 1996=100)…………………………	141.0	138.3	140.0	140.9	143.6	142.5	142.6	141.9	143.4	145.3	144.9	145.4	144.4

p = preliminary.

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

[1982 = 100]

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

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

[2000 = 100]

Category	2010		2011										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
ALL COMMODITIES...................................	126.6	127.5	129.1	130.8	132.7	133.8	134.3	134.5	134.0	134.6	135.3	132.5	132.6
Foods, feeds, and beverages...........................	189.4	191.1	197.5	203.5	206.9	208.2	207.4	210.6	203.2	208.9	213.9	199.0	202.8
Agricultural foods, feeds, and beverages...............	193.4	194.6	201.1	208.6	212.1	213.2	211.6	214.6	205.8	212.0	217.4	201.2	205.5
Nonagricultural (fish, beverages) food products......	153.3	161.1	166.8	155.9	157.9	160.7	170.2	174.6	183.7	184.8	184.5	184.0	181.9
Industrial supplies and materials.........................	169.5	172.6	177.2	182.2	188.3	191.6	193.1	191.8	191.3	191.7	192.8	186.2	185.8
Agricultural industrial supplies and materials..........	206.3	223.0	228.0	247.6	258.9	246.1	240.5	234.8	226.9	215.7	212.4	209.4	206.4
Fuels and lubricants.......................................	227.4	233.9	245.0	253.5	276.4	287.0	287.6	284.0	285.9	284.1	284.7	269.1	278.6
Nonagricultural supplies and materials, excluding fuel and building materials..................	162.5	164.4	167.8	171.5	173.8	176.7	178.9	178.5	177.8	179.6	181.2	175.9	173.2
Selected building materials.................................	117.2	116.2	116.3	116.2	116.3	116.7	116.4	116.2	115.7	115.3	115.8	116.1	116.3
Capital goods..	103.7	103.9	104.0	104.0	104.0	104.2	104.4	104.6	104.6	104.7	104.6	104.6	104.6
Electric and electrical generating equipment...........	109.8	109.8	110.3	110.6	111.1	111.5	113.4	113.6	114.1	114.1	114.1	113.7	113.1
Nonelectrical machinery.....................................	94.3	94.4	94.2	94.0	93.9	94.0	94.0	94.2	94.2	94.3	94.2	94.3	94.2
Automotive vehicles, parts, and engines..................	109.1	109.1	109.2	109.2	109.7	109.9	110.2	110.3	110.8	111.1	111.4	111.6	111.6
Consumer goods, excluding automotive..................	112.9	112.7	112.4	113.2	113.9	114.3	114.9	116.3	116.9	117.2	117.4	116.8	116.6
Nondurables, manufactured.................................	114.2	114.0	112.9	113.1	113.4	113.6	114.1	114.1	114.7	114.9	114.7	113.7	113.4
Durables, manufactured.....................................	111.1	110.9	111.0	111.9	112.9	112.4	111.4	112.7	112.8	113.0	113.6	113.3	113.3
Agricultural commodities...................................	194.7	198.5	204.7	214.1	218.8	217.8	215.5	217.2	208.5	211.9	216.0	201.9	205.0
Nonagricultural commodities...............................	121.7	122.4	123.6	124.8	126.5	127.7	128.4	128.6	128.7	129.1	129.5	127.6	127.5

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

[2000 = 100]

Category	2010		2011										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
ALL COMMODITIES……………..................................	129.2	131.0	133.0	135.3	139.3	142.9	143.1	142.2	142.4	141.9	141.7	141.0	142.0
Foods, feeds, and beverages……………..………….	160.6	162.7	166.7	167.7	174.9	179.2	177.9	174.8	175.8	174.4	174.7	173.5	173.4
Agricultural foods, feeds, and beverages…............	180.3	182.6	187.5	189.0	198.9	204.1	201.8	197.0	197.7	196.1	196.5	194.6	195.0
Nonagricultural (fish, beverages) food products……	116.0	117.4	119.7	119.5	120.7	122.9	123.9	124.5	126.2	125.3	125.3	125.9	124.5
Industrial supplies and materials………….....…….	214.5	222.6	230.1	239.4	256.3	270.6	270.7	266.1	266.8	263.8	262.5	258.7	263.3
Fuels and lubricants…......................…..………….	270.1	285.2	296.9	313.4	343.7	369.7	367.4	359.0	359.4	351.8	348.3	343.2	355.4
Petroleum and petroleum products…………...……	296.6	313.0	324.7	342.5	380.2	410.7	407.6	397.8	399.2	390.0	386.5	382.1	395.8
Paper and paper base stocks…............................	117.5	117.5	117.7	115.5	116.3	118.8	119.5	119.4	120.4	118.4	117.2	117.3	116.2
Materials associated with nondurable supplies and materials…........................………....	154.1	157.0	160.6	163.2	165.8	169.4	171.3	173.0	174.5	175.0	176.0	176.3	175.7
Selected building materials….................................	126.6	127.0	129.5	129.8	131.5	132.0	131.3	129.3	130.5	130.8	131.2	130.3	129.8
Unfinished metals associated with durable goods…	262.8	266.0	274.3	279.4	290.2	295.4	304.5	297.0	296.4	302.9	305.1	292.6	277.9
Nonmetals associated with durable goods…..........	108.5	108.7	110.4	111.4	112.1	112.9	113.3	114.3	115.0	115.5	116.3	116.3	115.7
Capital goods……………..…....................……….	91.9	92.0	92.0	92.4	92.6	92.6	92.7	92.7	92.8	92.9	92.9	92.6	92.7
Electric and electrical generating equipment…........	113.6	113.7	114.5	114.9	115.6	116.6	117.0	117.1	118.2	118.6	118.6	119.0	119.0
Nonelectrical machinery…....................…………..	86.2	86.2	86.2	86.4	86.5	86.3	86.4	86.4	86.3	86.4	86.4	86.0	86.1
Automotive vehicles, parts, and engines……………	109.6	109.4	109.6	109.8	110.4	111.8	112.8	113.3	113.0	113.2	113.2	113.2	113.4
Consumer goods, excluding automotive…………….	104.1	104.2	104.5	104.9	104.7	105.3	105.5	105.8	106.1	106.4	106.7	107.4	107.5
Nondurables, manufactured…..................................	110.0	110.4	110.5	110.9	110.3	110.8	110.9	111.6	112.1	112.6	112.8	114.5	114.6
Durables, manufactured………….…..…………….	98.5	98.2	98.7	98.9	99.2	99.5	99.9	99.7	99.6	99.8	100.2	100.0	100.1
Nonmanufactured consumer goods…………..…….	103.6	103.7	106.0	107.3	107.8	109.5	109.4	111.8	114.3	114.0	114.8	115.1	114.6

46. U.S. international price Indexes for selected categories of services

[2000 = 100, unless indicated otherwise]

Category	2009		2010				2011		
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
Import air freight…………….....................................	134.8	163.9	158.3	162.5	163.2	170.1	172.8	184.3	185.5
Export air freight…………..…...................................	121.6	122.9	124.0	126.3	125.7	128.1	139.2	147.4	146.4
Import air passenger fares (Dec. 2006 = 100)………….	137.9	152.3	149.8	175.3	160.9	169.9	161.2	184.0	174.6
Export air passenger fares (Dec. 2006 = 100)….............	141.3	156.1	157.7	176.3	172.2	169.0	172.8	186.6	192.6

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

[2005 = 100]

Item	2008		2009				2010				2011		
	III	IV	I	II	III	IV	I	II	III	IV	I	II	III
Business													
Output per hour of all persons......................................	103.4	102.6	103.0	105.0	106.8	108.2	109.3	109.6	110.3	110.7	110.4	110.4	111.1
Compensation per hour……….……………………………	111.9	112.4	111.7	113.5	114.2	114.6	114.9	115.6	116.2	116.3	117.9	118.8	118.8
Real compensation per hour………………………………	99.8	102.7	102.6	103.8	103.5	103.1	103.1	103.9	104.1	103.5	103.5	103.3	102.5
Unit labor costs…....……………………………………	108.3	109.6	108.5	108.1	107.0	105.9	105.1	105.5	105.4	105.0	106.8	107.6	106.9
Unit nonlabor payments……….…….…………......………	108.0	105.6	108.2	108.0	109.9	112.3	114.7	115.5	116.4	118.5	117.8	118.6	121.3
Implicit price deflator………….……………………………	108.2	108.0	108.4	108.1	108.1	108.4	108.9	109.4	109.7	110.4	111.2	111.9	112.6
Nonfarm business													
Output per hour of all persons......................................	103.4	102.5	102.8	104.8	106.5	107.9	109.2	109.5	110.1	110.7	110.5	110.5	111.3
Compensation per hour……….……………………………	111.9	112.5	111.7	113.5	114.2	114.5	114.9	115.6	116.2	116.3	117.9	118.7	118.9
Real compensation per hour………………………………	99.8	102.7	102.6	103.8	103.5	103.1	103.1	103.9	104.0	103.5	103.6	103.2	102.6
Unit labor costs…....……………………………………	108.2	109.7	108.6	108.3	107.2	106.1	105.3	105.6	105.6	105.1	106.7	107.5	106.8
Unit nonlabor payments……….…….…………......………	107.6	105.4	108.5	108.1	110.3	112.3	114.7	115.6	116.1	118.0	117.0	117.7	120.3
Implicit price deflator………….……………………………	108.0	108.0	108.6	108.2	108.4	108.5	109.0	109.5	109.7	110.2	110.8	111.5	112.1
Nonfinancial corporations													
Output per hour of all employees.................................	104.3	103.7	101.5	103.3	105.6	108.3	110.7	110.4	110.4	109.5	110.1	111.3	–
Compensation per hour……….……………………………	111.5	113.2	111.4	113.4	114.3	114.7	115.0	115.4	116.1	116.0	117.3	118.0	–
Real compensation per hour………………………………	99.4	103.4	102.4	103.7	103.6	103.3	103.2	103.7	104.0	103.2	103.0	102.6	–
Total unit costs…....……………………………………	108.5	111.5	113.5	113.2	110.9	108.4	105.6	105.5	105.6	106.3	106.8	106.2	–
Unit labor costs…....……………………………………	106.9	109.2	109.7	109.8	108.2	105.9	103.8	104.5	105.2	106.0	106.5	106.1	–
Unit nonlabor costs...........………………………………	112.5	117.5	123.3	122.3	117.9	114.7	110.2	107.9	106.7	107.2	107.4	106.6	–
Unit profits…....………………………………………	102.0	88.0	80.5	74.1	82.4	94.7	112.8	115.6	119.3	119.0	120.1	127.7	–
Unit nonlabor payments……….…….…………......………	108.9	107.4	108.6	108.3	105.8	107.9	111.1	110.6	111.0	111.2	111.7	113.8	–
Implicit price deflator………….……………………………	107.6	108.5	109.3	108.3	107.3	106.6	106.5	106.8	107.3	107.9	108.5	108.9	–
Manufacturing													
Output per hour of all persons......................................	103.6	102.0	101.7	103.2	106.5	108.3	109.6	111.0	111.6	112.9	114.1	113.4	114.9
Compensation per hour……….……………………………	110.0	112.6	112.8	114.9	115.3	116.2	115.4	116.5	117.0	117.6	118.8	119.7	119.9
Real compensation per hour………………………………	98.1	102.9	103.6	105.1	104.5	104.6	103.6	104.7	104.7	104.6	104.3	104.1	103.4
Unit labor costs…....……………………………………	106.2	110.4	110.9	111.3	108.3	107.3	105.3	105.0	104.8	104.2	104.1	105.5	104.3

NOTE: Dash indicates data not available.

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

[2005 = 100, unless otherwise indicated]

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Private business													
Productivity:													
Output per hour of all persons......…………..............	79.6	82.4	85.3	88.0	92.1	95.6	98.4	100.0	101.0	102.6	103.8	107.6	111.4
Output per unit of capital services………………………	105.2	104.2	102.5	98.8	97.5	98.0	99.6	100.0	100.2	99.4	95.8	91.5	94.2
Multifactor productivity…………………………………	88.0	89.6	91.2	91.8	94.0	96.5	98.9	100.0	100.5	100.9	99.9	100.2	103.3
Output…..................…….......………………………..	79.2	83.6	87.4	88.2	90.0	92.8	96.7	100.0	103.1	105.3	104.3	100.6	104.3
Inputs:													
Labor input...………..	97.6	99.9	101.1	99.3	97.4	97.0	98.1	100.0	102.4	103.6	102.1	95.6	96.1
Capital services………..……….........……………….	75.2	80.2	85.3	89.3	92.2	94.7	97.1	100.0	102.9	106.0	108.8	109.9	110.6
Combined units of labor and capital input……………	90.0	93.3	95.9	96.1	95.7	96.2	97.7	100.0	102.6	104.4	104.4	100.4	101.0
Capital per hour of all persons..................………….	75.6	79.0	83.2	89.1	94.4	97.6	98.8	100.0	100.8	103.3	108.3	117.6	118.2
Private nonfarm business													
Productivity:													
Output per hour of all persons......……………………..	80.1	82.7	85.5	88.2	92.3	95.7	98.4	100.0	100.9	102.6	103.8	107.6	111.4
Output per unit of capital services………………………	106.1	104.9	102.9	99.1	97.7	98.0	99.6	100.0	100.0	99.2	95.4	90.9	93.7
Multifactor productivity…………………………………	88.5	89.9	91.4	92.0	94.2	96.5	98.9	100.0	100.4	100.8	99.8	99.9	103.0
Output…..................…….......………………………..	79.3	83.7	87.5	88.4	90.1	92.8	96.7	100.0	103.2	105.5	104.3	100.5	104.2
Inputs:													
Labor input...………..	97.1	99.6	100.8	99.2	97.2	96.9	98.1	100.0	102.5	103.8	102.2	95.8	96.3
Capital services………..……….........……………….	74.7	79.8	85.0	89.2	92.2	94.7	97.1	100.0	103.2	106.3	109.3	110.5	111.1
Combined units of labor and capital input……………	89.6	93.1	95.7	96.0	95.6	96.2	97.7	100.0	102.8	104.6	104.6	100.6	101.1
Capital per hour of all persons......…………………….	75.5	78.9	83.2	89.0	94.5	97.7	98.8	100.0	101.0	103.4	108.7	118.3	118.8
Manufacturing [1996 = 100]													
Productivity:													
Output per hour of all persons..………………………….	73.4	77.0	80.4	81.9	87.9	93.3	95.5	100.0	100.9	104.9	104.5	104.5	–
Output per unit of capital services………………………	101.6	102.0	102.1	95.7	94.5	95.1	97.1	100.0	100.8	101.6	94.5	81.6	–
Multifactor productivity…………………………………	107.3	110.5	110.0	105.9	102.3	99.8	97.9	100.0	99.2	100.6	96.3	89.3	–
Output…..................…….......………………………..	92.1	95.9	98.9	94.2	93.9	94.9	96.5	100.0	101.6	103.8	99.2	86.8	–
Inputs:													–
Hours of all persons..	125.5	124.7	123.1	115.0	106.9	101.6	101.1	100.0	100.7	99.0	95.0	83.0	–
Capital services………..……….........……………….	90.7	94.1	96.8	98.4	99.3	99.7	99.4	100.0	100.8	102.2	105.1	106.4	–
Energy……………………………………………………	72.2	75.5	78.7	85.5	92.9	98.1	98.3	100.0	100.1	103.3	110.6	128.1	–
Nonenergy materials..	95.4	117.7	128.4	140.3	108.6	97.0	90.8	100.0	92.2	100.1	104.0	92.2	–
Purchased business services......................................	102.4	108.7	106.7	100.0	101.0	99.3	98.5	100.0	98.2	98.3	93.4	85.9	–
Combined units of all factor inputs………..…………	104.2	105.2	103.8	102.0	98.7	98.1	91.8	100.0	98.4	105.6	93.0	88.1	–

NOTE: Dash indicates data not available.

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

[2005 = 100]

Item	1965	1975	1985	1995	2002	2003	2004	2005	2006	2007	2008	2009	2010
Business													
Output per hour of all persons..	43.1	54.8	63.9	74.1	92.2	95.7	98.4	100.0	100.9	102.4	103.2	105.7	110.0
Compensation per hour………….…………………………	10.3	21.4	44.1	64.7	88.8	93.0	96.2	100.0	103.8	108.1	111.7	113.5	115.8
Real compensation per hour………………………………	58.2	70.8	76.3	82.4	96.4	98.7	99.5	100.0	100.5	101.7	101.2	103.3	103.6
Unit labor costs…....…………………………………………	23.9	39.0	69.0	87.4	96.4	97.2	97.8	100.0	102.8	105.5	108.2	107.4	105.3
Unit nonlabor payments………….……………...…………	21.5	35.0	62.7	81.9	88.4	90.3	95.4	100.0	103.0	105.6	106.3	109.6	116.3
Implicit price deflator…………………………………………	22.9	37.4	66.5	85.2	93.2	94.5	96.9	100.0	102.9	105.6	107.5	108.3	109.6
Nonfarm business													
Output per hour of all persons..	45.4	56.3	64.6	75.0	92.4	95.8	98.4	100.0	100.9	102.4	103.1	105.5	109.8
Compensation per hour……………………………………	10.6	21.6	44.5	65.2	88.9	93.1	96.2	100.0	103.8	107.9	111.6	113.4	115.8
Real compensation per hour………………………………	59.7	71.6	76.9	82.9	96.5	98.8	99.4	100.0	100.5	101.6	101.2	103.3	103.7
Unit labor costs…....…………………………………………	23.3	38.4	68.9	86.9	96.2	97.1	97.8	100.0	102.8	105.3	108.2	107.5	105.4
Unit nonlabor payments………….……………...…………	21.0	33.5	61.5	81.6	88.7	90.1	94.8	100.0	103.2	105.4	105.8	109.8	116.1
Implicit price deflator…………………………………………	22.4	36.5	66.0	84.8	93.2	94.4	96.6	100.0	103.0	105.4	107.3	108.4	109.6
Nonfinancial corporations													
Output per hour of all employees.................................	45.4	53.7	63.3	73.1	90.5	94.4	97.8	100.0	101.9	102.7	103.0	104.7	110.3
Compensation per hour……………………………………	11.9	23.7	47.5	66.9	89.5	93.9	96.5	100.0	103.3	107.3	111.2	113.4	115.6
Real compensation per hour………………………………	67.3	78.3	82.1	85.1	97.1	99.7	99.7	100.0	100.0	101.0	100.8	103.2	103.5
Total unit costs…....…………………………………………	24.6	43.0	74.1	89.9	98.4	98.7	97.8	100.0	101.8	105.7	109.5	111.5	105.7
Unit labor costs….....………………………………………	26.2	44.1	75.0	91.5	98.9	99.5	98.6	100.0	101.3	104.5	108.0	108.4	104.9
Unit nonlabor costs….....……………………………………	20.3	40.3	71.5	85.8	97.0	96.8	95.7	100.0	103.0	109.0	113.5	119.5	108.0
Unit profits…....………………………………………………	38.7	37.8	62.4	85.4	59.4	66.0	88.0	100.0	111.6	99.8	91.5	83.0	116.7
Unit nonlabor payments………….……………...…………	26.6	39.4	68.4	85.7	84.1	86.2	93.1	100.0	105.9	105.9	105.9	107.0	111.0
Implicit price deflator…………………………………………	26.4	42.4	72.6	89.3	93.5	94.6	96.6	100.0	103.0	105.0	107.2	107.9	107.1
Manufacturing													
Output per hour of all persons..	–	–	–	63.6	87.8	93.3	95.4	100.0	100.9	104.9	104.4	104.9	111.3
Compensation per hour……………………………………	–	–	–	65.2	88.9	96.0	96.8	100.0	102.0	105.3	109.8	114.8	116.6
Real compensation per hour………………………………	–	–	–	83.0	96.5	101.9	100.0	100.0	98.8	99.2	99.6	104.5	104.4
Unit labor costs…....…………………………………………	–	–	–	102.6	101.2	102.9	101.4	100.0	101.1	100.4	105.2	109.4	104.8
Unit nonlabor payments………….……………...…………	–	–	–	87.3	83.4	84.9	91.4	100.0	104.3	110.4	118.7	110.0	–
Implicit price deflator…………………………………………	–	–	–	91.5	88.2	89.8	94.1	100.0	103.5	107.7	115.0	109.9	–

Dash indicates data not available.

50. Annual indexes of output per hour for selected NAICS industries[1/]

[2002=100]

NAICS	Industry	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
	Mining												
21	Mining	98.1	97.8	94.9	100.0	102.8	94.0	85.0	77.1	71.2	69.1	78.9	-
211	Oil and gas extraction	87.1	96.7	96.6	100.0	105.9	90.0	86.6	80.9	78.7	71.4	75.9	-
2111	Oil and gas extraction	87.1	96.7	96.6	100.0	105.9	90.0	86.6	80.9	78.7	71.4	75.9	-
212	Mining, except oil and gas	95.6	95.3	98.5	100.0	102.8	104.9	104.4	101.2	94.5	95.0	92.7	-
2121	Coal mining	99.0	103.9	102.5	100.0	101.7	101.6	96.7	89.5	90.6	85.4	80.1	-
2122	Metal ore mining	79.7	85.7	93.8	100.0	103.3	101.5	97.2	90.8	77.0	77.1	85.6	-
2123	Nonmetallic mineral mining and quarrying	98.2	92.1	96.5	100.0	104.3	109.4	115.4	117.0	104.1	105.3	98.1	-
213	Support activities for mining	98.2	99.6	104.5	100.0	122.1	141.6	103.8	86.7	117.7	143.8	134.9	-
2131	Support activities for mining	98.2	99.6	104.5	100.0	122.1	141.6	103.8	86.7	117.7	143.8	134.9	-
	Utilities												
2211	Power generation and supply	100.6	103.9	103.4	100.0	102.1	104.4	111.1	112.1	110.1	105.7	103.1	-
2212	Natural gas distribution	88.9	98.1	95.4	100.0	98.9	102.5	105.9	103.2	103.8	104.9	100.9	-
	Manufacturing												
311	Food	92.2	93.5	95.4	100.0	101.5	100.9	106.2	104.0	101.7	101.3	104.8	-
3111	Animal food	78.2	77.0	92.0	100.0	117.7	104.6	119.5	108.2	110.3	104.9	111.1	-
3112	Grain and oilseed milling	94.2	91.7	97.3	100.0	100.5	104.9	106.6	102.3	106.0	101.5	110.0	-
3113	Sugar and confectionery products	99.1	102.3	100.3	100.0	99.9	106.2	118.6	111.1	100.7	92.6	95.4	-
3114	Fruit and vegetable preserving and specialty	86.6	88.7	95.7	100.0	97.2	99.5	103.3	98.0	105.1	103.3	97.7	-
3115	Dairy products	88.4	89.6	92.2	100.0	104.0	101.8	101.8	100.7	100.4	108.1	114.8	-
3116	Animal slaughtering and processing	93.8	95.7	96.0	100.0	99.9	100.4	109.7	109.4	106.6	109.0	112.4	-
3117	Seafood product preparation and packaging	77.4	82.7	89.8	100.0	101.8	96.5	110.5	122.0	101.4	86.7	102.6	-
3118	Bakeries and tortilla manufacturing	95.9	96.6	98.4	100.0	97.9	100.1	104.3	103.8	101.4	94.2	95.8	-
3119	Other food products	99.8	100.8	94.5	100.0	104.8	106.1	102.9	102.8	94.9	95.9	100.3	-
312	Beverages and tobacco products	105.7	106.7	108.3	100.0	111.4	114.7	120.8	113.1	110.0	107.1	111.1	-
3121	Beverages	91.3	91.1	93.1	100.0	110.8	115.4	120.9	112.6	113.3	113.2	123.4	-
3122	Tobacco and tobacco products	135.8	143.0	146.6	100.0	116.7	121.5	136.5	138.1	137.5	119.7	117.4	-
313	Textile mills	86.5	86.3	89.4	100.0	111.1	113.0	122.9	122.2	125.9	125.0	124.8	-
3131	Fiber, yarn, and thread mills	78.3	75.6	82.5	100.0	112.1	116.7	108.8	105.5	113.7	114.8	106.6	-
3132	Fabric mills	91.1	90.2	91.4	100.0	114.0	115.3	133.0	140.7	144.6	154.9	160.5	-
3133	Textile and fabric finishing mills	85.3	87.2	91.0	100.0	104.1	104.5	113.3	102.4	101.0	87.0	84.0	-
314	Textile product mills	95.0	101.2	97.7	100.0	102.8	115.1	121.3	111.2	99.6	98.5	87.1	-
3141	Textile furnishings mills	93.6	100.2	97.9	100.0	105.7	115.3	119.1	108.4	100.9	101.9	87.0	-
3149	Other textile product mills	102.6	105.9	99.0	100.0	98.1	116.4	128.3	120.9	104.7	104.6	98.5	-
315	Apparel	110.0	116.6	116.9	100.0	106.6	94.2	94.4	86.0	55.5	52.5	43.6	-
3151	Apparel knitting mills	93.7	100.4	97.3	100.0	93.2	83.7	97.8	97.7	64.6	62.6	62.4	-
3152	Cut and sew apparel	111.8	118.8	119.3	100.0	109.5	96.4	92.0	82.4	52.1	48.7	37.9	-
3159	Accessories and other apparel	128.2	129.8	137.4	100.0	105.8	95.8	109.8	96.3	70.7	69.7	69.7	-
316	Leather and allied products	128.8	133.8	138.5	100.0	104.9	128.4	129.4	133.7	125.3	129.2	114.5	-
3161	Leather and hide tanning and finishing	141.3	135.8	140.1	100.0	103.1	135.7	142.4	127.8	156.1	144.4	120.0	-
3162	Footwear	116.7	123.8	132.9	100.0	105.9	110.0	115.9	122.4	109.2	129.5	122.4	-
3169	Other leather products	136.1	142.6	140.2	100.0	109.2	163.7	160.8	182.3	163.4	156.2	132.4	-
321	Wood products	90.3	90.2	91.7	100.0	101.6	102.2	107.6	110.9	111.5	109.3	106.6	-
3211	Sawmills and wood preservation	91.0	90.9	90.6	100.0	108.3	103.9	108.3	113.4	108.4	112.0	120.2	-
3212	Plywood and engineered wood products	89.3	89.6	95.1	100.0	96.7	92.3	99.6	105.5	108.7	104.7	102.4	-
3219	Other wood products	91.5	90.4	90.9	100.0	100.7	106.5	111.5	113.2	115.9	112.2	105.1	-
322	Paper and paper products	91.5	93.5	93.8	100.0	104.4	108.1	108.6	109.9	114.4	113.7	114.5	-
3221	Pulp, paper, and paperboard mills	83.8	88.2	90.4	100.0	106.2	110.4	110.2	110.9	114.6	115.5	113.8	-
3222	Converted paper products	95.1	96.0	95.3	100.0	104.0	107.5	108.8	110.5	115.9	114.4	116.3	-
323	Printing and related support activities	92.3	94.8	95.1	100.0	100.3	103.7	109.1	111.7	117.0	118.5	113.7	-
3231	Printing and related support activities	92.3	94.8	95.1	100.0	100.3	103.7	109.1	111.7	117.0	118.5	113.7	-
324	Petroleum and coal products	91.0	96.8	94.9	100.0	102.0	105.9	106.2	104.3	106.4	103.2	106.1	-
3241	Petroleum and coal products	91.0	96.8	94.9	100.0	102.0	105.9	106.2	104.3	106.4	103.2	106.1	-
325	Chemicals	90.5	92.9	91.9	100.0	101.3	105.3	109.4	109.1	116.0	108.1	102.3	-
3251	Basic chemicals	93.1	94.6	87.6	100.0	108.5	121.8	129.6	134.1	155.0	132.2	116.2	-
3252	Resin, rubber, and artificial fibers	89.2	89.0	86.3	100.0	97.7	97.3	103.4	105.5	108.0	98.8	91.6	-
3253	Agricultural chemicals	87.9	92.8	89.9	100.0	110.4	121.0	139.2	134.7	138.3	132.8	151.4	-
3254	Pharmaceuticals and medicines	98.3	98.3	101.8	100.0	103.0	103.6	107.0	107.5	103.8	102.0	97.3	-
3255	Paints, coatings, and adhesives	91.5	90.5	97.3	100.0	106.1	109.7	111.2	106.7	106.2	101.0	94.6	-
3256	Soap, cleaning compounds, and toiletries	75.0	82.3	84.6	100.0	92.8	102.6	110.2	111.5	134.9	127.5	126.9	-
3259	Other chemical products and preparations	90.2	98.1	90.9	100.0	98.6	96.2	96.0	91.5	103.5	104.3	99.3	-
326	Plastics and rubber products	89.2	91.1	92.8	100.0	103.8	105.9	108.7	108.6	107.3	102.6	101.7	-
3261	Plastics products	88.6	90.7	92.4	100.0	103.9	105.8	108.5	106.8	104.5	100.2	99.1	-
3262	Rubber products	93.6	94.8	95.5	100.0	103.5	106.4	109.4	114.2	118.0	111.8	111.3	-
327	Nonmetallic mineral products	100.1	98.6	95.6	100.0	107.1	105.3	111.6	110.7	112.7	107.6	100.2	-
3271	Clay products and refractories	105.9	108.5	99.1	100.0	109.5	116.0	122.0	122.2	122.4	118.1	100.9	-

50. Continued - Annual indexes of output per hour for selected NAICS industries[1]

[2002=100]

NAICS	Industry	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
3272	Glass and glass products................................	98.7	100.2	94.1	100.0	106.7	105.7	111.8	119.2	119.2	115.5	119.1	-
3273	Cement and concrete products.........................	103.2	99.3	95.5	100.0	106.3	101.0	104.6	101.6	106.6	98.9	88.6	-
3274	Lime and gypsum products.............................	105.8	99.8	103.1	100.0	109.3	107.2	121.9	119.3	112.4	111.3	103.4	-
3279	Other nonmetallic mineral products...................	92.0	90.3	95.2	100.0	105.7	106.8	118.5	112.8	111.0	112.6	106.2	-
331	Primary metals..	89.2	88.0	87.6	100.0	101.5	113.3	114.2	112.5	115.9	121.5	105.5	-
3311	Iron and steel mills and ferroalloy production.........	84.0	84.6	83.6	100.0	106.1	136.5	134.1	138.0	139.4	151.6	117.7	-
3312	Steel products from purchased steel..................	96.8	99.1	101.3	100.0	91.2	81.5	76.1	68.0	71.7	67.5	57.0	-
3313	Alumina and aluminum production....................	83.1	77.5	77.2	100.0	101.8	110.4	125.2	123.1	124.3	121.7	115.4	-
3314	Other nonferrous metal production....................	101.7	96.2	93.4	100.0	108.8	109.4	105.7	94.9	117.6	122.7	105.0	-
3315	Foundries...	89.0	88.7	91.2	100.0	100.4	106.8	111.4	114.1	111.5	103.7	105.6	-
332	Fabricated metal products..............................	93.1	94.7	94.6	100.0	102.7	101.4	104.3	106.2	108.6	110.5	101.3	-
3321	Forging and stamping...................................	89.4	97.8	97.3	100.0	106.6	112.3	116.2	118.1	125.7	126.1	117.5	-
3322	Cutlery and handtools..................................	95.3	93.4	97.3	100.0	99.2	90.9	95.4	97.2	105.6	101.9	89.8	-
3323	Architectural and structural metals....................	96.6	95.6	95.5	100.0	103.4	98.7	103.5	106.5	107.7	106.3	96.6	-
3324	Boilers, tanks, and shipping containers................	97.4	95.2	95.0	100.0	103.7	96.0	99.3	101.0	106.2	104.2	99.7	-
3325	Hardware...	91.2	99.4	98.4	100.0	105.7	104.4	106.7	107.1	92.8	96.8	84.0	-
3326	Spring and wire products................................	88.7	89.7	89.0	100.0	106.0	104.4	111.0	110.7	108.9	115.0	110.0	-
3327	Machine shops and threaded products................	91.2	94.9	95.3	100.0	100.4	101.6	100.9	102.0	105.0	108.6	96.0	-
3328	Coating, engraving, and heat treating metals.........	86.7	89.4	92.5	100.0	100.2	105.9	117.6	115.2	117.0	118.6	111.3	-
3329	Other fabricated metal products.......................	93.4	93.8	90.8	100.0	104.5	104.8	106.5	111.1	114.2	121.5	112.7	-
333	Machinery...	89.6	95.7	93.7	100.0	107.7	108.7	114.7	117.9	119.6	117.5	110.4	-
3331	Agriculture, construction, and mining machinery.....	90.0	96.1	95.3	100.0	112.3	120.8	124.0	125.1	125.9	127.4	113.2	-
3332	Industrial machinery....................................	89.6	109.9	89.6	100.0	98.9	107.3	105.3	116.3	115.2	102.4	93.7	-
3333	Commercial and service industry machinery..........	112.5	102.9	97.1	100.0	107.5	109.6	118.4	127.4	116.0	121.4	117.7	-
3334	HVAC and commercial refrigeration equipment......	92.7	90.8	93.3	100.0	109.6	112.0	116.1	113.1	110.3	109.5	110.6	-
3335	Metalworking machinery................................	89.3	96.2	94.2	100.0	103.9	102.9	110.9	111.8	117.9	117.6	107.5	-
3336	Turbine and power transmission equipment..........	84.7	87.9	97.5	100.0	110.4	96.9	101.2	96.9	95.1	92.2	80.2	-
3339	Other general purpose machinery......................	89.7	96.1	93.5	100.0	108.2	107.6	117.7	122.2	127.8	123.6	119.4	-
334	Computer and electronic products.....................	79.5	96.3	96.6	100.0	114.1	127.2	134.1	145.0	156.9	161.2	157.7	-
3341	Computer and peripheral equipment..................	65.3	78.2	84.6	100.0	121.7	134.2	173.5	233.4	288.4	369.3	368.1	-
3342	Communications equipment............................	105.9	128.4	120.1	100.0	113.4	122.0	118.5	146.3	145.1	117.2	99.1	-
3343	Audio and video equipment............................	80.4	84.9	86.7	100.0	112.6	155.8	149.2	147.1	111.4	92.7	61.8	-
3344	Semiconductors and electronic components.........	66.0	87.6	87.7	100.0	121.7	133.8	141.1	138.1	161.9	171.1	164.3	-
3345	Electronic instruments.................................	90.4	98.4	100.3	100.0	105.8	121.9	124.4	129.2	135.4	135.3	136.7	-
3346	Magnetic media manufacturing and reproduction...	98.0	93.9	89.0	100.0	114.5	128.9	129.8	125.0	133.1	148.8	164.6	-
335	Electrical equipment and appliances..................	93.9	98.2	98.0	100.0	103.6	109.4	114.6	115.0	117.7	113.4	108.1	-
3351	Electric lighting equipment.............................	91.3	90.2	94.3	100.0	98.4	107.9	112.5	121.5	121.4	125.3	124.2	-
3352	Household appliances...................................	79.0	89.3	94.9	100.0	111.6	121.2	124.6	129.7	124.5	118.5	120.0	-
3353	Electrical equipment....................................	96.5	97.2	98.5	100.0	102.1	110.6	118.1	119.7	125.5	118.7	111.2	-
3359	Other electrical equipment and components..........	100.6	104.7	99.0	100.0	102.0	101.8	106.4	101.5	107.0	103.7	96.4	-
336	Transportation equipment.............................	93.2	86.8	89.2	100.0	109.0	107.9	113.3	114.9	126.2	120.4	117.3	-
3361	Motor vehicles...	97.4	87.1	87.3	100.0	112.0	113.2	118.5	130.6	134.7	120.7	115.5	-
3362	Motor vehicle bodies and trailers......................	98.6	93.7	84.2	100.0	103.8	104.8	107.8	103.4	111.9	103.9	96.5	-
3363	Motor vehicle parts......................................	84.6	86.1	88.1	100.0	104.8	105.6	109.9	108.6	114.8	109.6	109.0	-
3364	Aerospace products and parts..........................	103.6	92.2	97.3	100.0	99.3	93.9	102.8	97.1	115.1	110.3	113.6	-
3365	Railroad rolling stock...................................	79.7	81.1	86.3	100.0	94.1	87.2	88.4	95.2	94.0	109.8	112.1	-
3366	Ship and boat building..................................	86.3	94.4	93.3	100.0	103.7	106.9	102.3	97.8	103.4	115.6	121.5	-
3369	Other transportation equipment.......................	73.4	83.3	83.4	100.0	110.0	110.4	112.8	122.9	195.0	217.1	183.8	-
337	Furniture and related products.........................	91.0	91.3	92.0	100.0	102.0	103.2	107.4	108.7	107.8	111.8	101.1	-
3371	Household and institutional furniture..................	93.3	92.7	94.7	100.0	101.1	100.8	105.9	109.7	107.5	112.1	100.7	-
3372	Office furniture and fixtures............................	85.1	86.9	84.7	100.0	106.2	110.3	112.2	106.7	106.0	107.6	93.6	-
3379	Other furniture related products.......................	92.2	90.2	94.8	100.0	99.4	109.4	115.5	120.5	120.3	122.6	119.1	-
339	Miscellaneous manufacturing..........................	87.4	92.6	94.0	100.0	106.8	106.3	114.7	118.3	117.8	119.7	120.1	-
3391	Medical equipment and supplies.......................	87.2	90.3	93.8	100.0	107.5	108.4	116.0	117.7	119.2	122.0	121.2	-
3399	Other miscellaneous manufacturing...................	89.1	96.0	94.7	100.0	105.8	104.6	113.0	117.8	114.5	114.4	113.6	-
	Wholesale trade												
42	Wholesale trade...	90.0	94.4	95.4	100.0	105.5	112.9	115.0	117.8	118.1	115.5	112.7	122.8
423	Durable goods...	84.5	88.8	91.8	100.0	106.4	118.7	124.6	129.3	128.7	126.5	116.4	133.3
4231	Motor vehicles and parts...............................	90.3	87.5	90.0	100.0	106.7	114.8	120.7	132.5	131.8	114.8	97.7	118.9
4232	Furniture and furnishings...............................	88.3	97.0	95.5	100.0	109.6	117.5	117.1	121.1	115.6	97.9	96.5	106.2
4233	Lumber and construction supplies.....................	88.2	86.9	94.1	100.0	109.5	116.8	119.9	118.2	117.0	117.4	110.7	123.0
4234	Commercial equipment.................................	59.1	67.1	81.4	100.0	113.9	134.9	154.5	168.0	181.9	199.7	205.1	236.7
4235	Metals and minerals.....................................	97.4	97.3	97.7	100.0	101.7	111.2	108.3	104.4	97.9	89.9	78.8	85.3
4236	Electric goods...	79.9	95.7	92.5	100.0	104.7	123.3	129.2	138.0	136.5	144.5	145.4	175.1
4237	Hardware and plumbing.................................	101.8	101.1	98.0	100.0	105.4	112.7	115.0	120.7	120.8	114.0	102.6	114.4
4238	Machinery and supplies.................................	102.5	105.2	102.6	100.0	103.4	112.7	120.8	123.5	118.1	121.9	102.4	113.8

50. Continued - Annual indexes of output per hour for selected NAICS industries[1/]

[2002=100]

NAICS	Industry	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
4239	Miscellaneous durable goods............................	90.6	91.9	93.1	100.0	97.8	112.1	111.4	102.9	98.8	96.7	87.7	87.7
424	Nondurable goods..	95.2	99.4	99.3	100.0	106.8	112.3	115.3	115.1	115.9	113.3	116.6	120.8
4241	Paper and paper products................................	85.9	86.5	89.7	100.0	102.3	111.4	118.0	113.2	119.8	103.5	102.4	99.7
4242	Druggists' goods...	103.7	95.7	94.6	100.0	121.0	137.5	156.3	164.7	165.7	170.8	185.2	188.6
4243	Apparel and piece goods...............................	85.7	88.7	93.9	100.0	105.0	111.7	122.9	125.1	127.1	125.8	122.7	123.9
4244	Grocery and related products...........................	102.5	103.9	103.4	100.0	107.8	108.7	109.6	111.4	115.1	110.5	113.6	123.0
4245	Farm product raw materials............................	102.8	106.7	104.3	100.0	98.7	108.5	107.4	110.4	110.8	113.8	120.2	131.6
4246	Chemicals..	99.4	95.5	94.1	100.0	106.2	107.7	103.1	100.4	103.8	105.4	93.5	106.4
4247	Petroleum..	68.0	92.0	92.0	100.0	102.1	113.9	110.2	105.6	99.5	96.0	100.1	99.3
4248	Alcoholic beverages......................................	98.9	101.5	99.6	100.0	102.0	98.5	100.2	103.3	105.0	99.0	100.3	93.4
4249	Miscellaneous nondurable goods......................	100.9	108.7	105.5	100.0	101.9	110.6	112.6	108.7	101.7	98.9	104.4	106.8
425	Electronic markets and agents and brokers...........	104.0	110.5	101.9	100.0	97.5	90.4	78.8	85.4	87.1	83.5	82.7	90.3
4251	Electronic markets and agents and brokers...........	104.0	110.5	101.9	100.0	97.5	90.4	78.8	85.4	87.1	83.5	82.7	90.3
	Retail trade												
44-45	Retail trade..	89.7	92.5	95.6	100.0	104.9	110.0	112.6	116.7	119.9	117.2	118.0	122.6
441	Motor vehicle and parts dealers........................	96.0	95.3	96.7	100.0	103.8	106.6	106.1	108.1	109.5	99.4	95.8	100.0
4411	Automobile dealers...	99.3	97.0	98.5	100.0	102.2	107.1	106.2	108.2	110.6	100.7	99.6	106.2
4412	Other motor vehicle dealers.............................	85.9	86.2	93.2	100.0	99.6	105.9	98.8	103.9	103.4	97.7	90.8	97.3
4413	Auto parts, accessories, and tire stores...............	99.9	100.7	94.1	100.0	106.8	102.0	106.2	105.4	103.1	98.6	95.0	92.0
442	Furniture and home furnishings stores................	85.7	89.7	94.7	100.0	103.5	112.1	113.9	117.4	123.5	123.8	129.0	135.7
4421	Furniture stores...	85.9	89.5	95.6	100.0	102.4	110.1	111.5	117.0	119.7	117.0	119.8	124.5
4422	Home furnishings stores..................................	85.4	89.7	93.5	100.0	105.0	114.6	116.6	118.3	127.8	131.8	140.1	149.7
443	Electronics and appliance stores.......................	64.5	74.4	84.2	100.0	125.5	142.6	158.4	177.0	200.3	232.5	258.6	273.5
4431	Electronics and appliance stores.......................	64.5	74.4	84.2	100.0	125.5	142.6	158.4	177.0	200.3	232.5	258.6	273.5
444	Building material and garden supply stores...........	94.2	93.7	96.7	100.0	105.0	110.8	110.0	111.0	112.0	111.5	106.6	117.9
4441	Building material and supplies dealers................	95.0	94.9	96.2	100.0	105.1	110.2	110.5	111.4	110.8	108.5	103.3	113.6
4442	Lawn and garden equipment and supplies stores...	89.2	87.2	100.1	100.0	104.8	115.0	105.8	107.2	121.2	136.4	132.7	153.9
445	Food and beverage stores................................	97.3	96.5	99.1	100.0	101.9	106.9	111.1	113.3	115.6	112.3	113.8	115.6
4451	Grocery stores..	97.8	96.5	98.6	100.0	101.5	106.2	110.1	111.2	112.8	109.7	110.7	112.1
4452	Specialty food stores......................................	91.6	93.6	102.8	100.0	105.0	111.1	113.2	123.0	129.8	125.4	131.9	131.2
4453	Beer, wine, and liquor stores............................	90.0	96.0	97.2	100.0	106.2	115.9	126.5	130.1	139.4	130.1	131.8	147.2
446	Health and personal care stores........................	87.1	91.3	94.6	100.0	105.5	109.6	109.1	112.5	112.3	112.6	115.7	117.1
4461	Health and personal care stores........................	87.1	91.3	94.6	100.0	105.5	109.6	109.1	112.5	112.3	112.6	115.7	117.1
447	Gasoline stations...	88.5	86.1	90.2	100.0	96.4	98.4	99.7	99.2	102.6	102.0	105.4	107.0
4471	Gasoline stations...	88.5	86.1	90.2	100.0	96.4	98.4	99.7	99.2	102.6	102.0	105.4	107.0
448	Clothing and clothing accessories stores..............	86.9	94.1	96.3	100.0	106.0	106.3	112.3	122.6	132.2	137.3	134.2	140.7
4481	Clothing stores..	84.0	91.9	95.8	100.0	104.5	104.0	112.1	122.9	134.1	144.2	143.8	148.4
4482	Shoe stores..	83.8	87.9	89.0	100.0	105.7	99.5	105.3	116.0	114.4	113.9	104.6	110.6
4483	Jewelry, luggage, and leather goods stores..........	103.2	110.0	104.4	100.0	112.3	122.3	118.0	125.7	137.1	125.5	116.6	129.8
451	Sporting goods, hobby, book, and music stores.....	89.4	94.9	99.6	100.0	103.0	118.0	127.4	131.6	128.1	129.0	137.6	150.4
4511	Sporting goods and musical instrument stores.......	88.0	95.2	98.9	100.0	103.5	121.2	131.3	140.1	136.5	136.9	146.9	159.5
4512	Book, periodical, and music stores.....................	92.6	94.5	101.2	100.0	101.9	111.1	119.0	113.6	109.4	111.2	116.4	130.0
452	General merchandise stores.............................	87.8	93.2	96.7	100.0	106.2	109.5	113.3	116.8	117.7	116.0	118.6	119.0
4521	Department stores..	102.0	104.0	101.6	100.0	104.3	107.7	109.3	111.4	104.7	101.4	100.4	97.6
4529	Other general merchandise stores......................	73.2	82.4	92.2	100.0	106.3	107.8	112.0	115.0	121.7	119.0	122.7	125.0
453	Miscellaneous store retailers...........................	93.4	95.8	94.6	100.0	105.3	108.7	114.6	125.8	129.6	126.7	120.5	128.8
4531	Florists...	102.2	103.3	90.3	100.0	96.2	91.7	110.6	125.4	113.1	121.5	129.0	152.1
4532	Office supplies, stationery and gift stores.............	84.2	89.9	93.5	100.0	108.7	121.9	128.5	143.4	151.8	150.8	156.7	162.9
4533	Used merchandise stores................................	79.8	82.0	85.8	100.0	103.9	104.5	105.9	111.6	122.9	132.6	119.7	139.5
4539	Other miscellaneous store retailers....................	109.2	110.6	102.7	100.0	104.9	101.2	104.1	114.9	117.6	106.2	94.9	100.0
454	Nonstore retailers..	70.8	83.6	89.9	100.0	108.8	121.4	126.1	148.8	163.0	166.7	175.1	189.7
4541	Electronic shopping and mail-order houses...........	67.0	75.3	84.4	100.0	117.2	134.1	145.3	175.9	196.4	187.3	195.6	216.9
4542	Vending machine operators..............................	115.6	121.7	104.9	100.0	112.0	121.1	114.9	124.3	117.0	126.1	111.5	124.4
4543	Direct selling establishments............................	77.2	90.7	94.7	100.0	93.4	94.7	87.5	93.4	96.6	101.0	105.7	101.5
	Transportation and warehousing												
481	Air transportation...	94.3	96.0	91.0	100.0	110.2	124.2	133.6	140.5	142.2	140.6	140.7	-
482111	Line-haul railroads...	78.4	85.0	90.6	100.0	105.0	107.2	103.3	109.3	103.3	107.9	103.7	-
484	Truck transportation..	97.9	99.2	99.1	100.0	102.6	101.4	103.0	104.3	105.1	103.6	99.0	-
4841	General freight trucking...................................	92.6	95.7	97.3	100.0	103.2	101.8	103.6	104.5	104.9	104.3	99.0	-
48411	General freight trucking, local...........................	91.4	96.2	99.4	100.0	105.6	100.3	103.1	109.5	105.8	102.9	98.3	-
48412	General freight trucking, long-distance...............	92.7	95.3	96.4	100.0	102.8	102.0	103.6	102.8	104.3	103.8	98.4	-
48421	Used household and office goods moving...........	117.8	116.2	102.9	100.0	105.0	107.3	106.6	106.7	110.2	116.7	116.4	-
491	U.S. Postal service..	96.6	99.1	99.8	100.0	101.3	103.4	104.5	104.5	105.3	103.8	105.2	-
4911	U.S. Postal service..	96.6	99.1	99.8	100.0	101.3	103.4	104.5	104.5	105.3	103.8	105.2	-
492	Couriers and messengers...............................	85.4	90.0	92.6	100.0	104.7	101.3	94.7	99.4	96.5	100.8	95.8	-
493	Warehousing and storage................................	88.2	89.5	94.4	100.0	103.9	103.8	99.3	96.9	95.5	94.8	96.1	-
4931	Warehousing and storage................................	88.2	89.5	94.4	100.0	103.9	103.8	99.3	96.9	95.5	94.8	96.1	-

50. Continued - Annual indexes of output per hour for selected NAICS industries[1]

[2002=100]

NAICS	Industry	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
49311	General warehousing and storage	83.0	85.1	92.8	100.0	105.3	102.8	102.4	102.8	101.4	100.7	102.9	-
49312	Refrigerated warehousing and storage	119.3	110.1	98.2	100.0	108.5	119.5	102.7	95.8	103.3	105.7	96.9	-
	Information												
511	Publishing industries, except internet	99.2	99.9	99.5	100.0	108.0	110.0	110.9	116.1	119.7	121.1	122.7	-
5111	Newspaper, book, and directory publishers	99.5	102.9	101.1	100.0	105.0	99.6	97.3	100.8	102.0	99.5	97.9	-
5112	Software publishers	105.8	97.7	96.2	100.0	113.1	131.5	136.7	139.0	141.7	146.6	145.4	-
51213	Motion picture and video exhibition	102.0	106.7	101.8	100.0	100.8	104.0	111.0	118.6	124.8	120.1	128.0	-
515	Broadcasting, except internet	98.9	99.6	95.5	100.0	102.9	107.1	113.1	120.6	130.5	133.4	135.7	-
5151	Radio and television broadcasting	97.3	96.9	94.2	100.0	99.5	101.7	104.1	111.8	114.8	114.2	114.1	-
5152	Cable and other subscription programming	107.2	108.8	98.7	100.0	109.6	118.4	129.3	135.9	158.3	169.0	173.5	-
5171	Wired telecommunications carriers	93.3	94.9	92.0	100.0	106.5	112.0	115.9	119.8	121.5	123.8	125.9	-
5172	Wireless telecommunications carriers	66.6	70.1	88.0	100.0	111.6	134.8	176.0	189.2	200.2	237.6	295.4	-
	Finance and insurance												
52211	Commercial banking	90.6	94.3	95.5	100.0	103.3	106.3	109.2	111.6	114.2	112.7	115.3	-
	Real estate and rental and leasing												
532111	Passenger car rental	97.9	98.0	97.0	100.0	106.5	104.6	98.0	100.4	118.0	123.7	118.6	-
53212	Truck, trailer, and RV rental and leasing	106.1	106.8	99.6	100.0	97.8	111.6	114.1	123.3	120.0	114.8	99.5	-
53223	Video tape and disc rental	99.3	103.5	102.3	100.0	112.9	115.6	104.7	124.0	152.1	136.8	148.2	-
	Professional and technical services												
541213	Tax preparation services	95.0	90.6	84.8	100.0	94.8	82.8	82.8	79.2	87.3	83.0	81.2	-
54131	Architectural services	99.3	100.0	103.2	100.0	103.4	107.9	107.9	105.8	109.6	113.3	111.9	-
54133	Engineering services	97.5	101.5	99.6	100.0	102.7	112.5	119.7	121.1	118.3	123.4	116.7	-
54181	Advertising agencies	86.6	95.1	94.5	100.0	106.4	116.2	114.5	115.2	118.7	124.6	126.9	-
541921	Photography studios, portrait	112.5	111.7	104.8	100.0	104.8	92.3	91.1	95.4	100.6	102.5	96.6	-
	Administrative and waste services												
561311	Employment placement agencies	79.8	76.9	85.2	100.0	107.9	120.7	126.8	146.4	176.5	203.2	203.9	-
56151	Travel agencies	90.5	93.6	90.3	100.0	125.5	151.0	173.8	186.2	217.8	220.0	226.2	-
56172	Janitorial services	93.4	95.7	96.7	100.0	110.7	106.6	108.4	102.5	109.0	111.2	107.2	-
	Health care and social assistance												
6215	Medical and diagnostic laboratories	90.6	95.9	98.3	100.0	103.1	103.9	102.4	104.6	102.4	111.5	114.5	-
621511	Medical laboratories	98.6	103.5	103.7	100.0	104.5	106.2	102.3	103.6	105.8	115.8	121.7	-
621512	Diagnostic imaging centers	79.4	85.7	90.8	100.0	99.8	97.5	99.4	102.9	92.4	100.4	99.7	-
	Arts, entertainment, and recreation												
71311	Amusement and theme parks	98.8	99.5	87.4	100.0	108.4	99.1	109.6	99.7	107.2	107.9	99.4	-
71395	Bowling centers	92.8	96.9	97.9	100.0	104.4	108.0	104.3	98.4	116.1	117.7	114.3	-
	Accommodation and food services												
72	Accommodation and food services	96.8	100.1	99.1	100.0	102.5	105.1	105.6	106.9	106.9	105.9	105.3	-
721	Accommodation	94.1	98.5	96.4	100.0	103.4	111.3	109.4	109.3	109.6	109.0	107.2	-
7211	Traveler accommodation	94.0	99.2	96.6	100.0	103.3	111.5	110.0	109.5	109.7	109.0	106.9	-
722	Food services and drinking places	96.7	99.1	99.4	100.0	102.2	103.2	104.4	106.0	105.9	104.8	105.1	107.1
7221	Full-service restaurants	96.5	99.4	99.2	100.0	100.5	101.6	102.7	103.7	102.8	100.5	100.8	103.6
7222	Limited-service eating places	97.8	99.4	99.8	100.0	102.6	104.0	104.6	106.3	106.5	106.8	108.2	111.1
7223	Special food services	91.7	100.2	100.4	100.0	104.5	107.0	109.3	110.9	113.7	113.0	106.4	101.1
7224	Drinking places, alcoholic beverages	96.0	97.8	94.8	100.0	113.8	106.1	112.1	122.0	122.4	117.9	122.4	121.1
	Other services												
8111	Automotive repair and maintenance	102.3	105.5	105.0	100.0	99.7	106.5	105.7	104.5	102.5	101.3	96.6	-
81142	Reupholstery and furniture repair	102.9	103.4	102.9	100.0	93.7	94.6	94.6	91.8	94.8	90.2	87.8	-
81211	Hair, nail, and skin care services	98.4	98.0	103.8	100.0	108.0	112.3	116.1	115.4	119.5	122.4	115.1	-
81221	Funeral homes and funeral services	109.2	100.3	97.1	100.0	100.4	96.6	96.0	100.7	100.6	95.0	96.5	-
8123	Drycleaning and laundry services	93.4	95.7	98.6	100.0	92.6	99.1	109.0	108.3	103.8	104.1	114.6	-
81231	Coin-operated laundries and drycleaners	79.7	88.0	95.5	100.0	82.5	94.5	115.2	99.2	91.1	85.9	92.5	-
81232	Drycleaning and laundry services	93.6	96.7	97.8	100.0	89.8	95.4	103.9	103.1	101.5	102.1	113.9	-
81233	Linen and uniform supply	101.6	98.8	101.1	100.0	98.9	104.2	111.5	115.6	108.7	109.7	119.0	-
81292	Photofinishing	75.9	73.4	80.8	100.0	98.3	97.9	105.3	102.4	101.0	105.3	131.4	-

NOTE: Dash indicates data are not available.

[1] Data for most industries are available beginning in 1987 and may be accessed on the BLS website at http://www.bls.gov/lpc/iprprodydata.htm.

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

[Percent]

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

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

For monthly unemployment rates, as well as the quarterly and annual rates published in this table, see the BLS report *International Unemployment Rates and Employment Indexes, Seasonally Adjusted* (on the Internet at **http://www.bls.gov/ilc/intl_unemployment_rates_monthly.htm**). Unemployment rates may differ between the two reports mentioned, because the former is updated annually, whereas the latter is updated monthly and reflects the most recent revisions in source data.

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

[Numbers in thousands]

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

[1] Labor force as a percent of the working-age population.
[2] Employment as a percent of the working-age population.
[3] Unemployment as a percent of the labor force.

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

Comparisons of Annual Labor Force Statistics, Adjusted to U.S. Concepts, 10 Countries (on the Internet at **http://www.bls.gov/ilc/flscomparelf.htm).** Unemployment rates may differ from those in the BLS report *International Unemployment Rates and Employment Indexes, Seasonally Adjusted* (on the Internet at **http://www.bls.gov/ilc/intl_unemployment_rates_monthly.htm**), because the former is updated annually, whereas the latter is updated monthly and reflects the most recent revisions in source data.

53. Annual indexes of manufacturing productivity and related measures, 19 countries

[2002 = 100]

Measure and country	1980	1990	1995	1997	1998	1999	2000	2001	2003	2004	2005	2006	2007	2008	2009	2010
Output per hour																
United States.........................	41.7	58.1	68.5	73.8	77.7	82.4	88.8	90.7	108.2	117.5	122.8	127.2	133.6	132.5	139.1	147.1
Australia................................	63.3	77.8	84.9	88.0	92.5	95.8	93.5	98.4	104.9	104.3	105.5	108.1	110.0	106.7	111.4	113.2
Belgium.................................	50.5	74.8	87.1	93.9	95.1	94.4	98.2	97.5	101.5	105.1	106.7	107.3	111.3	111.5	113.6	117.3
Canada..................................	55.2	70.7	83.4	87.2	91.3	95.1	100.7	98.3	100.3	101.4	104.8	106.3	107.3	104.5	105.4	110.0
Czech Republic.......................	-	-	70.3	77.3	73.1	83.9	92.0	92.7	101.9	114.4	125.0	140.4	151.7	161.4	156.0	176.1
Denmark................................	66.1	79.3	90.8	94.8	94.3	95.8	99.2	99.4	104.2	110.2	113.7	119.5	122.1	125.2	123.4	135.2
Finland..................................	28.9	48.0	65.8	71.1	75.3	80.8	90.4	93.9	106.3	113.4	118.8	132.7	145.3	140.6	120.9	140.8
France...................................	46.4	64.8	77.7	81.9	86.0	89.6	95.0	96.2	103.4	107.3	112.1	116.4	119.4	115.4	113.1	122.1
Germany................................	54.5	69.8	80.6	87.7	88.1	90.2	96.5	99.0	103.6	107.5	112.1	121.5	124.8	119.1	108.2	115.6
Italy......................................	56.8	78.1	94.2	96.5	95.2	95.9	100.9	101.2	97.9	99.3	100.8	102.6	103.1	99.9	93.8	100.4
Japan....................................	47.9	70.9	83.4	90.3	91.2	93.5	98.5	96.5	106.8	114.3	121.7	122.9	127.6	131.3	119.5	136.2
Korea, Rep. of........................	-	33.4	52.1	65.6	73.6	82.7	90.8	90.1	106.8	117.1	130.7	145.7	156.2	157.3	159.1	172.9
Netherlands...........................	49.7	69.4	82.0	84.3	86.4	89.9	96.8	97.2	102.4	109.4	114.6	119.1	125.3	122.7	117.0	127.6
Norway..................................	70.1	87.8	88.1	91.0	88.7	91.7	94.6	97.2	108.7	115.1	119.1	116.7	116.1	117.2	118.1	123.7
Singapore..............................	33.1	50.7	72.8	77.8	80.9	92.4	101.2	90.7	103.6	113.8	116.3	120.1	116.2	105.3	105.0	139.4
Spain....................................	57.9	80.0	93.3	93.1	94.7	96.4	97.4	99.6	102.5	104.4	106.4	108.5	110.9	109.3	108.4	113.5
Sweden.................................	40.1	49.4	64.9	73.6	78.4	85.4	91.6	89.4	108.2	120.2	128.0	138.8	142.6	134.3	124.4	141.1
Taiwan..................................	28.6	52.5	65.4	73.1	76.1	80.7	85.6	89.9	107.2	112.6	121.7	132.1	143.2	145.5	152.4	175.5
United Kingdom.......................	45.6	70.3	81.2	82.0	83.0	87.4	93.3	96.9	104.5	111.2	116.3	120.6	124.7	125.2	120.6	125.6
Output																
United States.........................	49.8	67.6	79.4	86.9	91.2	96.1	102.3	97.6	102.9	111.2	114.8	119.9	123.8	117.8	107.6	113.8
Australia................................	70.8	81.8	86.5	90.1	92.2	93.5	94.9	96.9	102.6	102.6	101.9	102.7	105.7	104.6	102.2	106.6
Belgium.................................	67.2	86.8	89.5	94.1	95.7	96.0	100.5	100.8	98.8	102.4	102.4	102.6	105.8	104.8	96.1	99.8
Canada..................................	55.2	68.7	76.5	82.8	86.9	94.1	103.4	99.1	99.2	101.1	102.6	101.3	99.0	93.0	82.5	87.1
Czech Republic.......................	-	-	73.4	84.1	78.5	87.0	95.4	94.9	99.0	112.1	125.5	143.8	157.0	169.4	149.3	165.4
Denmark................................	77.3	85.5	94.7	97.7	98.5	99.4	102.9	103.0	97.2	98.8	99.3	103.8	107.1	111.0	97.6	99.9
Finland..................................	39.8	53.8	60.3	68.1	74.7	80.9	92.2	96.3	102.8	107.7	112.3	126.9	140.5	135.6	101.9	114.9
France...................................	75.3	82.8	86.6	89.7	93.7	96.8	100.1	100.5	101.0	102.8	105.1	106.3	108.8	104.2	95.7	99.1
Germany................................	81.3	94.5	90.1	92.0	93.1	94.0	100.4	102.1	100.7	104.3	106.5	114.1	118.4	113.6	93.1	103.6
Italy......................................	71.1	88.2	95.7	96.6	97.5	97.3	101.4	101.1	97.3	98.0	97.8	101.1	103.2	98.4	82.6	86.4
Japan....................................	61.9	98.9	101.7	108.2	102.5	102.1	107.4	101.6	105.3	111.4	117.2	121.3	126.1	125.5	100.8	117.6
Korea, Rep. of........................	12.7	40.0	59.2	67.1	62.2	76.5	89.8	92.0	105.4	115.9	123.1	133.0	142.5	146.6	144.3	165.7
Netherlands...........................	59.3	76.9	85.1	87.7	90.3	93.3	100.0	100.0	99.1	102.9	105.1	108.7	115.1	113.4	103.6	111.2
Norway..................................	95.1	91.4	94.6	102.7	101.9	101.8	101.3	100.5	103.3	109.2	114.1	117.5	121.3	124.5	117.3	119.6
Singapore..............................	26.0	51.2	75.4	80.8	80.2	90.6	104.4	92.2	102.9	117.2	128.3	143.6	152.2	145.8	139.7	181.2
Spain....................................	58.8	73.7	76.0	82.9	87.9	92.9	97.0	100.1	101.2	101.9	103.1	105.0	105.8	103.0	88.9	89.7
Sweden.................................	45.5	54.5	65.8	73.6	80.2	87.5	95.1	93.3	105.0	115.0	120.7	129.0	133.5	126.5	103.7	119.9
Taiwan..................................	29.4	59.3	72.7	80.9	82.8	88.9	96.1	89.5	110.1	121.5	131.0	142.9	156.9	158.5	151.5	192.0
United Kingdom.......................	78.5	94.8	97.1	99.6	100.3	101.3	103.6	102.2	99.7	101.9	101.8	103.3	103.8	100.8	90.1	93.3
Total hours																
United States.........................	119.4	116.5	115.9	117.7	117.4	116.6	115.1	107.6	95.1	94.6	93.5	94.2	92.6	88.9	77.4	77.4
Australia................................	111.8	105.2	101.9	102.4	99.7	97.6	101.5	98.5	97.8	98.4	96.6	95.0	96.1	98.1	91.7	94.1
Belgium.................................	133.1	116.0	102.8	100.3	100.6	101.7	102.4	103.4	97.3	97.4	95.9	95.6	95.1	94.0	84.6	85.1
Canada..................................	100.0	97.2	91.8	94.9	95.2	98.9	102.7	100.8	99.0	99.8	97.9	95.2	92.3	89.0	78.2	79.2
Czech Republic.......................	-	-	104.4	108.8	107.4	103.6	103.6	102.3	97.2	98.0	100.4	102.4	103.5	104.9	95.7	93.9
Denmark................................	117.0	107.8	104.3	103.1	104.5	103.7	103.7	103.7	93.4	89.6	87.3	86.9	87.7	88.7	79.0	73.9
Finland..................................	137.6	112.1	91.7	95.8	99.3	100.1	102.1	102.6	96.8	95.0	94.5	95.6	96.7	96.4	84.3	81.6
France...................................	162.4	127.8	111.3	109.5	109.1	107.9	105.4	104.4	97.6	95.8	93.7	91.3	91.1	90.3	84.6	81.2
Germany................................	149.3	135.4	111.7	104.9	105.8	104.2	104.0	103.1	97.3	97.1	95.0	93.9	94.9	95.4	86.1	89.6
Italy......................................	125.2	113.0	101.6	100.1	102.5	101.5	100.5	99.9	99.4	98.7	97.0	98.5	100.1	98.4	88.1	86.0
Japan....................................	129.3	139.6	122.0	119.9	112.5	109.1	109.0	105.3	98.6	97.5	96.3	98.6	98.9	95.6	84.3	86.3
Korea, Rep. of........................	-	119.8	113.6	102.2	84.5	92.4	98.8	102.1	98.7	99.0	94.2	91.3	91.2	93.2	90.7	95.8
Netherlands...........................	119.2	110.9	103.8	103.9	104.5	103.9	103.3	102.9	96.8	94.0	91.7	91.3	91.9	92.4	88.6	87.2
Norway..................................	135.6	104.1	107.3	112.8	115.0	111.0	107.1	103.4	95.1	94.9	95.8	100.7	104.5	106.3	99.3	96.7
Singapore..............................	78.6	101.1	103.6	103.9	99.1	98.0	103.1	101.7	99.3	103.0	110.4	119.6	131.0	138.4	133.1	130.0
Spain....................................	101.6	92.1	81.4	89.0	92.8	96.4	99.7	100.5	98.8	97.6	96.8	96.8	95.4	94.2	82.0	79.0
Sweden.................................	113.3	110.2	101.3	100.1	102.3	102.5	103.8	104.4	97.0	95.7	94.3	93.0	93.6	94.2	83.4	85.0
Taiwan..................................	102.9	113.0	111.1	110.6	108.8	110.1	112.4	99.6	102.7	107.9	107.7	108.1	109.6	108.9	99.4	109.4
United Kingdom.......................	172.1	135.0	119.6	121.4	120.9	115.9	111.1	105.5	95.4	91.6	87.5	85.7	83.3	80.5	74.7	74.3

See notes at end of table.

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

[2002 = 100]

Measure and country	1980	1990	1995	1997	1998	1999	2000	2001	2003	2004	2005	2006	2007	2008	2009	2010
Unit labor costs (national currency basis)																
United States..........................	91.6	107.0	107.1	103.6	104.5	102.8	102.8	104.5	99.8	92.6	91.6	90.2	88.7	93.3	92.8	89.2
Australia.................................	-	82.1	91.6	94.3	94.8	95.4	96.8	97.6	101.0	105.5	111.0	115.8	119.0	123.9	126.7	123.7
Belgium..................................	80.8	93.6	97.0	95.1	95.3	97.3	95.1	99.0	100.3	98.0	98.1	100.7	100.8	103.9	108.3	104.8
Canada..................................	65.8	96.6	97.9	97.3	97.8	95.8	93.5	98.4	103.7	106.5	107.7	110.3	113.0	117.6	114.8	109.9
Czech Republic........................	-	-	73.8	86.7	100.4	92.2	89.2	98.7	106.1	100.1	94.5	88.7	87.9	86.7	88.5	81.8
Denmark.................................	49.4	86.4	87.3	90.0	92.9	93.7	92.3	96.5	102.5	100.6	103.0	101.8	105.1	104.7	109.2	102.5
Finland..................................	75.2	126.4	118.0	114.8	112.9	109.0	101.6	104.6	96.8	94.3	93.9	87.0	81.8	86.9	103.5	92.0
France...................................	60.7	99.1	102.2	102.2	98.2	97.4	96.7	98.0	99.1	98.7	97.8	97.8	97.3	103.4	108.6	102.7
Germany................................	65.7	85.5	100.8	98.9	99.9	99.7	98.1	98.6	98.7	95.7	92.9	89.2	87.7	94.4	109.2	100.4
Italy......................................	34.5	78.6	87.7	94.4	94.0	95.6	93.2	96.1	106.0	108.1	110.0	110.3	112.9	121.2	133.7	127.6
Japan....................................	105.4	109.2	110.8	106.8	108.3	105.4	99.5	102.9	91.6	86.4	81.8	80.1	76.0	74.9	83.2	72.1
Korea, Rep. of.........................	40.4	72.4	109.2	110.7	107.8	96.2	93.8	98.8	98.8	102.7	106.9	105.2	104.6	104.8	109.1	108.3
Netherlands.............................	86.0	91.0	93.9	95.3	96.8	96.3	93.8	97.5	101.5	99.1	95.9	95.0	92.9	98.1	106.4	98.2
Norway..................................	35.3	66.6	78.5	82.7	89.9	91.8	94.1	97.0	95.8	93.4	94.5	102.4	107.7	112.8	118.0	117.2
Singapore...............................	78.5	107.5	113.5	117.8	115.8	96.0	92.3	106.0	97.1	88.9	86.4	82.7	85.3	95.3	95.1	77.7
Spain.....................................	35.7	73.7	93.6	98.4	97.4	95.6	96.0	97.6	102.5	104.1	107.0	110.0	114.1	122.0	125.5	119.7
Sweden..................................	67.2	123.3	110.6	110.9	108.1	102.2	99.0	106.1	96.5	89.2	86.6	82.2	85.0	92.6	104.0	89.5
Taiwan...................................	69.3	108.5	123.1	121.0	120.0	115.5	110.9	112.4	96.2	94.5	92.6	90.4	84.3	85.0	78.7	70.2
United Kingdom........................	52.6	84.3	88.2	90.7	96.5	97.5	96.7	97.6	100.7	99.1	100.3	102.2	102.4	104.2	112.0	110.9
Unit labor costs (U.S. dollar basis)																
United States..........................	91.6	107.0	107.1	103.6	104.5	102.8	102.8	104.5	99.8	92.6	91.6	90.2	88.7	93.3	92.8	89.2
Australia.................................	-	118.0	124.8	129.0	109.7	113.2	103.6	92.8	121.2	142.9	155.7	160.5	183.6	194.6	184.7	209.3
Belgium..................................	118.0	119.5	140.5	113.3	112.0	109.6	92.9	93.7	120.1	128.9	129.2	133.8	146.2	161.8	159.6	147.0
Canada..................................	88.4	130.1	112.1	110.4	103.5	101.3	98.8	99.8	116.3	128.5	139.6	152.7	165.3	173.2	158.0	167.6
Czech Republic........................	-	-	91.0	89.5	101.8	87.3	75.6	85.0	123.1	127.6	129.2	128.5	140.2	166.4	152.0	140.1
Denmark.................................	69.1	110.1	123.0	107.4	109.3	105.8	89.9	91.4	122.9	132.5	135.5	135.1	152.3	162.3	160.8	143.6
Finland..................................	126.8	207.9	170.0	139.1	132.9	122.8	99.3	99.1	115.9	124.0	123.7	115.6	118.6	135.3	152.6	129.0
France...................................	99.7	126.2	142.2	121.5	115.5	109.7	94.5	92.8	118.7	129.8	128.8	130.0	141.2	161.1	160.1	144.1
Germany................................	74.7	109.4	145.6	117.9	117.4	112.4	95.8	93.3	118.2	125.9	122.3	118.6	127.2	147.0	161.0	140.8
Italy......................................	82.6	134.3	110.2	113.5	110.8	107.7	91.1	91.0	127.0	142.2	144.8	146.5	163.7	188.8	197.1	179.0
Japan....................................	58.2	94.3	147.7	110.4	103.6	116.1	115.6	106.0	98.9	100.1	93.0	86.3	80.8	90.7	111.2	102.9
Korea, Rep. of.........................	83.1	127.3	176.7	146.1	96.2	101.1	103.7	95.7	103.6	112.1	130.6	137.8	140.8	119.2	107.0	117.1
Netherlands.............................	100.8	116.5	136.4	113.7	113.8	108.5	91.6	92.3	121.6	130.3	126.3	126.2	134.7	152.8	156.8	137.8
Norway..................................	57.0	85.0	98.9	93.2	95.0	93.9	85.2	86.1	108.0	110.6	117.2	127.6	146.9	159.7	149.8	154.7
Singapore...............................	65.7	106.2	143.4	142.0	124.0	101.4	95.8	105.9	99.7	94.2	93.0	93.3	101.5	120.6	117.1	102.1
Spain.....................................	87.6	127.3	132.2	118.1	114.8	107.7	93.8	92.4	122.7	136.9	140.9	146.2	165.5	190.1	185.0	168.0
Sweden..................................	154.3	202.4	150.7	141.0	132.2	120.1	105.0	99.8	116.1	118.1	112.7	108.4	122.4	136.8	132.2	120.8
Taiwan...................................	66.4	139.3	160.4	145.2	123.5	123.4	122.6	114.7	96.5	97.8	99.5	96.1	88.6	93.2	82.3	77.0
United Kingdom........................	81.4	100.1	92.7	98.9	106.5	104.9	97.5	93.5	109.5	120.8	121.6	125.4	136.5	128.6	116.7	114.1
Hourly compensation (national currency basis)																
United States..........................	38.2	62.1	73.4	76.5	81.2	84.8	91.3	94.8	108.0	108.9	112.5	114.8	118.5	123.6	129.1	131.2
Australia.................................	-	63.9	77.8	83.0	87.7	91.4	90.5	96.0	106.0	110.1	117.1	125.2	130.9	132.2	141.1	140.0
Belgium..................................	40.8	70.1	84.5	89.3	90.6	91.8	93.5	96.5	101.9	103.0	104.8	108.0	112.2	115.8	123.0	123.0
Canada..................................	36.3	68.3	81.6	84.9	89.3	91.2	94.2	96.7	104.0	108.0	112.8	117.2	121.2	122.9	121.0	120.9
Czech Republic........................	-	-	51.9	67.1	73.4	77.4	82.0	91.6	108.1	114.6	118.1	124.5	133.3	139.9	138.1	144.0
Denmark.................................	32.6	68.5	79.3	85.3	87.6	89.8	91.6	95.9	106.8	110.9	117.2	121.6	128.3	131.2	134.9	138.6
Finland..................................	21.8	60.6	77.6	81.6	85.0	88.1	91.9	98.2	102.9	106.9	111.6	115.5	118.8	122.2	125.2	129.5
France...................................	28.2	64.1	79.4	83.7	84.4	87.3	91.9	94.3	102.5	105.9	109.7	113.9	116.2	119.3	122.9	125.4
Germany................................	35.8	59.7	81.2	86.7	88.0	90.0	94.7	97.6	102.2	102.8	104.1	108.4	109.4	112.4	118.1	116.0
Italy......................................	19.6	61.3	82.5	91.1	89.4	91.7	94.1	97.2	103.8	107.4	110.8	113.2	116.4	121.1	125.4	128.1
Japan....................................	50.4	77.4	92.4	96.4	98.8	98.6	98.0	99.3	97.8	98.8	99.6	98.5	97.0	98.4	99.5	98.2
Korea, Rep. of.........................	-	24.1	56.9	72.7	79.3	79.6	85.2	89.1	105.5	120.3	139.8	153.2	163.4	164.8	173.6	187.2
Netherlands.............................	42.8	63.1	77.0	80.3	83.7	86.6	90.7	94.7	103.9	108.4	109.9	113.1	116.4	120.4	124.4	125.3
Norway..................................	24.7	58.5	69.2	75.3	79.7	84.2	89.0	94.4	104.1	107.5	112.6	119.5	125.0	132.1	139.4	144.9
Singapore...............................	26.0	54.5	82.6	91.7	93.7	88.8	93.4	96.2	100.6	101.2	100.5	99.4	99.2	100.3	99.9	108.3
Spain.....................................	20.7	59.0	87.4	91.6	92.3	92.1	93.5	97.2	105.0	108.7	113.9	119.4	126.6	133.4	136.1	136.0
Sweden..................................	27.0	61.0	71.8	81.6	84.7	87.4	90.7	94.9	104.4	107.2	110.8	114.1	121.2	124.4	129.4	126.3
Taiwan...................................	19.8	57.0	80.5	88.5	91.4	93.3	94.9	101.0	103.1	106.4	112.7	119.5	120.7	123.7	119.9	123.3
United Kingdom........................	24.0	59.3	71.6	74.4	80.1	85.2	90.2	94.6	105.2	110.1	116.7	123.2	127.7	130.4	135.0	139.3

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

54. 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.

54. 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 Class-ification 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.

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

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

[1] Based on the 1992 BLS Occupational Injury and Illness Classification Manual.
[2] Excludes fatalities from the Sept. 11, 2001, terrorist attacks.
[3] The BLS news release of August 10, 2006, reported a total of 5,702 fatal work injuries for calendar year 2005. Since then, an additional 32 job-related fatalities were identified, bringing the total job-related fatality count for 2005 to 5,734.

   NOTE: Totals for all years are revised and final. Totals for major categories may include subcategories not shown separately. Dashes indicate no data reported or data that do not meet publication criteria. N.e.c. means "not elsewhere classified."

   SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.