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The July *Review*

Prices and their measurement are the central focus of this latest issue of the *Monthly Labor Review*.

Quite often in the July issue, we publish a retrospective look at changes in the prices of goods and materials as measured by the BLS Producer Price Index. Joseph Kowal, Antonio Lombardozzi, Scott Sager, and William Snyders assess the trends in producer prices for calendar year 2007 and find inflation was notably on the rise. Prices for finished goods rose sharply—more than 6 percent—after having grown by only about 1 percent in 2006. The index for intermediate materials, which reflects the prices of goods produced at an earlier stage of processing, increased by about 7 percent in 2007, more than double the previous year's rate. The prices for crude materials rose steeply—nearly 20 percent—after having fallen slightly less than 5 percent in 2006.

Much of these noticeable upturns were due to higher prices for energy and foods. Prices for refined petroleum products, and especially for crude petroleum, moved up more than they had the year before, and, at each stage of processing, overall energy goods and materials accelerated well into the double digits. Similarly, prices for foods at each level of processing were up much more than in 2006.

How the prices for new vehicles are measured across the Bureau's various price measurement programs is the subject of a comparative study by five BLS economists. There are few industries in the world that receive as much attention as auto manufacturing and sales, especially as vehicle production and consumer purchasing continue to become ever more global. This article is designed to elucidate the differences among the Consumer, Producer, and International Price Programs in methods of index calculation and how such differences might explain differentials in price trends for new vehicles.

For those analysts with particular interests in price index construction, Brendan Williams provides a look into the development of a hedonic model for making quality adjustments to a very visible service industry, namely, access to Internet services. The practice of making hedonic-based price adjustments to remove the effects of quality changes in goods and services that enter into the calculation of the Consumer Price Index has been in effect for some time now, but thus far has focused mainly on such items as consumer electronics, appliances, housing, and apparel. Williams explores some alternative pathways to hedonic adjustments for Internet access services and recommends that a hedonically adjusted index be considered.

Redesigned BLS Web site

The Bureau first began publishing reports—with good old ink and paper—in the 1880s. Over time, BLS has worked hard to keep abreast of the latest styles and modes of communication. Since widespread public use of the Internet began in the 1990s, BLS, like other private- and public-sector organizations, has had to adapt quickly to utilize the Net's vast potential. For an agency in the information collection and dissemination business, developing and maintaining an informative and user-friendly World Wide Web site has been an ongoing priority. The Bureau first launched a Web site in 1995, with a few dozen pages, and issued a major redesign in 2001.

In July 2008, after more than 2 years of significant testing and sifting of alternative designs, BLS launched its latest sweeping redesign of its Web site (found at www.bls.gov). Primary features of the newly redesigned site include improved BLS and program office home pages, each with new user-tested navigation paths to make browsing as convenient as possible; fresh content on the Bureau home page each working day; an upgraded search engine; new tailored resources for different visitors (such as the news media, students, investors, and so on); a new "Guide to Geographic Data," intended to help data users to quickly determine what types of data are available from BLS at every level of geographic detail; a more comprehensive calendar of release dates for BLS news releases; an expanded index; an enhanced section on careers at BLS; and our initial foray into audio files, the first accompanying a new *Spotlight on Statistics* feature focusing on older workers.

BLS has developed multiple tutorials to guide Web site users through the new features, including the use of video, audio, and text. (To access these multimedia tools, simply go to the "tutorials" tab in the upper right section of the BLS home page.) For those of you who may have had different sections of our previous site bookmarked, relax: the vast majority of Web addresses are unchanged. We hope that all of our visitors will find the new design helpful. It will be interesting to see what changes might be made to the site in future years, as customer needs and expectations, as well as technology, continue to evolve. □

Producer inflation accelerates in 2007 due to rising prices for energy and foods

Prices for energy goods surged in 2007, after falling in 2006, while food prices increased more than they had a year earlier; in contrast, the stage-of-processing indexes for goods excluding foods and energy advanced in 2007 at rates similar to those of 2006

Joseph Kowal, Antonio Lombardozzi , Scott Sager, and William Snyders

The Producer Price Index (PPI) for Finished Goods climbed 6.2 percent in 2007, after inching up 1.1 percent in 2006. Finished goods are commodities that are ready for sale to final-demand users, either as durable or nondurable goods for consumers or as capital equipment for business firms. The index for intermediate materials, supplies, and components, reflecting the prices of goods produced at an earlier stage of processing, increased 7.1 percent in 2007, after rising 2.8 percent in 2006. Intermediate goods consist of material and component inputs to manufacturing and construction, as well as supplies for all types of businesses. The index for crude materials for further processing—unprocessed goods and raw materials—jumped 19.8 percent in 2007, after falling 4.7 percent in 2006. The larger advances in 2007 for the finished goods and intermediate goods indexes, as well as the upturn in prices for crude goods, are attributable primarily to a reversal in prices for energy goods, which moved up in 2007, after declining in 2006, and secondarily to prices for foods, which increased at faster rates in 2007 than they had a year earlier. (See table 1.)

Prices for energy goods jumped in 2007, after moving down in 2006. Among crude materials, prices for crude petroleum, which were nearly unchanged in 2006, surged 51.7 percent in 2007, while prices for wellhead natural gas edged down after dropping 26.2 percent in the preceding year. Further along the production path, prices for refined petroleum products and utility electric power moved up more in 2007 than they had a year earlier, while the index for utility natural gas fell less than it had in 2006. Within finished goods, the index for finished energy goods advanced 17.8 percent in 2007, following a 2.0-percent decline a year earlier. Similarly, prices for intermediate energy goods climbed 19.8 percent, after decreasing 3.3 percent in 2006, and the index for crude energy materials rose 16.2 percent in 2007, compared with a 15.7-percent drop a year earlier. (See table 2.)

In addition to energy products, also contributing to the faster rates of increase for finished and intermediate goods, as well as the reversal in the crude goods index, price gains for farm products and for processed foods and feeds accelerated in 2007. These increases were generally broad based; however, steep upturns in prices for raw fluid milk, as well as processed dairy products, led the acceleration. The indexes for finished consumer foods, intermediate foods and feeds, and crude foodstuffs and feedstuffs each rose more in 2007 than they had in 2006. For finished consumer foods, the 7.6-percent increase in 2007 was the largest since a 7.7-percent advance in 2003. At the earlier stages of processing, the 17.2-percent jump in prices for intermediate foods and

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Table 1. Annual percentage changes in Producer Price Indexes for selected stages of processing, 2002–07

Index	2002	2003	2004	2005	2006	2007
Finished goods	1.2	4.0	4.2	5.4	1.1	6.2
Finished consumer foods	–.6	7.7	3.1	1.7	1.7	7.6
Finished energy goods	12.3	11.4	13.4	23.9	–2.0	17.8
Finished goods less foods and energy	–.5	1.0	2.3	1.4	2.0	2.0
Finished consumer goods, excluding foods and energy	–.5	1.1	2.2	1.6	1.8	2.4
Capital equipment	–.6	.8	2.4	1.2	2.3	1.4
Intermediate materials, supplies, and components	3.2	3.9	9.2	8.6	2.8	7.1
Intermediate foods and feeds	4.2	12.9	–2.3	2.4	4.7	17.2
Intermediate energy goods	12.0	10.9	15.8	26.2	–3.3	19.8
Intermediate materials less foods and energy	1.5	2.1	8.3	4.8	4.5	3.3
Materials for nondurable manufacturing	4.2	4.9	13.7	8.9	1.2	12.8
Materials for durable manufacturing	3.1	4.0	18.3	5.9	12.5	1.7
Materials and components for construction	.8	3.0	10.1	6.1	4.3	2.0
Crude materials for further processing	24.7	19.5	17.4	21.1	–4.7	19.8
Foodstuffs and feedstuffs	4.5	24.1	–2.6	1.6	2.8	24.9
Crude energy materials	61.5	14.4	35.9	42.2	–15.7	16.2
Crude nonfood materials less energy	12.6	21.6	20.5	5.2	17.0	15.6
Special groupings						
Finished goods less energy	–.5	2.7	2.5	1.5	1.9	3.5
Intermediate materials less energy	1.6	2.6	7.8	4.6	4.5	4.0
Crude materials less energy	7.1	23.3	5.2	3.0	8.3	21.4

feeds was the fastest annual rate of increase since 1974, when prices climbed 31.1 percent. For crude foodstuffs and feedstuffs, the 24.9-percent surge in 2007 was the largest since a 31.7-percent rise in 1973.

In contrast, the index for finished goods other than foods and energy increased at the same rate in 2007 as in the previous year, 2.0 percent. The index for consumer nondurable goods excluding foods and energy advanced more in 2007 than in the prior year, while prices for consumer durable goods and capital equipment rose less than in 2006. At the earlier stages of processing, prices for intermediate goods other than foods and energy moved up less than they had in 2006, and the index for crude nonfood materials less energy increased slightly less in 2007 than it had in the preceding year.[1]

Energy goods

The indexes for energy goods at all three stages of processing turned up in 2007, after falling a year earlier. The finished energy goods index increased 17.8 percent, following a 2.0-percent decline in 2006. Among finished energy goods, prices for gasoline, home heating oil, diesel fuel, and residential electric power jumped in 2007, after advancing at slower rates in the preceding year. The index for liquefied petroleum gas surged following a decline in 2006. Prices for residential natural gas edged down in 2007, after steep declines a year earlier. Similar to finished energy goods, the 2007 upturn in the index for intermediate energy goods was led by accelerating price increases for refined petroleum products such as gasoline, diesel fuel, jet fuel, and home heating oil. The indexes for commercial and industrial electric power also rose more in 2007 than they did in 2006. The indexes for liquefied petroleum gas and residual fuel surged in 2007, after falling in the prior year. Utility natural gas prices declined at much smaller rates than they did in 2006. At the earliest stage of processing, the index for crude energy materials moved up 16.2 percent in 2007, following a 15.7-percent decrease a year earlier. Crude petroleum prices increased more than 50 percent in 2007, after inching up in the preceding year, while natural gas prices moved down 4.9 percent, after dropping sharply in 2006.

Petroleum products. In 2007, the crude petroleum index climbed 51.7 percent, compared with a 0.1-percent rise a year earlier. In 2007, large price increases occurred over the course of the entire year: February, 7.4 percent; April,

Table 2. Annual percentage changes in Producer Price Indexes for selected energy goods, 2003–07

Index	2003	2004	2005	2006	2007
Finished energy goods	11.4	13.4	23.9	–2.0	17.8
Residential natural gas	19.9	15.9	28.3	–11.6	–.9
Gasoline	14.9	27.4	41.5	1.8	36.1
Home heating oil	13.9	42.0	41.8	5.2	30.9
Liquefied petroleum gas	21.0	28.5	44.3	–15.1	59.1
Residential electric power	4.9	2.3	6.8	2.3	4.5
Intermediate energy goods	10.9	15.8	26.2	–3.3	19.8
Industrial natural gas	20.3	20.1	31.5	–13.2	–2.8
Commercial natural gas	19.9	17.5	30.3	–13.6	–.9
Natural gas to electric utilities	17.4	20.4	25.0	–16.1	–3.8
Diesel fuel	13.0	37.9	46.7	2.3	33.9
Jet fuel	10.2	45.5	41.3	6.6	41.3
Residual fuel	39.1	1.0	80.4	–23.5	38.2
Industrial electric power	2.4	2.3	10.4	4.0	7.3
Commercial electric power	2.7	3.1	6.6	3.4	3.8
Crude energy goods	14.4	35.9	42.2	–15.7	16.2
Natural gas	17.2	44.3	43.7	–26.2	–4.9
Crude petroleum	14.3	30.5	49.6	.1	51.7
Coal	2.1	10.0	9.7	5.5	3.2

7.4 percent; June, 4.4 percent; July, 13.0 percent; September, 8.4 percent; October, 4.1 percent; and November, 13.1 percent.[2] On the supply front, U.S. field production of crude petroleum was nearly flat compared with 2006 levels, roughly 1.862 billion barrels, while imports declined 1.0 percent overall, to 3.656 billion barrels. Internationally, the Organization of Petroleum Exporting Countries (OPEC) cut its official output target by 1.2 million barrels per day on November 1, 2006, and by another 500,000 barrels per day on March 15, 2007—a 6.2-percent drop in its production target—to 25.8 million barrels per day. The actual production curtailment was estimated to be 1.3 million barrels per day—a 4.7-percent decline.[3] OPEC production edged up over the remainder of 2007, but by year-end, production had decreased roughly 1.5 percent in 2007, compared with a year earlier.[4] Geopolitical uncertainty in the Persian Gulf, as well as in Venezuela, Algeria, and Nigeria, also contributed to crude oil price increases in 2007. As of December 2007, about 19.6 percent of crude oil imports came from the Persian Gulf, while 11.9, 5.1, and 11.0 percent came from Venezuela, Nigeria, and Algeria, respectively.[5] Back in the United States, allocations of crude oil to the Strategic Petroleum Reserve (SPR) increased 1.2 percent in 2007 to 697 million barrels; however, ending stocks excluding the SPR fell 3.2 percent to 3.887 billion barrels.[6]

The substantial acceleration in crude petroleum prices during 2007 passed through to refined petroleum products: prices for gasoline, home heating oil, diesel fuel, and jet fuel rose at much faster rates in 2007 than they did in 2006. As was the case with crude petroleum, these advances were spread across the entire calendar year; however, particularly large gains were observed in early spring and in November. For example, in March 2007 prices for gasoline, home heating oil, diesel fuel, and jet fuel jumped 17.4, 8.5, 13.8, and 11.7 percent, respectively. In November, these indexes increased 15.7, 17.4, 18.9, and 17.0 percent.[7]

Over two periods in 2007, the rate of operable capacity utilization at U.S. refineries fell noticeably. From early January through early March, capacity utilization fell from 91.0 percent to 85.7 percent, and from mid-August to early November, it fell from 92.1 percent to 86.7 percent.[8] During these slowdowns, finished gasoline production fell 7.0 percent and 4.0 percent, respectively. Similarly, jet fuel production dropped 7.6 percent and 0.2 percent, and distillate fuel production[9] declined 8.8 percent and 2.0 percent. Imports of crude petroleum, not allocated to the SPR, declined 2.7 percent in 2007, and imports of refined petroleum products declined 0.5 percent over the same period.[10]

Natural gas products. Prices for wellhead natural gas fell 4.9 percent in 2007, compared with a 26.2-percent drop in 2006. Similarly, the indexes for utility natural gas—residential, commercial, industrial, and natural gas to electric utilities—also declined at significantly slower

rates in 2007 than they did a year earlier. Although wellhead natural gas prices tend to be more volatile than those for utility natural gas, prices received by these two sectors generally display similar directional movements over the long term.

In terms of supply, marketed production of wellhead natural gas in the United States increased nearly 4.0 percent in 2007, from roughly 19.38 million of million cubic feet (MMcf) for the 12-month period ended December 2006 to 20.15 million MMcf for the comparable period in 2007. This rise was relatively consistent over the course of the year. Imports of natural gas (wellhead and liquefied) also grew during 2007. In calendar year 2006 U.S. imports were about 4.19 million MMcf; in 2007, total imports were roughly 4.60 million MMcf, which is nearly a 10-percent jump. At the same time, an increase of nearly 12 percent in U.S. exports—from 724 thousand MMcf to 809 thousand MMcf—partially offset the rise in domestic supply.[11]

From a storage standpoint, the volume of working natural gas in underground storage decreased in 2007, after a large net injection gain in 2006 was not replicated in 2007.[12] Total working gas in underground storage increased 16.5 percent in 2006, to 3.07 million MMcf, but the measure fell 6.2 percent in 2007, to 2.88 million MMcf.[13] This lower figure for December 2007, however, still was 7.9 percent higher than the 5-year historical average of 2.67 million MMcf. The downturn in underground storage for 2007 can be traced to increased consumption. Total U.S. natural gas consumption rose 6.6 percent in 2007, rising to 21.27 million MMcf from 19.94 million MMcf in 2006. Residential consumption grew 8.1 percent, commercial consumption expanded 6.1 percent, industrial consumption inched up 2.1 percent, and consumption by electric utilities for power generation jumped 10.5 percent.[14]

Liquefied petroleum gas. The PPI for liquefied petroleum gas surged 59.1 percent in 2007, after falling 15.1 percent in 2006. The category for liquefied petroleum gases includes products such as propane, ethane, butane, and isobutane. Liquefied petroleum gases can be derived from either natural gas or crude petroleum, and the steep acceleration in crude oil prices, along with the much slower rate of decrease in prices for wellhead natural gas, contributed to this reversal. In addition, year-end stocks for liquefied petroleum gases, which were 113.1 million barrels in 2006, dropped to roughly 95.2 million barrels in 2007, a 15.8-percent decline.[15]

Coal and electric power. The PPI for coal advanced 3.2 percent in 2007. Coal prices in 2007 were influenced by a combination of increasing coal stocks and rising demand. During 2007, stocks (coal inventory stored for future use) grew 1.3 percent, to 189 million short tons, but total coal consumption edged up 1.5 percent, to 1.229 billion short tons.[16] The PPI for electric power moved up 4.9 percent in 2007, after rising 3.2 percent a year earlier, as prices for residential, commercial, and industrial electric power each rose more than they had in 2006.[17] Coal,[18] which generates a little less than 50 percent of electric power domestically, has increased in price roughly 50 percent in the last 7 years.[19] About 20 percent of electric power is generated from natural gas,[20] and in 2007, prices for both wellhead natural gas and utility natural gas sold to electric utilities declined at much slower rates than they did in the preceding year.

Foods and related products

The PPI for finished consumer foods advanced 7.6 percent in 2007, following gains of 1.7 percent in both 2006 and 2005. Accounting for this acceleration, prices for dairy products, fresh and dry vegetables, and beef and veal turned up in 2007, while the indexes for eggs for fresh use and processed young chickens rose more than they did in 2006. On the other hand, price increases slowed from 2006 to 2007 for fresh fruits and melons and for processed fruits and vegetables. The pork index fell more than it had in the prior year. (See table 3.)

At the earlier stages of processing, prices for intermediate foods and feeds jumped 17.2 percent in 2007, subsequent to a 4.7-percent increase in the previous year. The indexes for prepared animal feeds, flour, and for shortening and cooking oils rose more rapidly than they did in 2006, and prices for fluid milk products; natural, processed, and imitation cheese; and for beef and veal turned up in 2007. By contrast, the indexes for refined sugar and byproducts and for pork fell at faster rates than in 2006.

The PPI for crude foodstuffs and feedstuffs climbed 24.9 percent in 2007, compared with a 2.8-percent gain in 2006. This acceleration can be traced primarily to surging prices for raw fluid milk, which jumped 52.4 percent in 2007, after falling 4.7 percent in 2006. The index for slaughter cattle turned up in 2007, while prices for soybeans and wheat rose at faster rates than they had in 2006. In contrast, rising prices for corn and for fresh fruits and melons slowed in 2007, and the index for slaughter hogs fell more than in the previous year.

Raw fluid milk and processed dairy products. Raw fluid milk prices reached record levels in 2007, rising 52.4 per-

Table 3. Annual percentage changes in Producer Price Indexes for selected foods and related products, 2003–07

Index	2003	2004	2005	2006	2007
Finished consumer foods	7.7	3.1	1.7	1.7	7.6
Dairy products	6.8	9.1	–2.6	–.5	23.7
Fresh and dry vegetables	37.9	–13.9	34.3	–11.9	20.0
Beef and veal	27.1	–3.8	3.2	–8.3	2.6
Eggs for fresh use	40.5	–29.4	5.0	22.2	56.4
Processed young chickens	19.9	–.9	–3.1	2.6	7.0
Fresh fruits and melons	30.5	18.0	–12.2	29.5	6.5
Processed fruits and vegetables	.4	3.1	3.4	8.3	3.3
Pork	6.8	22.1	–8.2	–.6	–2.7
Intermediate foods and feeds	12.9	–2.3	2.4	4.7	17.2
Prepared animal feeds	14.7	–11.1	5.6	11.8	20.1
Fluid milk products	9.3	5.0	1.0	–1.4	25.9
Flour	5.0	4.9	2.6	11.9	55.6
Natural, processed, and imitation cheese	8.6	14.0	–7.7	–3.1	32.1
Shortening and cooking oils	16.1	.2	–3.3	11.0	25.4
Refined sugar and byproducts	.8	–.8	18.5	–.5	–9.4
Crude foodstuffs and feedstuffs	24.1	–2.6	1.6	2.8	24.9
Fluid milk	16.1	19.1	–9.8	–4.7	52.4
Slaughter cattle	35.4	–10.9	9.5	–9.8	8.2
Soybeans	40.7	–29.7	7.0	7.9	76.8
Wheat	4.0	–5.0	–1.0	22.3	109.0
Corn	6.8	–22.9	.7	79.2	21.5
Slaughter hogs	20.7	48.7	–14.7	–4.4	–12.4

cent, after falling 4.7 percent in 2006. This resulted from a combination of higher demand and lower supplies, as well as from higher production costs for milk. In 2007, expanding economies in China, India, and other developing nations caused an increased demand for milk proteins, while a drought in Australia reduced world milk supplies. Furthermore, the weakened dollar resulted in increased export demand for domestically produced milk and milk-related products throughout the year. Milk production costs were higher for farmers, as the price for dairy cattle feeds such as alfalfa hay, corn, and soybeans all rose significantly in 2007.

The increase in raw fluid milk costs were consequently passed on to manufacturers of processed fluid milk products and of natural, processed, and imitation cheese. The index for processed fluid milk products moved up 25.9 percent in 2007, after edging down 1.4 percent in the previous year. Prices for natural, processed, and imitation cheese advanced 32.1 percent in 2007, subsequent to a 3.1-percent decline in 2006.

Vegetables and fruits. The index for fresh and dry vegetables advanced 20.0 percent in 2007, following an 11.9-percent decline a year earlier. Prices rose over the first four months of 2007 but then plummeted in May to nearly their lowest level of the year as supplies became plentiful for eastern and western based crops. By October, however, vegetable prices had rebounded 29.0 percent due to a reduction in planted acreage for the fall broccoli and cauliflower crop in California, as well as to increased demand for lettuce.

The index for fresh fruits and melons increased 6.5 percent, after jumping 29.5 percent in 2006. Fruit prices in 2007 were affected by a combination of seasonal factors and weather conditions. The start of 2007 experienced low prices for citrus fruits due to seasonally high supplies. However, this trend was almost immediately reversed when California and Arizona were hit by an extended deep freeze that began January 11 and destroyed crops throughout these states. When the freeze hit, the state of California estimated that about $960 million in citrus was still on the trees and that 75 percent of it may have been lost.[21] These losses were even more devastating to supply levels and prices due to the fact that the forecasted 2006–07 citrus crop for oranges, lemons, and specialty fruits such as tangerines and tangelos was smaller than in years past.[22] California's 2006–07 orange crop was forecasted at 1.7 million tons, 20 percent lower than the prior season and potentially the smallest crop since 1998–99.[23]

Rising prices for processed fruits and vegetables slowed

from 8.3 percent in 2006 to 3.3 percent in 2007. Price increases were spread over the entire year, as per capita net domestic use (a proxy for consumption) of processing vegetables (excluding potatoes, sweet potatoes, and mushrooms) increased 3 percent to about 119 pounds in 2007.[24]

Grains, soybeans, and prepared animal feeds. Prices for overall grains have risen steadily in 2006 and 2007, increasing 59.2 and 40.8 percent, respectively. Higher prices in 2007 were primarily the result of a 109.0-percent surge in wheat prices and a 21.5-percent gain in corn prices. Wheat prices jumped as a result of inclement weather. Also, U.S. wheat ending stocks projections for 2007–08 were lowered 32 million bushels reflecting higher expected domestic use and exports.[25] At 280 million bushels, the projected 2007–08 ending stocks were the lowest in 60 years.[26] The value of the declining dollar against other major currencies also has made U.S. agricultural products attractive in foreign markets. According to U.S. Export Sales, accumulated exports of U.S. wheat were up 67.2 percent in 2007, compared with a year earlier.[27] Corn prices also were higher in 2007 due to high demand for ethanol, animal feed, and exports. Corn is the major source of ethanol in the United States and has become increasingly popular as it has transformed from a simple grain used primarily to feed livestock into the desired commodity used to produce alternative fuels.

The soybean index surged 76.8 percent in 2007, after rising 7.9 percent a year earlier. Prices rose in 2007 as farmers displaced soybean acreage for that of corn which was seen as more financially rewarding.[28] Farmers generally rotate their acres between corn and soybeans. However, once corn was established as a high-profit crop due to the boom in ethanol demand, farmers changed their planting behavior and planted more corn at the expense of soybean acreage, decreasing soybean production and further increasing the price of soybean meal. Soybean prices were also pushed higher due to increased demand, as soybean oil has become a major input to bio-diesel production. Furthermore, world trade for soybeans has increased 37 percent since 2001 and imports by China, the world's leading soybean importer, have accounted for all of the increase including an offset of a small decline in the rest of the world.[29] China's soybean imports have increased by 24 million tons in the last 6 years, reflecting a sharp growth in protein meal consumption.[30] China now accounts for almost one-half of global soybean imports.[31]

The prepared animal feeds index advanced 20.1 percent in 2007, after an 11.8-percent gain in 2006. Higher input prices—for corn, soybeans, and wheat—were passed through to prices for prepared animal feeds throughout the year. Animal feed prices also were affected by poor weather in 2007 that limited the use of pasture for livestock grazing, which in turn increased feed demand.

Slaughter cattle and beef and veal. The index for slaughter cattle turned up 8.2 percent in 2007, following a 9.8-percent decline a year earlier. The cattle industry in 2007 was mainly affected by two factors: high feed costs and increased slaughter rates, which led to an end of herd expansions. In late 2006, corn prices skyrocketed as the demand for ethanol increased substantially. Consequently, prices of substitute feed crops such as soybeans, hay, and barley also rose. Increased feed costs led to higher slaughter rates, as the margins per head of cattle drastically shrunk to the point that cattlemen were losing money on each animal and were better off sending them to slaughter than continuing to feed them. Slaughter cattle prices remained strong through much of 2007, despite increased slaughter rates, as higher feed costs were partially passed through when fed cattle reached market. According to Joel L. Greene, livestock analyst for the U.S. Department of Agriculture (USDA), "The U.S. cattle herd expansion that began in 2004 came to a halt during 2007." He cites the annual *Cattle* report, which "estimated that the number of cattle and calves on January 1, 2008 was 96.7 million head, down 0.3 percent from a year earlier." Moreover, the beef cow herd was down to nearly 32.6 million head, a drop of about 1 percent from the previous year, and "the smallest beef cow herd since 1991."[32] The 2007 calf crop was 37.2 million head, slightly smaller than the 2006 calf crop, signaling that the total number of cattle is set to decrease over the next several years.[33]

Following a story similar to that of slaughter cattle, prices for beef and veal rose 2.6 percent in 2007, after moving down 8.3 percent in 2006. Beef production increased as a result of higher slaughter rates. In 2007, the slaughter rate was 34,274 thousand head, up 1.7 percent from 2006.[34] As a result, commercial beef production increased to an estimated 26,345 million pounds, up 0.8 percent from the 2006 total of 26,153 million pounds.[35] Despite the increase of beef supply, prices rose in 2007 due to renewed foreign demand. U.S. beef and veal exports increased 24.5 percent from 2006 and are up 105 percent from 2005.[36]

Poultry products. The index for processed young chickens rose 7.0 percent in 2007, after increasing 2.6 percent in the preceding year. Prices for eggs for fresh use surged 56.4 percent following a 22.2-percent rise in 2006. Poul-

try product price increases in 2007 were primarily due to higher feed costs, which resulted from higher corn and soybean prices. Another factor was increased fuel costs associated with transporting poultry products to markets, costs that ultimately were passed on to buyers.

Slaughter hogs and processed pork. The indexes for slaughter hogs and processed pork were major decliners in 2007, falling 12.4 and 2.7 percent, respectively. Hog producers had been expanding their breeding herds over the last few years due to favorable breeding conditions, so unlike the livestock and poultry sectors, an increase in slaughter rates negatively affected prices for slaughter hogs and processed pork.[37] Additionally, a flood of Canadian swine entered American slaughterhouses during the year resulting in a supply glut that pushed prices lower.[38]

Flour. The index for flour increased 55.6 percent in 2007, after an 11.9-percent gain in 2006. Flour prices rose throughout most of 2007, and they accelerated during the final quarter of the year as demand increased in preparation for the fall baking season. The advance in flour prices was ultimately the result of higher acquisition and storage costs of wheat. Flour mills not adjacent to large wheat growing areas needed to store millions of dollars worth of their purchased wheat. To finance the storage, millers needed to borrow money and run a line of credit. Hence, production costs for millers were compounded by a combination of interest paid on borrowed money in conjunction with the higher prices paid for wheat.

Cooking oils. Prices for shortening and cooking oils climbed 25.4 percent in 2007, after rising 11.0 percent in the previous year. Oilseeds, which are inputs to oils and shortenings, shot up dramatically during the year. These products include soybeans, cottonseeds, peanuts, and sunflowers. To take advantage of historically high corn prices, farmers diverted precious acreage usually reserved for oilseeds to corn, which significantly depleted supplies of oilseeds. The supply situation was worsened by a prolonged drought in the Southeast that negatively affected peanut production.

Finished goods other than foods and energy

The PPI for finished goods other than foods and energy, commonly known as the finished core index, advanced 2.0 percent in 2007, the same rate as in 2006. (See table 4.) In 2007, rising prices for pharmaceutical products, cigarettes, civilian aircraft, pet food, cosmetics and other toilet preparations, commercial furniture, heavy motor trucks, communication and related equipment, and book publishing

Table 4. Annual percentage changes in Producer Price Indexes for selected finished goods other than foods and energy, 2003–07

Index	2003	2004	2005	2006	2007
Finished goods other than foods and energy	1.0	2.3	1.4	2.0	2.0
Cigarettes	–.8	1.1	4.8	.8	9.2
Jewelry, platinum and karat gold	3.2	2.0	3.5	4.4	6.4
Pet food	.4	7.3	1.0	3.3	6.0
Pharmaceutical preparations	4.7	4.4	6.0	3.6	5.1
Civilian aircraft	6.1	7.1	3.9	5.3	3.3
Heavy motor trucks	–1.9	3.4	5.3	4.7	2.9
Book publishing	4.0	4.6	3.7	4.6	2.9
Aircraft and aircraft equipment	3.6	4.3	3.3	4.2	2.9
Sporting and athletic goods	–2.2	1.3	.5	2.1	2.8
Commercial furniture	.7	3.8	3.4	2.3	2.3
Household furniture	.3	3.5	3.7	2.1	1.2
Cosmetics and other toilet preparations	.7	.7	1.7	1.7	1.4
Communication and related equipment	–.9	–2.1	–.7	–.2	1.2
Tools, dies, jigs, fixtures, and industrial molds	–.9	.1	2.5	1.0	–.2
Home electronic equipment	–1.5	–4.8	–4.7	–2.5	–4.7
Light motor trucks	2.3	1.0	–5.9	1.5	–.7
Passenger cars	2.0	1.7	–3.4	–.3	–1.5
X-ray and electromedical equipment	–.7	–3.4	–1.6	–.4	–2.8
Electronic computers	–17.1	–12.3	–23.2	–22.8	–23.1

outweighed falling prices for electronic computers, light motor trucks, passenger cars, home electronic equipment, and x-ray and electromedical equipment.

Pharmaceutical preparations. Prices for pharmaceutical preparations advanced 5.1 percent in 2007, after rising 3.6 percent a year earlier. Pharmaceutical companies hiked prices on patent protected drugs to regain margin as their non-protected portfolios experienced lower demand due to an increased presence of generic substitutes. Pharmaceutical companies also raised prices in order to generate positive revenue comparisons in 2007 relative to those in 2006, when revenues were driven by the positive effect of the increased volume from the implementation of Medicare Part D, the retirees' prescription drug plan. Also impacting this index in 2007 were the costs associated with a number of high profile drug recalls and withdrawals along with the negative effects of a limited number of novel drug approvals.

Cigarettes. The cigarettes index advanced 9.2 percent in 2007, following a 0.8-percent gain in the preceding year. The impetus for this price movement was higher mandated Master Settlement Arrangement (MSA) payments—the money tobacco companies must pay to help Federal and state governments pay for their tobacco related health care costs and in smoking prevention efforts. The U.S. Centers for Disease Control and Prevention estimates the total annual health care expenditures caused by cigarette smoking at $75 billion.[39]

Civilian aircraft. After rising 5.3 percent in 2006, prices for civilian aircraft advanced 3.3 percent in 2007. This index has risen at an average annual rate of 4.1 percent over the last 10 years. Civilian aircraft sales grew 16 percent in 2007, as the expanding worldwide economy led to solid demand for commercial transport and business jets.[40] Shipments of general aviation aircraft totaled 4,272 units in 2007, the most in 25 years, as shipments of business jets topped 1,000 units for the first time in history.[41]

Pet food. Prices for pet food moved up 6.0 percent in 2007, following a 3.3-percent gain a year earlier. Pet food consists mainly of grain, oilseed, and of grain and meat byproducts—inputs that all rose in price over the year. This industry was severely affected in 2007 when pet food with melamine-contaminated wheat gluten from China caused the illness and death of many dogs and cats in the United States. In response to this scandal, new regulations were passed requiring standards for ingredients, processing, and labeling for pet food,[42] which has led to increased demand for higher priced domestic grain and meat byproducts.

Intermediate materials less foods and energy

The PPI for intermediate materials less foods and energy rose 3.3 percent in 2007, compared with a 4.5-percent increase in 2006. Leading the deceleration in the intermediate core index, the rate of advance for the materials for durable manufacturing index slowed to 1.7 percent in 2007, following an increase of 12.5 percent a year earlier. Contributing to a lesser extent, the index for materials and components for construction moved up 2.0 percent, after rising 4.3 percent in the prior year. By contrast, prices for materials for nondurable manufacturing advanced 12.8 percent compared with a 1.2-percent gain in 2006. (See table 5.) Over the last 4 years, prices for intermediate goods other than foods and energy have advanced 22.5 percent—more than 80 percent of the index's 27.3 percent gain over the 10-year period going back to 1997.

Materials for durable manufacturing. The PPI for materials for durable manufacturing rose 1.7 percent in 2007, after climbing 12.5 percent in 2006. Leading this price deceleration, the primary nonferrous metals index moved up 3.9 percent in 2007, following a 32.7-percent surge in the prior year. Prices for cold rolled steel sheet and strip, copper and brass mill shapes, and aluminum mill shapes, all of which increased dramatically in 2006, turned down in 2007, as a slowing U.S. economy and ample supplies negatively affected pricing.

Pricing for primary nonferrous metals is mainly determined by two components of this index—copper cathode and primary aluminum—both of which exhibited divergent price activity in 2007. The index for copper cathode rose 15.7 percent, subsequent to a 39.3-percent gain in 2006; this index has more than tripled since 2002. Copper demand had benefited from the housing boom—a typical 2,100-square-foot house uses 439 pounds of copper.[43] In 2007, depleted commodity exchange copper inventories and lower copper production due to labor unrest in Canada, Chile, Mexico, and Peru led to supply concerns and higher prices.[44] Demand from China, currently the world's largest copper consumer, grew 13 percent in 2007 to 3.99 million tons.[45] Price increases for copper cathode were moderated by lower demand for construction purposes due to the domestic housing market downturn and the increased use of less expensive plastic substitutes. The index for primary aluminum declined 12.9 percent

Table 5. Annual percentage changes in Producer Price Indexes for selected intermediate materials other than foods and energy, 2003–07

Index	2003	2004	2005	2006	2007
Intermediate goods other than foods and energy	2.1	8.3	4.8	4.5	3.3
Materials for durable manufacturing	4.0	18.3	5.9	12.5	1.7
Primary nonferrous metals	13.5	24.9	29.9	32.7	3.9
Copper cathode	29.5	46.8	50.0	39.3	15.7
Primary aluminum, except extrusion billet	10.4	20.1	18.0	18.1	–12.9
Steel mill products	1.7	48.8	–3.8	11.6	.9
Cold rolled steel sheet and strip	–.2	35.5	–1.2	41.2	–9.1
Aluminum mill shapes	–.5	9.9	5.0	12.7	–1.7
Copper and brass mill shapes	11.6	29.6	31.0	44.4	–3.0
Construction materials and components	3.0	10.1	6.1	4.3	2.0
Nonferrous wire and cable	5.7	13.5	21.1	21.8	2.3
Plywood	31.3	–3.4	–2.9	–8.3	7.3
Fabricated structural metal products	.6	17.6	2.9	4.7	2.3
Concrete products	1.5	7.6	10.1	8.1	3.8
Paving mixtures and blocks	3.7	4.3	14.3	27.6	1.6
Asphalt felts and coatings	6.3	4.1	15.3	5.0	1.4
Treated wood	9.4	3.3	3.8	–6.6	1.1
Softwood lumber	8.3	9.9	–.4	–15.2	–4.0
Building paper and board	38.6	–1.0	1.0	–13.6	–13.6
Gypsum products	2.8	20.0	18.8	5.5	–22.1
Materials for nondurable manufacturing	4.9	13.7	8.9	1.2	12.8
Industrial chemicals	8.1	24.6	13.6	4.0	16.3
Basic organic chemicals	9.3	30.3	12.6	.4	17.3
Basic inorganic chemicals	2.9	7.3	17.7	16.4	10.4
Fats and oils, inedible	29.4	–15.6	11.9	12.4	48.9
Fertilizer materials	20.9	15.2	15.6	–8.3	43.4
Plastic resins and materials	6.4	28.6	10.8	–7.8	9.7
Paperboard	–4.1	12.3	–3.0	13.6	6.0

in 2007, following an 18.1-percent advance a year earlier. Aluminum is a plentiful resource produced through an energy intensive process. With a 50-percent advance in aluminum prices between 2003 and 2006, restarts of domestic aluminum smelters drove a 14-percent increase in production in 2007 (about 300 million tons), which combined with a decrease in consumption, led to lower prices.[46]

Materials and components for construction. Prices for materials and components for construction moved up 2.0 percent in 2007, compared with a 4.3-percent gain in 2006. The indexes for paving mixtures and blocks, nonferrous wire and cable, concrete products, fabricated structural metal products, and steel mill products rose less than they had a year earlier, in response to a weaker construction environment. The U.S. Department of Commerce reported that the annual value of residential construction put in place declined 18 percent in 2007 to $532.6 billion, the lowest amount since 2003. Residential construction accounts for roughly one half of total construction in the United States.[47]

Despite a slowdown in construction, prices for plywood advanced 7.3 percent in 2007, after decreasing 8.3 percent a year earlier. Plywood pricing is volatile and can be affected by factors outside of residential construction such as mill operations, dollar valuation, and regional weather patterns. The weak dollar supported domestic plywood prices in 2007 by limiting the price competitiveness of imported products; rainy weather in the southern half of the United States also led to reduced plywood supplies.

Materials for nondurable manufacturing. The index for materials for nondurable manufacturing jumped 12.8 percent in 2007, following a 1.2-percent gain in the previous year. Prices for basic organic chemicals surged 17.3 percent, after edging up 0.4 percent in 2006. The index for fertilizer materials climbed in 2007, as soaring food prices drove demand for fertilizer as a means of improving crop

yield. Prices for plastic resins and materials turned up in 2007, while the index for inedible fats and oils advanced more than it had a year earlier. By contrast, the paperboard index moved up 6.0 percent following a 13.6-percent gain in the preceding year. Prices for basic inorganic chemicals, paper, and synthetic rubber also advanced at slower rates than in 2006.

Similar to their aggregate, components of the basic organic chemicals index increased over the course of the year, as prices for primary, intermediate, and miscellaneous basic organic chemicals rose 27.8 percent, 8.8 percent, and 5.4 percent, respectively. This broad-based advance was driven by the rising price of crude oil. Basic organic chemicals are separated from crude at petrochemical refineries through a variety of extraction processes termed *cracking*; thus, higher prices for oil have adversely affected chemical production costs—resulting in increased prices for basic organics.

Crude nonfood materials less energy

The PPI for crude nonfood materials less energy surged 15.6 percent in 2007, following a 17.0-percent climb in 2006. (See table 6.) Prices for basic industrial materials have increased at an average rate of 16.0 percent over the last 5 years. On average, this index rose at a 5.1-percent annual rate over the previous 25 years. Despite a slowing domestic economy, basic materials prices moved up steadily in 2007 as investors sought relative safety from inflation fears and the weaker dollar sparked higher export demand for commodities.

Iron and steel scrap. Prices for iron and steel scrap jumped 29.4 percent in 2007, following a 2.9-percent rise in 2006, primarily due to increased foreign demand. The International Iron and Steel Institute reported that although U.S. steel production declined 4.9 percent in 2007, world steel production still grew 7.5 percent.[48] Buyers in the Middle East—Turkey and Dubai—have stepped up purchases of U.S. iron and steel scrap, as their previous supplier, Russia, has limited exports to service internal demand.[49] The weak dollar also has supported the domestic scrap market by increasing the price of imports.

Gold ores. Prices for gold ores soared 24.9 percent in 2007 building on a 21.3-percent gain a year earlier. Gold demand has turned inelastic—higher prices had little effect on demand, as investors viewed gold as a safe haven against a declining dollar, inflation, and geopolitical risk. Additionally, gold production has declined, because no new major deposits have been found in the last 5 years.[50]

Wastepaper. The wastepaper index jumped 53.4 percent in 2007 led by a 62.5-percent surge in wastepaper exports prices. Wastepaper export volume rose by 9 percent to 15.6 million metric tons (mmt), with China accounting for 52 percent of the total volume.[51] China's surging economy grew 11.4 percent in 2007, the fifth consecutive year of greater than 10 percent growth.[52] Paperboard is a necessary component in economic growth, because it is used to package manufactured products; China is dependent on paper imports, because it does not have sufficient amounts of natural forestland.

Construction sand, gravel, and crushed stone. The construction sand, gravel, and crushed stone index advanced

Table 6. Annual percentage changes in Producer Price Indexes for selected crude nonfood materials less energy, 2003–07

Index	2003	2004	2005	2006	2007
Crude nonfood materials less energy	21.6	20.5	5.2	17.0	15.6
Wastepaper	8.7	17.3	–9.1	19.1	53.4
Iron and steel scrap	64.9	50.8	–10.8	2.9	29.4
Gold ore	24.2	8.8	17.9	21.3	24.9
Construction sand, gravel, and crushed stone	2.4	4.3	7.7	9.3	8.4
Copper base scrap	30.7	34.5	51.9	50.0	3.1
Iron ore	1.6	6.7	15.5	7.5	1.3
Copper ores	37.4	65.1	39.3	53.1	–1.7
Softwood logs, bolts, and timber	–.1	5.3	2.3	–7.4	–5.3
Aluminum base scrap	11.5	12.9	12.8	23.7	–5.8

8.4 percent in 2007 as lower supplies and increased transport charges drove prices higher despite a slowdown in U.S. construction demand. In 2007, U.S. construction spending declined 2.6 percent—the largest decrease since 2002—leading to a 16-percent decline in production for both crushed stone and for construction sand and gravel.[53] Nevertheless, prices still rose for this commodity due to higher transport charges, an important component in aggregate pricing, as well as the impact of a ruling in a Florida court case that limited Florida aggregate production and sent builders scrambling for alternative supplies.[54]

Services

Trade industries. The index for total trade industries rose 3.9 percent in 2007. Trade indexes measure changes in margins received by wholesalers and retailers. Higher margins received by gasoline stations; merchant wholesalers of durable goods; grocery stores; merchant wholesalers of nondurable goods; automobile dealers; department stores; automotive parts, accessories, and tire stores; and health and personal care stores outweighed lower margins received by electronics and appliance stores. (See table 7.)

The margin index for gasoline stations jumped 26.9 percent in 2007, after increasing 8.7 percent in 2006. Gasoline margins typically represent only pennies per gallon that consumers purchase at the pumps. Large changes in the index are usually indicative of retailers either trying to maintain market share (by decreasing margins) as supplier prices rise or recouping lost revenue (by increasing margins) as supplier prices fall. Long-term price change is the result of increases in the cost of doing business for retailers. Gasoline retailers were hit particularly hard in 2007 as supplier fuel prices increased to sustained levels not previously seen. For example, as the result of consumers increasingly using credit cards to pay for higher priced gasoline, retailers faced much higher costs of doing business for credit card fees.[55] Short-term fluctuations

Table 7 **Annual percentage changes in Producer Price Indexes for selected services industries, 2003–07**

Index	2003	2004	2005	2006	2007
Total trade industries	–	–	–	–	3.9
Wholesale trade	–	–	–	–	3.0
Durable goods	–	–	1.7	5.8	4.0
Nondurable goods	–	–	4.6	7.6	1.6
Retail trade	–	–	–	–	4.5
Gasoline stations	7.2	24.8	–19.2	8.7	26.9
Grocery stores	–	7.4	6.3	–.4	4.5
Automobile dealers	–	2.3	4.0	4.4	4.1
Department stores	–	4.7	–1.0	–.1	4.2
Automotive parts and accessories, tire stores	1.6	10.4	–.3	4.7	9.5
Health and personal care stores	–	7.2	4.4	6.8	3.6
Electronics and appliance stores	–	–6.4	1.8	–1.7	–4.7
Transportation and warehousing	–	–	–	–	6.6
Couriers	–	9.1	8.2	3.0	12.3
Scheduled passenger air transportation	1.9	–1.5	7.7	–1.1	9.0
Inland water freight transportation	–.2	7.6	20.0	14.0	4.2
Line-haul railroads	2.3	7.4	13.1	1.9	9.2
U.S. Postal Service	0	0	0	6.3	6.6
Truck transportation	–	5.5	5.4	2.1	3.8
Freight transportation arrangement	.3	.9	.8	–1.8	1.9
Coastal and Great Lakes freight transportation	–	2.6	11.4	7.2	10.6
Deep sea freight transportation	8.7	3.1	.3	.2	–.2
Total traditional services	–	–	–	–	1.8
General medical and surgical hospitals	4.9	4.6	4.2	3.9	3.8
Offices of physicians (except mental health)	2.2	1.5	1.9	1.1	4.0
Direct health and medical insurance	8.7	4.0	4.8	3.7	3.3
Portfolio management	11.8	9.9	10.1	5.8	9.8
Offices of lawyers	2.8	4.3	6.1	4.9	5.6
Hotels and motels (except casino)	–	2.9	7.4	4.1	6.3
Nursing care facilities	4.3	3.9	3.6	2.9	5.6
Commercial banking	–	1.3	11.5	1.3	–5.5

NOTE: Dashes indicate data unavailable.

throughout the year are usually the result of supply and demand circumstances. In 2007, gasoline margins were volatile early in the year before starting their upward climb in the spring, when demand increased as the driving season commenced. Between March and June, gasoline station margins increased nearly 31 percent, reflecting an increase in gasoline demand of about three percent,[56] while inventories fell 0.4 percent from their first quarter levels.[57] Throughout the second half of the year, margins were volatile, although they trended downward, reflecting a 2.0-percent decrease in demand,[58] in combination with a 1.5-percent increase in inventory levels.[59]

Margins received by grocery stores turned up 4.5 percent in 2007, following a 0.4-percent decline in 2006. A major factor influencing grocers' margins are energy prices, because grocers use significant amounts of energy for both refrigeration of perishable inventory and climate control in their stores. During 2007, commercial electric power prices rose 3.8 percent,[60] closely reflecting the increase in grocery store margins.

The index for total wholesale trade industries rose 3.0 percent in 2007, as margins received by merchant wholesalers of durable goods advanced 4.0 percent, and margins received by merchant wholesalers of nondurable goods rose 1.6 percent in 2007.

The index for durable goods wholesalers followed its historical pattern with a large January increase that reflected wholesalers' traditional attempts to push price increases through at the start of the year to retailers, in combination with the removal of holiday promotions. In December, margins jumped 2.6 percent due to strong demand for industrial machinery and equipment and lower supplies of computers and related products.[61]

The margin index for wholesalers of nondurable goods declined in early spring as clothing wholesalers attempted to clear out relatively high inventories prior to receiving shipments for the summer season,[62] and alcohol wholesalers received lower margins as increased demand for lower-margin malt beverages outweighed demand for other types of higher-margin alcoholic products.[63] Margins dropped another 2 percent in June due to decreased demand for chemical products coupled with higher inventories for farm products, grocery items, and apparel.[64] August saw a spike of 3.6 percent due to increased margins for motor oil, pharmaceuticals, and food products, particularly poultry and cheese. Margins remained volatile until late in the year, when they fell 2.6 percent in December. The drop was mainly a result of lower margins received for chemicals, prescription pharmaceuticals, plastics, and motor oils due to the high prices of petroleum-derived products that wholesalers were unable to pass on to retailers.[65]

The index for automobile dealers rose 4.1 percent in 2007, following a 4.4-percent increase in 2006. This index measures changes in margins collected by automobile dealers for vehicle sales and also through their service and parts operations. In 2007, the index for automobile dealers advanced 1.2 percent in January as a result of dealers receiving a large boost in revenue for their roles as intermediaries for financing and insurance services provided during 2006. The index fell 1.4 percent between June and October reflecting lower margin on vehicle sales due to automobile dealers discounting efforts to increase sales of current model-year vehicles prior to the introduction of the 2008 models. The index jumped 2.6 percent in December, as automobile dealers raised prices for service labor and parts in anticipation of upcoming cost of living increases for employees and for increases in parts costs, which typically take effect at the start of the year.

Transportation and warehousing industries. The index for transportation and warehousing industries advanced 6.6 percent in 2007. The index for total transportation and warehousing industries measures changes in prices received by companies identified as providing transportation services, as well as delivery and warehousing services. Higher prices received by the industries for couriers, air transportation, inland water freight transportation, line-haul railroads, the U.S. Postal Service, truck transportation, freight transportation arrangement, coastal and Great Lakes freight transportation, and for warehousing and storage more than offset lower prices received by the industry for deep sea freight transportation.

The increase in the index for couriers accelerated to 12.3 percent in 2007, after advancing 3.0 percent in 2006. Prices spiked 8.1 percent in January 2007 as courier companies folded their 2006 fuel surcharges into their 2007 base rates, while reducing, although not eliminating, fuel surcharges going forward. For most of the remainder of the year, couriers modified their fuel surcharges based on changes in diesel fuel prices, typically with a two-month lag. Prices increased late in the year, reflecting increased demand for delivery of holiday purchases.

The index for the scheduled passenger air transportation industry turned up 9.0 percent in 2007, after falling 1.1 percent in 2006. Prices increased in the first quarter of the year due to a combination of strong demand and higher fuel costs, as North American passenger air traffic increased 6.1 percent while capacity rose only 5.2 percent over previous year levels,[66] and jet fuel prices ended the quarter 6.7 percent higher than their previous year's

levels.[67] Prices for air transportation spiked again in the summer, reflecting a further reduction in capacity as airlines shifted to smaller planes, while demand continued to increase with the summer travel season.[68] Prices remained volatile for the rest of the year, as lower air travel demand was offset by higher fuel prices.

The increase in the index for inland water freight transportation slowed to 4.2 percent in 2007, after jumping 14.0 percent in 2006. The first quarter of 2007 saw lower prices received as poor winter weather closed a number of inland waterways. Once shipping was able to consistently resume following the spring thaw, stagnant market conditions for steel and agriculture resulted in lower demand. Prices spiked in the summer and early autumn due to increased demand for farm and related products. Inland water freight prices reversed course again in November and December as the worsening economy resulted in lower demand for many domestically produced products.[69]

Traditional service industries. The index for total traditional service industries increased 1.8 percent in 2007. Traditional service industries include industries related to the dissemination of information, selected providers of health care services, as well as other assorted service industries. In 2007, increasing prices received by the industries for general medical and surgical hospitals, offices of physicians (excluding mental health), direct health and medical insurance carriers, portfolio management, offices of lawyers, non-casino hotels and motels, and nursing care facilities outweighed lower prices received by the commercial banking industry.

The index for general medical and surgical hospitals increased 3.8 percent in 2007, nearly matching its 3.9 percent rise in 2006. This index consistently reflects two major increases each year which account for a majority of the annual movement. Most of the movement in this index in 2007 occurred in January and October, which coincides with the start of the new calendar year and the start of the Federal government fiscal year, respectively. In January, an increase of 0.8 percent reflected annual increases in hospital charges and renegotiations with insurance companies for reimbursements. In October, an advance of 2.1 percent was the result of changes in Medicare and Medicaid reimbursement rates which take effect at the start of the government's fiscal year. The effect of these rate increases was offset somewhat by a new set of rules penalizing hospitals that declined to participate in Hospital Compare reporting by reducing their Medicare and Medicaid reimbursements by 2 percent.[70]

The index for offices of physicians (excluding mental health) advanced 4.0 percent in 2007, after rising 1.1 percent in 2006. Similar to the general medical and surgical hospital index, there are principally two months which account for a majority of the price change for the offices of physicians index. In January, prices received by physicians' offices jumped 3.3 percent, reflecting changes in reimbursement rates for Medicare patients. In 2007, in an effort to encourage physician consultations and preventative care, Medicare changed its reimbursement formulary to be based on the amount of time the physicians spend with individual patients.[71] Additionally, offices often change their fee schedules in January for self-paying patients, and many offices increased their fees to offset higher liability insurance rates and increased operating expenses incurred throughout 2006. In September 2007, prices increased 0.6 percent reflecting the renegotiation of reimbursement rates with private insurance companies.

Prices received by the direct health and medical insurance industry increased 3.3 percent in 2007, after climbing 3.7 percent in 2006. With 2007 increases of 3.8 percent and 4.0 percent for general medical and surgical hospitals and for physicians' offices, respectively, the 3.3 percent increase for the direct health and medical insurance industry in 2007 reflects insurance companies attempts to keep pace with the cost of medical inflation. Insurance rate increases were slightly lower than those for the medical services areas reflecting attempts by employers to contain their insurance cost increases by negotiating for larger co-payments in lieu of substantially higher insurance rates.

The index for portfolio management increased 9.8 percent in 2007, following a 5.8-percent rise in 2006. Prices received by firms in the portfolio management industry are partially determined by the appreciation of portfolios of equities and debt securities. Most firms are typically priced on a one quarter lag, with prices reported to the PPI in the month following the end of each quarter. In 2007, large increases of 4.4 percent, 1.3 percent, and 2.0 percent were reported in January, April, and July, respectively, coinciding with the reports for the fourth quarter of 2006 and the first and second quarters of 2007. These increases were partially caused by advances in the equity markets, as illustrated by the Dow Jones Wilshire 5000 index, which rose 16.2 percent from the beginning of the fourth quarter of 2006 through the end of the second quarter of 2007. Changes in the portfolio management index are typically less volatile than those of the equity indexes due to the inclusion of debt securities and cash in the portfolios. Following the autumn credit meltdown, the equity markets turned lower, which was reflected by a 1.1-percent decline

for those firms that reported data for December.

The index for commercial banking turned down 5.5 percent in 2007, after advancing 1.3 percent in 2006. This downturn was driven by a 21.5-percent decline in revenue received for loan services in 2007. Noteworthy decreases were observed for the following types of loan services: home equity loans were down 24.6 percent; commercial, industrial, and agriculture loans, except real estate dropped 23.8 percent; and residential real estate loans were down 12.8 percent. By contrast, the deposit services index increased 11.5 percent for the year. Prices in the PPI banking industries reflect the difference between the revenue generated and the sum of its implicit and explicit costs for a specific type of banking activity such as commercial loans or auto loans. To measure these costs, interest is allocated between loans and deposits by means of a *reference rate*. Because most of these loans have interest rates that are fixed at the time the loan originates, most of the price movement in the index is the result of the change in the reference rate. The reference rate is based on the monetary policy of the Federal Reserve. The Federal Reserve's easing of monetary policy in 2007 had a dramatic effect on the reference rate. □

Notes

[1] The stage-of-processing indexes for finished, intermediate, and crude goods other than foods and energy are commonly referred to as the indexes for *finished core*, *intermediate core*, and *crude core*. Also, the index for crude goods other than foods and energy often is referred to as the index for crude nonfood materials less energy and *basic industrial materials*.

[2] To locate PPI data on the BLS Web site, visit **data.bls.gov/cgi-bin/srgate** and enter the series identifiers in question; for example, the series identifier for the crude petroleum index is WPU056.

[3] *Oil Daily*, Mar. 16, 2007, p. 1.

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Price measures of new vehicles: a comparison

The Consumer Price Index, the Producer Price Index, and the International Price Program all analyze price changes in new vehicles; however, these indexes' movements are only weakly correlated because of methodological differences in sampling, pricing, the analysis of incentives, and other aspects of survey design

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The automobile industry is a vital and dynamic component of the U.S. and global economies. Faced with competition spurred by technological advances and global demand, the industry has attracted significant attention from policymakers, the media, unions, and businesses in the last several years. In the United States, the automobile industry employed more than 1 million workers in 2006.[1] U.S. production during this period was 11.4 million units,[2] and U.S. consumers purchased 16.5 million cars and trucks. At the same time, foreign manufacturers with factories in the United States have significantly increased their presence in this country.[3] In recent years, U.S. automakers have been facing restructuring, financial stresses, and competitive challenges to their traditional market shares. Furthermore, U.S. consumers, exposed to record high gasoline prices, are being offered a growing choice of hybrid-fueled vehicles. As the range of vehicle models, features, and options has grown, consumers have been gaining access to more and better information about these characteristics via the Internet. In this competitive market, price incentives offered by both domestic and foreign automakers to U.S. consumers have become the industry norm.

The automobile industry presents many challenges to anyone trying to measure accurately the average price change of new vehicles. Over the years, the Bureau of Labor Statistics (BLS) has often been asked why its three programs that measure changes in new vehicle prices—the Producer Price Index (PPI), Consumer Price Index (CPI), and International Price Program (IPP)—have often trended differently despite the fact that they measure the same industry.

This article explains the differences among the three programs' methods of index calculation, analyzes these differences, and elucidates the implications of the new passenger car price indexes. Through detailed examples, the article conveys how sampling, pricing, consumer and dealer incentives, exchange rates, and model year changeover with quality adjustments are handled differently by each program. This article shows that the discrepancies among the indexes are largely the result of methodological differences among the programs; however, the article also emphasizes that these methodological differences have an economic basis and are usually a product of differences in the scope and measurement objective of each index.

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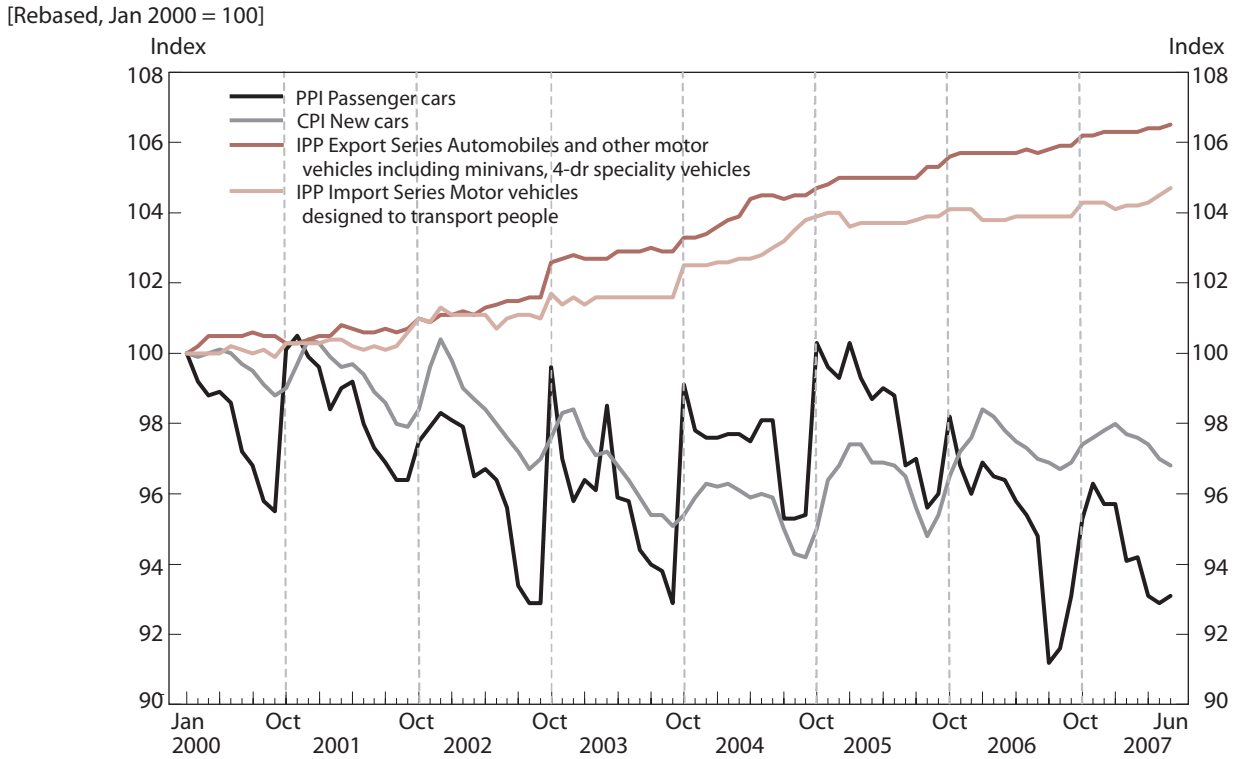
Overview of recent price trends

Chart 1 offers a graphical overview of the Bureau's new vehicle price index series from January 2000 to June 2007. Visual analysis of the chart reveals the striking variation in the behavior of these indexes. Specifically, the

Chart 1. BLS new vehicle indexes, not seasonally adjusted, January 2000–June 2007



NOTE: PPI data March 2007–June 2007 are preliminary.

chart shows that the two IPP series did not experience the same degree of annual price volatility as the PPI and CPI, and that the two IPP series increased during this period while the PPI and CPI slightly decreased. These variations are attributable to the different measurement objectives among the price indexes, to the different program methodologies, and to the prevailing economics of the new vehicles market during this period.

The relative stability of the IPP new vehicle export and import series can be explained by the absence of rebates and incentives offered to consumers of new model vehicles. The IPP series strictly measure prices between overseas agents, domestic producers, and importers. These prices do not reflect the price decreases used for promotions by dealerships and, therefore, they produce relatively steady monthly changes. The PPI and CPI include rebates and incentives, along with the price increases that accompany the introduction of new model year vehicles towards the latter half of the year, and these contribute to more volatility from month to month.

Comparing the PPI and CPI new-vehicle price indexes, the PPI series is more volatile than the CPI series because its sample transitions completely to the new year's models in October, typically resulting in a large, spiking price increase. The CPI's transition to the newer models is done over a span of months, producing smoother increases in the index while the transition is occurring. The impact of the transition to the new models is less pronounced in the IPP series because it is not affected by changes in incentives and, as a result, does not exhibit the associated rise and fall of prices.

The divergence in the long-term trends of the IPP indexes (which have increased) compared with the PPI and CPI (which have decreased) is also the result of the inclusion of incentives in the PPI and CPI. Because of the highly competitive nature of markets for new vehicles during the period of the study, the value of manufacturer-offered incentives hit record levels about a dozen times prior to leveling off in 2005. These attempts to appeal to the marketplace through lower prices mean that as the value of the incentives increased, the true prices of new vehicles fell, resulting in end-of-year prices that were lower than the previous year's prices. Compounded, these decreases produced downward trends in the PPI and CPI, while the IPP indexes remained insulated from the competitive pricing seen at the manufacturer-to-dealer and the consumer levels. The

types of vehicles included in the various measures, as well as the number of models tracked in the respective market segments, also contribute to the trend differences. The IPP Import Index includes a larger proportion of luxury vehicles and the IPP Export Index includes a larger proportion of sport utility vehicles (SUVs), both of which are relatively more expensive types and models of vehicles and contribute to the upward trends of those indexes. The balance of this article explains in more detail these differences among the new vehicle indexes.

Methodological differences among the programs

Differences in the types of prices that each program tries to measure contribute to a disparity in price index movement among the indexes. Chart 1 displays this disparity, showing that it is especially strong in the short run. The PPI measures the average change over time in the selling price received by domestic producers, the CPI measures changes in the estimated transaction price consumers pay to auto dealers, and the IPP measures changes in import and export prices paid at the U.S. border minus shipping and customs fees. Cars manufactured abroad but sold in the United States are in scope for the IPP Import Index and the CPI, but out of scope for the PPI. Cars manufactured and sold in the United States are in scope for the PPI and CPI, but not for the IPP. Cars manufactured in the U.S. and sold abroad are in scope for the PPI and the IPP Export Index, but not for the CPI. Before examining the movements of the new-car indexes, this article describes differences among them in sampling, pricing, treatment of model year changeover, quality adjustment, and price incentives. Such differences help explain the differences in the movements of the indexes and are referenced in the section that discusses index movements. A complete comparison of index methods for the three programs is shown in the appendix.

The indexes chosen for this study were selected because the types of vehicles covered by each index are similar, although there are some differences. The PPI's passenger cars index and CPI's new cars index provide a similar comparison. The closest match in the IPP's export series is Automobiles and other motor vehicles including minivans, 4-dr specialty vehicles. The IPP import series closest match is Motor vehicles designed to transport people.[4] Although the IPP indexes include a wider variety of vehicles, all of these indexes include cars, and the PPI and CPI include cars exclusively. Therefore, this article refers to them as "car" indexes and not "vehicle" indexes.

Sampling. The scope of the PPI includes automobile manufacturers with factories located in the United States. Every 5 years, the pool of available manufacturers is resampled, and BLS representatives visit the sampled companies to request their participation in the survey. All of the manufacturers' domestically produced vehicles are in the sample universe. Vehicles with the highest revenue have a higher probability of selection using the probability-proportional-to-size sampling technique. Selection of the vehicle options is based on the percentage of customers selecting an option installed on the model, which is known as the penetration rate. The PPI sample is generally smaller than the CPI sample.

The CPI new car pricing area universe is the entire urban United States. Its area sample consists of 87 geographic primary sampling units (PSUs), which are urban areas across the Nation. The Telephone Point-of-Purchase Survey asks households in each PSU about their new vehicle expenditures to establish which dealerships to visit for pricing. Selected dealers are visited by a BLS representative to disaggregate the universe of new cars[5] sold to consumers on the basis of dollar volume sales in order to identify and choose cars for data collection from the sampled dealerships. Specifically, this is done by selecting a unique car make, followed by a model within that make, and lastly a unique trim level within the model. Given that car models tend to have various styles with different equipment, the trim level is used to distinguish among the available performance levels or equipment package options. For example the "EX" and "LX" are trim levels for a Honda Accord model. Once a trim level is selected, the dealer is asked to reference the invoice of the last car sold with that trim level in order to complete the vehicle description including options. The CPI sampling process usually yields three distinct vehicles with equipment options to price in each sampled dealership. In total, about 1,500 vehicles are priced at 500 dealerships; about half of the vehicles are cars. The sample of dealerships is replaced at the rate of 25 percent each year.

The sample of exports for the IPP is derived from U.S. Census Bureau data from shippers' export declarations, and the sample of imports is derived from consumption entry documents.[6] The IPP employs the probability-proportional-to-size technique to determine which companies compose the sample. After companies are selected, the IPP chooses individual vehicles for pricing by disaggregating according to model, trim level, and options. Each vehicle stratum is sampled every 2 years on an ongoing basis. This ensures that the IPP's sample captures current market trends. The IPP's motor vehicle index is different from both the CPI's and PPI's motor vehicle in-

dexes because it includes a broader category of vehicles.[7]

Comparison of the sampling methods reveals three distinctions. The first is the types of vehicles included in the samples. The CPI and PPI only include cars, whereas the IPP includes cars, minivans, sport utility vehicles, and trucks. The second involves manufacturing location; the CPI includes both U.S.- and foreign-produced cars, the PPI sample represents U.S.-produced cars, the IPP Export Index represents U.S.-produced cars, and the IPP Import Index represents foreign-produced cars. The third factor is the smaller sample sizes of the PPI and IPP compared with the CPI's sample size. This is due to the extent of manufacturers' participation, which determines for how many vehicles manufacturers will provide data and how often they provide those data.

Pricing. The PPI measures prices received by manufacturers for the new cars they produce and sell. The price data are *net prices*, which are prices paid to the manufacturer inclusive of the manufacturer's discounts to the buyer. The PPI national office collects prices from manufacturers via a monthly survey, and the prices reflect sales for the Tuesday of the week containing the 13th of the month.

The type of price usually collected for the car index is a dealer net price (that is, what the dealer pays for the vehicle). The dealer net price reflects sales from the manufacturer to the dealer and deducts rebates and low rate financing given by the manufacturer. If these incentives are only available in some regions or on some transactions, a national average value for all sales of that model is calculated. Price or discount information received after an index is first published is incorporated into the final index released four months after original publication. If discount information is not available before the index is calculated, then a first-published index is released based on all data available at the time. Table 1 provides an example of the types of prices and price adjustments applicable to each of the price indexes and shows how they are used to estimate reported prices.

The CPI measures the price of a new car to the consumer at the retail level. Typically, new car prices are negotiated between the buyer and the dealer, so the CPI reflects the negotiated price by estimating a transaction price on the basis of recent sales including markups, rebates, and/or concessions. Also included in CPI pricing but not included in IPP and PPI pricing are charges for the new vehicle's transportation to the dealer, dealer preparation of the vehicle, and sales taxes as shown in table 1.

Prices in the CPI are collected bimonthly in most metropolitan areas. However, prices in New York, Los Angeles,

Table 1. New vehicle pricing comparison

Prices and price adjustments	PPI	CPI	IPP Export	IPP Import
	Domestically produced cars	Domestically and foreign-produced cars	Cars, golf carts, SUVs, mobile homes, minivans	Cars, golf carts, SUVs, mobile homes, minivans
Reported price	$18,750	$21,550	$20,600	$20,075
Prices				
Border price	([1])	([1])	20,000	20,000
Dealer net price	20,000	([1])	([1])	([1])
Retail base price	([1])	22,000	([1])	([1])
Transportation charge	([1])	800	([1])	([1])
Dealer preparation	([1])	100	([1])	([1])
Optional equipment	1,000	1,100	1,000	1,000
Subtotal	21,000	24,000	21,000	21,000
Price adjustments				
Consumer rebate	[2](1,000)	[2](1,000)	([1])	([1])
Low rate financing	[2](500)	([1])	([1])	([1])
Dealer rebate	[2](750)	([3])	([1])	([1])
Concession	([1])	[2](2,000)	([1])	([1])
Duty	([1])	([1])	([1])	[2](525)
Taxes	([1])	550	([1])	([1])
Freight	([1])	([1])	[2](400)	[2](400)

[1] Not applicable.
[2] This figure is subtracted from the subtotal.
[3] Included in concession.

and Chicago are obtained monthly. Price data collection occurs throughout the entire month and is done by BLS representatives assigned to various dealerships. Typically, three distinct cars are priced in a sampled dealership. If a particular model and trim level was not sold in the past 30 days, it is deemed temporarily unavailable for pricing. If at least one car of a particular model and trim level was sold, the estimated transaction price is based on sales of that car over the past 30 days; average markup, rebate, and/or concession are estimated. The CPI's use of the 30-day pricing reference period and pricing throughout the month are techniques that may contribute to a lag in the reflection of price change that does not apply to the PPI and IPP, for which prices collected reflect one specific reference day.

The concession is the negotiated segment of the consumer transaction price with the dealer; concessions are common, which means that consumers typically do not pay list price for a new car. Typically, list prices do not change from month to month. An example of the impact a concession has on a new car price in the CPI versus the impact it has on a new car price in the other car indexes is illustrated in table 1. Pricing starts with the retail base price and then adds transportation charges, options, and dealer preparation charges. Then the price is adjusted for additional markup and discounting due to concession and/or rebate. These markups, concessions, and rebates are all estimated on the basis of sales over the past 30 days for the model and trim level in question.

Rebates and concessions are major contributors to the monthly CPI car price index movements. These two price discounts work hand-in-hand; if the rebate spikes up the concession may fall, and if the rebate is reduced, the concession may rise. This tends to offset the impact of new rebate offers.

The International Price Program produces measures of price change for goods and services imported into the United States and exported from the United States. By conceptual definition, the IPP seeks to capture import prices at the port of entry and export prices at the port of exit. A variety of types of prices are eligible for inclusion, including intrafirm prices as well as trade between unrelated parties.

These import and export price indexes are utilized to deflate various foreign statistics produced by the Census Bureau and the Bureau of Economic Analysis. In order to be compatible with these measures, IPP price data are adjusted for duty and freight costs. As illustrated in table 1, these adjustments are unique to these measures and are not used for the CPI or PPI price data. Another factor that applies to the IPP and not to the PPI or CPI is the use of exchange rates. Although the majority of manufacturers who trade overseas price their products in U.S. dollars, some traders price vehicles in local currencies. To convert foreign currencies to U.S. dollars, the IPP receives exchange rate conversion factors for the major foreign currencies from the University of British Columbia Pacific Exchange Rate Service each month. Although exchange rates fluctuate over the course of the month, the IPP uses the average monthly exchange rates from this source.

The IPP national office collects prices monthly directly from U.S. international traders and manufacturers. Data used in these indexes are collected via mailed forms or via the Internet. The reference date for data used in IPP indexes is the first day of each month. The IPP revises its data 4 months after the initial release in order to account for data that were not collected in time for index calculation but have since been collected. Although the IPP collects prices on the first day of each month, late data that arrive within the 4 month time frame are used in calculating revised measures. Table 1 shows that the CPI and PPI prices are subject to more adjustments than are the IPP indexes, which helps to explain the differences in volatility and long-term trends among the indexes described in the earlier discussion of chart 1.

Model year changeover and adjusting for quality change. The CPI and PPI programs both began making price adjustments to account for quality changes in new vehicles with the introduction of the new vehicle models in 1966 (1967 models). Every year, typically in late summer and early fall, automobile and truck manufacturers introduce updated models to the market. In most cases, the new cars are similar enough to the previous models that the prices of both models can be compared with each other without the application of an adjustment. However, if a manufacturer significantly changes the quality or functionality of a new car, BLS applies an adjustment to factor out the price change associated with the change in quality.[8]

The three BLS price programs use information gathered directly from car manufacturers and secondary sources to estimate the values for quality change adjustments. Each program follows the same basic guidelines for new model introduction; however, there are a few differences in how certain quality changes are handled. BLS places new car quality characteristics into five categories. All three programs make adjustments for the changes in each of the categories, with one exception noted in the second category. The first category includes changes in the safety of a car that are either federally mandated or proven to be effective. These include airbags, seatbelts, brake systems,

seat designs, back-up alerts, and crumple/crash zones.

The second category covers mandated changes that affect the healthfulness of the outside environment, such as emissions improvements as legislated by State governments or the Federal government. In this category, there is one notable difference among the programs—the treatment of mandated pollution control measures by the CPI. Whereas the PPI and IPP make quality adjustments for changes arising from air-pollution mandates, beginning in 1999 the CPI stopped making such adjustments. The basis for the decision was that price changes that derive from mandated product changes and that affect only public goods, like air quality, are essentially taxes levied on the purchasers of new cars and should be reflected as price increases in the index. This is consistent with the CPI's practice of including changes in taxes when they affect the prices paid by consumers for market goods.[9]

The third category pertains to changes made to mechanical or electrical features. This category includes changes in steering, braking, engine efficiency, and transmission systems, among others. The fourth category includes changes in design or materials that affect the durability or strength of an item. Examples include the switch to halogen headlamps, to platinum tipped spark plugs, and to flexible body panels.

The final category encompasses changes that affect comfort or convenience. These upgrades include redesigned seat belts, remote door locks, navigation systems, and flexible body panels, as well as changes in storage capacity. BLS does not make quality adjustments for style changes, such as pin striping or leather-wrapped steering wheels. Adjustments also are not made for manufacturer quality claims that are improvements of failed or defective components.

The quality adjustment values provided by the manufacturers are based on resource costs. BLS defines resource costs as all direct and indirect costs, including research and development, incurred in the manufacture or purchase of components and the assembly and installation associated with an equipment change, including the manufacturer's mark-up. Resource cost factors into both the PPI and IPP. For the CPI, this value is marked up to the retail price level. In general, a quality change tends to be a small portion of the entire new vehicle price. Based on the model year changeovers from 2000 to 2007, the yearly average per-car retail quality adjustment ranged from $25 to $310, with an average of $125.

Chart 1 illustrates that October is typically the month when the PPI and the IPP export samples switch completely to the new model year and in which the quality adjustments are applied.[10] Note that the IPP introduces the majority of the new model year export vehicles into the Export Index in October. In some cases, however, new model introduction occurs when more than half of the cars sold are the new model. Import vehicles are introduced when more than half of the cars imported are the new model. The introduction period for IPP import vehicles is typically August through November. The similar average October increase between the Import and Export indexes is purely coincidental given the typical 2-month interval between the times when new vehicles are introduced in each respective index. The CPI always introduces new models into the index when more than half of the cars sold are the new model. The introduction period for the CPI is typically from September in the current year to February the following year.

Although the three price programs employ different methodologies for introducing new vehicle models into the index, new model introduction generally results in price increases for each program. The following table illustrates 1-month percent changes from September to October for the PPI, CPI, and IPP indexes. The PPI shows much larger percentage increases each October than do the CPI and the IPP indexes. The PPI showed an average October increase of 5.6 percent from 2000 to 2006.

Year	*PPI*	*CPI*	*IPP Export*	*IPP Import*
Average	5.6	0.5	0.4	0.4
2000	6.1	-.3	.2	.4
2001	1.4	.6	.3	.4
2002	9.0	.9	1.0	.7
2003	8.4	.4	.4	.9
2004	6.6	1.1	.2	.1
2005	3.0	1.5	.3	.2
2006	3.5	.6	.3	.4

During the years listed in the table, the increases in the PPI ranged from 1.4 percent in 2001 to 9.0 percent in 2002. The CPI increased an average of 0.5 percent. During the study period, both IPP export and import motor vehicles increased 0.4 percent on average. The larger magnitude of the PPI October increases is due to the complete model year changeover to new models with few or no incentives. For the CPI, the sample of cars priced in October is a mix of current and newer model years. For example, in 2006, the CPI car sample

mix was 42 percent 2007 models and 58 percent 2006 models. The newer model year cars reflect price increases, whereas the older models reflect price decreases caused by discounting to clear out the older models. The only exception to the October increases from 2000 through 2006 was the slight 0.3-percent decline in the CPI in October 2000, which reflected how the CPI prices a larger portion of the older models during October, a month known for heavy discounts. The 1-month percent changes for a program may be larger in one year than the next year because of an array of issues. However, the differences among the programs in a given year are primarily due to each program applying quality adjustments at its own time.

Incentives. Understanding the use of incentives in the passenger cars indexes is important because incentives are responsible for most of the monthly changes in price other than model year change. Incentives are tracked by the CPI and PPI but not by the IPP, thus contributing to the differences in the long-term trends seen in chart 1. In the context of this article, incentives are programs offered by the car manufacturers to stimulate sales. The three most common programs are consumer rebates, dealer rebates, and low interest rate financing. Some manufacturers also provide additional rebates for specific customer segments such as first-time buyers, students, and the military.

Consumer rebates are provided by manufacturers as an incentive directly to the customer at the point of sale to reduce the net price of the car. Consumers normally elect to credit this consumer cash rebate as a down payment against the new car's purchase price. Manufacturers may also provide cash incentives directly to dealers, known as dealer rebates. The dealers may or may not choose to pass some part of this rebate on to their customers.

There are many instances in which customers are allowed to choose either a cash rebate or a low interest financing offer. In still other cases, customers may benefit from both the cash rebate and the low interest financing offer in combination. It is important to note that the low interest rate financing quoted in the offer is normally based on the top customer credit tier, and as a result not all consumers are eligible for this best rate.

The PPI includes consumer rebates and dealer cash rebates as well as low interest financing offered by manufacturers. Ideally, the PPI would include only the incentives in effect on the pricing date. However, some data may only be available as monthly averages for each vehicle line. Manufacturers provide the PPI program with information on their cost of providing low interest financing loans, the value of cash rebates, and the acceptance rate for the incentives. In cases when incentives are offered on only some vehicles for sale, such as when regional incentives or programs allowing the customer to choose either low interest rate financing or a cash rebate are offered, the PPI program calculates a national average value for the incentives on the vehicle in question.

The CPI includes an estimated average of the consumer rebates available over the past 30 days for each model in the sample. An estimated average is used because rebate amounts may vary over the collection period and different types of rebates may be offered, such as those for the military or recent graduates. Beginning in January 1999, the CPI stopped measuring finance charges on vehicle loans. This change was made on conceptual grounds.[11]

The CPI is the ratio of the cost of a set of items in one period to its cost in another period. Financing the consumption of an item indicates the purchaser has decided to consume that good today by forgoing the consumption of other goods in the future. This "price" the consumer pays in order to choose current consumption over future consumption is the interest rate on the loan. Forgoing future consumption in exchange for consumption today causes the financed good to become, in a sense, a financial debt or liability. However, the CPI is principally focused on estimating actual consumption at retail prices in the most current period only; this gives a clearer picture of the cash-value prices consumers would pay at the retail outlet.[12]

Financing motor vehicles is arguably different from other forms of retail financing because vehicle financing terms can influence negotiations over the final purchase price. On rare occasions a dealer will offer "special financing" terms without explicitly offering a reduced price alternative. In these cases dealers would presumably be willing to negotiate an equivalent price concession to purchasers who either do not select or do not qualify for the financing deal. The CPI respondents are asked to provide an estimate of this concession.

The IPP does not include incentives in its index calculation. The primary reason is that companies providing vehicle price data to the IPP are principally multinational companies that trade from one subsidiary to another. For example, a sedan may be produced in Japan by a Japanese manufacturer and then traded to a subsidiary in the United States. In this case, it is more cost effective for one subsidiary simply to adjust prices rather than offer incentives, which are much more costly to implement.

Whether incentives are included in the prices used by the price indexes is ultimately a question of scope. The PPI reflects consumer rebates, dealer rebates, and low in-

terest rate financing because these incentives affect the prices producers receive for their vehicles. The CPI does not directly reflect low interest rate financing, but it does include an average of consumer rebates and dealer rebates in the negotiated price because these incentives directly affect the prices consumers pay for an automobile. The IPP does not include any incentives because they are not a factor in the derivation of prices paid at the border for imports and exports.

Index comparisons

This section examines historical index data from 2000 to 2007 to reveal trends and statistical relationships in the BLS new passenger car indexes. To measure how the programs' indexes diverge from or track each other, the indexes are analyzed using three approaches. The first approach is a graphical treatment describing the movements and trends across each program. The second approach uses qualitative explanations highlighting key methodological issues, industry events, and shifts in consumer demand, rebates, or dealer incentives. The third approach is a comparison of correlations between the data series.

Index trend analysis. As seen in chart 1, the PPI trended downward from 2000 to 2007, while the CPI trended downward from 2000 through mid-2003 and then began an upward trend. The PPI is characterized by relatively sharp monthly movements. There are visible short-term co-movements in both series; in fact, the evidence indicates that the two series also trend together in the long run but are weakly correlated.

Chart 2, which presents the 1-month percent changes in the new cars indexes from February 2000 to June 2007, more clearly shows the sharper PPI movements compared with the movements of the other data series. The PPI spikes coincide with model changeover each October. This is followed by sharp drops each November representing the resumption of incentives offered from manufacturers to dealers. Unlike the PPI, the CPI monthly percentage movements generally stay within the 1-percent range. Furthermore, the CPI October percentage increases tend to lag behind the PPI increases in time because of the CPI's gradual phase-in of new model introductions with less generous incentives and rebates.

As shown in chart 1, the long-term trends of the IPP export and import vehicle series diverge from the PPI and CPI series during the sample period. The CPI and PPI trend downward, whereas the IPP indexes exhibit upward trends. These divergences can be partially attributed to differences in the product compositions among the indexes. The IPP Import Index is composed of a higher proportion of luxury vehicles in comparison with the CPI and PPI new vehicle indexes. Recent trends indicate that import nameplate manufacturers (foreign firms producing in the United States) prefer to build lower cost vehicles in the United States and import luxury vehicles from overseas. The sales of higher priced vehicles in this market segment have grown each year since 2000. This demand level appears to be less elastic and has allowed import manufacturers to regularly raise prices on most import models in this class of vehicle.

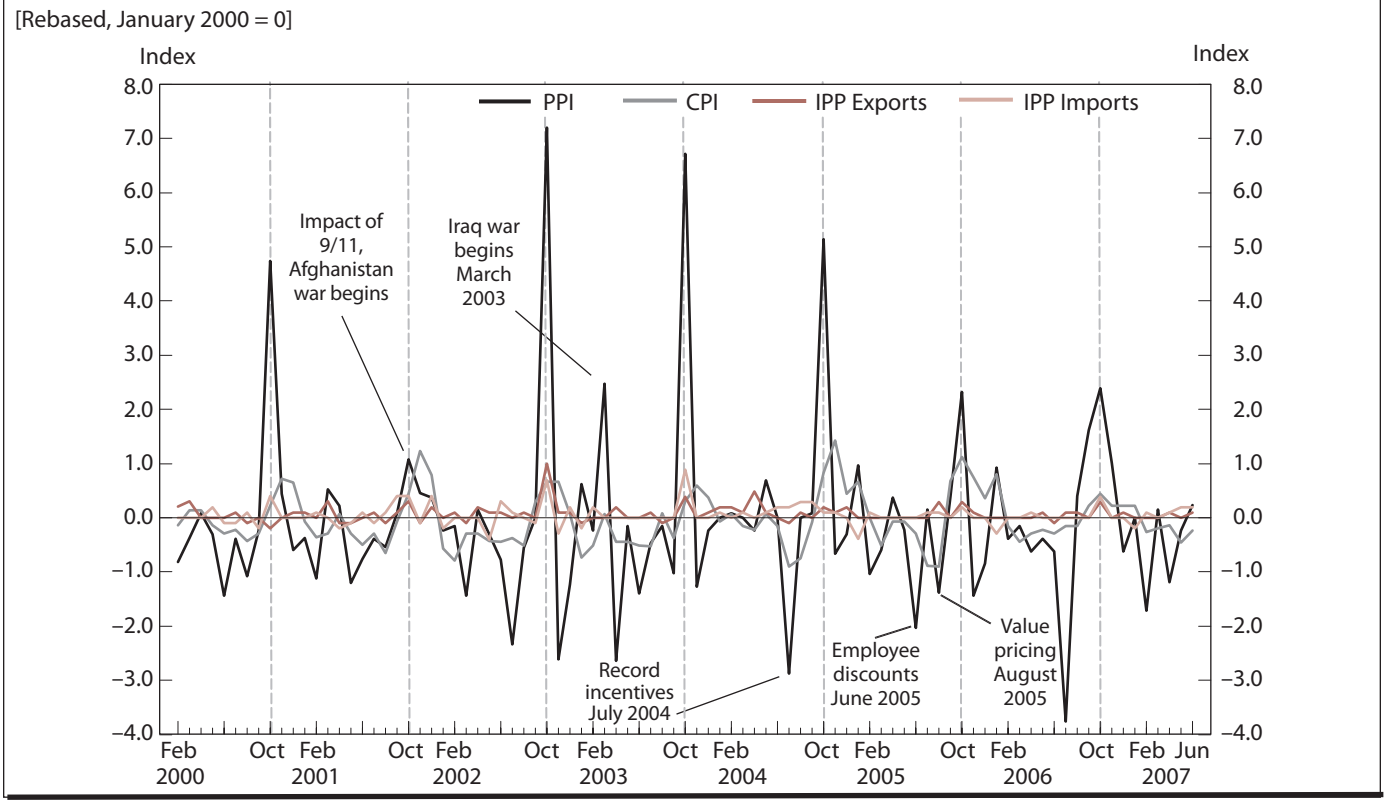
In an analogous trend, a noteworthy factor affecting export price movement during this period has been strong demand in foreign markets for domestically produced sport utility vehicles. Domestic SUV production and sales to both domestic and international customers have risen steadily from 2000 to 2007 and contributed to the long-term rise in the export price index.

Also contributing to the differences in long-term trends between the IPP indexes and the PPI and CPI is inclusion of incentives in the PPI and CPI but not in the IPP. As mentioned in the "Overview of recent price trends" section, the highly competitive nature of markets for new vehicles during the period of the study has resulted in substantial incentives being offered at the manufacturer-to-dealer and the consumer levels, and these incentives are reflected in the PPI and CPI indexes. The IPP index, in contrast, does not include incentives, because companies providing vehicle price data to the IPP are principally multinational companies that trade from one subsidiary to another.

Chart 2 illustrates that in the short term the IPP import and export indexes often exhibit differing index movements. These short-term differences can be partially attributed to differences in how new models are introduced into the import and export indexes. For the Import Index, few new vehicles are introduced over a longer period of time, resulting in modest index changes during new model introduction. In contrast, for the Export Index, 100 percent of new model introduction occurs in October. This produces generally smaller increases in the Import Index and less frequent but larger increases in the Export Index.

Qualitative analysis. In 2001, the September 11 terrorist attacks on the United States and start of the war in Afghanistan affected the PPI. The typical October spike for the PPI was nearly absent due to extensive special low finance deals intended to offset slumping sales over this

Chart 2. Events occuring among 1-month percent changes for new vehicles indexes, February 2000–June 2007



period. The CPI, by contrast, which does not reflect low finance incentives, registered a relatively normal increase for the new 2002 models. The IPP also increased slightly because of the introduction of new models.

The PPI's large October 2002 spike occurred as automakers sought to return to aggressive model year switchovers, after a relatively weak previous year, by raising 2003 model prices and offering fewer incentives compared with the summer months. This was followed in November by a sharp price decline of 2.6 percent in the PPI, whereas the CPI moved up to its November peak. Both the IPP Import Index and the IPP Export Index rose nearly 1 percent in October 2002, reflecting the new model switchovers, but the imports series moved slightly higher at this time. This reflected an increase of approximately 0.5 percent by the Euro versus the dollar.

The March 2003 spikes in the PPI and CPI were attributed to the start of the Iraq war, and they reflected economic uncertainty among manufacturers, dealers, and consumers. In April of that year, the PPI fell as incentives were reinstated. Car importers and exporters kept prices stable because their shipments were not affected.

In April 2004, the IPP Export Index exhibited its largest upward movement of the year, reflecting vehicle exporters' general ability to raise prices during the year for current models. Record incentives were introduced in July 2004, causing both the PPI and CPI to decline substantially. This record incentives level was exceeded in September. Automakers, however, were able to quickly cut incentives and raise prices on new models between September and October 2004, resulting in the PPI's highest level since January 2000. (See chart 1.) In January 2005, the PPI rose to an even higher level as manufacturers again raised prices and cut incentives.

In 2005, employee discounts were offered to all consumers. These discounts were later replaced with "value pricing"[13] as another means to attract consumers. As a result automakers were able to clear out the 2005 model year cars, and this in turn contributed to the drop in the CPI prior to the model year changeover. Later in 2005, automakers chose to move up some model year introductions from October to September. These early model year introductions caused both the CPI and PPI to increase in September. The following October, however, the normally large PPI spike was diminished because of the shift in introduction month.

During 2006 and 2007, the new car market continued to be very price competitive. Demand for fuel-efficient cars was strong because gasoline prices remained high. The gener-

ally unchanging trend of the CPI appeared to hold. The July 2006 PPI decline was due to summer low interest financing promotions, which the CPI does not reflect. In September 2006, the PPI posted an upward movement attributed to a drop in incentives unusual for that time of the year. The following October, the PPI experienced greater-than-normal incentives offered by manufacturers to dealers on new 2007 models, moderating the expected October spike.

Correlation analysis. Previous discussions and graphical analyses indicate that there are substantial differences among the methodologies and also among the movements of the new vehicle price indexes. These differences are primarily the result of each program's unique measurement objective. In spite of these methodological differences, graphical analysis indicates that the new vehicle indexes often exhibit similar movements. Correlation analysis can be used to determine the degrees of similarity or difference between the new car indexes. If strong positive correlations exist, then the indexes reflect common industry dynamics despite their unique methodologies. Weak or non-existent correlations would be evidence that the differing index methods result in largely dissimilar data movements. It is possible for correlations to be spurious or coincidental, however. Strong correlations that persist for long periods are more strongly indicative of a true relationship than are weaker correlations.

The table below presents correlations between the 1-month percent changes of the PPI, CPI, and IPP indexes calculated using data from January 2000 to June 2007, not seasonally adjusted. Statistically, the relationships between the PPI, CPI, and IPP indexes do not appear to be strong. The correlation coefficient for the PPI and CPI is about 0.38, which is less than the correlation between the PPI and the IPP Export Index (0.44) and also less than the correlation between the PPI and the IPP Import Index (0.49). The correlation coefficients between the CPI and IPP are the weakest. This indicates that the CPI and IPP series diverge more in their monthly movements than do the PPI and IPP series, which often use similar data.

Index	*PPI*	*CPI*	*IPP Export*	*IPP Import*
PPI	1	…	…	…
CPI	.379	1	…	…
IPP Export	.439	.221	1	…
IPP Import	.487	.053	.442	1

To further detect whether strong relationships exist among the series, the indexes were seasonally adjusted to remove regularly occurring cycles throughout the year that might obscure the relationships between the indexes.[14] When correlations of the 1-month percent changes from the resulting seasonally adjusted indexes are compared—as illustrated in the following table—the correlations among the series are weak. For example, the PPI–CPI correlation falls from 0.38 to 0.08, and the relatively weak 0.49 correlation between the PPI and IPP Import Index drops by more than half to 0.22 after seasonal adjustment. Evidenced by the larger values in the previous table, it is clear that cyclical movements, such as the regular October model year changeovers, account for much of the correlations in the not seasonally adjusted data. In summary, the correlations provide statistical evidence that significant data divergences exist among the car indexes but that the indexes share some common features.

Index	*PPI*	*CPI*	*IPP Export*	*IPP Import*
PPI	1	…	…	…
CPI	.083	1	…	…
IPP Export	.165	.082	1	…
IPP Import	.22	–.136	.25	1

THE THREE BLS PRICE PROGRAMS—the PPI, CPI, and IPP—all publish price indexes for new cars. It is often assumed that these indexes trend similarly, but this article has shown that this assumption is not accurate. A graphical comparison of the indexes shows differences in both month-to-month volatility and in long-term trends for the 2000 to 2007 period. The article explains these graphical differences by outlining the differences in scope and measurement objectives among the indexes. Where these differences in scope translate into methodological differences, the article discusses how the differing methods in areas such as sampling, data collection, the treatment of rebates and incentives, and adjusting for quality change may produce indexes that differ greatly in both the short and the long term. Major economic and political events are cited and their impact on the indexes is discussed. Finally, correlation analysis is employed in order to show that the correlations between all pairs of indexes are weak. □

Notes

[1] This study uses the automobile manufacturing industry classifications 3361, 2, and 3 from the North American Industrial Classification System. For employment data in this industry, see Current Employment Statistics, U.S., all employees, on the Internet at **http://data.bls.gov/cgi-bin/srgate** (visited July 22, 2008). To retrieve the data, type the code CEU3133600101 into the series id(s) box.

[2] See **www.census.gov/mtis/www/mtis.html** (visited June 10, 2008).

[3] For the purpose of this article, import vehicles are those that are built outside U.S. borders.

[4] Codes for the four indexes are: PPI Passenger cars (Commodity code 1411031), CPI New cars (SS45011, CPI-U, U.S. city average), IPP Export Series, Automobiles and other motor vehicles including minivans, 4-dr specialty vehicles (HICP code 8703), and IPP Import Series Motor vehicles designed to transport people (HICP code 8703).

[5] The CPI includes new motorcycles, though they represent a minor weight.

[6] The IPP employs the Harmonized Classification System (by industry); BEA Classification (by end use); and the NAICS System (by industry). For more information, see the *BLS Handbook of Methods*, chapter 15, on the Internet at **www.bls.gov/opub/hom/homch15_a.htm** (visited July 15, 2008).

[7] The IPP universe of vehicles includes automobiles, SUVs, golf carts, all terrain vehicles (ATVs), and motor homes. The IPP vehicle sample, like the PPI sample, utilizes the probability-proportional-to-size sampling technique.

[8] The three price programs follow the BLS procedures called "Guidelines for Quality Adjustment of New Vehicle Prices," on the Internet at **www.bls.gov/cpi/cpiautoqaguide.pdf** (visited July 15, 2008).

[9] See Dennis Fixler, "Treatment of Mandated Pollution Control Measures in the CPI," *CPI Detailed Report* (Bureau of Labor Statistics, Sept. 1998).

[10] In instances when new model introduction does not occur in October, each price index will include the new model vehicle when data is received from the manufacturer. This is commonly referred to as a mid-model year launch.

[11] "Changing the Item Structure of the Consumer Price Index," Oct. 16, 2001, on the Internet at **www.bls.gov/cpi/cpiwl001.htm** (visited June 10, 2008).

[12] Examples for which the CPI normally does not seek to measure interest payments include houses, items whose prices are based on layaway plans, or any other financial transaction or instrument.

[13] A pricing discount is provided by the manufacturer and lowers the listed sticker prices; these are often offset by a reduction in dealer-to-consumer incentives.

[14] BLS publishes seasonally adjusted indexes for the PPI and CPI vehicles series cited here but does not produce seasonally adjusted estimates for the corresponding IPP indexes. Published seasonally adjusted data from the PPI and CPI are estimated using the Census Bureau's X-12-ARIMA method. The seasonal data are subject to strict production requirements and are revised over several years. Thus, a simplified seasonal adjustment analysis was applied in this study to compare all four series. For more information on seasonal adjustment in BLS, see **http://stats.bls.gov/cpi/cpisameth.htm** (visited June 10, 2008).

Appendix: Detailed comparison of the PPI, CPI, and IPP

	Category	Producer Price Index (PPI)	Consumer Price Index (CPI)	International Price Program (IPP)
OVERVIEW	**Product objective**	Measure changes in producer selling prices.	Measure changes in consumer prices.	Measure changes in import and export prices.
OVERVIEW	**Product coverage**	Passenger cars and light trucks (14,000 lbs. or less) produced in the United States	New passenger cars and light trucks purchased by consumers for personal use. Included are both domestic and import manufacturers. The number of vehicles in the sample fluctuates. In December 2006 the sample included 539 dealerships pricing 762 cars and 729 trucks.	Harmonized 8703–automobiles, SUVs, golf carts, and ATVs, both diesel and gasoline.
OVERVIEW	**Classification system(s)**	Industry-based indexes are classified according to the North American Industry Classification System (NAICS). Commodity-based indexes are classified according to an internal BLS system.	Internal BLS system	Samples are based on the Harmonized System (HS). Indexes are published on the basis of HS, Bureau of Economic Analysis (BEA) End Use, and North American Industry Classification System (NAICS).
OVERVIEW	**Calculation**	Modified Laspeyres formula	Hybrid Index—Laspeyres and Geometric Means	Modified Laspeyres formula
SAMPLE	**Sampling frequency**	Every 5 years	Outlet sample is updated every year by 20–25%	Every 2 years
SAMPLE	**Sample universe**	All motor vehicle producers with manufacturing plants in the United States	All new vehicles sold in the U.S. for personal use. The geographic areas for sampling are 87 primary sample units (PSUs).	Vehicle importers and exporters (primarily marketing units and manufacturers)
SAMPLE	**Includes vehicles manufactured outside the U.S.**	No	Yes, if sold in the United States	Import index: yes. Export index: yes given item clears U.S. customs first.
SAMPLE	**Weighting**	Index divided into cells using census value of shipment data for each cell. Within cells, vehicles are weighted by manufacturer.	Reflects expenditures reported by households for the Consumer Expenditure Survey for the years 1993–1995. A 2-year rotation beginning in 2002. New vehicle weight in CPI is 4.983%.	Based on trade dollar values provided by U.S. Customs (imports) and U.S. Census Bureau (exports)
SAMPLE	**Vehicle discontinued**	Vehicles are not substituted mid-sample unless they are discontinued.	Vehicles are not substituted unless they are no longer available for sale.	Vehicles are not substituted mid-sample unless they are discontinued or phased out.
SAMPLE	**Transitioning to a new model year**	Transition to the new model year starts when the new vehicles are first shipped to dealers. This usually occurs in October.	The transition occurs when the new model year vehicle's dollar volume sales exceed those of the old model year for the tracked vehicle. This is determined separately for each vehicle at each dealer. This roll-over usually starts in September and can last 4 to 6 months.	For exports, the transition occurs in October in some cases or when new models exceed 50 percent of models exported in the remainder of cases. For imports, transition occurs when over 50% of the vehicles are new.

	Category	Producer Price Index (PPI)	Consumer Price Index (CPI)	International Price Program (IPP)
PRICES	**Type of price collected**	Net price that dealers pay to motor vehicle manufacturers. Net price reported does not include discounts or holdback (manufacturer's payment to assist with dealer financing). Discounts are reported separately.	Price consumers pay to dealers. The reported price is estimated based on sales over the past 30 days. The reported price includes: base price, transportation charge, dealer preparation charges, options, markup, concession (haggling), rebate, nonsales taxes (e.g. luxury taxes) and sales tax.	For imports and exports: net prices paid at the border
	Discounts applied in index	Yes. Dealer and customer incentives, including cash rebates and financing incentives that are paid by the manufacturer	Yes. Includes estimated averages for concessions and consumer and dealer rebates based on sales for the model in question over the past 30 days. CPI has not included special financing rates since 1998.	No
	Taxes	No	Yes	No
	Pricing frequency	Price used in index is the price on one specific day in the middle of the month (the Tuesday of the week containing the 13th).	Prices are collected throughout the entire month. Prices are collected bimonthly in the majority of PSUs and monthly in New York, Los Angeles and Chicago.	First day of each month.
QUALITY ADJUSTMENT PROCESS	**Quality adjustment data used**	Change in production cost (direct and indirect costs plus manufacturer's mark-up) due to change in quality.	Same as PPI, plus markup to retail.	Same as PPI
	Quality adjustment formula	New base price = (new price × old base price) ÷ (new price – value of quality adjustment)	Quality adjusted price = old price × quality adjustment factor ÷ (1 – quality adjustment factor)	Same as PPI
	Procedure used when a tracked vehicle is discontinued, and no comparable vehicle is available	Link using net prices so the index shows no change.	If it is an uncomparable model year changeover, the quote weight is imputed by the price change of other model year changeover quotes in the geographic area in question.	Same as PPI
	Obtaining quality adjustment data	Detailed QA data is obtained directly from the manufacturers for every vehicle in the sample and applied directly to each vehicle.	PPI detailed QA information used as proxies are applied. Research and secondary sources are also used to estimate other QA changes not captured in the PPI data.	Same as PPI
	Quality adjust for emissions	Yes	No, since January 1999.	Yes

	Category	Producer Price Index (PPI)	Consumer Price Index (CPI)	International Price Program (IPP)
INDEX	**Types of indexes published**	Indexes by industry and by commodity. The motor vehicle index includes indexes for passenger cars, light trucks (14,000 lbs. or less), motorcycles, and heavy trucks.	New Vehicle Index New Cars and Trucks Index New Cars Index New Trucks Index	BEA auto includes: autos, SUVs, golfcarts. BEA trucks include: light and heavy duty.
	Prices not reported by deadline	Prices not reported are estimated by cell relatives; that is, their movement is estimated to be the same as that of the weighted average of all valid prices in the cell.	The quote weight is imputed by the price change of the other new vehicle quotes in the same geographic area.	Same as PPI
	Revision period	Final index is published 4 months after first published index	None. Indexes are final when published.	Final index is published 3 months after the first published index.
	Regional data published	No	Yes, by region and city	No
	Seasonally adjusted data published	Yes	Yes	No

A hedonic model for Internet access service in the Consumer Price Index

A hedonic model is presented for use in making direct quality adjustments to prices for Internet access service collected for the Consumer Price Index; the Box-Cox methodology for functional form selection improves the specification of the model

Brendan Williams

The practice of making hedonic-based price adjustments to remove the effects of quality changes in goods and services that enter into the calculation of the U.S. Consumer Price Index (CPI) has to date focused primarily on indexes for consumer electronics, appliances, housing, and apparel. In an effort to expand the use of hedonic adjustments to a service-oriented area of the CPI, this article investigates the development and application of a hedonic regression model for making direct price adjustments for quality change in the index for Internet access services (known as "Internet services and electronic information providers," item index SEEE03). The analysis presented builds on past research in hedonics and makes use of a Box-Cox regression to select a functional form that allows for better estimation than that produced by standard functional forms. Experimental[1] price indexes are constructed with hedonic regression coefficients to make direct adjustments to CPI price quotes in order to account for changes in characteristics of Internet service access, such as improved bandwidth and length of service contract. These experimental indexes are compared with the official index for Internet access service to measure the impact of hedonic-based quality adjustments on the CPI index SEEE03.

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The Internet access industry

The first commercial services allowing users to access content with their personal computers by connecting to interhousehold networks appeared in 1979 with the debut of CompuServe and The Source, an online service provider bought by Reader's Digest soon after the service was launched. The same year also marked the beginning of Usenet, a newsgroup and messaging network. Early online services proliferated during the 1980s, and each allowed users to access a limited network, but not the Internet.

The U.S. Government's ARPANET is commonly cited as the beginning of what we now know as the Internet. The project that developed ARPANET started in the 1960s and provided much of the technological and physical infrastructure for the early Internet. In 1990, ARPANET shut down, and a National Science Foundation network took over where it left off. Taking the final steps to create the Internet, the National Science Foundation expanded the network to commercial traffic and privatized the Internet backbone in the 1990s.

The early Internet lacked a convenient interface. In 1990, researchers at the European Organization for Nuclear Research (Conseil

Européen pour la Recherche Nucléaire, or CERN) developed the World Wide Web, a hypertext-based graphical interface. The World Wide Web provided an easy way to display and organize information that resided on the Internet. With the 1993 introduction of Mosaic, the first popular Web browser, the Internet went mainstream. Many online service providers began including Internet access with their services, and Americans rapidly signed on for such access, mostly through dial-up connections.

In the late 1990s, Internet service providers began to offer high-speed cable and digital subscriber line (DSL) Internet access to consumers. Cable had a significant market share advantage at first, but, according to a May 2006 report by Pew/Internet, DSL has become the broadband access method of choice, with about 50 percent of the broadband market, compared with 41 percent for cable.[2] The same report states that 73 percent of Americans have Internet access in their homes and 42 percent of Americans have broadband Internet access.

Prior hedonic studies of Internet access

Several researchers have developed hedonic models for Internet access. Generally, these models either were focused on dial-up access or were based on a data set that consisted largely of observations on dial-up access. Greg Stranger and Shane Greenstein showed that a hedonic price index for Internet access from November 1993 to January 1999 declines much more than an index that does not account for quality change.[3] Stranger and Greenstein constructed a model with dummy variables for time-limited monthly access, several different levels of hourly limits, different types of speed and forms of access, and each period. Following the time dummy hedonic index method, the coefficients on the time dummy variables are interpreted to represent the quality-adjusted price change. Stranger and Greenstein's hedonic price index covers a timeframe that is too early to include any of the usual forms of consumer broadband access, such as cable or DSL. The closest they come is 1 year of data on T1 access, a technology used predominantly by businesses. Stranger and Greenstein also have data on 64-kbs and 128-kbs Integrated Services Digital Network (ISDN) lines that, while faster than dial-up, do not qualify as broadband.

A paper by Kam Yu and Marc Prud'homme similar to Stranger and Greenstein's produced a hedonic index for Internet access in Canada.[4] The model included variables for speed, dedicated lines, hourly limits, 24-hour technical support, roaming hours, prepaid bulk hours, number of free off-peak hours, number of e-mail addresses, amount of Web storage, and installation fees. Yu' and Prud'homme's index pooled all available types of Internet access, but even in 2000, the last year of the sample, the index was composed primarily of observations for dial-up access. Although the authors utilized time dummy variables, they did not make a straight time dummy index; rather, they used the coefficients from these variables to adjust prices and then computed indexes with the use of the adjusted prices. Like Stranger and Greenstein, Yu and Prud'homme found that the hedonic index decreased faster than nonhedonic indexes; however, Stranger and Greenstein did not use a matched model, whereas Yu and Prud'homme constructed a matched model with few matches, which they acknowledged likely biased their index.[5] Despite the methodological differences between the two papers, both showed that quality-adjusted price indexes for Internet services exhibit larger price declines than those of unadjusted indexes.

Past recommendations for the BLS

The BLS added an elementary price index for Internet access to the CPI in 1997. The Bureau of Economic Analysis funded a 2002 report by Greenstein that made a number of recommendations for improving the Internet access price index.[6] The analysis that follows addresses several of the concerns raised in that report. Greenstein identified six areas in which Internet access issues should be addressed: speed, availability, contract features, reliability, network effects, and other features of users' experiences.[7] The subsequent analysis covers the use of hedonic methods to make direct quality adjustments to prices used in the calculation of the index and so specifically addresses issues within two of Greenstein's areas: speed and contract features. Greenstein also raises weighting, sampling, and other issues that cannot be addressed by a hedonic regression.

Greenstein identifies a number of issues that, though amenable to a hedonic regression, are nonetheless hard to assess. For instance, while consumers benefit from having a larger number of choices in accessing the Internet, there is little reliable data available on local or regional Internet penetration and availability of service. The Federal Communications Commission (FCC) releases data on the number of broadband service providers within a given zip code, but the methods it uses has many critics, including the General Accountability Office, which took issue with those methods in a May 2006 report. As Greenstein wrote, assessing exactly how much a consumer benefits from additional choices, even with good data on service availability, cannot be easily accomplished. Likewise, according to Greenstein, quality change related to service reliability, network effects, and features such as additional e-mail addresses, pop-up ad-blocking software, and in-

stant messaging cannot be reliably estimated. Moreover, many of the extra features that once came as part of a service agreement can now be obtained for free. For example, users can get e-mail accounts with large—even unlimited—data storage limits for free from companies like Google, AOL, and Yahoo. Services for instant messaging, online file storage, picture sharing, and antivirus software also can be had free of charge. With many services now offered free of charge, the aforementioned features do not play as large a role as price-determining characteristics as they once did.

Greenstein also recommended that the CPI use broadband as a comparable replacement item for dial-up once a quality adjustment is applied to account for the improved speed of broadband. Although this issue is amenable to a hedonic regression, making the necessary adjustments would involve creating a hedonic model that covers both broadband and dial-up, and such a model would estimate dial-up and broadband speed with the same continuous function. Past research suggests that dial-up and broadband Internet access can be considered different goods;[8] therefore, their components should not be treated equally.

Another of Greenstein's recommendations was that the CPI should do a better job of taking into account contract features. Greenstein focuses mainly on the issue of contracts with hourly limits; however, he notes that, although such limits were an important feature of Internet contracts in the 1990s, these sorts of agreements have become rare and are probably no longer relevant.[9] Moreover, while some dial-up agreements in the CPI sample from late 2006 still have hourly limits, none of the broadband agreements impose these restrictions.

Although hourly limits no longer play much of a role as a contract feature, broadband service plans often come with set contract lengths. Service agreements in the sample range from 1 to 15 months. Consumers benefit from the greater flexibility of shorter term agreements that do not lock them into one form of service and preclude other options. They also pay a premium for shorter term service agreements. Hedonic quality adjustments for changes in service contract lengths allow the index to reflect the changes in contract value from changes in term-length agreements.

As Greenstein acknowledged, there is no consensus on how to measure Internet access speed.[10] Most Internet users are familiar with bandwidth measures such as 56 kilobits per second or 5 megabits per second. These measures do not fully represent the speed of an Internet connection. Bandwidth indicates only a connection's throughput; it does not give any indication of the connection's latency. Although throughput measures the amount of information that can be transferred, latency represents the actual speed at which information travels. A frequently used analogy compares Internet access to plumbing. A service with high throughput can be likened to a pipe with a large diameter. Such a pipe can move a large amount of water at once, but the rate of flow might be slow. In order to move a large amount of water quickly, the pipe must both be wide and have a high rate of flow. Similarly, in order to move information quickly, an Internet connection needs to have both high throughput (a larger pipe) and low latency (a fast rate of flow). While most consumers place their focus on throughput, having a low latency connection can be particularly important for certain applications, such as Voice over Internet Protocol (Internet telephony), remote computer access, and gaming, in which the quick relay of information is very important.

Despite the inadequacy of bandwidth as a measure of Internet access speed, no other measures can be readily obtained. For the models estimated and described in this article, bandwidth will serve as a proxy measure for speed. While technically questionable, bandwidth seems a reasonable proxy because Internet service providers generally use estimated upper bandwidth rates when advertising their services, and consumers make their decisions with bandwidth as their primary measure of Internet access speed.

Dial-up and broadband: comparable services?

Although Greenstein recommends that the CPI treat dial-up and broadband as equivalent services (in terms of the value of their bandwidth), a debate has grown over whether the two can be compared as substitutes for each other. Jerry A. Hausman, J. Gregory Sidak, and Hal J. Singer argued that, in the context of government market power regulation, dial-up and broadband are distinct goods that cannot be directly compared.[11] To support treating broadband and dial-up as distinct items, they estimated a regression with the logarithm of cable broadband price as the dependent variable and the logarithm of narrowband price as one of the independent variables. The regression failed to find any statistically significant impact of the price of narrowband on the price of cable broadband in the same area. The authors assert that this finding implies that the two types of Internet access are distinct goods.[12]

A 2002 report by Pew/Internet also concluded that broadband and dial-up users have different Internet usage patterns. Broadband users not only spend more time doing a variety of basic activities online, but are far more likely to use high-bandwidth features such as gaming and

streaming media.[13]

Treating the value of bandwidth as equivalent across dial-up and broadband would disregard the empirical and theoretical evidence indicating that the two Internet services are distinct. Users would be expected to value an increase in broadband bandwidth differently than they would an increase in dial-up bandwidth. Internet users also have different uses for different levels of bandwidth. While lower levels of bandwidth, like those available to dial-up users, may be sufficient for certain activities (such as e-mail, online banking, online shopping, and checking weather reports), users with broadband bandwidth can employ their higher speeds to access content (such as streaming audio-video and gaming) that dial-up users cannot access—at least not without prohibitively long waiting periods. Consumers can be expected to give different values to the different uses of high and low bandwidth. Estimating the value of bandwidth with the same continuous linear function across two distinct levels of bandwidth would likely provide a flawed estimate of bandwidth's value.

Another problem is that dial-up and broadband market structures differ. Tom Downes and Shane Greenstein found that 92 percent of people in the United States live in areas with competitive dial-up markets.[14] In contrast, the market for broadband tends towards a duopoly, with consumers facing the choice between one cable provider and one DSL provider.[15] Although competition among suppliers may not be classified as a consumer preference, such competition will at least affect the price data used in data analysis. Nestor M. Arguea, Cheng Hsiao, and Grant A. Taylor argued that arbitrage would create linear pricing in competitive markets, so a hedonic model can be expected to have a linear functional form.[16] Sherwin Rosen also noted that a hedonic model will be linear if arbitrage in the characteristics is possible.[17] Jack Triplett, by contrast, cautions against the assumption of linearity, because characteristics in hedonic models are rarely truly open to competitive arbitrage. Triplett uses the example of a car and its engine; hypothetically, the two could be bought separately, but such a purchase would be impractical and expensive.[18] Setting the specifics of these arguments aside, past research has shown that market structure relates to functional form in hedonic models. Attempting to fit price data produced in two different market structures with a regression that accommodates only one functional form will lead to misspecification.

In addition, combining dial-up and broadband Internet service into a single model does not make practical sense for the BLS. Setting aside theoretical arguments against quality adjusting for a change from dial-up to broadband service, a regression model covering both types of service would make such an adjustment technically possible; however, the opportunity to make this type of adjustment might never come. There were no cases of substitution between dial-up and broadband services in the 2 years of data examined for this study. Of course, such a result could be expected because the BLS computes the CPI with a "matched-model" method in which prices are collected for the same unique good or service from the same outlet on a repeated basis. Many dial-up providers have no broadband offering, and others offer broadband only within certain geographic areas. Given the tendency of Internet service providers to focus on either dial-up or broadband service, few changes in type of service would be expected within the CPI sample.

Given, then, the differences in market structure of broadband and dial-up (with broadband in a duopolistic market and dial-up in a relatively competitive one), as well as the differences in the way consumers use the two services, combining them into a single model would be theoretically problematic. A combined dial-up and broadband model would have a weaker theoretical foundation and offer little, if any, practical benefit. For these reasons, dial-up and broadband are treated as entirely distinct services in this article, with all analysis focusing on broadband services.

Functional form and the Box-Cox transformation

The theory behind hedonic regression has offered little guidance in selecting the functional form for hedonic models. As mentioned in the previous section, a competitive market implies a linear model if arbitrage is not hindered by bundling, but few markets are truly competitive. Without standards derived from theory, the BLS has generally employed a semilog functional form in the hedonic models it uses to directly adjust prices in the CPI. Other researchers have used goodness of fit as the standard for selecting functional form in hedonic models.[19] In hedonics research, Box-Cox regression has been a particularly popular method of finding an appropriate functional form based on goodness of fit.

Various Box-Cox transformations have been recommended as the preferred functional form for hedonic regressions, in part because they allow for some flexibility. For $Y^{(\lambda)}$, a basic Box-Cox transformation on a single variable, the transformation is defined as

$$Y^{(\lambda)} = \frac{Y^{\lambda} - 1}{\lambda} \text{ for } \lambda \neq 0 \text{ or} \qquad (1)$$
$$Y^{(\lambda)} = \ln Y \text{ for } \lambda = 0.$$

A more complex version transforms both sides of the equation with different parameters. In this article, λ denotes the Box-Cox transformation parameter on the dependent variable while θ denotes the Box-Cox transformation parameter on independent variables. Such a transformation for nonzero values, with logarithms providing the transformation when λ is zero, can be represented as[20]

$$\frac{Y^{\lambda}-1}{\lambda}=\alpha+\sum_{i=1}^{K}\beta_i\frac{X_i^{\theta}-1}{\theta}+\sum_{s=1}^{J}\gamma_s D_s+\varepsilon \text{ for } \lambda \text{ and } \theta\neq 0. \quad (2)$$

Equation (2) will be referred to as an *unrestricted Box-Cox (uBC) model*, to distinguish it from three other transformations. A *restricted Box-Cox (rBC) model* requires that both sides of the equation, excluding dummy variables, be transformed by the same parameter (that is, rBC = uBC with the restriction that $\lambda = \theta$):

$$\begin{aligned}\frac{Y^{\lambda}-1}{\lambda}&=\alpha+\sum_{i=1}^{K}\beta_i\frac{X_i^{\lambda}-1}{\lambda}+\sum_{s=1}^{J}\gamma_s D_s+\varepsilon \text{ for } \lambda\neq 0 \text{ or}\\ \ln Y&=\alpha+\sum_{i=1}^{K}\beta_i\ln X_i+\sum_{s=1}^{J}\gamma_s D_s+\varepsilon \text{ for } \lambda=0.\end{aligned} \quad (3)$$

A *left-hand Box-Cox (lhBC) model* transforms only the dependent variable and leaves the independent variables unaltered:

$$\begin{aligned}\frac{Y^{\lambda}-1}{\lambda}&=\alpha+\sum_{i=1}^{K}\beta_i X_i+\sum_{s=1}^{J}\gamma_s D_s+\varepsilon \text{ for } \lambda\neq 0 \text{ or}\\ \ln Y&=\alpha+\sum_{i=1}^{K}\beta_i X_i+\sum_{s=1}^{J}\gamma_s D_s+\varepsilon \text{ for } \lambda=0.\end{aligned} \quad (4)$$

A r*ight-hand Box-Cox (rhBC) model* transforms only the continuous independent variables:

$$\begin{aligned}Y&=\alpha+\sum_{i=1}^{K}\beta_i\frac{X_i^{\theta}-1}{\theta}+\sum_{s=1}^{J}\gamma_s D_s+\varepsilon \text{ for } \theta\neq 0 \text{ or}\\ Y&=\alpha+\sum_{i=1}^{K}\beta_i\ln X_i+\sum_{s=1}^{J}\gamma_s D_s+\varepsilon \text{ for } \theta=0.\end{aligned} \quad (5)$$

In each of these models, the statistical software uses an iterative process to select the Box-Cox parameter values with the best fit, based on maximum likelihood. The Box-Cox form accommodates data in multiple functional forms, and certain Box-Cox parameter values are associated with basic functional forms, including the linear, log-log, and semilog forms. An rBC model represents a linear model when the transformation parameter equals 1 (λ = 1); an rBC model is equivalent to a log-log equation when the transformation parameter equals 0 (λ = 0). An lhBC model is equivalent to a left-side semilog model when λ = 0; an lhBC model represents a linear form when λ = 1. An rhBC model represents a linear form when θ = 1; an rhBC model is equivalent to a right-side semilog model when θ = 0. An rhBC represents a reciprocal functional form when θ = –1. A uBC model, the most general Box-Cox form used here, can represent any model represented by a uBC, an lhBC, or an rhBC model. As mentioned earlier, a uBC model is an rBC model when it has the restriction that λ must be equal to θ. A uBC model represents an lhBC model when θ = 1; a uBC model represents an rhBC model when λ = 1.

Box-Cox regression can be used both as a test of functional form and as a form in itself. Because the Box-Cox regression can represent the standard functional forms, it can find whether any of these forms are appropriate and, if so, the one that works the best. For instance, if the Box-Cox regression returns values of 0 for both λ and θ, then a log-log model is indicated. In his handbook on hedonic price indexes, Triplett offers further discussion of the Box-Cox regression as a test of functional form in hedonic models.[21]

If the Box-Cox regression rejects all the parameter values associated with the standard functional forms, the parameter values it returns can still be used to represent alternative forms. The use of Box-Cox transformations as the functional form of choice (and not just a test) in hedonic regression generally receives strong support in the literature. The 1988 work by Maureen L. Cropper, Leland B. Deck, and Kenneth E. McConnell has often been cited for its recommendation of a Box-Cox transformation in hedonic models. In this work, the authors found that a linear Box-Cox function performs better than linear, semilog, double-log, quadratic, and quadratic Box-Cox functions. They also found that a linear Box-Cox function performs well in estimating marginal attribute prices, even in the case of specification error. In contrast, the quadratic Box-Cox form has similar goodness of fit, but provides biased results in the presence of specification error.[22] Cropper and her colleagues attempted only one form of the linear Box-Cox transformation, the uBC,[23] and therefore do not offer any insight into whether the uBC, rBC, or some similar form is the best linear Box-Cox transformation. Without a clear, preferred Box-Cox form defined in the literature, the study described herein uses best-fit criteria to determine the appropriate functional form.

Data

Data for this study were extracted from the official CPI database during November 2006. Data from that month and bimonthly sampled quotes from October were combined into a preliminary data set for the index category

"Internet services and electronic information providers" (formerly known as "other information services"). These data were then pared down into a data set of 139 broadband price quotes covering three types of Internet access. Cable Internet access, with 94 quotes, accounted for 67.6 percent of the data. DSL followed with 41 quotes, or 29.5 percent, and the remaining 4 quotes were for satellite Internet access. In comparison, when the Pew Internet Project first surveyed relative cable and DSL Internet usage in March 2003, it found that 28 percent of broadband subscribers used DSL and 67 percent used cable. In March 2006, the same survey found that DSL's market share had increased to 50 percent while cable's share had fallen to 41 percent.[24] These numbers suggest that the CPI data may be a bit out of step with current trends, but quite representative of the market a few years ago. The close relationship between the CPI sample and the market several years ago should be expected, because the CPI sample rotates continually over a 4-year cycle, so some quotes may be based on expenditure data from several years earlier. Also, the time needed to complete expenditure surveys and incorporate their results into the sample extends this lag.

The four satellite Internet service quotes were dropped from the data set because satellite service does not seem to compete directly with the other forms of broadband. Satellite Internet is more expensive and slower than both DSL and cable broadband. Its market is generally limited to rural areas that lack access to other methods of fast Internet service. Given the differences in market and market structure, the satellite Internet quotes were dropped from the sample used for hedonic regression, leaving 135 quotes in the final data set slated for regression modeling.

The data included several variables in addition to each service plan's price, which in turn included additional fees for services such as modem rental and installation. Each quote had information on a number of service plan characteristics: connection speed, length of the contract, promotional pricing, whether the plan came as part of a bundled package that included cable television and/or telephone service, and more. If information on any of these characteristics was missing or suspicious—such as listing an extremely slow or fast connection speed—the information was verified by going to the service provider's Web page and collecting the proper data value.

The variable "bandwidth" is a continuous measure of the reported download bandwidth in kilobytes per second. In the sample, reported bandwidth ranged from 256 kbps for low-level DSL plans to 10 mbps for the fastest cable connections. Although cable tends to be faster than DSL, it is not always so. The fastest DSL observation was 5 mbps, while the slowest cable observation was 300 kbps.

Many broadband providers offer Internet service in packages bundled with various combinations of television, landline telephone, and mobile telephone services. Observations in the sample were considered to be bundled if the price listed for Internet service was a component of an explicit package offer or if the price was listed at a discount for customers who subscribed to another service. The sample contained no observations bundled with mobile telephone service. Of the paired-service packages, whenever Internet service was bundled with either telephone or subscription television services, all of the observations bundled with television services were from cable broadband providers and all of the observations with telephone service bundling were from DSL providers. Only two "triple-play" packages (packages with Internet, television, and telephone services in a single bundle) were in the sample, and both were from cable companies.

A dummy variable represented television bundling in the regression models. No variable for telephone bundling was used. Preliminary models showed that bundling an Internet service with telephone service did not have a significant impact on the listed price of the Internet service. This finding may be explained in part by the fact that, in order to get DSL service, customers must also pay for a telephone line with their DSL provider. At the time this article was written, very few companies offered stand-alone DSL, known as "naked DSL," and there were no such packages in the sample. Even when not explicitly sold as part of a bundle, DSL service essentially came in tandem with telephone service. Thus, even limiting a dummy variable to representing the telephone service in the triple-play packages did not produce statistically significant results, so only the dummy variable representing bundling with television service was used in the regressions that were carried out for this study.

Most of the observations in the sample represented Internet service from either cable television companies or large telephone companies. A few companies lease communications infrastructure from major broadband providers and sell their own Internet service. The dummy variable "other ISP" indicates an observation with service from one of these providers.

Several different semilog models were specified, and the results from these models are presented in table 1. First, Model 1, consisting of only the theoretical model variables, was estimated. Second, control variables for Census Bureau region and city size, wherever the data were collected, were added to Model 1 to produce Model 2. Finally, after the results of Model 2 were reviewed, Model 3 was specified, using the theoretical model variables and the only significant control variable: the dummy variable for

the Western region.

Four different forms of the Box-Cox transformation were attempted with the variables from Model 3: a transformation on the dependent variable alone (lhBC); a transformation on the continuous, independent variables alone (rhBC); transformations using the same value on both sides of the equation (rBC); and transformations using different values on both sides of the equation (uBC). The results of these transformations are presented in table 2.

The statistical software tests null hypotheses that the Box-Cox parameter(s) for an estimated model is/are equal to –1, 0, or 1. The results from these hypothesis tests can act as tests for functional form. The rBC and uBC results rejected Box-Cox transformation parameters of –1, 0, and 1. Because a parameter value of 1 represents a linear model and a parameter value of 0 represents a log-log model, the rBC and uBC regression results indicate that the linear and log-log transformations would not be appropriate here. The tests for the lhBC model also rejected λ values of –1, 0, and 1. Because a λ value of 0 represents a semilog model, such a model also can be eliminated as an appropriate functional form. The significance tests for the rhBC transformation model failed to reject any of the parameter values, so that model provided no useful tests of functional form.

As tests of functional form, these Box-Cox regressions eliminated the standard linear, log-log, and semilog forms. While Box-Cox regressions can be used to test functional form, they also can be used as functional forms themselves. Standard functional forms are usually preferred for the sake of parsimony, but the simpler forms were all rejected. Though more complex, the estimated Box-Cox models provide transformations that fit the data best. To help select the appropriate Box-Cox model from the four discussed earlier, the Akaike information criterion (AIC) and the Bayesian information criterion (BIC) were used.[25] As shown in the following tabulation, the rBC had the lowest AIC and BIC values, suggesting that it provides the best transformation:

Model	*AIC result*	*BIC result*
Right-hand (rhBC)	877.95950	880.86478
Left-hand (lhBC)	870.44479	873.35006
Restricted (rBC)	868.84819	871.75346
Unrestricted (uBC)	869.89652	875.70707

However, these information criteria are sensitive to differing functional forms, so comparing the values across models is not entirely accurate. The rBC found a significant value for a parameter that transformed both sides of the equation, but the uBC value for the right-hand parameter was not significant. Thus, the rBC seems preferable because it transforms both sides of the equation and does not have an insignificant transformation parameter, as the uBC does.

Table 1. Regression results: semilog models

Variable	Model 1	Model 2	Model 3
Constant	[1]3.837417	[1]3.816153	[1]3.820113
	(80.27)	(53.76)	(84.06)
Bandwidth	[2].000017	[2].0000188	[1].0000185
	(2.10)	(2.14)	(2.42)
Promotional price	[1]–.3865237	[1]–.4407197	[1]–.4366383
	(–9.77)	(–11.08)	(–11.06)
Bundled television	[1]–.1637662	[1]–.1638882	[1]–.1677243
	(–4.05)	(–4.03)	(–4.39)
Contract months	[1]–.0147753	[1]–.0126181	[1]–.0132862
	(–2.98)	(–2.58)	(–2.82)
DSL	[1]–.3636489	[1]–.4271105	[1]–.4137092
	(–7.61)	(–8.62)	(–8.82)
Other ISP	[1]–.2381208	[1]–.234327	[1]–.2100399
	(–3.13)	(–3.09)	(–2.90)
West	—	[1].1847002	[1].1676677
		(3.19)	(3.99)
Midwest	—	.0082532	—
		(.17)	
South	—	.0656907	—
		(1.12)	
Bsize	—	–.0741243	—
		(–1.57)	
Csize	—	–.0316996	—
		(–.48)	
R-squared	.7073	.7456	.74
Adjusted *R*-squared	.6936	.7229	.7256
F-statistic	51.56	32.78	51.63

[1] Significant at the 1-percent level (two-tailed test for control variables, one-tailed test for others).

[2] Significant at the 5-percent level (two-tailed test for control variables, one-tailed test for others).

NOTE: *t*-statistics are in parentheses. West, Midwest, and South are census regions. Dash indicates variable not used in model.

Table 2. Hypothesis tests for Box-Cox transformations

Transformation	λ	θ	H_0 equation	Chi² statistic for rejecting H_0 when X =			Standard functional forms rejected
				1	0	–1	
lhBC	[1]0.4610551	…	$\lambda = X$	[1]8.72	[1]7.55	[1]81.41	Semilog and linear
rhBC	…	–1.724741	$\theta = X$	1.21	.05	.07	
rBC	[2].401735	[2].401735	$\lambda = \theta = X$	[1]10.32	[2]5.73	[1]78.82	Log-log and linear
uBC	[2].4210553	–.3620293	$\lambda = \theta = X$	[1]11.27	[2]6.68	[1]79.77	Log-log and linear

[1] Significant at the 1-percent level. [2] Significant at the 5-percent level.

As noted in table 2, the rBC selected 0.401735 as the value of λ that produced the best transformation. The Box-Cox procedure also produced probability values for the coefficients on the basis of chi-square tests, because using ordinary least squares estimates of coefficient variances produces inaccurate measures of significance.[26] The results of this regression are presented in the following tabulation (superscript 1 indicates significance at the 1-percent level, superscript 2 at the 5-percent level):

Variable	*Regression result, final model*
Constant	8.575593
Bandwidth	[1].0117482
Promotional price	[1]–1.7730443
Bundeled television	[1]–.7251095
Contract months	[2]–.1189097
DSL	[1]–1.675438
Other ISP	[1]–.8505007
West	[1].6512617
λ	[2].401735
p-value for λ	.022

No probability test was run on the constant, but all coefficient values were significant at the 1-percent level except for the coefficient for contract months, which was significant at the 5-percent level.

This estimated rBC model can be used to find implicit prices for the characteristics of an Internet service plan. The price of a characteristic is estimated with the implicit price derived from a hedonic equation. Let

$$\frac{Y^{\lambda}-1}{\lambda}=\alpha+\sum_{z=1}^{K}\beta_z\frac{X_z^{\theta}-1}{\theta}+\sum_{s=1}^{J}\gamma_s D_s+\varepsilon \text{ for } \theta \text{ and } \lambda\neq 0 \quad (6)$$

be an equation for a uBC. Then the implicit price for a continuous characteristic X_Z is calculated by taking the partial derivative of the price Y with respect to X_Z:

$$\frac{\partial Y}{\partial X_z}=\beta_z X_z^{\theta-1}Y^{1-\lambda}. \quad (7)$$

Or, similarly, for partial derivatives with respect to dummy variable characteristics,

$$\frac{\partial Y}{\partial D_s}=\gamma_s Y^{1-\lambda}. \quad (8)$$

These formulas can be applied to an rBC model by invoking the restriction λ = θ. Based on the partial-derivative formula for a continuous variable, the marginal price of bandwidth is

$$\frac{\partial Y}{\partial X_z}=0.011748\,X^{0.401735-1}Y^{1-0.401735}. \quad (9)$$

This formula incorporates the original item's price and bandwidth. One can visualize the formula by plotting the marginal price curve of bandwidth (the cost of an increase of 1 kilobit per second) and observing how the resulting curve varies with changes in initial price and bandwidth in a two-dimensional representation. Chart 1 illustrates how the marginal price of bandwidth in this rBC model depends on both the initial price and the initial bandwidth. In the model, the marginal price of bandwidth is higher at lower initial bandwidths and higher at higher initial prices. In contrast, chart 2 illustrates how marginal price in a semilog model (with a logged dependent variable) is dependent upon the initial price only and does not vary with the initial speed. Together, the two charts highlight how the estimated rBC model accommodates the diminishing marginal price of bandwidth while the semilog model does not.

Experimental price index estimation

The theoretical literature on hedonic regression and price indexes presents a variety of methods for incorporating hedonic methods into price indexes. Some of these methods involve creating an entire price index through a hedonic regression, but the BLS uses hedonic regressions to make direct adjustments to prices only when an item (or, in this article, a service) is replaced by a new item (or service).

Price indexes generally use a price relative—the ratio of the current-period price ($P_{a,t}$) for an item *a* to its price ($P_{a,t-1}$) in the previous period—to measure the change in the price of the item. If item *a* is phased out and replaced in the current period by an item *b*, the price of *b* must be adjusted for the difference in the value of features between *a* and *b*. For example, if *b* is identical to *a*, except that it includes an improved characteristic *Z*, then the unadjusted price relative, $P_{b,t}/P_{a,t-1}$, would not take the improvement in *b* into account. To account for the difference in characteristics, a hedonic model is used to estimate what the price of *a* in the previous period would have been had *a* included characteristic *Z*. This model allows prices from the two periods to be compared as if the same item were being priced in both periods. The adjusted price relative is the ratio of the current-period price of item *b* to the previous-period price of item *a*, adjusted by the imputed value, $P_{z,t-1}$, an estimate of the value of characteristic *Z*. This new price relative can be represented as $P_{b,t}/(P_{a,t-1}+$

Chart 1. Marginal price of bandwidth for a given initial price, Box-Cox model

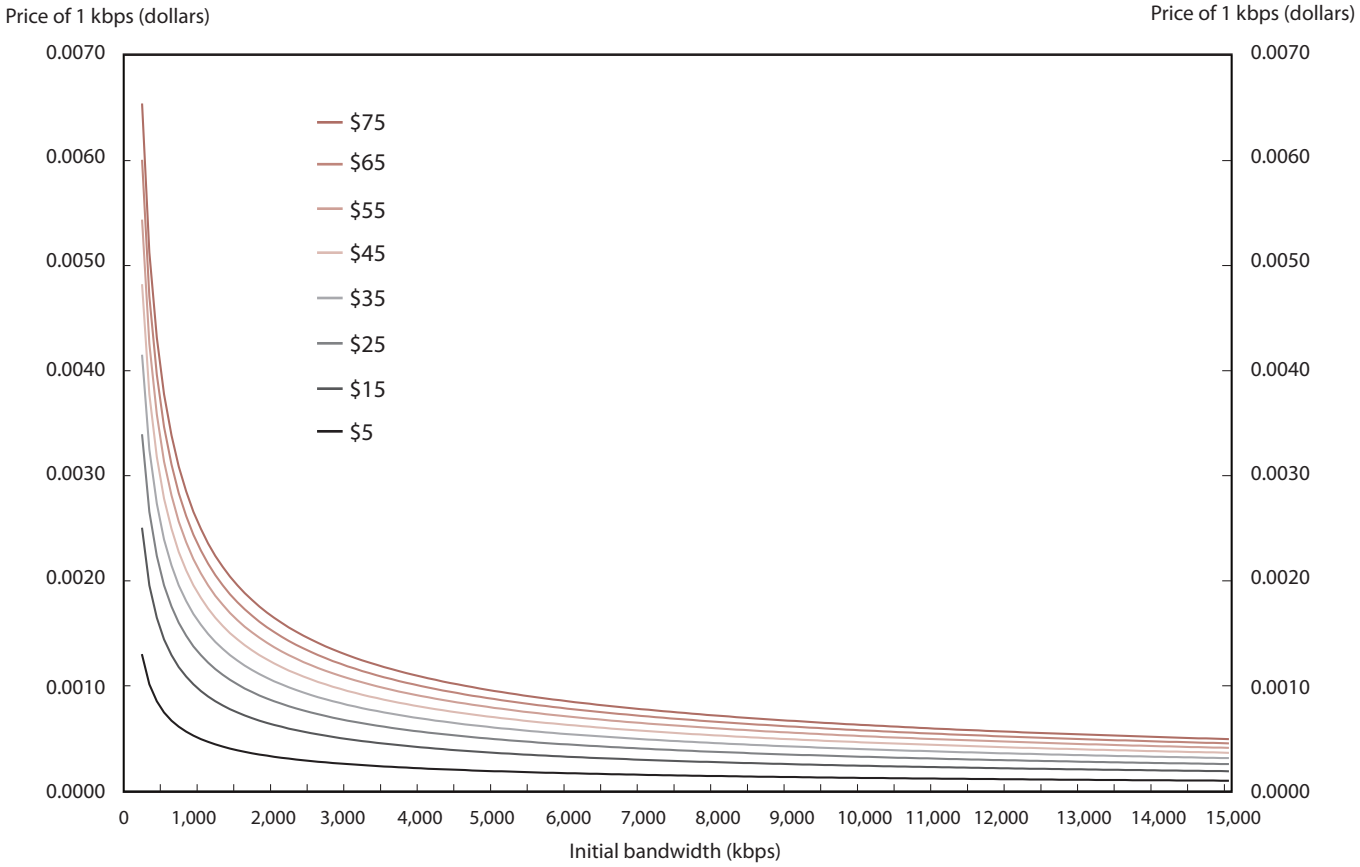
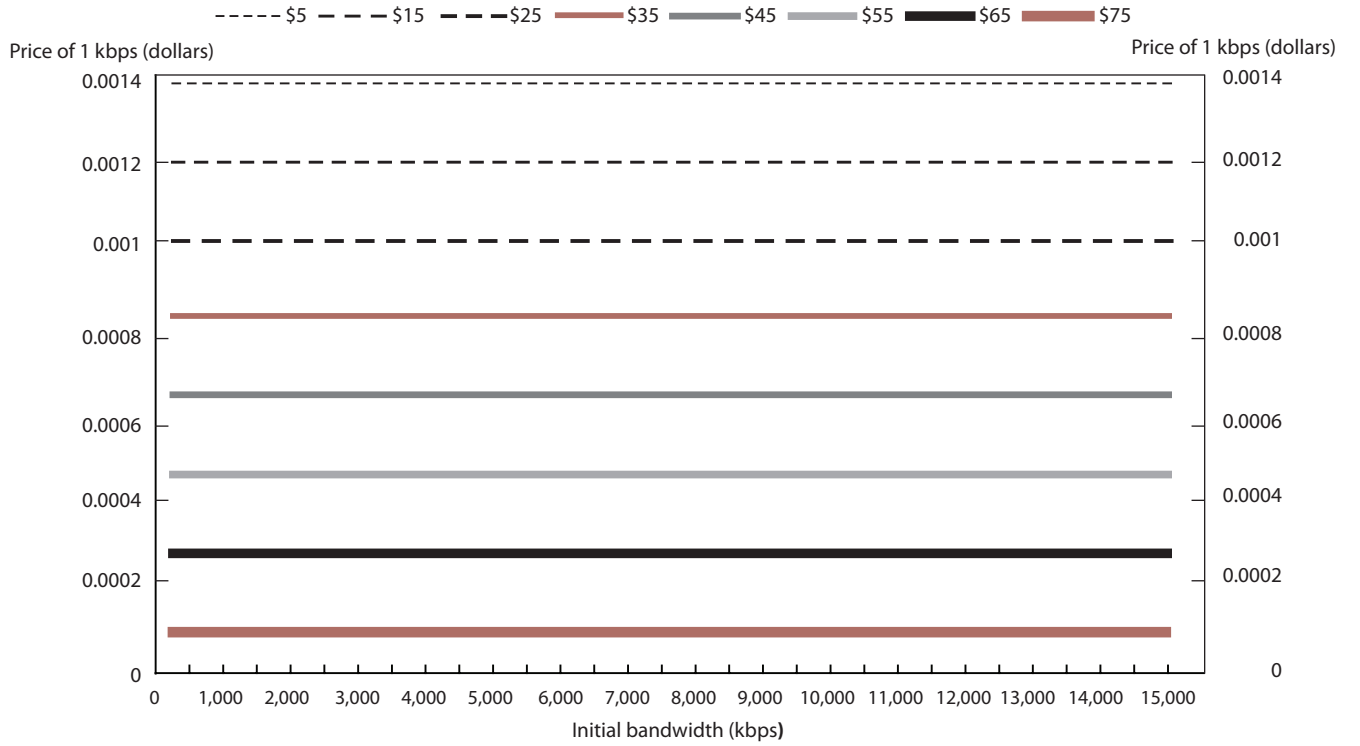


Chart 2. Marginal price of bandwidth for a given initial price, semilog model



$P_{z,t-1}$). In order to calculate an adjusted price relative, $P_{z,t-1}$, the previous-period value for the new characteristic must be calculated.

The regression coefficient for a variable can be interpreted by taking the partial derivative of the dependent variable with respect to a given independent variable. In a hedonic model, the partial derivative of a characteristic can be used to find an implicit price for a characteristic. One method of incorporating quality adjustments involves using such implicit prices. For dummy variables, the quality adjustment for the addition of a characteristic would simply be the value of the partial derivative (equation 8). For continuous variables, the implicit price is found by calculating the partial derivative (equation 7) and multiplying it by the change in value of a characteristic between an old and a new item:

$$P_{z,t-1} = \frac{\partial y_{t-1}}{\partial x_{z,t-1}}(x_{z,t} - x_{z,t-1}). \tag{10}$$

The total quality adjustment is calculated by adding the quality adjustments for each characteristic:

$$\sum P_{z,t-1} = \sum_{z=1}^{K} \frac{\partial Y_{t-1}}{\partial x_{z,t-1}}(x_{z,t} - x_{z,t-1}) + \sum_{s=1}^{J} \frac{\partial Y_{t-1}}{\partial D_{s,t-1}}(D_{s,t} - D_{s,t-1}). \tag{11}$$

An experimental index was created with this method, with the implicit prices derived from the estimated rBC model presented in the tabulation on page 00. This index will be referred to as the *marginal Box-Cox index*.

A second experimental price index, referred to as the *semilog index*, was created on the basis of the predicted price from Model 3 of table 1. The BLS usually calculates an adjusted price (P_{adjusted}) by taking the item's previous-period price (P_{previous}) and multiplying it by the mathematical constant e to the power of the difference of the sum of the product of the replacement item's characteristics ($X_{z,t}$) and their respective coefficients and the sum of the product of the previous item's characteristics ($X_{z,t-1}$) and their respective coefficients:

$$P_{\text{adjusted}} = P_{\text{previous}} e^{\sum_{z=1}^{k} \beta_z X_{z,t} - \sum_{z=1}^{k} \beta_z X_{z,t-1}}. \tag{12}$$

Equation (12) is derived by dividing the model equation for the predicted price of the replacement item, $P_{\text{replacement}} = e^{\Sigma\beta_z X_{z,t} + \alpha + \varepsilon}$, by the model equation of the previous price, $P_{\text{previous}} = e^{\Sigma\beta_z X_{z,t-1} + \alpha + \varepsilon}$. The result is an estimated value for the price of the replacement item, based on the previous price. The process can be viewed as effectively adjusting the previous-period price for the changes in characteristics. The quality adjustment, which is the sum of the individual values for the changes in characteristics, can be found by subtracting the price of the previous item from the adjusted price, which is the same as the predicted price of the replacement item:

$$\sum P_{z,t-1} = P_{\text{adjusted}} - P_{\text{previous}}. \tag{13}$$

The formula for the semilog index can be used only when the dependent variable (the price in a hedonic regression model) is transformed by a natural logarithm.

A third experimental index, referred to as the *predicted-price Box-Cox index*, was created by developing a formula, similar to equation (12), that relates the previous-period price of an item to the predicted price from a Box-Cox model (note that (θ) denotes a Box-Cox transformation by the parameter θ, while λ is simply the value of the parameter λ):

$$P_{\text{adjusted}} = \left[\lambda\left(\sum_{z=1}^{K} \beta_z X_{z,t}^{(\theta)} - \sum_{z=1}^{K} \beta_z X_{z,t-1}^{(\theta)}\right) + P_{\text{previous}}^{\lambda}\right]^{\frac{1}{\lambda}} \text{ for } \lambda \neq 0. \tag{14}$$

Equation (14) was derived by taking the model equation for the replacement item, $P_{\text{replacement}}^{(\lambda)} = \sum_{z=1}^{K} \beta_z X_{z,t}^{(\theta)} + \alpha + \varepsilon$, and subtracting the model equation for the previous-period price, $P_{\text{previous}}^{(\lambda)} = \sum_{z=1}^{K} \beta_z X_{z,t-1}^{(\theta)} + \alpha + \varepsilon$. With the observed previous-period price and the characteristic information for both items substituted into the formula, the formula predicts a price, denoted P_{adjusted}, that represents the previous-period price had the item included the replacement item's characteristics.

The predicted-price method of calculating adjustments provides a more accurate estimate of quality-adjusted prices than does the marginal-price method. The latter calculates the value of a characteristic at an initial point and assumes that the value remains the same. For example, in the rBC model, the value of an additional 1 kbps for a $30/month service plan that already offers 1 mbps (1,000 kbps) can be estimated with equation (9). Substituting 30 for the value of the initial price Y and 1,000 for the value of the initial bandwidth X results in an estimate of $0.001441738 for the marginal value of the bandwidth. If the same plan were increased by 1,000 kbps instead of 1 kbps, the estimated quality adjustment for the increased speed would be 1,000 times $0.001441738, or $1.441738. This calculation assumes that the one-thousandth additional kbps is valued the same as the first additional one. However, the model

predicts that the value of an additional kbps added to a $30/month service with a speed of 1,999 kbps would be $0.000952622, about a third less than the value assumed under a marginal price adjustment.

The Box-Cox predicted-price method (equation 14) avoids the problem of dynamic marginal values, because it is based on undifferentiated Box-Cox models instead of the differentiated version (equation 11) used to calculate marginal prices. These adjustments could be made by taking the model equation and substituting the characteristics of the new item into each variable to find the predicted price of the new item, doing the same to find the predicted value of the old item, and then determining the quality adjustment by taking the difference of the two predicted values. By combining the formulas for the predicted prices of the old and new items, the calculations can be simplified so that only the variables for characteristics that change between the old and new items need to be entered into the price adjustment formula.

Although a predicted-price formula is used to calculate the quality adjustments on the basis of the semilog model, the adjustments will not reflect changes in the value of characteristics, because the semilog model itself assumes that the value of one unit of a characteristic will remain constant no matter the value of a characteristic variable. Going back to the earlier example and using semilog Model 3 indicates that a 1-kbps increase in a $30/month service will be valued at $0.000555 (that is, 0.0000185 × 30), but, unlike the Box-Cox model adjustments, the value for 1 kbps will be the same whether it is added to a 100-kbps service or a 5,000-kbps service.

All item replacements within the item index category "Internet services and electronic information providers" between December 2004 and January 2007 were revaluated in light of the findings of the hedonic models. Forty-four item replacements qualified for adjustment. The coefficients from the Box-Cox (see tabulation on page 40) and semilog (table 1, Model 3) models were utilized to calculate quality-adjusted prices. The results of these adjustments were then used to calculate three experimental indexes corresponding to the three methods of adjustment discussed here: the marginal Box-Cox, predicted-price semilog, and predicted-price Box-Cox adjustments. The difference between the experimental indexes and the official CPI for this index category is interpreted as a measure of the impact of adjusting for quality change. Table 3 summarizes the three experimental indexes by the type of regression model and the method used for quality adjustment.

The overall impact of these changes was small. The official CPI for the category "Internet services and electronic information providers" fell 24.451 percent between December 2004 and January 2007. In comparison, the marginal Box-Cox, the semilog predicted price, and the predicted-price Box-Cox indexes fell 24.594, 24.612, and 24.575 percent, respectively, over the same period.

The difference between the percent change of the experimental indexes and the percent change of the official index is referred to as a *discrepancy*. The discrepancies produced by the three experimental indexes are listed in table 3. Compared with the official index, the semilog index displayed the largest absolute difference, a downward discrepancy of 0.1613 percentage point over the 2-year period. The marginal Box-Cox index produced a slightly smaller downward discrepancy of 0.1429 percentage point, while the predicted-price Box-Cox index had a slightly smaller discrepancy with the official index, falling 0.1239 percentage point more than the published number.

The experimental indexes decreased more than the official index because they took account of quality change that the official index missed. Of the 44 item replacements that were selected for reevaluation, 40 were originally deemed comparable to the official index. In such cases of comparable replacements, the price change from the old to the new item is treated as if the old item had not been replaced. No quality adjustment was made for these replacements, and the price relative was calculated under the assumption that none of the price change was attributable to quality change. Twenty-nine of the comparable replacements had improvements in bandwidth. In these cases, the price relatives, and thus the official price index, exhibited an upward bias because they did not take into account quality improvements in bandwidth.

Three of the four noncomparable replacements had price relatives imputed by cell-relative imputation, meaning that they were essentially dropped from index calcu-

Table 3. Summary of experimental indexes

Experimental index	Model for quality adjustment	Quality adjustment method	Discrepancy with official index over 2 years
(1) BCmarg	Box-Cox	Marginal price	–0.1429
(2) Semilog	Semilog	Predicted price	–0.1613
(3) BCpred	Box-Cox	Predicted price	–0.1239

lations for one period. When a price change is dropped from an index, the price change is basically imputed from the price change in similar items that either were not replaced or had comparable replacements. The remaining replacement had a price change imputed through the class-mean method, an imputation method that uses the price changes from comparable or quality-adjusted replacements to estimate a noncomparable replacement's price change.[27] In his handbook on price indexes, Triplett notes that both class-mean and cell-relative imputation can lead to bias, although the direction of the bias may not be clear and depends on the particular circumstances.[28] Thus, even though the preceding replacements were not treated as comparable, they may still have contributed bias to the official index.

The item replacements in the sample generally show a trend of improvements in service quality in the form of increased bandwidth rates. The official index missed most of this trend because faster service was often treated as comparable to slower service. Using the hedonic adjustments to reevaluate these replacements produces an index that decreases faster than the official index by alleviating at least some of the upward bias created by ignoring the improving quality of Internet service.

Comparing the three experimental indexes reveals that the semilog index, falling more than the other indexes, produces the largest downward discrepancy with the official index. The semilog regression does not accommodate the diminishing marginal price of bandwidth, so the semilog model will produce price estimates that are too low at slow bandwidth rates and too high at high bandwidth rates. Under this model, adjustments are made without regard to the initial amount of bandwidth. For example, given the same initial price, the quality adjustment for increasing a 1-mbps service to 2 mbps will be the same dollar value as the adjustment for increasing a 14-mbps service to 15 mbps. Adjustments to faster services appear to be overestimated, and the semilog index falls too fast as a result.

Similarly, the marginal Box-Cox method seems to be biased downward. Although it does allow for the marginal price to vary with the initial bandwidth rate, it does not account for changes in marginal price in going from one bandwidth rate to another. When there is diminishing marginal price, which is suggested by the model for the bandwidth of interest here, the marginal Box-Cox method will overestimate the price change associated with increased bandwidth.

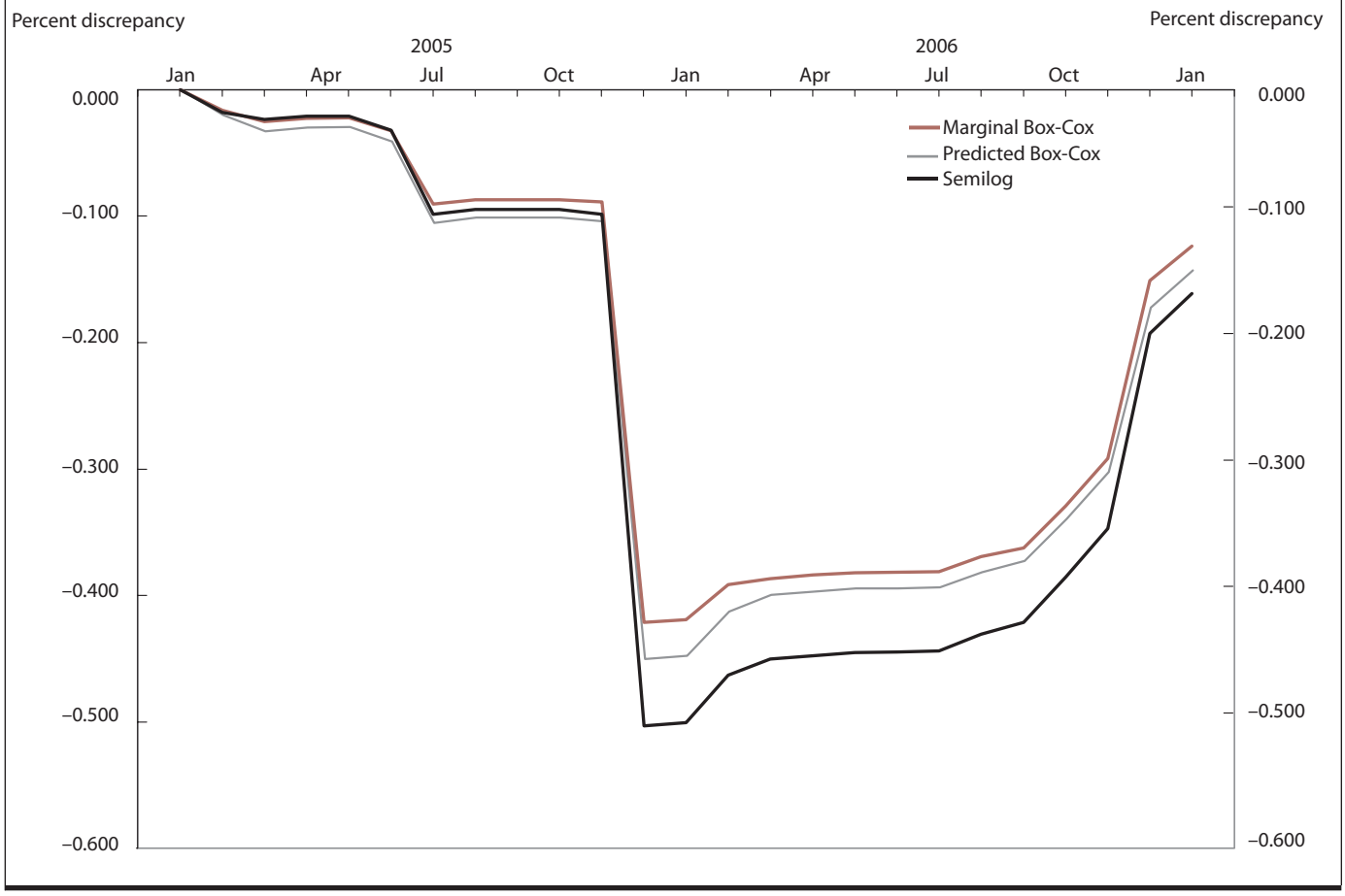
The predicted-price Box-Cox index decreases faster than the official index because it incorporates many of the quality improvements missed in the official index. However, it decreases less rapidly than the other experimental indexes because it accommodates the diminishing marginal price of bandwidth, whereas the semilog index does not, and the marginal Box-Cox index accommodates diminishing marginal price only in the initial bandwidth. By fully accommodating changes in marginal value, the predicted-price Box-Cox index avoids the downward bias of the other two experimental indexes.

Chart 3 shows the running discrepancies between the experimental indexes and the official index. The discrepancies are given by the percentage-point change in the official index from December 2004 to the given month, subtracted from the percentage-point change in the experimental index over the same period. After several months of consistent downward discrepancies compared with the official index, the experimental indexes began to move higher, closer to the official index. Adjustments made in these months demonstrate why hedonic adjustments will not always push an index downward.

In December 2006, all the experimental indexes increased relative to the official index. The December 2006 change is due entirely to a single replacement wherein the estimated value of increasing a $35-per-month plan's connection speed to 3 mbps from 384 kbps was imputed as $12.27 by the marginal Box-Cox adjustment, $8.48 by the predicted-price Box-Cox adjustment, and $6.69 by the semilog model. The marginal Box-Cox adjustment was the largest because it uses the estimated marginal value of bandwidth at 384 kbps as the estimated value for each 1-kbps increase. The predicted-price Box-Cox adjustment is less than the marginal Box-Cox adjustment because the value of bandwidth is estimated as the estimated difference between bandwidths at 3 mbps and 384 kbps. The semilog adjustment gives the lowest estimated value because it holds the value of bandwidth fixed and does not account for the fact that the value of increased bandwidth added to a very low connection speed will be relatively high. However, none of the models attributes all of the real-world price difference between the two services to the value of greater bandwidth. The faster service was $15 more than the original service it was replacing. Although this replacement was deemed noncomparable in the official index, and its price change was imputed, in the experimental indexes the foregoing estimated values were subtracted from the $15 increase and the remaining price differences were shown as price increases.

In the next month, January 2007, the experimental indexes had another large increase relative to the official index. The increase came from a single replacement in which

Chart 3. Running discrepancy: difference between experimental and official index, cumulative percent changes



an Internet service package bundled with cable television replaced an à la carte offering. In the official index, this change was considered comparable, so the $17 price decline from the à la carte service to the cheaper, bundled service was reflected in the index. In the experimental indexes, the regression models were used to offset some of this price decline by estimating the expected price difference between Internet service sold à la carte and Internet service bundled with television service. The marginal Box-Cox, semilog, and predicted-price Box-Cox models respectively estimated $8.39, $9.26, and $8.05 price declines. In each case, the associated experimental indexes reflected price decreases by the portion of the $17 decline not offset by these estimates. The official index showed the entire $17 as a price decline, so the hedonic adjustments effectively pushed the experimental indexes upward relative to the official one.

Depending on the circumstances, hedonic adjustments can move an index in either direction. The adjustments used to create the experimental indexes generally showed more downward price movement than the methods used to create the official index, but there were also cases in which adjustment moved the indexes upward compared with the movement of the official index. A look at the data used to compute the indexes shows that a large number of item replacements with quality improvements were treated as comparable in the official index, so the official index effectively ignored these improvements. The downward movement from incorporating them more than offset the upward adjustments, resulting in all three experimental indexes having downward discrepancies with the official index.

A trio of *Monthly Labor Review* articles compared indexes calculated with and without hedonic adjustments. In one, Paul R. Liegey and Nicole Shepler investigated the effects of hedonic adjustments on indexes for VCR prices from December 1996 to December 1997.[29] They found that the quality-adjusted index fell 8.0 percent over this period, while an unadjusted index fell 8.1 percent, meaning that the quality adjustment actually produced a 0.1-percent upward discrepancy. In another article, Craig Brown and Anya Stockburger looked at the impact of quality adjustments on the CPI apparel indexes. Comparing the official index, which uses direct hedonic-based adjustments,

with an experimental index that lacked these adjustments, they found that the unadjusted experimental index had an upward discrepancy of about 0.2 percent annually.[30]

In a third article, David S. Johnson, Stephen B. Reed, and Kenneth J. Stewart presented a table of the estimated yearly impacts from hedonic models in 10 categories to which the BLS had applied hedonic adjustment since 1998. Instead of using discrepancies, these authors used the percent difference between the hedonic and nonhedonic index levels.[31] The effects of hedonic adjustment ranged from –3.81 percent for computers to 1.89 percent for VCR's, but 6 of the 10 categories had differences between –1.0 percent and 1.0 percent: televisions (–0.11 percent), camcorders (0.15 percent), refrigerators (0.02 percent), clothes washers (–0.78 percent), dryers (0.06 percent), and microwave ovens (–0.17 percent).[32] In comparison, hedonic adjustment for Internet access had an annual effect of approximately –0.06 percent to –0.08 percent (depending upon which model was used), about as much of an absolute effect as that from adjusting dryers.

The adjusted Internet access index changed so little, in part because broadband makes up only a portion of the index. As of November 2006, broadband quotes accounted for about 36 percent of the quotes used to calculate this index. Broadband quotes make up only a portion of the sample used in the adjusted Internet access index, so the effects of broadband quality adjustments are dampened.

Another factor that could be contributing to the absence of any major differences between the quality-adjusted experimental and official indexes is that the quality adjustments are based on a hedonic model developed with data from the end of the period used to create the experimental indexes. The pricing structure of broadband access in November 2006, represented by the model, probably differed significantly from the pricing structure in December 2004. Bandwidth was more expensive in earlier periods and probably had a higher marginal price. If so, using a model based on more recent data underestimated the marginal price of bandwidth and gave low estimates of quality change.

Future developments

The technology behind Internet access has been in constant change since users first signed onto the service in the early 1990s, and this trend will likely continue for the near future. Specifically, two growing forms of Internet access—fiber optics and wireless broadband—will probably radically alter the state of the Internet access market. Optical fiber has long been used in the Internet backbone, but consumers could connect to these high-speed lines only through their slow, household connections. Some service providers have begun running fiber directly to the consumer—a service known as *fiber to the home* (FTTH). Fiber connections offer speeds much faster than those available through cable or DSL.

Whereas fiber offers speed, wireless offers flexibility. Wireless Internet access has been available for several years, but emerging technologies, such as WiMAX, may enable wireless to be competitive as a mainstream form of Internet access. WiMAX cuts the binds of wired Internet by providing a wireless broadband network spread over a large area. WiMAX technology includes both mobile and fixed wireless technologies. Some providers have focused on stationary applications, in which the user would have a stationary connection to a WiMAX router. Stationary WiMAX could be particularly useful to those in rural areas who do not have the wired infrastructure for broadband. Some communication companies have explored the possibilities of mobile WiMAX and have begun deploying WiMAX by installing routers on cell phone towers to create a broadband network with coverage comparable to that afforded by cell phone networks. WiMAX is also only one of several emerging wide-area, wireless broadband technologies. WiMAX has received more attention than the other technologies, but its dominance is not guaranteed.

The impact of new technologies such as FTTH and wireless broadband remains unclear. Depending on pricing and the reliability of service, wireless broadband could compete directly with DSL and cable, or it may be relegated to certain niche markets. Wireless broadband may also reshape the market structure for broadband Internet. Instead of choosing between one cable provider and one DSL provider, consumers may have the added choice of one or more wireless broadband providers. If wireless broadband can compete with current broadband technologies, another hedonic regression model will have to be developed to address the benefit of mobility and the changing marketplace. The expansion of FTTH could also alter the validity of the hedonic model presented in this article. FTTH probably will alter the pricing structure for bandwidth and allow access to higher levels of bandwidth than are currently available to most consumers. The model will then have to be revisited to account for these and other changes in the Internet access market.

BUILDING OFF OF PAST RESEARCH on hedonic regression modeling, this article has developed a model to explain the monthly price of Internet access as a composite of several factors. Coefficients from the model can be used to make

direct price adjustments for changes in quality. Making such adjustments will help account for improvements and other changes to the services in the sample. Given the rapid changes in the Internet access industry, the model will need to be updated periodically, especially as new technology changes the way the Internet is accessed and used.

Past research has indicated that Box-Cox regression provides a better estimation of hedonic models than do more restrictive functional forms. The Box-Cox method offers a relatively easy way to find a suitable transformation for data without having to run many regressions to find the best way to specify the functional form of the model. Of the various Box-Cox forms, a restricted Box-Cox model was found to provide the best fit in this particular case. Estimates from the restricted Box-Cox model were used to create two experimental price indexes utilizing two different price adjustment methods, one based on the change in predicted price with a change in Internet service characteristics and another based on derived implicit prices. A third experimental index was calculated with the current BLS methodology that favors using semilog prices with predicted price adjustments. This article recommends that the BLS adopt, of the experimental methods presented, price adjustments using the predicted-price method based on the Box-Cox model. This model provides the best estimation of a hedonic model for Internet service, and the predicted-price adjustment method is preferable to the alternative methods because it does not assume a fixed marginal price. The Box-Cox model produces more accurate estimates than the semilog model, and adjustments based on the predicted-price method allow the marginal price of a characteristic to vary, unlike adjustments made in accordance with the marginal-price adjustment method, which assumes that the marginal price of a characteristic remains fixed.

The experimental indexes initially showed large downward discrepancies compared with the official index. The experimental indexes accounted for quality improvements that had not been accounted for in the official index, which treated improved, faster Internet service as if it were comparable to slower service. Later observations happened to push the experimental indexes higher. Over the long run, given improving quality, a hedonically adjusted index should decline more than an index that does not account for these quality improvements. It is recommended that hedonic adjustments be made to the official index for Internet service in order to help account for improving quality. Also, the Box-Cox functional form should be adopted in other CPI hedonic regressions, along with predicted price adjustments based on estimated Box-Cox models. □

Notes

[1] The BLS uses the term "experimental" to denote statistics produced outside the regular production systems used for "official" statistics. The experimental indexes are not considered to be of the same quality as the official indexes.

[2] John B. Horrigan, "Home Broadband Adoption 2006," *Pew Internet and American Life Project*, May 28, 2006, on the Internet at **www.pewinternet.org/pdfs/PIP_Broadband_trends2006.pdf**.

[3] Greg Stranger and Shane Greenstein, "Pricing at the On-ramp to the Internet: Price Indexes for ISP's during the 1990s," on the Internet at **www.nber.org/~confer/2003/CRIWf03/greenstein.pdf**.

[4] Kam Yu and Marc Prud'homme, "Econometric Issues in Hedonic Price Indices: The Case of Internet Service Providers," Oct. 12, 2007, on the Internet at **flash.lakeheadu.ca/%7Ekyu/Papers/ISP.pdf** (visited July 15, 2008).

[5] *Ibid*.

[6] Shane Greenstein, "Is the Price Right? The CPI for Internet Access," Report for the Bureau of Economic Analysis, Dec. 20, 2002, on the Internet at **www.kellogg.northwestern.edu/faculty/greenstein/images/htm/Research/WP/Is_the_price_right.pdf**.

[7] *Ibid*., p. 9.

[8] See, for example, Jerry A. Hausman, J. Gregory Sidak, and Hal J. Singer, "Cable Modems and DSL: Broadband Internet Access for Residential Customers," Papers and Proceedings of the Hundred Thirteenth Annual Meeting of the American Economic Association, *American Economic Review*, May 2001, pp. 302–07.

[9] Greenstein, "Is the Price Right?" p. 20.

[10] *Ibid*., p. 14.

[11] Hausman, Sidak, and Singer, "Cable Modems and DSL."

[12] *Ibid*., p. 340.

[13] John B. Horrigan and Lee Rainie, "The Broadband Difference: How online Americans' behavior changes with high-speed Internet connection at home," *Pew Internet and American Life Project*, on the Internet at **www.pewinternet.org/pdfs/PIP_Broadband_Report.pdf**.

[14] Tom Downes and Shane Greenstein, "Universal Access and Local Internet Markets in the U.S.," *Research Policy*, September 2002, pp. 1035–52.

[15] "Does the Residential Broadband Market Need Fixing?" (Congressional Budget Office, December 2003), on the Internet at **www.cbo.gov/ftpdocs/48xx/doc4868/12–03-Broadband.pdf**.

[16] Nestor M. Arguea, Cheng Hsiao, and Grant A. Taylor, "Estimating Consumer Preferences Using Market Data—an Application to U.S. Automobile Demand," *Journal of Applied Econometrics*, January–March 1994, pp. 1–18.

[17] Sherwin Rosen, "Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition," *Journal of Political Economy*, January–February 1974, pp. 34–55.

[18] Jack Triplett, *Handbook on Hedonic Indexes and Quality Adjustments in Price Indexes: Special Application to Information Technology Products*, STI Working Paper 2004/09, Oct. 8, 2004, on the Internet at **www.oecd.org/**

dataoecd/37/31/33789552.pdf; see especially pp. 185–86.

[19] Maureen L. Cropper, Leland B. Deck, and Kenneth E. McConnell, "On the Choice of Functional Form for Hedonic Price Functions," *Review of Economics and Statistics*, November 1988), pp. 668–75.

[20] In cases where a transformation parameter equals 0, the logarithmic transformation is used instead of the usual Box-Cox transformation by that parameter.

[21] Triplett, *Handbook on Hedonic Indexes*, p. 182.

[22] Cropper, Deck, and McConnell, "On the Choice of Functional Form," p. 668.

[23] *Ibid.*, p. 671.

[24] Horrigan, "Home Broadband," p. ii.

[25] Yu and Prudhomme, "Econometric Issues in Hedonic Price Indices," also used these two criteria to help select functional form.

[26] John J. Spitzer, "A Fast and Efficient Algorithm for the Estimation of Parameters in Models with the Box-and-Cox Transformation," *Journal of the American Statistical Association*, December 1982, pp. 760–66; see especially p. 760.

[27] For more on these imputation methods, see *BLS Handbook of Methods*, June 2007, chapter 17, "The Consumer Price Index," on the Internet at **www.bls.gov/opub/hom/pdf/homch17.pdf**.

[28] Triplett, *Handbook on Hedonic Indexes*, p. 26.

[29] Paul R. Liegey and Nicole Shepler, "Adjusting VCR prices for quality change: a study using hedonic methods," *Monthly Labor Review,* September 1999, pp. 22–37; on the Internet at **www.bls.gov/opub/mlr/1999/09/art3full.pdf**.

[30] Craig Brown and Anya Stockburger, "Item replacement and quality change in apparel price indexes," *Monthly Labor Review*, December 2006, pp. 35–45; on the Internet at **www.bls.gov/opub/mlr/2006/12/art3full.pdf**.

[31] The formula for the discrepancy between the experimental (adjusted) index and the official (unadjusted) index is ($\text{AdjustedIndex}_t - \text{UnadjustedIndex}_{t-1}$). In comparison, David S. Johnson, Stephen B. Reed, and Kenneth J. Stewart, "Price measurement in the United States: a decade after the Boskin Report, *Monthly Labor Review*, May 2006, pp 10–19 (on the Internet at **www.bls.gov/opub/mlr/2006/05/art2full.pdf**), compared indexes with the formula ($\text{AdjustedIndex}_t - \text{UnadjustedIndex}_t$)/$\text{UnadjustedIndex}_t$.

[32] *Ibid.*

The optimal inflation rate

"What is the Optimal Inflation Rate?" ask Roberto M. Billi and George A. Kahn in a recent article in the Federal Reserve Bank of Kansas City's *Economic Review*. Billi and Kahn are certainly not the first people to ask this question, but they have made a rare attempt to answer it using quantitative analysis. Many central banks target specific rates of inflation; ideally, according to Billi and Kahn, the goal is to attain the level of inflation that maximizes the public's economic well-being. Inflation can be harmful to the economy because it generally hurts creditors, discourages saving, and increases tax burdens. It can also distort prices because most companies change prices infrequently.

Nevertheless, there are reasons to keep inflation above zero. First, maintaining some inflation decreases the possibility of deflation, which is generally considered by policymakers to be a more serious problem than inflation because it increases the real value of the money owed by debtors. Second, low inflation leads to low interest rates. When nominal interest rates reach zero—a phenomenon known as hitting the zero lower bound—conventional monetary policy no longer works. These two reasons constitute policymakers' primary rationale for targeting an inflation rate above zero. A third possible reason to aim for a positive inflation rate is that Billi and Kahn, among other economists, believe that most measures of inflation tend to overstate it.

Economists David Reifschneider and John C. Williams have found in econometric analyses that when zero percent inflation is targeted, the Federal funds rate is expected to reach the zero bound 14 percent of the time; when the inflation target is 4 percent, the funds rate is expected to hit zero less than 1 percent of the time. Billi has simulated a New-Keynesian model in order to take the next step and estimate the optimal inflation rate. The model attempts to keep inflation as low as possible while still hitting the zero bound infrequently and remaining there for only a short period of time.

If his model is completely accurate and its underlying assumptions are correct, the optimal inflation rate is 0.7 percent per year. However, one must take "model uncertainty" into account, because greater uncertainty regarding the model leads to greater uncertainty about the economy's response to shocks. Bearing in mind varying degrees of model certainty, Billi estimates an optimal inflation rate between 0.7 percent (no model uncertainty) and 1.4 percent (extreme model uncertainty). Under this policy, the Federal funds rate is expected to reach the zero bound between 3.5 percent and 7.5 percent of the time and stay there for about two consecutive quarters.

Surging oil prices

As nearly everyone knows, crude oil prices have risen rapidly in the last few years. Early in 2008, they rose to record levels—considerably more than $100 per barrel. Even after adjusting for inflation, the price of a barrel of oil recently surpassed its peak, reached in 1980. After more than two decades of relative stability, oil prices began to increase sharply in 2004, and they have continued their steep ascent ever since. According to the lead article in this issue of the *Review* (pp. 3–18), the Producer Price Index for crude petroleum increased 51.7 percent in 2007. Although sharp increases in prices for many goods and services can be jarring to consumers, surges in oil prices are particularly disruptive. Rising oil prices have a direct effect on prices for finished energy goods such as gasoline, home heating oil, diesel fuel, and residential electric power. What are the factors leading to the sharp increase in oil prices? Stephen P.A. Brown, Raghav Virmani, and Richard Alm examine this question in "Crude Awakening: Behind the Surge in Oil Prices" (*Economic Letter*, Federal Reserve Bank of Dallas, May 2008).

Brown and his coauthors argue that much of the recent increase in crude oil prices can be attributed to "the fundamentals of supply and demand." In turn, they examine each of the following factors: increased global demand for oil, the role played by expectations about future oil prices, the weakness of the dollar relative to other world currencies, and concerns about supply disruptions due to political instability in the regions where much of the world's oil supply is located. As the authors observe, modern industrial economies are heavily dependent upon oil. As per capita income rises, economies consume more energy—for transportation, for heating and cooling, and for goods and services production—and global demand increases. In addition, demand for oil is relatively inelastic in the short term; it does not react quickly to changing prices. Thus, even small changes in the supply of oil can have a strong effect on prices.

The authors predict that the same factors will continue to play the predominant role in the determination of oil prices in the future. On the one hand, if oil production has reached a plateau—or even its peak—prices are likely to increase further. They are likely to remain high if what the authors call "oil nationalism" continues to slow the development of new oil resources. On the other hand, if the oil-producing nations shift their recent strategy and increase their output, oil prices are likely to fall. Prices are also likely to fall if new oil resources are explored and developed aggressively.

Current Labor Statistics
Monthly Labor Review
July 2008

NOTE: Many of the statistics in the following pages were subsequently revised. These pages have not been updated to reflect the revisions.

To obtain BLS data that reflect all revisions, see http://www.bls.gov/data/home.htm

For the latest set of "Current Labor Statistics," see http://www.bls.gov/opub/mlr/curlabst.htm

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Notes on Current Labor Statistics

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

General notes

The following notes apply to several tables in this section:

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

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

Revisions in the productivity data in table 54 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month-to-month and quarter-to-quarter are published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All-Items CPI. Only seasonally adjusted percent changes are available for this series.

Adjustments for price changes. Some data—such as the "real" earnings shown in table 14—are adjusted to eliminate the effect of changes in price. These adjustments are made by dividing current-dollar values by the Consumer Price Index or the appropriate component of the index, then multiplying by 100. For example, given a current hourly wage rate of $3 and a current price index number of 150, where 1982 = 100, the hourly rate expressed in 1982 dollars is $2 ($3/150 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 seasonally adjusted data usually are revised for only the most recent 5 years. In July, new seasonal adjustment factors, which incorporate the experience through June, are produced for the July–December period, but no revisions are made in the historical data.

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

Establishment survey data

Description of the series

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

Definitions

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

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

Production workers in the goods-producing industries cover employees, up through the level of working supervisors, who engage directly in the manufacture or construction of the establishment's product. In private service-providing industries, data are collected for nonsupervisory workers, which include most employees except those

in executive, managerial, and supervisory positions. Those workers mentioned in tables 11–16 include production workers in manufacturing and natural resources and mining; construction workers in construction; and nonsupervisory workers in all private service-providing industries. Production and nonsupervisory workers account for about four-fifths of the total employment on private nonagricultural payrolls.

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

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

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

Notes on the data

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

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

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

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

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

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

Unemployment data by State

Description of the series

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

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

Notes on the data

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

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

Quarterly Census of Employment and Wages

Description of the series

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

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

market trends and major industry developments.

Definitions

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

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

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

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

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

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

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

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

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

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

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

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

Notes on the data

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

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

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

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

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

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

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

For additional information on the covered employment and wage data, contact the Division of Administrative Statistics and Labor Turnover at (202) 691–6567.

Job Openings and Labor Turnover Survey

Description of the series

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

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

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

Definitions

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

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

job openings, and multiplying that quotient by 100.

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

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

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

Notes on the data

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

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

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

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

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

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

Compensation and Wage Data

(Tables 1–3; 30–37)

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

Employment Cost Index

Description of the series

The **Employment Cost Index** (ECI) is a quarterly measure of the rate of change in compensation per hour worked and includes wages, salaries, and employer costs of employee benefits. It is a Laspeyres Index that uses fixed employment weights to measure change in labor costs free from the influence of employment shifts among occupations and industries.

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

Sample establishments are classified by industry categories based on the 2002 North American Classification System (NAICS). Within a sample establishment, specific job

categories are selected and classified into about 800 occupations according to the 2000 Standard Occupational Classification (SOC) System. Individual occupations are 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 published beginning in 1975. Changes in total compensation cost—wages and salaries and benefits combined—were published beginning in 1980. The series of changes in wages and salaries and for total compensation in the State and local government sector and in the civilian nonfarm economy (excluding Federal employees) were published beginning in 1981. Historical indexes (December 2005=100) are available on the Internet: **www.bls.gov/ect/**

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 2002 North American Industry Classification System and product codes developed by the U.S. Census Bureau.

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

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

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

International Price Indexes

Description of the series

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

The product universe for both the import and export indexes includes raw materials, agricultural products, semifinished manu-

factures, 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 approximating U.S. concepts for the United States, Canada, Australia, Japan, and six European countries. The Bureau adjusts the figures for these selected countries, for all known major definitional differences, to the extent that data to prepare adjustments are available. Although precise comparability may not be achieved, these adjusted figures provide a better basis for international comparisons than the figures regularly published by each country. For further information on adjustments and comparability issues, see Constance Sorrentino, "International unemployment rates: how comparable are they?" *Monthly Labor Review,* June 2000, pp. 3–20, available on the Internet at **www.bls.gov/opub/mlr/2000/06/art1full.pdf**.

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

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

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

The annual labor force measures are obtained from monthly, quarterly, or continuous household surveys and may be calculated

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

For up-to-date information on adjustments and breaks in series, see the Technical Notes of *Comparative Civilian Labor Force Statistics, 10 Countries*, on the Internet at **www.bls.gov/fls/flscomparelf.htm**, and the Notes of *Unemployment rates in 10 countries, civilian labor force basis, approximating U.S. concepts, seasonally adjusted*, on the Internet at **www.bls.gov/fls/flsjec.pdf**.

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

Manufacturing Productivity and Labor Costs

Description of the series

Table 53 presents comparative indexes of manufacturing output per hour (labor productivity), output, total hours, compensation per hour, and unit labor costs for the United States, Australia, Canada, Japan, The Republic of Korea, Taiwan, and 10 European countries. These measures are trend comparisons—that is, series that measure changes over time—rather than level comparisons. BLS does *not* recommend using these series for level comparisons because of technical problems.

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

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

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). For the United States and Canada, it is defined according to the North American Industry Classification System (NAICS 97).

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

Total hours refer to hours worked in all economies. The measures are developed from statistics of manufacturing employment and average hours. For most other economies, recent years' aggregate hours series are obtained from national statistical offices, usually from national accounts. However, for some economies and for earlier years, BLS calculates the aggregate hours series using employment figures published with the national accounts, or other comprehensive employment series, and data on average hours worked.

Hourly compensation is total compensation divided by total hours. Total compensation includes all payments in cash or in-kind made directly to employees plus employer expenditures for legally required insurance programs and contractual and private benefit plans. For Australia, Canada, France, and Sweden, compensation is increased to account for important taxes on payroll or employment. For the United Kingdom, compensation is reduced between 1967 and 1991 to account for subsidies.

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

Notes on the data

In general, the measures relate to total manufacturing as defined by the International Standard Industrial Classification. However, the measures for France include parts of mining as well.

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

For additional information on these series, go to **www.bls.gov/news.release/prod4.toc.htm** or contact the Division of Foreign Labor Statistics: (202) 691–5654.

Occupational Injury and Illness Data

(Tables 54–55)

Survey of Occupational Injuries and Illnesses

Description of the series

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

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

Definitions

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

other than first aid.

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

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

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

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

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

Notes on the data

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

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

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

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

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

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

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

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

Census of Fatal Occupational Injuries

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

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

Definition

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

Notes on the data

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

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

1. Labor market indicators

Selected indicators	2006	2007	2006				2007				2008
			I	II	III	IV	I	II	III	IV	I
Employment data											
Employment status of the civilian noninstitutional population (household survey):[1]											
Labor force participation rate	66.2	66.0	66.0	66.2	66.2	66.3	66.2	66.0	66.0	66.0	66.0
Employment-population ratio	63.1	63.0	62.9	63.1	63.1	63.4	63.2	63.0	62.9	62.8	62.7
Unemployment rate	4.6	4.6	4.7	4.7	4.7	4.4	4.5	4.5	4.7	4.8	4.9
Men	4.6	4.7	4.7	4.7	4.6	4.5	4.6	4.6	4.8	4.9	5.0
16 to 24 years	11.2	11.6	11.3	11.2	11.4	11.0	10.8	11.5	11.8	12.2	12.7
25 years and older	3.5	3.6	3.5	3.6	3.5	3.3	3.6	3.5	3.6	3.7	3.8
Women	4.6	4.5	4.8	4.6	4.7	4.4	4.4	4.4	4.6	4.7	4.8
16 to 24 years	9.7	9.4	9.7	9.3	10.1	9.7	9.0	9.0	9.8	9.9	10.0
25 years and older	3.7	3.6	3.9	3.8	3.8	3.5	3.5	3.6	3.7	3.8	3.9
Employment, nonfarm (payroll data), in thousands:[1]											
Total nonfarm	136,086	137,626	135,647	135,910	136,528	136,982	137,310	137,625	137,837	138,078	137,838
Total private	114,113	115,423	113,748	113,996	114,472	114,899	115,167	115,423	115,610	115,759	115,462
Goods-producing	22,531	22,221	22,563	22,570	22,564	22,436	22,362	22,267	22,138	21,976	21,728
Manufacturing	14,155	13,883	14,208	14,200	14,138	14,033	13,953	13,890	13,822	13,772	13,642
Service-providing	113,556	115,405	113,084	113,340	113,964	114,546	114,948	115,358	115,699	116,102	116,110
Average hours:											
Total private	33.9	33.8	33.8	33.9	33.8	33.9	33.9	33.9	33.8	33.8	33.8
Manufacturing	41.1	41.2	41.0	41.2	41.3	41.1	41.2	41.4	41.4	41.1	41.2
Overtime	4.4	4.2	4.5	4.5	4.4	4.2	4.1	4.1	4.2	4.0	4.0
Employment Cost Index[1, 2, 3]											
Total compensation:											
Civilian nonfarm[4]	3.3	3.3	.7	.9	1.1	.6	.9	.8	1.0	.6	.8
Private nonfarm	3.2	3.0	.8	.9	.8	.7	.8	.9	.8	.6	.9
Goods-producing[5]	2.5	2.4	.3	1.0	.7	.5	.4	1.0	.5	.6	1.0
Service-providing[5]	3.4	3.2	1.0	.8	.9	.7	.9	.9	.9	.6	.9
State and local government	4.1	4.1	.5	.4	2.3	.9	1.0	.6	1.8	.7	.5
Workers by bargaining status (private nonfarm):											
Union	3.0	2.0	.5	1.3	.6	.6	-.3	1.2	.5	.7	.8
Nonunion	3.2	3.2	.9	.8	.9	.6	1.0	.9	.8	.6	.9

[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	2006	2007	2006				2007				2008
			I	II	III	IV	I	II	III	IV	I
Compensation data[1, 2, 3]											
Employment Cost Index—compensation:											
Civilian nonfarm	3.3	3.3	0.7	0.9	1.1	0.6	0.9	0.8	1.0	0.6	0.8
Private nonfarm	3.2	3.0	.8	.9	.8	.7	.8	.9	.8	.6	.9
Employment Cost Index—wages and salaries:											
Civilian nonfarm	3.2	3.4	.7	.8	1.1	.6	1.1	.7	1.0	.7	.8
Private nonfarm	3.2	3.3	.7	1.0	.8	.7	1.1	.8	.9	.6	.9
Price data[1]											
Consumer Price Index (All Urban Consumers): All Items	3.2	2.8	1.5	1.6	.0	-.5	1.8	1.5	.1	.7	1.7
Producer Price Index:											
Finished goods	3.0	3.9	.3	1.7	-.9	.1	2.2	1.9	.1	1.9	2.8
Finished consumer goods	3.5	4.5	.2	2.1	-1.3	-.2	2.8	2.5	.2	2.1	3.3
Capital equipment	1.6	1.8	.8	.2	.0	1.3	.3	-.1	-.1	1.1	1.0
Intermediate materials, supplies, and components	6.5	4.0	.9	3.0	-.4	-.8	3.6	3.2	.1	1.8	5.0
Crude materials	1.4	12.2	-11.1	1.8	1.2	4.0	5.7	3.8	-2.4	12.7	15.2
Productivity data[4]											
Output per hour of all persons:											
Business sector	1.0	1.6	2.5	.8	-1.5	1.2	.2	3.6	6.4	.9	1.9
Nonfarm business sector	1.0	1.6	2.5	.8	-1.6	1.8	.7	2.2	6.0	1.8	2.2
Nonfinancial corporations[5]	1.3	-	3.1	-1.8	3.1	1.3	.7	2.1	2.9	.9	-

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

[2] Excludes Federal and private household workers.

[3] 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—				
	2007				2008	2007				2008
	I	II	III	IV	I	I	II	III	IV	I
Average hourly compensation:[1]										
All persons, business sector	6.2	2.4	3.7	3.7	4.2	4.7	5.4	6.0	4.0	3.5
All persons, nonfarm business sector	6.4	1.3	3.3	4.6	4.4	4.9	5.3	5.8	3.9	3.4
Employment Cost Index—compensation:[2]										
Civilian nonfarm[3]	.9	.8	1.0	.6	.8	3.5	3.3	3.3	3.3	3.3
Private nonfarm	.8	.9	.8	.6	.9	3.2	3.1	3.1	3.0	3.2
Union	-.3	1.2	.5	.7	.8	2.2	2.1	2.0	2.0	3.1
Nonunion	1.0	.9	.8	.6	.9	3.3	3.3	3.2	3.2	3.2
State and local government	1.0	.6	1.8	.7	.5	4.6	4.8	4.3	4.1	3.6
Employment Cost Index—wages and salaries:[2]										
Civilian nonfarm[3]	1.1	.7	1.0	.7	.8	3.6	3.4	3.3	3.4	3.2
Private nonfarm	1.1	.8	.9	.6	.9	3.6	3.3	3.4	3.3	3.2
Union	.5	.9	.7	.3	.8	2.5	2.5	2.7	2.3	2.6
Nonunion	1.2	.8	.9	.7	.9	3.7	3.4	3.4	3.5	3.3
State and local government	.6	.5	1.7	.7	.6	3.8	3.8	3.5	3.5	3.5

[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		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
TOTAL															
Civilian noninstitutional population[1]	228,815	231,867	231,480	231,713	231,958	232,211	232,461	232,715	232,939	233,156	232,616	232,809	232,995	233,198	233,405
Civilian labor force	151,428	153,124	152,776	153,085	153,182	152,886	153,506	153,306	153,828	153,866	153,824	153,374	153,784	153,957	154,534
Participation rate	66.2	66.0	66.0	66.1	66.0	65.8	66.0	65.9	66.0	66.0	66.1	65.9	66.0	66.0	66.2
Employed	144,427	146,047	145,913	146,087	146,045	145,753	146,260	146,016	146,647	146,211	146,248	145,993	145,969	146,331	146,046
Employment-population ratio[2]	63.1	63.0	63.0	63.0	63.0	62.8	62.9	62.7	63.0	62.7	62.9	62.7	62.6	62.7	62.6
Unemployed	7,001	7,078	6,863	6,997	7,137	7,133	7,246	7,291	7,181	7,655	7,576	7,381	7,815	7,626	8,487
Unemployment rate	4.6	4.6	4.5	4.6	4.7	4.7	4.7	4.8	4.7	5.0	4.9	4.8	5.1	5.0	5.5
Not in the labor force	77,387	78,743	78,704	78,628	78,776	79,325	78,955	79,409	79,111	79,290	78,792	79,436	79,211	79,241	78,872
Men, 20 years and over															
Civilian noninstitutional population[1]	102,145	103,555	103,361	103,477	103,598	103,723	103,847	103,973	104,087	104,197	103,866	103,961	104,052	104,152	104,258
Civilian labor force	77,562	78,596	78,497	78,503	78,619	78,526	78,689	78,664	79,075	79,004	78,864	78,748	78,838	78,776	78,878
Participation rate	75.9	75.9	75.9	75.9	75.9	75.7	75.8	75.7	76.0	75.8	75.9	75.7	75.8	75.6	75.7
Employed	74,431	75,337	75,343	75,292	75,324	75,274	75,332	75,274	75,834	75,499	75,427	75,362	75,197	75,148	75,001
Employment-population ratio[2]	72.9	72.8	72.9	72.8	72.7	72.6	72.5	72.4	72.9	72.5	72.6	72.5	72.3	72.2	71.9
Unemployed	3,131	3,259	3,154	3,212	3,295	3,252	3,357	3,389	3,240	3,505	3,437	3,386	3,641	3,628	3,877
Unemployment rate	4.0	4.1	4.0	4.1	4.2	4.1	4.3	4.3	4.1	4.4	4.4	4.3	4.6	4.6	4.9
Not in the labor force	24,584	24,959	24,864	24,973	24,979	25,197	25,158	25,309	25,012	25,193	25,002	25,213	25,214	25,376	25,380
Women, 20 years and over															
Civilian noninstitutional population[1]	109,992	111,330	111,157	111,259	111,367	111,479	111,590	111,703	111,805	111,903	111,739	111,822	111,902	111,990	112,083
Civilian labor force	66,585	67,516	67,318	67,481	67,566	67,616	67,795	67,623	67,776	67,866	67,982	67,816	68,159	68,176	68,390
Participation rate	60.5	60.6	60.6	60.7	60.7	60.7	60.8	60.5	60.6	60.6	60.8	60.6	60.9	60.9	61.0
Employed	63,834	64,799	64,710	64,828	64,792	64,826	65,033	64,827	64,980	64,912	65,098	64,950	65,055	65,260	65,138
Employment-population ratio[2]	58.0	58.2	58.2	58.3	58.2	58.2	58.3	58.0	58.1	58.0	58.3	58.1	58.1	58.3	58.1
Unemployed	2,751	2,718	2,608	2,653	2,774	2,790	2,762	2,796	2,796	2,954	2,885	2,865	3,104	2,916	3,252
Unemployment rate	4.1	4.0	3.9	3.9	4.1	4.1	4.1	4.1	4.1	4.4	4.2	4.2	4.6	4.3	4.8
Not in the labor force	43,407	43,814	43,839	43,778	43,801	43,863	43,795	44,080	44,029	44,037	43,756	44,006	43,743	43,814	43,693
Both sexes, 16 to 19 years															
Civilian noninstitutional population[1]	16,678	16,982	16,962	16,977	16,993	17,009	17,024	17,040	17,048	17,056	17,012	17,027	17,041	17,056	17,064
Civilian labor force	7,281	7,012	6,961	7,100	6,997	6,744	7,021	7,020	6,977	6,996	6,978	6,810	6,787	7,005	7,266
Participation rate	43.7	41.3	41.0	41.8	41.2	39.7	41.2	41.2	40.9	41.0	41.0	40.0	39.8	41.1	42.6
Employed	6,162	5,911	5,860	5,968	5,930	5,653	5,895	5,914	5,832	5,801	5,724	5,681	5,717	5,923	5,907
Employment-population ratio[2]	36.9	34.8	34.5	35.2	34.9	33.2	34.6	34.7	34.2	34.0	33.6	33.4	33.5	34.7	34.6
Unemployed	1,119	1,101	1,101	1,133	1,067	1,092	1,126	1,105	1,145	1,196	1,254	1,130	1,070	1,082	1,358
Unemployment rate	15.4	15.7	15.8	16.0	15.3	16.2	16.0	15.7	16.4	17.1	18.0	16.6	15.8	15.4	18.7
Not in the labor force	9,397	9,970	10,001	9,877	9,996	10,264	10,003	10,020	10,071	10,059	10,034	10,216	10,254	10,051	9,798
White[3]															
Civilian noninstitutional population[1]	186,264	188,253	187,993	188,148	188,312	188,479	188,644	188,813	188,956	189,093	188,787	188,906	189,019	189,147	189,281
Civilian labor force	123,834	124,935	124,639	124,918	124,945	124,596	125,316	125,151	125,430	125,460	125,340	124,940	125,190	125,171	125,762
Participation rate	66.5	66.4	66.3	66.4	66.3	66.1	66.4	66.3	66.4	66.3	66.4	66.1	66.2	66.2	66.4
Employed	118,833	119,792	119,711	119,835	119,713	119,340	119,992	119,883	120,194	119,889	119,858	119,534	119,574	119,667	119,661
Employment-population ratio[2]	63.8	63.6	63.7	63.7	63.6	63.3	63.6	63.5	63.6	63.4	63.5	63.3	63.3	63.3	63.2
Unemployed	5,002	5,143	4,928	5,083	5,232	5,256	5,324	5,268	5,235	5,571	5,482	5,406	5,616	5,504	6,101
Unemployment rate	4.0	4.1	4.0	4.1	4.2	4.2	4.2	4.2	4.2	4.4	4.4	4.3	4.5	4.4	4.9
Not in the labor force	62,429	63,319	63,355	63,230	63,368	63,883	63,329	63,662	63,526	63,633	63,447	63,966	63,829	63,975	63,519
Black or African American[3]															
Civilian noninstitutional population[1]	27,007	27,485	27,422	27,459	27,498	27,541	27,584	27,627	27,666	27,704	27,640	27,675	27,709	27,746	27,780
Civilian labor force	17,314	17,496	17,405	17,456	17,593	17,524	17,483	17,430	17,453	17,538	17,713	17,632	17,702	17,753	17,742
Participation rate	64.1	63.7	63.5	63.6	64.0	63.6	63.4	63.1	63.1	63.3	64.1	63.7	63.9	64.0	63.9
Employed	15,765	16,051	15,939	15,989	16,172	16,176	16,046	15,946	15,980	15,961	16,090	16,169	16,116	16,234	16,029
Employment-population ratio[2]	58.4	58.4	58.1	58.2	58.8	58.7	58.2	57.7	57.8	57.6	58.2	58.4	58.2	58.5	57.7
Unemployed	1,549	1,445	1,466	1,467	1,421	1,347	1,437	1,483	1,473	1,577	1,623	1,463	1,586	1,520	1,713
Unemployment rate	8.9	8.3	8.4	8.4	8.1	7.7	8.2	8.5	8.4	9.0	9.2	8.3	9.0	8.6	9.7
Not in the labor force	9,693	9,989	10,017	10,003	9,905	10,017	10,101	10,197	10,212	10,165	9,927	10,043	10,007	9,992	10,038

See footnotes at end of table.

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

[Numbers in thousands]

Employment status	Annual average		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Hispanic or Latino ethnicity															
Civilian noninstitutional population[1]	30,103	31,383	31,238	31,329	31,423	31,520	31,617	31,714	31,809	31,903	31,643	31,732	31,820	31,911	31,998
Civilian labor force	20,694	21,602	21,434	21,460	21,613	21,781	21,872	21,778	21,872	21,888	21,698	21,755	21,775	21,917	22,102
Participation rate	68.7	68.8	68.6	68.5	68.8	69.1	69.2	68.7	68.8	68.6	68.6	68.6	68.4	68.7	69.1
Employed	19,613	20,382	20,197	20,245	20,345	20,578	20,619	20,554	20,623	20,517	20,320	20,401	20,269	20,404	20,573
Employment-population ratio[2]	65.2	64.9	64.7	64.6	64.7	65.3	65.2	64.8	64.8	64.3	64.2	64.3	63.7	63.9	64.3
Unemployed	1,081	1,220	1,237	1,216	1,269	1,204	1,253	1,224	1,249	1,371	1,378	1,354	1,507	1,512	1,529
Unemployment rate	5.2	5.6	5.8	5.7	5.9	5.5	5.7	5.6	5.7	6.3	6.3	6.2	6.9	6.9	6.9
Not in the labor force	9,409	9,781	9,804	9,869	9,809	9,738	9,745	9,936	9,938	10,016	9,946	9,977	10,045	9,994	9,896

[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		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Characteristic															
Employed, 16 years and older	144,427	146,047	145,913	146,087	146,045	145,753	146,260	146,016	146,647	146,211	146,248	145,993	145,969	146,331	146,046
Men	77,502	78,254	78,277	78,243	78,237	78,066	78,229	78,177	78,604	78,260	78,157	78,113	77,948	78,038	77,954
Women	66,925	67,792	67,637	67,845	67,808	67,687	68,030	67,838	68,043	67,951	68,091	67,880	68,021	68,293	68,092
Married men, spouse present	45,700	46,314	46,472	46,448	46,307	46,193	46,235	46,189	46,339	46,213	46,063	46,136	45,961	45,964	45,862
Married women, spouse present	35,272	35,832	36,126	36,111	35,938	35,794	35,712	35,449	35,689	35,565	35,536	35,648	35,749	36,177	36,171
Persons at work part time[1]															
All industries:															
Part time for economic reasons	4,162	4,401	4,469	4,311	4,332	4,517	4,499	4,401	4,513	4,665	4,769	4,884	4,914	5,220	5,233
Slack work or business conditions	2,658	2,877	2,952	2,803	2,751	2,955	2,991	2,788	3,008	3,174	3,247	3,291	3,323	3,558	3,595
Could only find part-time work	1,189	1,210	1,248	1,197	1,210	1,175	1,166	1,215	1,223	1,236	1,163	1,222	1,362	1,323	1,281
Part time for noneconomic reasons	19,591	19,756	19,610	20,076	19,957	19,779	19,812	19,337	19,539	19,526	19,613	19,348	19,409	19,809	19,428
Nonagricultural industries:															
Part time for economic reasons	4,071	4,317	4,391	4,210	4,259	4,466	4,397	4,302	4,453	4,577	4,677	4,790	4,797	5,125	5,164
Slack work or business conditions	2,596	2,827	2,893	2,736	2,711	2,916	2,922	2,745	2,981	3,120	3,174	3,231	3,238	3,513	3,531
Could only find part-time work	1,178	1,199	1,246	1,198	1,205	1,152	1,153	1,207	1,205	1,219	1,149	1,216	1,354	1,331	1,288
Part time for noneconomic reasons	19,237	19,419	19,192	19,734	19,569	19,469	19,451	19,157	19,224	19,225	19,296	19,019	19,072	19,456	19,047

[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		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Characteristic															
Total, 16 years and older	4.6	4.6	4.5	4.6	4.7	4.7	4.7	4.8	4.7	5.0	4.9	4.8	5.1	5.0	5.5
Both sexes, 16 to 19 years	15.4	15.7	15.8	16.0	15.3	16.2	16.0	15.7	16.4	17.1	18.0	16.6	15.8	15.4	18.7
Men, 20 years and older	4.0	4.1	4.0	4.1	4.2	4.1	4.3	4.3	4.1	4.4	4.4	4.3	4.6	4.6	4.9
Women, 20 years and older	4.1	4.0	3.9	3.9	4.1	4.1	4.1	4.1	4.1	4.4	4.2	4.2	4.6	4.3	4.8
White, total [1]	4.0	4.1	4.0	4.1	4.2	4.2	4.2	4.2	4.2	4.4	4.4	4.3	4.5	4.4	4.9
Both sexes, 16 to 19 years	13.2	13.9	13.9	14.2	13.8	14.4	14.3	14.0	14.7	14.4	15.6	14.4	13.2	13.8	16.4
Men, 16 to 19 years	14.6	15.7	15.2	16.3	15.5	16.5	16.4	15.9	17.8	16.8	19.0	17.1	14.7	15.2	17.7
Women, 16 to 19 years	11.7	12.1	12.5	12.0	12.0	12.2	12.2	12.0	11.8	12.1	12.3	11.8	11.7	12.4	14.9
Men, 20 years and older	3.5	3.7	3.5	3.6	3.8	3.8	3.9	3.8	3.7	3.9	3.9	3.9	4.1	4.1	4.4
Women, 20 years and older	3.6	3.6	3.4	3.5	3.6	3.7	3.5	3.6	3.7	4.0	3.8	3.8	4.1	3.7	4.1
Black or African American, total [1]	8.9	8.3	8.4	8.4	8.1	7.7	8.2	8.5	8.4	9.0	9.2	8.3	9.0	8.6	9.7
Both sexes, 16 to 19 years	29.1	29.4	30.1	31.0	27.0	31.2	28.9	27.9	29.7	34.7	35.7	31.7	31.3	24.5	32.3
Men, 16 to 19 years	32.7	33.8	35.4	33.5	31.1	33.2	33.9	36.0	34.6	39.5	41.3	32.6	38.9	27.9	40.1
Women, 16 to 19 years	25.9	25.3	24.8	28.7	23.5	29.4	24.2	20.1	24.9	30.1	28.5	30.9	25.4	21.9	25.2
Men, 20 years and older	8.3	7.9	8.2	8.3	7.6	6.8	7.5	8.2	7.9	8.4	8.3	7.9	8.4	8.4	8.9
Women, 20 years and older	7.5	6.7	6.7	6.4	6.9	6.5	7.1	7.1	7.0	7.0	7.3	6.5	7.5	7.4	8.2
Hispanic or Latino ethnicity	5.2	5.6	5.8	5.7	5.9	5.5	5.7	5.6	5.7	6.3	6.3	6.2	6.9	6.9	6.9
Married men, spouse present	2.4	2.5	2.6	2.4	2.7	2.5	2.5	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.9
Married women, spouse present	2.9	2.8	2.8	2.7	2.9	3.1	2.9	2.9	3.0	3.1	3.1	3.1	3.3	3.0	3.1
Full-time workers	4.5	4.6	4.4	4.5	4.6	4.6	4.7	4.7	4.6	4.9	4.8	4.8	5.0	5.0	5.5
Part-time workers	5.1	4.9	4.9	4.7	5.1	4.9	4.7	5.0	5.0	5.6	5.4	5.0	5.3	4.9	5.5
Educational attainment [2]															
Less than a high school diploma	6.8	7.1	6.7	6.8	7.2	6.7	7.5	7.4	7.6	7.6	7.7	7.3	8.2	7.8	8.3
High school graduates, no college [3]	4.3	4.4	4.5	4.1	4.5	4.4	4.6	4.6	4.5	4.7	4.6	4.7	5.1	5.0	5.2
Some college or associate degree	3.6	3.6	3.4	3.5	3.6	3.7	3.4	3.5	3.3	3.7	3.6	3.7	3.8	3.9	4.3
Bachelor's degree and higher [4]	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.2

[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		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Less than 5 weeks	2,614	2,542	2,467	2,505	2,496	2,610	2,537	2,508	2,633	2,793	2,634	2,639	2,767	2,484	3,244
5 to 14 weeks	2,121	2,232	2,187	2,140	2,220	2,201	2,330	2,454	2,157	2,330	2,396	2,396	2,525	2,495	2,469
15 weeks and over	2,266	2,303	2,236	2,296	2,402	2,375	2,392	2,367	2,398	2,520	2,503	2,377	2,400	2,626	2,773
15 to 26 weeks	1,031	1,061	1,099	1,136	1,091	1,124	1,112	1,052	1,014	1,182	1,124	1,079	1,118	1,272	1,223
27 weeks and over	1,235	1,243	1,137	1,159	1,311	1,252	1,280	1,315	1,384	1,338	1,380	1,299	1,282	1,353	1,550
Mean duration, in weeks	16.8	16.8	16.6	16.8	17.3	16.9	16.6	17.0	17.2	16.6	17.5	16.8	16.2	16.9	16.6
Median duration, in weeks	8.3	8.5	8.3	8.3	8.9	8.6	8.9	8.7	8.7	8.4	8.8	8.4	8.1	9.3	8.3

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

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

[Numbers in thousands]

Reason for unemployment	Annual average		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Job losers[1]	3,321	3,515	3,375	3,418	3,629	3,632	3,622	3,731	3,609	3,857	3,796	3,854	4,154	4,014	4,282
On temporary layoff	921	976	997	862	983	981	963	1,064	979	975	1,040	971	1,056	1,099	1,113
Not on temporary layoff	2,400	2,539	2,379	2,555	2,646	2,652	2,660	2,668	2,630	2,882	2,756	2,883	3,098	2,915	3,169
Job leavers	827	793	768	810	823	794	839	790	783	798	830	769	781	850	870
Reentrants	2,237	2,142	2,149	2,125	2,082	2,076	2,154	2,103	2,160	2,343	2,201	2,112	2,117	2,134	2,460
New entrants	616	627	557	628	602	603	685	709	669	697	667	648	681	624	828
Percent of unemployed															
Job losers[1]	47.4	49.7	49.3	49.0	50.8	51.1	49.6	50.9	50.0	50.1	50.7	52.2	53.7	52.7	50.7
On temporary layoff	13.2	13.8	14.6	12.4	13.8	13.8	13.2	14.5	13.6	12.7	13.9	13.2	13.7	14.4	13.2
Not on temporary layoff	34.3	35.9	34.7	36.6	37.1	37.3	36.4	36.4	36.4	37.5	36.8	39.0	40.1	38.2	37.5
Job leavers	11.8	11.2	11.2	11.6	11.5	11.2	11.5	10.8	10.8	10.4	11.1	10.4	10.1	11.2	10.3
Reentrants	32.0	30.3	31.4	30.4	29.2	29.2	29.5	28.7	29.9	30.4	29.4	28.6	27.4	28.0	29.1
New entrants	8.8	8.9	8.1	9.0	8.4	8.5	9.4	9.7	9.3	9.1	8.9	8.8	8.8	8.2	9.8
Percent of civilian labor force															
Job losers[1]	2.2	2.3	2.2	2.2	2.4	2.4	2.4	2.4	2.3	2.5	2.5	2.5	2.7	2.6	2.8
Job leavers	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.6	.6
Reentrants	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.4	1.4	1.4	1.4	1.6
New entrants	.4	.4	.4	.4	.4	.4	.4	.5	.4	.5	.4	.4	.4	.4	.5

[1] Includes persons who completed temporary jobs.

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

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

[Civilian workers]

Sex and age	Annual average		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Total, 16 years and older	4.6	4.6	4.5	4.6	4.7	4.7	4.7	4.8	4.7	5.0	4.9	4.8	5.1	5.0	5.5
16 to 24 years	10.5	10.5	10.1	10.6	10.6	10.8	11.0	10.8	10.7	11.8	11.7	11.3	11.3	11.0	13.0
16 to 19 years	15.4	15.7	15.8	16.0	15.3	16.2	16.0	15.7	16.4	17.1	18.0	16.6	15.8	15.4	18.7
16 to 17 years	17.2	17.5	16.8	17.0	17.0	18.6	18.6	17.5	19.0	19.6	20.4	18.3	18.6	19.7	21.2
18 to 19 years	14.1	14.5	15.3	15.7	14.0	14.6	14.3	14.3	14.4	15.4	15.9	15.5	14.0	13.2	17.5
20 to 24 years	8.2	8.2	7.4	8.1	8.5	8.4	8.8	8.6	8.0	9.4	8.7	8.9	9.3	8.9	10.4
25 years and older	3.6	3.6	3.5	3.5	3.7	3.6	3.7	3.7	3.7	3.9	3.8	3.8	4.0	3.9	4.1
25 to 54 years	3.8	3.7	3.6	3.6	3.8	3.8	3.8	3.8	3.8	4.1	3.9	3.9	4.2	4.2	4.4
55 years and older	3.0	3.1	3.2	3.1	3.2	3.2	3.1	3.1	3.0	3.2	3.2	3.2	3.4	3.0	3.3
Men, 16 years and older	4.6	4.7	4.6	4.7	4.7	4.7	4.9	4.9	4.7	5.1	5.1	4.9	5.2	5.1	5.6
16 to 24 years	11.2	11.6	11.4	11.9	11.5	11.6	12.2	12.0	11.8	12.8	13.1	12.5	12.5	12.0	14.1
16 to 19 years	16.9	17.6	17.5	18.0	16.9	18.0	18.3	18.1	19.5	19.8	21.8	18.7	17.8	16.9	20.7
16 to 17 years	18.6	19.4	18.7	18.5	19.3	21.7	21.9	19.0	21.4	22.1	24.0	20.5	22.0	22.2	23.3
18 to 19 years	15.7	16.5	17.1	18.5	15.4	15.2	16.2	16.8	17.8	18.4	19.5	18.0	15.2	14.5	19.6
20 to 24 years	8.7	8.9	8.7	9.3	9.2	8.9	9.5	9.3	8.6	9.8	9.4	9.9	10.3	9.9	11.0
25 years and older	3.5	3.6	3.5	3.4	3.6	3.6	3.7	3.7	3.6	3.8	3.8	3.7	4.0	4.0	4.2
25 to 54 years	3.6	3.7	3.5	3.5	3.7	3.7	3.8	3.8	3.7	4.0	4.0	3.8	4.1	4.3	4.4
55 years and older	3.0	3.2	3.4	3.1	3.4	3.4	3.3	3.1	3.1	3.2	3.2	3.2	3.3	3.0	3.4
Women, 16 years and older	4.6	4.5	4.4	4.4	4.6	4.6	4.5	4.6	4.6	4.9	4.7	4.7	5.0	4.8	5.3
16 to 24 years	9.7	9.4	8.6	9.2	9.6	10.0	9.8	9.6	9.4	10.7	10.1	9.9	10.0	9.8	11.9
16 to 19 years	13.8	13.8	14.1	13.9	13.6	14.4	13.7	13.3	13.4	14.4	14.2	14.5	13.8	14.0	16.6
16 to 17 years	15.9	15.7	15.0	15.6	14.8	15.5	15.6	16.1	17.1	17.3	17.2	16.2	15.5	17.5	19.0
18 t0 19 years	12.4	12.5	13.2	12.6	12.6	13.9	12.3	11.6	10.7	12.3	12.1	12.8	12.8	11.8	15.2
20 to 24 years	7.6	7.3	5.9	6.8	7.7	7.9	7.9	7.7	7.4	8.8	8.0	7.7	8.1	7.7	9.6
25 years and older	3.7	3.6	3.6	3.6	3.8	3.7	3.7	3.7	3.8	3.9	3.8	3.8	4.1	3.9	4.1
25 to 54 years	3.9	3.8	3.8	3.7	3.9	3.9	3.8	3.9	4.0	4.1	3.9	4.0	4.2	4.0	4.4
55 years and older[1]	2.9	3.0	2.7	3.2	3.5	3.4	3.0	3.0	2.8	2.9	3.4	3.3	3.4	2.8	2.8

[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	Apr. 2007	Mar. 2007[p]	Apr. 2008[p]	State	Apr. 2007	Mar. 2007[p]	Apr. 2008[p]
Alabama	3.4	4.1	4.0	Missouri	4.7	5.7	5.2
Alaska	6.0	6.7	6.6	Montana	3.1	3.6	3.8
Arizona	3.7	4.0	3.9	Nebraska	2.8	3.0	3.1
Arkansas	5.3	4.9	4.7	Nevada	4.6	5.8	5.7
California	5.2	6.2	6.2	New Hampshire	3.7	3.9	3.8
Colorado	3.6	4.4	4.4	New Jersey	4.3	4.8	4.9
Connecticut	4.4	5.3	4.7	New Mexico	3.6	3.7	3.5
Delaware	3.4	3.7	3.7	New York	4.4	4.8	4.7
District of Columbia	5.7	6.1	6.0	North Carolina	4.7	5.2	5.4
Florida	3.8	4.9	5.0	North Dakota	3.2	3.1	3.1
Georgia	4.3	5.3	5.3	Ohio	5.6	5.8	5.6
Hawaii	2.5	3.1	3.3	Oklahoma	4.4	3.1	3.2
Idaho	2.7	3.0	3.1	Oregon	5.0	5.6	5.4
Illinois	4.8	5.5	5.4	Pennsylvania	4.3	4.9	5.0
Indiana	4.6	5.1	4.8	Rhode Island	5.0	6.1	6.1
Iowa	3.7	3.4	3.5	South Carolina	5.7	5.7	5.9
Kansas	4.1	4.1	4.0	South Dakota	3.1	2.5	2.6
Kentucky	5.5	5.7	5.6	Tennessee	4.5	5.5	5.4
Louisiana	4.0	4.5	4.1	Texas	4.4	4.3	4.1
Maine	4.7	5.0	4.7	Utah	2.5	3.3	3.1
Maryland	3.5	3.6	3.6	Vermont	4.1	4.6	4.4
Massachusetts	4.6	4.4	4.1	Virginia	2.9	3.7	3.5
Michigan	7.1	7.2	6.9	Washington	4.4	4.8	4.7
Minnesota	4.7	4.7	4.8	West Virginia	4.5	4.7	5.0
Mississippi	6.4	6.0	5.9	Wisconsin	5.1	4.8	4.3
				Wyoming	3.0	3.1	2.6

[p] = preliminary

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

State	Apr. 2007	Mar. 2007[p]	Apr. 2008[p]	State	Apr. 2007	Mar. 2007[p]	Apr. 2008[p]
Alabama	2,178,162	2,204,599	2,204,064	Missouri	3,022,280	3,022,821	3,011,857
Alaska	351,433	356,646	358,408	Montana	500,109	504,839	504,689
Arizona	3,011,558	3,076,582	3,063,765	Nebraska	979,022	990,785	994,675
Arkansas	1,367,254	1,368,760	1,372,525	Nevada	1,325,805	1,384,761	1,387,381
California	18,137,910	18,332,051	18,386,553	New Hampshire	738,000	743,473	746,047
Colorado	2,684,885	2,767,276	2,766,345	New Jersey	4,468,092	4,495,254	4,511,868
Connecticut	1,857,736	1,885,198	1,878,210	New Mexico	941,340	950,059	951,024
Delaware	442,254	445,279	446,742	New York	9,494,982	9,531,973	9,579,215
District of Columbia	326,020	333,529	332,430	North Carolina	4,507,645	4,544,121	4,556,974
Florida	9,111,097	9,216,291	9,230,108	North Dakota	364,935	370,133	370,711
Georgia	4,796,816	4,887,760	4,901,170	Ohio	5,976,610	5,989,549	5,996,475
Hawaii	649,934	658,069	662,706	Oklahoma	1,732,782	1,721,702	1,723,558
Idaho	752,126	756,234	753,153	Oregon	1,920,649	1,952,691	1,948,481
Illinois	6,669,156	6,807,686	6,812,673	Pennsylvania	6,275,086	6,324,453	6,370,068
Indiana	3,212,545	3,227,874	3,218,708	Rhode Island	575,907	572,793	573,241
Iowa	1,657,532	1,672,820	1,675,438	South Carolina	2,126,323	2,140,693	2,139,049
Kansas	1,476,973	1,487,175	1,485,051	South Dakota	441,447	444,708	445,772
Kentucky	2,043,737	2,039,908	2,045,644	Tennessee	3,021,108	3,055,455	3,068,363
Louisiana	1,995,693	2,017,129	2,019,333	Texas	11,460,972	11,632,844	11,675,906
Maine	703,570	707,948	708,753	Utah	1,351,194	1,394,043	1,384,786
Maryland	2,972,633	2,998,684	3,003,939	Vermont	354,566	351,989	352,161
Massachusetts	3,410,792	3,410,761	3,404,114	Virginia	4,038,804	4,114,709	4,116,639
Michigan	5,031,370	4,996,256	4,981,639	Washington	3,388,915	3,465,783	3,466,809
Minnesota	2,924,943	2,937,255	2,948,103	West Virginia	807,684	814,324	817,836
Mississippi	1,310,951	1,332,628	1,336,807	Wisconsin	3,094,003	3,105,386	3,096,698
				Wyoming	286,896	292,489	291,045

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		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.[p]	May[p]
TOTAL NONFARM	136,086	137,623	137,518	137,625	137,682	137,756	137,837	137,977	138,037	138,078	138,002	137,919	137,831	137,764	137,702
TOTAL PRIVATE	114,113	115,420	115,332	115,423	115,512	115,544	115,610	115,715	115,759	115,745	115,666	115,557	115,454	115,363	115,272
GOODS-PRODUCING	22,531	22,221	22,272	22,267	22,242	22,176	22,138	22,101	22,049	21,976	21,907	21,816	21,737	21,628	21,574
Natural resources and mining	684	723	719	721	726	727	727	727	735	739	744	744	750	752	757
Logging	64.4	60.8	60.7	61.2	59.9	59.5	59.7	59.1	59.9	60.6	60.7	60.2	60.1	60.8	59.5
Mining	619.7	662.1	658.4	659.6	666.3	667.2	667.4	667.8	675.0	677.9	683.2	684.0	689.7	690.9	697.6
Oil and gas extraction	134.5	146.0	143.8	144.8	146.3	147.0	147.3	148.9	152.3	153.1	154.5	153.8	155.2	154.2	156.8
Mining, except oil and gas[1]	220.3	224.5	224.0	225.0	225.4	226.4	226.7	226.9	226.0	225.2	227.0	225.7	226.2	225.8	228.5
Coal mining	78.0	77.6	76.8	76.9	77.4	77.6	78.0	78.1	78.7	78.3	78.6	78.7	79.2	79.3	80.5
Support activities for mining	264.9	291.6	290.6	289.8	294.6	293.8	293.4	292.0	296.7	299.6	301.7	304.5	308.3	310.9	312.3
Construction	7,691	7,614	7,643	7,656	7,632	7,605	7,589	7,577	7,520	7,465	7,426	7,382	7,343	7,284	7,247
Construction of buildings	1,804.9	1,761.0	1,773.6	1,778.1	1,765.3	1,751.2	1,749.4	1,736.6	1,716.4	1,702.4	1,690.2	1,673.0	1,668.2	1,648.2	1,632.3
Heavy and civil engineering	985.1	1,001.2	1,003.9	1,008.1	1,002.3	999.0	998.8	999.5	999.0	993.8	984.6	977.6	976.9	967.4	964.9
Speciality trade contractors	4,901.1	4,851.9	4,865.7	4,870.1	4,863.9	4,854.7	4,840.3	4,841.3	4,804.8	4,768.4	4,750.8	4,731.8	4,697.5	4,668.0	4,649.7
Manufacturing	14,155	13,884	13,910	13,890	13,884	13,844	13,822	13,797	13,794	13,772	13,737	13,690	13,644	13,592	13,570
Production workers	10,137	9,979	9,992	9,980	9,985	9,956	9,958	9,934	9,944	9,933	9,922	9,879	9,847	9,799	9,786
Durable goods	8,981	8,816	8,832	8,816	8,817	8,792	8,778	8,761	8,763	8,739	8,718	8,685	8,652	8,607	8,593
Production workers	6,355	6,257	6,267	6,257	6,258	6,239	6,245	6,232	6,242	6,220	6,214	6,182	6,152	6,112	6,101
Wood products	558.8	519.7	522.5	520.4	523.4	518.5	513.1	511.8	509.0	507.2	503.5	498.6	492.9	490.9	482.3
Nonmetallic mineral products	509.6	503.4	505.5	505.5	504.4	501.2	501.0	500.9	499.5	496.4	494.4	492.2	487.7	486.3	482.0
Primary metals	464.0	456.0	458.3	454.3	456.4	452.7	451.6	451.5	452.6	452.2	452.3	451.4	451.3	450.1	448.2
Fabricated metal products	1,553.1	1,563.3	1,559.6	1,563.3	1,564.2	1,562.8	1,565.0	1,568.0	1,565.6	1,562.7	1,560.9	1,557.1	1,556.9	1,544.1	1,543.0
Machinery	1,183.2	1,188.2	1,186.1	1,189.6	1,192.5	1,187.5	1,186.2	1,189.0	1,189.9	1,191.0	1,193.8	1,191.7	1,195.1	1,193.1	1,192.3
Computer and electronic products[1]	1,307.5	1,271.9	1,275.0	1,270.8	1,268.3	1,265.6	1,260.5	1,256.5	1,260.5	1,257.6	1,256.3	1,251.9	1,254.1	1,253.8	1,250.5
Computer and peripheral equipment	196.2	186.9	187.8	185.5	186.2	186.1	185.9	185.1	185.5	185.4	184.9	185.9	186.0	186.7	186.0
Communications equipment	136.2	128.6	127.2	127.4	127.5	128.5	128.5	128.1	129.5	129.0	129.5	128.7	129.4	130.9	131.1
Semiconductors and electronic components	457.9	444.5	447.3	446.0	443.7	439.9	437.4	435.8	437.0	434.9	433.5	429.7	428.7	426.7	423.7
Electronic instruments	444.5	444.0	445.2	444.5	443.1	442.5	442.0	441.9	443.0	443.7	444.3	442.9	446.2	445.7	445.8
Electrical equipment and appliances	432.7	427.2	427.7	427.1	427.7	426.1	426.0	427.2	426.6	423.8	421.6	420.8	419.9	421.5	422.1
Transportation equipment	1,768.9	1,710.9	1,716.1	1,711.6	1,704.7	1,705.7	1,706.1	1,689.3	1,693.5	1,684.7	1,678.1	1,672.0	1,651.1	1,630.6	1,638.7
Furniture and related products	560.1	534.5	538.7	534.4	536.1	533.0	530.6	528.3	527.0	523.8	520.4	516.0	511.2	506.4	504.3
Miscellaneous manufacturing	643.7	641.0	642.4	638.9	639.5	638.8	637.6	638.2	638.8	639.9	636.4	633.3	632.0	630.2	629.1
Nondurable goods	5,174	5,068	5,078	5,074	5,067	5,052	5,044	5,036	5,031	5,033	5,019	5,005	4,992	4,985	4,977
Production workers	3,782	3,723	3,725	3,723	3,727	3,717	3,713	3,702	3,702	3,713	3,708	3,697	3,695	3,687	3,685
Food manufacturing	1,479.4	1,481.3	1,480.5	1,484.9	1,488.8	1,480.6	1,476.0	1,478.6	1,477.9	1,486.3	1,483.2	1,482.7	1,477.0	1,473.8	1,472.8
Beverages and tobacco products	194.2	195.7	196.2	197.9	197.0	196.1	195.7	195.2	194.3	192.0	191.1	189.3	190.8	193.3	192.4
Textile mills	195.0	169.9	171.2	170.5	168.1	166.4	164.8	164.9	164.9	163.0	162.0	161.4	158.7	156.4	155.1
Textile product mills	166.7	158.4	158.3	158.1	157.1	156.9	156.3	155.9	157.2	155.7	154.0	153.0	153.3	152.2	151.6
Apparel	232.4	213.0	215.3	212.2	212.8	211.3	209.2	206.8	206.4	204.8	202.0	200.6	198.1	198.0	196.5
Leather and allied products	36.8	33.9	33.9	33.8	33.1	33.3	34.0	33.7	34.1	33.7	34.5	33.5	33.5	33.9	33.9
Paper and paper products	470.5	460.6	461.0	460.3	459.8	459.1	459.0	459.2	458.6	460.3	459.0	457.8	457.9	458.4	458.2
Printing and related support activities	634.4	624.2	624.7	624.3	623.3	621.0	623.0	622.2	622.0	619.5	620.1	614.6	614.2	611.7	607.9
Petroleum and coal products	113.2	113.4	116.0	114.2	112.5	112.5	112.9	112.6	112.1	111.7	112.2	112.5	112.2	112.2	113.5
Chemicals	865.9	862.9	862.4	863.3	862.5	864.2	864.3	860.7	860.5	862.0	861.2	861.0	860.5	861.3	862.4
Plastics and rubber products	785.5	754.0	758.5	754.3	752.4	750.2	748.4	745.9	743.0	744.2	739.7	738.7	735.6	734.1	732.5
SERVICE-PROVIDING	113,556	115,402	115,246	115,358	115,440	115,580	115,699	115,876	115,988	116,102	116,095	116,103	116,094	116,136	116,128
PRIVATE SERVICE-PROVIDING	91,582	93,199	93,060	93,156	93,270	93,368	93,472	93,614	93,710	93,769	93,759	93,741	93,717	93,735	93,698
Trade, transportation, and utilities	26,276	26,608	26,593	26,600	26,617	26,640	26,649	26,644	26,693	26,658	26,631	26,579	26,552	26,496	26,458
Wholesale trade	5,904.5	6,028.3	6,011.7	6,030.0	6,040.7	6,047.1	6,055.6	6,069.8	6,075.0	6,072.9	6,067.3	6,057.6	6,054.3	6,043.9	6,040.0
Durable goods	3,074.8	3,130.7	3,127.2	3,135.2	3,140.2	3,141.9	3,143.4	3,147.4	3,152.4	3,145.0	3,138.0	3,127.3	3,127.8	3,118.1	3,111.5
Nondurable goods	2,041.3	2,069.3	2,058.1	2,066.3	2,069.2	2,072.7	2,078.5	2,086.5	2,086.6	2,089.3	2,090.9	2,088.4	2,087.5	2,086.9	2,089.4
Electronic markets and agents and brokers	788.5	828.4	826.4	828.5	831.3	832.5	833.7	835.9	836.0	838.6	838.4	841.9	839.0	838.9	839.1
Retail trade	15,353.3	15,490.7	15,500.3	15,483.9	15,489.1	15,502.3	15,487.3	15,469.1	15,513.1	15,487.8	15,472.2	15,428.8	15,401.4	15,355.7	15,333.1
Motor vehicles and parts dealers[1]	1,909.7	1,913.1	1,916.4	1,913.9	1,911.9	1,914.7	1,916.0	1,911.9	1,911.0	1,909.3	1,910.2	1,905.1	1,901.5	1,897.6	1,894.1
Automobile dealers	1,246.7	1,245.3	1,247.1	1,245.7	1,244.7	1,245.6	1,246.6	1,247.4	1,244.9	1,244.6	1,244.0	1,236.2	1,233.7	1,228.8	1,224.6
Furniture and home furnishings stores	586.9	581.0	580.5	578.1	577.7	579.2	576.2	577.3	584.9	584.5	579.9	575.9	570.6	569.0	569.7
Electronics and appliance stores	541.1	543.7	546.5	543.9	545.0	542.7	540.1	537.1	542.6	540.4	534.3	533.6	535.0	534.7	537.9

See notes at end of table.

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

Industry	Annual average		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.[p]	May[p]
Building material and garden supply stores	1,324.1	1,305.3	1,317.8	1,313.7	1,307.3	1,315.6	1,291.9	1,285.4	1,279.9	1,271.6	1,266.0	1,258.5	1,250.8	1,240.5	1,239.1
Food and beverage stores	2,821.1	2,848.5	2,839.4	2,845.3	2,847.1	2,852.2	2,856.0	2,859.6	2,871.9	2,871.9	2,880.1	2,885.7	2,890.1	2,882.4	2,881.1
Health and personal care stores	961.1	988.6	987.5	987.7	985.6	989.4	990.1	991.0	998.6	999.9	1,000.6	993.5	993.9	993.4	992.5
Gasoline stations	864.1	861.2	863.2	862.2	861.5	860.8	864.2	862.0	859.1	850.5	853.8	854.2	852.6	847.4	841.1
Clothing and clothing accessories stores	1,450.9	1,500.4	1,493.6	1,489.7	1,496.7	1,501.5	1,502.4	1,500.9	1,524.5	1,508.6	1,498.2	1,496.3	1,498.9	1,495.4	1,494.4
Sporting goods, hobby, book, and music stores	645.5	658.2	656.4	656.2	660.5	661.8	665.1	664.0	664.0	661.6	667.2	661.9	658.6	651.5	654.3
General merchandise stores[1]	2,935.0	2,984.6	2,994.3	2,987.6	2,987.0	2,978.9	2,976.5	2,975.8	2,968.2	2,976.7	2,971.1	2,955.7	2,943.9	2,939.0	2,927.3
Department stores	1,557.2	1,576.7	1,585.8	1,581.0	1,580.1	1,573.0	1,570.5	1,568.5	1,560.6	1,568.4	1,564.3	1,543.3	1,534.3	1,528.1	1,514.6
Miscellaneous store retailers	881.0	868.7	868.0	869.8	871.3	869.7	873.3	869.0	868.3	866.3	869.4	865.3	862.8	863.3	860.6
Nonstore retailers	432.8	437.6	436.7	435.8	437.5	435.8	435.5	435.1	440.1	446.5	441.4	443.1	442.7	441.5	441.0
Transportation and warehousing	4,469.6	4,536.0	4,527.6	4,531.8	4,533.0	4,535.4	4,551.2	4,548.7	4,549.0	4,539.9	4,534.5	4,535.5	4,537.7	4,538.3	4,527.4
Air transportation	487.0	492.6	484.2	493.0	493.4	494.6	494.5	495.2	503.0	502.1	504.7	508.2	507.5	504.5	502.7
Rail transportation	227.5	234.4	235.1	233.8	234.4	234.4	234.6	234.0	233.8	232.5	233.8	233.7	233.7	233.5	233.2
Water transportation	62.7	64.3	63.4	64.5	65.0	65.1	65.0	64.9	65.0	64.4	63.8	62.5	61.6	62.3	62.0
Truck transportation	1,435.8	1,441.2	1,450.2	1,445.2	1,437.4	1,438.2	1,440.6	1,433.6	1,428.7	1,423.1	1,422.5	1,417.4	1,420.4	1,415.2	1,411.6
Transit and ground passenger transportation	399.3	410.0	407.3	405.3	411.0	413.3	417.8	417.4	411.5	411.8	411.9	413.5	412.9	418.3	412.2
Pipeline transportation	38.7	40.1	39.9	39.9	40.0	40.1	40.1	40.3	40.6	40.8	40.6	40.9	41.2	41.3	42.3
Scenic and sightseeing transportation	27.5	29.4	28.8	28.6	28.9	29.3	29.8	30.3	30.9	31.3	31.0	31.5	31.7	31.3	31.2
Support activities for transportation	570.6	582.9	580.8	583.0	583.7	583.7	586.5	589.9	589.2	587.1	584.9	585.9	586.3	588.2	587.0
Couriers and messengers	582.4	582.5	578.3	579.8	580.1	579.2	580.3	577.9	584.4	588.1	585.5	586.0	585.3	585.0	586.8
Warehousing and storage	638.1	658.7	659.6	658.7	659.1	657.5	662.0	665.2	661.9	658.7	655.8	655.9	657.1	658.7	658.4
Utilities	548.5	553.4	553.5	554.5	554.3	555.1	554.8	556.1	555.5	557.1	557.1	557.0	558.2	557.7	557.5
Information	3,038	3,029	3,037	3,033	3,027	3,024	3,031	3,027	3,022	3,018	3,014	3,016	3,013	3,007	3,004
Publishing industries, except Internet	902.4	898.2	901.4	899.4	898.7	897.0	893.7	894.6	892.2	889.7	889.2	886.8	882.9	882.8	879.5
Motion picture and sound recording industries	375.7	380.0	385.2	384.4	377.9	376.3	384.3	380.5	376.3	376.3	372.9	380.1	383.0	382.5	382.5
Broadcasting, except Internet.	328.3	326.4	326.6	326.4	325.1	325.2	327.0	324.8	325.0	321.9	323.0	322.1	322.5	320.8	321.1
Internet publishing and broadcasting															
Telecommunications	1,047.6	1,028.3	1,027.8	1,027.1	1,026.6	1,025.1	1,024.4	1,023.6	1,026.4	1,026.8	1,025.3	1,022.0	1,020.1	1,018.0	1,018.3
ISPs, search portals, and data processing	263.2	270.5	271.1	270.3	272.8	272.3	273.1	273.2	272.6	273.5	273.0	274.2	272.3	272.2	272.2
Other information services	120.8	125.7	124.6	125.7	126.3	127.6	128.8	130.0	129.5	129.3	130.5	131.2	131.9	130.7	130.1
Financial activities	8,328	8,308	8,322	8,317	8,331	8,312	8,294	8,283	8,260	8,252	8,244	8,231	8,231	8,229	8,226
Finance and insurance	6,156.0	6,146.6	6,155.4	6,153.0	6,165.8	6,148.4	6,136.0	6,124.5	6,115.5	6,111.2	6,106.2	6,102.2	6,103.4	6,103.8	6,099.7
Monetary authorities—central bank	21.2	21.1	21.7	21.4	20.8	21.1	20.9	20.8	20.7	20.7	20.7	20.9	20.9	21.1	21.0
Credit intermediation and related activities[1]	2,924.9	2,881.6	2,896.9	2,886.4	2,892.3	2,870.4	2,856.7	2,844.8	2,834.3	2,829.2	2,825.0	2,820.4	2,811.8	2,807.9	2,801.7
Depository credit intermediation[1]	1,802.0	1,822.5	1,818.8	1,818.2	1,823.8	1,825.8	1,831.0	1,829.3	1,823.4	1,824.6	1,821.5	1,823.3	1,821.6	1,822.9	1,821.2
Commercial banking	1,322.9	1,345.8	1,343.9	1,343.0	1,346.7	1,347.3	1,350.1	1,350.1	1,344.7	1,345.9	1,342.2	1,344.9	1,343.4	1,344.2	1,344.3
Securities, commodity contracts, investments	818.3	847.9	846.2	849.5	851.2	852.6	853.2	855.0	856.9	856.7	859.2	862.5	865.8	867.2	866.9
Insurance carriers and related activities	2,303.7	2,308.1	2,303.2	2,308.4	2,314.2	2,315.4	2,317.0	2,315.3	2,315.6	2,316.8	2,313.9	2,311.1	2,318.4	2,319.7	2,322.6
Funds, trusts, and other financial vehicles	87.9	87.8	87.4	87.3	87.3	88.9	88.2	88.6	88.0	87.8	87.4	87.3	86.5	87.9	87.5
Real estate and rental and leasing	2,172.5	2,161.7	2,166.2	2,163.8	2,165.4	2,163.3	2,157.7	2,158.6	2,144.7	2,140.6	2,138.0	2,128.6	2,127.8	2,124.9	2,126.4
Real estate	1,499.0	1,491.9	1,497.2	1,494.7	1,493.8	1,493.9	1,489.8	1,489.1	1,477.1	1,476.4	1,471.4	1,466.0	1,465.0	1,465.7	1,466.9
Rental and leasing services	645.5	640.3	640.0	639.2	641.4	638.9	637.8	639.7	637.4	633.6	635.2	631.0	631.1	627.4	628.2
Lessors of nonfinancial intangible assets	28.1	29.5	29.0	29.9	30.2	30.5	30.1	29.8	30.2	30.6	31.4	31.6	31.7	31.8	31.3
Professional and business services	17,566	17,962	17,938	17,935	17,958	17,979	18,000	18,070	18,079	18,131	18,101	18,073	18,014	18,031	17,982
Professional and technical services[1]	7,356.7	7,662.0	7,627.8	7,645.4	7,664.2	7,688.0	7,729.7	7,759.3	7,784.8	7,820.5	7,819.2	7,829.2	7,823.5	7,845.6	7,840.0
Legal services	1,173.2	1,176.4	1,180.7	1,178.5	1,173.7	1,174.2	1,178.6	1,179.7	1,175.2	1,173.9	1,173.0	1,174.9	1,172.6	1,172.5	1,172.0
Accounting and bookkeeping services	889.0	947.2	932.5	938.6	947.8	954.0	964.5	971.3	979.4	993.3	992.3	991.9	983.3	986.1	975.4
Architectural and engineering services	1,385.7	1,436.0	1,429.8	1,433.6	1,436.5	1,439.0	1,443.2	1,451.1	1,453.9	1,460.4	1,460.5	1,463.0	1,461.8	1,464.9	1,464.3

See notes at end of table

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

Industry	Annual average		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.[p]	May[p]
Computer systems design and related services	1,284.6	1,359.8	1,353.5	1,358.3	1,366.8	1,371.2	1,375.5	1,380.0	1,387.5	1,391.4	1,391.6	1,393.5	1,391.3	1,403.9	1,408.7
Management and technical consulting services	886.4	952.8	943.8	945.4	946.6	956.3	967.2	974.8	985.1	994.3	989.2	992.7	997.0	1,001.3	1,006.1
Management of companies and enterprises	1,810.9	1,846.0	1,842.3	1,842.6	1,845.0	1,849.2	1,854.7	1,860.9	1,850.0	1,847.8	1,845.5	1,844.7	1,839.7	1,841.0	1,840.9
Administrative and waste services	8,398.3	8,453.6	8,468.1	8,446.8	8,448.6	8,441.3	8,415.3	8,449.6	8,444.1	8,462.8	8,436.2	8,398.6	8,351.2	8,344.4	8,301.2
Administrative and support services[1]	8,050.2	8,096.7	8,113.0	8,090.8	8,092.2	8,083.4	8,057.4	8,092.2	8,081.4	8,099.3	8,070.8	8,036.1	7,987.3	7,978.9	7,934.7
Employment services[1]	3,680.9	3,600.9	3,629.7	3,602.5	3,584.6	3,570.2	3,533.0	3,567.7	3,563.9	3,566.9	3,562.1	3,531.6	3,483.7	3,462.2	3,421.2
Temporary help services	2,637.4	2,605.1	2,614.6	2,603.3	2,596.5	2,589.4	2,565.1	2,592.0	2,583.7	2,578.5	2,574.6	2,536.8	2,506.0	2,487.1	2,455.2
Business support services	792.9	805.5	806.2	804.1	805.5	803.8	802.7	798.5	798.9	803.7	797.4	796.6	794.1	792.8	788.0
Services to buildings and dwellings	1,801.4	1,851.2	1,846.8	1,851.4	1,854.9	1,858.0	1,863.2	1,866.3	1,861.1	1,872.0	1,861.3	1,859.7	1,857.3	1,864.6	1,867.7
Waste management and remediation services	348.1	356.9	355.1	356.0	356.4	357.9	357.9	357.4	362.7	363.5	365.4	362.5	363.9	365.5	366.5
Educational and health services	17,826	18,327	18,247	18,314	18,360	18,422	18,451	18,490	18,522	18,568	18,617	18,665	18,709	18,757	18,801
Educational services	2,900.9	2,949.1	2,928.2	2,952.9	2,962.7	2,981.3	2,967.7	2,974.9	2,975.5	2,984.5	3,003.4	3,009.6	3,018.6	3,030.5	3,037.7
Health care and social assistance	14,925.3	15,377.6	15,319.2	15,361.4	15,396.8	15,440.8	15,483.0	15,515.1	15,546.7	15,583.2	15,613.6	15,655.0	15,690.5	15,726.1	15,763.5
Ambulatory health care services[1]	5,285.8	5,477.1	5,451.8	5,462.1	5,484.7	5,504.4	5,523.1	5,547.3	5,554.8	5,566.0	5,581.7	5,600.0	5,612.5	5,632.8	5,643.6
Offices of physicians	2,147.8	2,204.0	2,196.0	2,194.8	2,204.7	2,211.7	2,219.1	2,226.1	2,232.2	2,235.6	2,240.8	2,248.2	2,251.7	2,259.6	2,265.4
Outpatient care centers	492.6	507.1	505.0	505.2	505.0	507.2	509.3	511.4	511.0	513.0	511.5	512.0	511.9	514.9	515.8
Home health care services	865.6	913.3	904.9	911.7	917.7	923.0	925.2	930.3	929.1	930.9	934.7	939.5	943.3	946.1	947.9
Hospitals	4,423.4	4,517.3	4,499.6	4,513.4	4,524.2	4,533.4	4,541.6	4,549.7	4,558.8	4,572.4	4,579.3	4,592.8	4,606.4	4,616.2	4,632.8
Nursing and residential care facilities[1]	2,892.5	2,952.0	2,945.9	2,955.3	2,954.9	2,960.0	2,962.8	2,963.1	2,967.5	2,971.2	2,974.6	2,979.9	2,983.4	2,987.3	2,988.3
Nursing care facilities	1,581.4	1,600.8	1,597.7	1,597.6	1,602.2	1,604.8	1,604.3	1,603.1	1,605.9	1,608.2	1,608.8	1,613.3	1,609.6	1,610.7	1,611.0
Social assistance[1]	2,323.5	2,431.2	2,421.9	2,430.6	2,433.0	2,443.0	2,455.5	2,455.0	2,465.6	2,473.6	2,478.0	2,482.3	2,488.2	2,489.8	2,498.8
Child day care services	818.3	849.2	847.8	849.1	847.7	850.7	857.4	853.3	856.7	857.1	859.2	858.6	861.8	858.1	862.6
Leisure and hospitality	13,110	13,474	13,428	13,461	13,476	13,494	13,552	13,604	13,628	13,635	13,644	13,660	13,676	13,690	13,699
Arts, entertainment, and recreation	1,928.5	1,977.5	1,970.8	1,975.0	1,968.8	1,970.5	1,985.3	1,996.4	2,001.4	2,010.3	2,016.1	2,019.1	2,025.7	2,021.1	2,020.4
Performing arts and spectator sports	398.5	412.4	409.2	412.1	405.8	409.2	414.3	419.0	426.4	429.9	429.5	431.0	433.9	436.4	439.4
Museums, historical sites, zoos, and parks	123.8	130.2	129.6	130.6	131.9	131.1	131.6	131.9	131.6	131.5	132.6	131.7	133.4	132.6	133.7
Amusements, gambling, and recreation	1,406.3	1,434.9	1,432.0	1,432.3	1,431.1	1,430.2	1,439.4	1,445.5	1,443.4	1,448.9	1,454.0	1,456.4	1,458.4	1,452.1	1,447.3
Accommodations and food services	11,181.1	11,496.3	11,457.6	11,486.1	11,507.0	11,523.6	11,567.0	11,607.5	11,626.8	11,624.7	11,628.0	11,640.7	11,650.7	11,668.7	11,678.3
Accommodations	1,832.1	1,856.4	1,856.3	1,853.2	1,853.6	1,844.1	1,856.4	1,863.6	1,870.3	1,858.1	1,854.9	1,854.4	1,849.4	1,853.0	1,850.4
Food services and drinking places	9,349.0	9,639.9	9,601.3	9,632.9	9,653.4	9,679.5	9,710.6	9,743.9	9,756.5	9,766.6	9,773.1	9,786.3	9,801.3	9,815.7	9,827.9
Other services	5,438	5,491	5,495	5,496	5,501	5,497	5,495	5,496	5,506	5,507	5,508	5,517	5,522	5,525	5,528
Repair and maintenance	1,248.5	1,257.0	1,261.0	1,261.3	1,257.8	1,259.6	1,262.5	1,260.1	1,258.0	1,255.5	1,252.9	1,255.2	1,254.8	1,254.0	1,253.1
Personal and laundry services	1,288.4	1,305.2	1,307.8	1,304.3	1,307.9	1,305.7	1,304.4	1,303.4	1,309.7	1,306.9	1,306.6	1,306.4	1,308.5	1,309.9	1,310.3
Membership associations and organizations	2,901.2	2,928.8	2,925.9	2,930.8	2,935.4	2,931.2	2,927.6	2,932.8	2,938.0	2,944.4	2,948.9	2,955.6	2,959.0	2,961.4	2,964.9
Government	21,974	22,203	22,186	22,202	22,170	22,212	22,227	22,262	22,278	22,333	22,336	22,362	22,377	22,401	22,430
Federal	2,732	2,727	2,727	2,720	2,726	2,724	2,721	2,722	2,728	2,735	2,717	2,725	2,726	2,734	2,741
Federal, except U.S. Postal Service	1,962.6	1,964.6	1,962.3	1,957.0	1,964.3	1,963.4	1,961.4	1,963.5	1,966.7	1,972.3	1,977.3	1,982.9	1,986.6	1,996.0	2,007.5
U.S. Postal Service	769.7	762.3	764.6	762.5	761.6	760.6	759.3	758.3	761.7	763.1	739.7	741.6	739.1	737.9	733.3
State	5,075	5,125	5,119	5,126	5,123	5,123	5,138	5,138	5,131	5,153	5,159	5,158	5,157	5,170	5,171
Education	2,292.5	2,318.4	2,314.7	2,319.7	2,313.8	2,313.6	2,327.7	2,325.9	2,314.3	2,332.5	2,335.1	2,332.9	2,332.9	2,340.8	2,342.5
Other State government	2,782.0	2,806.6	2,804.2	2,806.2	2,808.8	2,809.5	2,810.3	2,812.4	2,816.5	2,820.9	2,824.0	2,824.9	2,823.8	2,829.1	2,828.9
Local	14,167	14,351	14,340	14,356	14,321	14,365	14,368	14,402	14,419	14,445	14,460	14,479	14,494	14,497	14,518
Education	7,913.0	7,976.6	7,976.6	7,973.7	7,938.2	7,972.0	7,970.6	7,994.6	7,999.6	8,016.5	8,018.0	8,031.9	8,035.7	8,032.1	8,044.3
Other local government	6,253.8	6,374.5	6,363.7	6,382.4	6,382.5	6,393.4	6,397.5	6,406.9	6,419.2	6,428.2	6,441.5	6,447.5	6,457.8	6,465.0	6,473.8

[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		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.[p]	May[p]
TOTAL PRIVATE	33.9	33.8	33.8	33.9	33.8	33.8	33.8	33.8	33.8	33.8	33.7	33.7	33.8	33.8	33.7
GOODS-PRODUCING	40.5	40.6	40.5	40.7	40.6	40.6	40.6	40.6	40.7	40.5	40.4	40.4	40.5	40.4	40.2
Natural resources and mining	45.6	45.9	45.8	46.0	45.9	45.7	46.2	46.0	46.2	45.8	45.7	45.7	46.2	44.9	44.8
Construction	39.0	39.0	38.9	39.1	38.9	38.8	38.9	39.0	39.1	39.0	38.8	38.7	38.9	38.9	38.6
Manufacturing	41.1	41.2	41.1	41.4	41.4	41.3	41.4	41.2	41.3	41.1	41.1	41.1	41.2	41.0	40.9
Overtime hours	4.4	4.2	4.1	4.3	4.2	4.2	4.2	4.1	4.1	4.0	4.0	4.0	4.0	4.0	3.9
Durable goods	41.4	41.5	41.3	41.6	41.6	41.7	41.6	41.5	41.5	41.3	41.4	41.4	41.5	41.3	41.2
Overtime hours	4.4	4.2	4.1	4.4	4.2	4.2	4.2	4.1	4.1	4.0	4.1	4.1	4.0	4.0	3.9
Wood products	39.8	39.4	39.5	39.7	39.9	39.6	39.7	39.5	39.0	39.2	39.0	39.0	38.7	38.8	39.0
Nonmetallic mineral products	43.0	42.3	42.2	42.4	42.6	42.8	42.7	42.6	42.9	41.5	42.2	42.1	43.1	42.2	42.1
Primary metals	43.6	42.9	42.8	43.3	43.2	43.0	42.6	42.6	42.7	42.2	42.5	42.4	42.9	42.4	42.2
Fabricated metal products	41.4	41.6	41.4	41.6	41.7	41.7	41.9	41.7	41.7	41.6	41.6	41.7	41.7	41.6	41.4
Machinery	42.4	42.6	42.3	42.6	42.5	42.6	42.7	42.9	42.9	42.9	43.1	43.0	42.7	42.5	42.2
Computer and electronic products	40.5	40.6	40.4	40.5	40.3	40.6	40.6	40.6	40.9	40.5	40.4	40.5	41.0	41.1	41.0
Electrical equipment and appliances	41.0	41.2	41.0	41.6	41.4	41.2	41.2	40.7	41.2	41.6	41.4	41.1	41.3	41.1	41.1
Transportation equipment	42.7	42.8	42.9	43.4	43.3	43.1	42.8	42.7	42.6	42.1	42.6	42.9	42.3	42.3	42.0
Furniture and related products	38.8	39.2	39.0	39.1	39.2	39.7	39.4	39.1	38.9	39.1	38.3	38.2	38.7	38.7	38.9
Miscellaneous manufacturing	38.7	38.9	38.6	39.1	39.2	39.4	39.7	39.0	38.8	38.8	39.0	38.8	39.3	39.3	39.2
Nondurable goods	40.6	40.8	40.8	40.9	40.9	40.8	40.9	40.8	40.9	40.8	40.6	40.6	40.7	40.5	40.5
Overtime hours	4.4	4.1	4.1	4.2	4.1	4.1	4.1	4.1	4.1	4.0	3.9	3.9	3.9	3.9	3.9
Food manufacturing	40.1	40.7	40.6	40.6	40.8	40.6	40.7	40.8	40.6	40.4	40.5	40.6	40.7	40.8	40.8
Beverage and tobacco products	40.8	40.8	40.6	40.9	40.7	41.0	40.8	40.6	40.5	40.8	40.5	40.1	40.4	39.6	39.8
Textile mills	40.6	40.3	40.3	40.5	40.2	39.9	40.4	40.2	39.9	40.2	38.7	38.8	38.8	38.4	38.9
Textile product mills	39.8	39.7	39.7	40.4	40.8	39.9	39.9	39.2	39.1	39.9	38.6	39.3	39.3	38.3	38.7
Apparel	36.5	37.2	37.3	37.8	37.5	37.2	37.2	36.6	36.9	37.5	36.7	36.8	36.7	36.6	36.1
Leather and allied products	38.9	38.1	38.9	38.0	37.5	37.7	37.9	37.7	38.1	39.1	38.2	38.2	38.7	38.6	38.5
Paper and paper products	42.9	43.2	42.8	43.0	43.0	43.1	43.2	43.3	43.7	44.0	44.0	43.9	43.6	43.3	42.6
Printing and related support activities	39.2	39.1	39.1	39.1	38.8	39.1	38.9	38.8	39.0	38.8	38.4	38.2	38.6	38.5	38.4
Petroleum and coal products	45.0	44.2	44.4	44.4	44.0	43.7	43.4	42.9	43.8	44.0	43.8	43.6	43.5	43.2	44.0
Chemicals	42.5	41.9	42.0	42.0	42.2	42.1	42.0	41.7	42.1	41.5	41.6	41.4	41.9	41.3	41.2
Plastics and rubber products	40.6	41.3	41.1	41.5	41.5	41.3	41.6	41.7	42.1	41.4	41.1	41.2	41.1	41.0	41.0
PRIVATE SERVICE-PROVIDING	32.5	32.4	32.5	32.5	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.3	32.4	32.4	32.4
Trade, transportation, and utilities	33.4	33.3	33.3	33.4	33.2	33.3	33.3	33.2	33.3	33.3	33.4	33.3	33.4	33.4	33.3
Wholesale trade	38.0	38.2	38.4	38.3	38.1	38.2	38.2	38.1	38.1	38.3	38.4	38.2	38.4	38.3	38.3
Retail trade	30.5	30.2	30.1	30.2	30.1	30.1	30.2	30.1	30.2	30.1	30.2	30.1	30.2	30.2	30.1
Transportation and warehousing	36.9	36.9	36.9	36.9	36.8	36.9	36.9	36.7	36.8	36.8	36.6	36.7	36.7	36.7	36.5
Utilities	41.4	42.4	42.4	42.5	42.6	42.4	42.5	42.2	42.5	42.8	43.1	42.8	43.3	42.6	42.5
Information	36.6	36.5	36.4	36.3	36.6	36.4	36.5	36.2	36.2	36.3	36.3	36.2	36.6	36.5	36.6
Financial activities	35.7	35.9	35.9	36.0	35.9	35.8	35.7	35.7	35.8	35.8	35.8	35.8	35.8	35.9	36.0
Professional and business services	34.6	34.8	34.8	34.8	34.8	34.7	34.8	34.8	34.7	34.8	34.7	34.6	34.8	34.8	34.8
Education and health services	32.5	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.7	32.6	32.7
Leisure and hospitality	25.7	25.5	25.6	25.6	25.3	25.4	25.4	25.4	25.3	25.3	25.3	25.3	25.3	25.4	25.4
Other services	30.9	30.9	31.1	30.9	30.9	30.8	30.9	30.8	30.9	30.8	30.8	30.8	30.9	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		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.[p]	May[p]
TOTAL PRIVATE															
Current dollars	$16.76	$17.42	$17.34	$17.41	$17.47	$17.51	$17.57	$17.59	$17.64	$17.70	$17.75	$17.81	$17.87	$17.89	$17.95
Constant (1982) dollars	8.24	8.32	8.31	8.32	8.33	8.35	8.35	8.34	8.27	8.27	8.26	8.29	8.28	8.27	8.24
GOODS-PRODUCING	18.02	18.67	18.63	18.68	18.69	18.73	18.78	18.77	18.84	18.90	18.98	19.04	19.12	19.12	19.17
Natural resources and mining	19.90	20.96	20.86	20.89	20.95	21.09	20.99	21.05	21.02	21.54	21.75	21.69	22.01	21.61	21.64
Construction	20.02	20.95	20.91	20.94	20.94	21.01	21.12	21.07	21.20	21.30	21.38	21.47	21.56	21.60	21.69
Manufacturing	16.81	17.26	17.23	17.28	17.30	17.33	17.34	17.34	17.40	17.41	17.49	17.55	17.61	17.62	17.66
Excluding overtime	15.96	16.43	16.41	16.43	16.46	16.49	16.50	16.52	16.58	16.60	16.68	16.74	16.79	16.80	16.86
Durable goods	17.68	18.19	18.16	18.23	18.23	18.27	18.28	18.28	18.31	18.33	18.41	18.49	18.54	18.58	18.61
Nondurable goods	15.33	15.67	15.64	15.65	15.70	15.71	15.74	15.73	15.85	15.86	15.92	15.94	16.03	15.99	16.05
PRIVATE SERVICE-PRIVATE SERVICE-PROVIDING	16.42	17.10	17.01	17.08	17.15	17.19	17.26	17.28	17.33	17.39	17.44	17.50	17.55	17.58	17.64
Trade,transportation, and utilities	15.39	15.79	15.70	15.77	15.82	15.85	15.90	15.94	15.93	16.00	16.02	16.07	16.11	16.11	16.17
Wholesale trade	18.91	19.59	19.39	19.55	19.58	19.66	19.72	19.77	19.86	19.93	19.97	20.00	20.03	20.05	20.06
Retail trade	12.57	12.76	12.73	12.75	12.79	12.80	12.83	12.86	12.81	12.81	12.80	12.84	12.86	12.85	12.89
Transportation and warehousing	17.28	17.73	17.62	17.73	17.78	17.79	17.86	17.86	17.93	18.07	18.10	18.21	18.25	18.33	18.42
Utilities	27.40	27.87	27.69	27.75	27.82	27.99	28.14	28.32	28.18	28.52	28.61	28.58	28.77	28.56	28.87
Information	23.23	23.94	23.87	23.94	23.92	23.97	24.01	24.10	24.11	24.18	24.33	24.41	24.53	24.50	24.66
Financial activities	18.80	19.64	19.59	19.67	19.67	19.75	19.76	19.78	19.87	19.91	20.00	20.05	20.11	20.16	20.22
Professional and business services	19.13	20.13	20.02	20.11	20.19	20.25	20.36	20.31	20.42	20.46	20.53	20.63	20.74	20.84	20.90
Education and health services	17.38	18.11	17.99	18.06	18.14	18.20	18.29	18.34	18.43	18.48	18.54	18.59	18.61	18.64	18.70
Leisure and hospitality	9.75	10.41	10.32	10.39	10.46	10.50	10.55	10.60	10.61	10.65	10.67	10.73	10.74	10.79	10.83
Other services	14.77	15.42	15.33	15.40	15.46	15.51	15.55	15.59	15.66	15.71	15.74	15.76	15.77	15.79	15.82

[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		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.[p]	May[p]
TOTAL PRIVATE	$16.76	$17.42	$17.30	$17.32	$17.44	$17.42	$17.64	$17.60	$17.63	$17.75	$17.80	$17.85	$17.92	$17.91	$17.90
Seasonally adjusted	–	–	17.34	17.41	17.47	17.51	17.57	17.59	17.64	17.70	17.75	17.81	17.87	17.89	17.95
GOODS-PRODUCING	18.02	18.67	18.62	18.70	18.72	18.81	18.91	18.86	18.88	18.96	18.90	18.94	19.03	19.06	19.13
Natural resources and mining	19.90	20.96	20.86	20.80	20.87	20.97	20.93	21.02	20.99	21.68	21.96	21.87	22.26	21.77	21.51
Construction	20.02	20.95	20.85	20.92	21.02	21.13	21.32	21.25	21.26	21.38	21.24	21.35	21.43	21.48	21.59
Manufacturing	16.81	17.26	17.21	17.28	17.22	17.31	17.39	17.34	17.42	17.51	17.53	17.55	17.60	17.63	17.64
Durable goods	17.68	18.19	18.14	18.23	18.10	18.27	18.35	18.30	18.36	18.46	18.43	18.50	18.53	18.56	18.58
Wood products	13.39	13.67	13.60	13.71	13.62	13.61	13.65	13.81	13.82	13.88	13.90	13.82	13.89	13.96	14.08
Nonmetallic mineral products	16.59	16.93	16.98	17.15	17.04	16.88	16.94	16.94	17.05	16.94	16.99	16.86	16.80	17.12	16.89
Primary metals	19.36	19.66	19.63	19.70	19.85	19.72	19.83	19.81	19.69	19.73	20.04	19.99	20.21	20.20	20.23
Fabricated metal products	16.17	16.53	16.49	16.46	16.52	16.58	16.61	16.69	16.70	16.82	16.77	16.78	16.85	16.81	16.84
Machinery	17.20	17.72	17.63	17.60	17.82	17.69	17.79	17.68	17.74	17.95	17.72	17.81	17.85	17.88	18.00
Computer and electronic products	18.94	19.95	19.88	19.96	20.08	20.06	20.20	20.28	20.22	20.33	20.51	20.60	20.80	20.90	21.06
Electrical equipment and appliances	15.54	15.94	16.09	16.10	16.09	16.03	16.10	15.80	15.68	15.73	15.70	15.73	15.66	15.76	15.71
Transportation equipment	22.41	23.02	22.89	23.17	22.67	23.33	23.42	23.20	23.41	23.46	23.34	23.48	23.46	23.52	23.53
Furniture and related products	13.80	14.32	14.35	14.40	14.36	14.31	14.36	14.36	14.35	14.50	14.38	14.37	14.42	14.45	14.46
Miscellaneous manufacturing	14.36	14.66	14.42	14.74	14.82	14.77	14.78	14.70	14.72	15.00	14.91	14.95	15.08	14.97	14.97
Nondurable goods	15.33	15.67	15.62	15.64	15.74	15.69	15.77	15.71	15.83	15.90	15.99	15.93	16.01	16.03	16.04
Food manufacturing	13.13	13.54	13.52	13.52	13.57	13.61	13.65	13.61	13.63	13.70	13.87	13.74	13.83	13.86	13.89
Beverages and tobacco products	18.18	18.49	18.58	18.20	18.61	17.78	18.40	18.69	19.54	19.69	19.55	19.64	19.59	19.26	19.24
Textile mills	12.55	13.00	12.89	12.98	13.13	13.21	13.16	12.93	13.06	13.13	13.29	13.35	13.45	13.45	13.50
Textile product mills	11.86	11.78	11.70	11.83	11.89	11.74	11.73	11.75	11.67	11.75	11.68	11.62	11.78	11.78	11.85
Apparel	10.65	11.05	11.01	10.96	11.15	11.12	11.17	11.16	11.20	11.28	11.43	11.46	11.35	11.51	11.42
Leather and allied products	11.44	12.04	11.87	11.98	12.18	12.10	12.24	12.10	12.50	12.12	12.78	12.68	12.81	12.63	13.05
Paper and paper products	18.01	18.43	18.46	18.47	18.68	18.30	18.54	18.50	18.47	18.71	18.78	18.61	18.66	18.58	18.70
Printing and related support activities	15.80	16.15	15.92	16.00	16.19	16.28	16.37	16.48	16.33	16.65	16.51	16.49	16.65	16.64	16.65
Petroleum and coal products	24.11	25.26	24.87	24.54	25.12	25.43	25.95	24.92	26.95	25.52	26.55	26.51	27.22	27.12	26.99
Chemicals	19.60	19.56	19.53	19.62	19.70	19.47	19.52	19.35	19.52	19.57	19.46	19.40	19.35	19.39	19.37
Plastics and rubber products	14.97	15.38	15.31	15.40	15.31	15.45	15.45	15.41	15.49	15.65	15.56	15.58	15.69	15.77	15.72
PRIVATE SERVICE-PROVIDING	16.42	17.10	16.95	16.96	17.10	17.05	17.31	17.27	17.31	17.45	17.52	17.58	17.65	17.62	17.59
Trade, transportation, and utilities	15.39	15.79	15.67	15.74	15.89	15.81	16.00	15.94	15.84	15.89	16.02	16.08	16.16	16.16	16.14
Wholesale trade	18.91	19.59	19.29	19.44	19.70	19.58	19.85	19.75	19.89	20.10	20.01	20.03	20.08	20.01	19.92
Retail trade	12.57	12.76	12.73	12.75	12.84	12.78	12.91	12.85	12.70	12.64	12.78	12.82	12.90	12.90	12.90
Transportation and warehousing	17.28	17.73	17.51	17.74	17.90	17.84	17.96	17.89	17.94	18.04	18.08	18.14	18.19	18.28	18.35
Utilities	27.40	27.87	27.70	27.47	27.70	27.73	28.27	28.44	28.17	28.61	28.62	28.61	28.88	28.69	28.84
Information	23.23	23.94	23.81	23.71	23.77	23.85	24.22	24.15	24.11	24.34	24.44	24.44	24.58	24.52	24.62
Financial activities	18.80	19.64	19.53	19.53	19.66	19.65	19.88	19.79	19.83	19.97	19.96	20.07	20.18	20.22	20.20
Professional and business services	19.13	20.13	19.95	19.96	20.26	20.01	20.34	20.19	20.33	20.67	20.65	20.77	20.93	20.84	20.81
Education and health services	17.38	18.11	17.95	18.02	18.18	18.20	18.33	18.33	18.42	18.51	18.61	18.58	18.62	18.63	18.63
Leisure and hospitality	9.75	10.41	10.33	10.30	10.33	10.39	10.53	10.61	10.67	10.77	10.73	10.82	10.76	10.80	10.83
Other services	14.77	15.42	15.38	15.36	15.39	15.43	15.58	15.55	15.61	15.75	15.74	15.78	15.84	15.82	15.85

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

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

Industry	Annual average		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec	Jan.	Feb.	Mar.	Apr.[p]	May.[p]
TOTAL PRIVATE	$567.87	$589.72	$583.01	$588.88	$596.45	$592.28	$603.29	$594.88	$594.13	$605.28	$592.74	$596.19	$605.70	$599.99	$601.44
Seasonally adjusted	–	–	586.09	590.20	590.49	591.84	593.87	594.54	596.23	598.26	598.18	600.20	604.01	604.68	604.92
GOODS-PRODUCING	730.16	757.06	755.97	766.70	758.16	769.33	777.20	771.37	770.30	771.67	756.00	751.92	766.91	766.21	769.03
Natural resources and mining	907.95	961.78	955.39	963.04	957.93	962.52	979.52	981.63	969.74	992.94	988.20	986.34	1,017.28	970.94	955.04
CONSTRUCTION	781.21	816.06	819.41	830.52	828.19	836.75	842.14	841.50	829.14	825.27	805.00	800.63	825.06	824.83	833.37
Manufacturing	691.02	711.36	707.33	717.12	704.30	718.37	725.16	717.88	722.93	728.42	716.98	714.29	723.36	722.83	719.71
Durable goods	732.00	754.12	751.00	763.84	743.91	763.69	770.70	763.11	763.78	771.63	759.32	758.50	767.14	766.53	763.64
Wood products	532.99	539.10	541.28	553.88	546.16	543.04	548.73	548.26	534.83	546.87	530.98	523.78	531.99	538.86	550.53
Nonmetallic mineral products	712.71	716.79	719.95	737.45	729.31	732.59	735.20	730.11	731.45	696.23	696.59	686.20	715.68	722.46	717.83
Primary metals	843.59	843.28	838.20	853.01	849.58	844.02	848.72	841.93	842.73	844.44	851.70	847.58	869.03	852.44	849.66
Fabricated metal products	668.98	687.13	682.69	686.38	682.28	693.04	699.28	700.98	701.40	708.12	695.96	693.01	702.65	699.30	697.18
Machinery	728.84	753.99	745.75	749.76	753.79	750.06	761.41	762.01	762.82	780.83	763.73	762.27	763.98	761.69	759.60
Computer and electronic products	766.96	809.19	801.16	812.37	801.19	812.43	828.20	827.42	833.06	841.66	822.45	826.06	852.80	854.81	861.35
Electrical equipment and appliances	636.95	656.58	656.47	668.15	659.69	658.83	666.54	649.38	652.29	671.67	649.98	638.64	645.19	646.16	640.97
Transportation equipment	957.65	985.57	986.56	1,010.21	943.07	1,012.52	1,011.74	992.96	999.61	1,006.43	994.28	1,002.60	994.70	999.60	985.91
Furniture and related products	535.90	561.03	553.91	568.80	562.91	576.69	572.96	561.48	559.65	578.55	545.00	541.75	555.17	553.44	556.71
Miscellaneous manufacturing	555.90	569.98	556.61	580.76	573.53	581.94	588.24	574.77	571.14	589.50	580.00	575.58	594.15	586.82	583.83
Nondurable goods	621.97	639.99	634.17	639.68	639.04	641.72	651.30	644.11	653.78	656.67	646.00	638.79	648.41	647.61	646.41
Food manufacturing	525.99	550.65	546.21	547.56	552.30	556.65	566.48	560.73	562.92	561.70	556.19	546.85	555.97	559.94	565.32
Beverages and tobacco products	741.34	753.80	761.78	758.94	761.15	739.65	747.04	751.34	787.46	793.51	778.09	769.89	785.56	768.47	775.37
Textile mills	509.39	524.47	519.47	526.99	519.95	524.44	536.93	515.91	521.09	539.64	514.32	512.64	521.86	515.14	522.45
Textile product mills	472.24	467.96	460.98	481.48	477.98	468.43	468.03	457.08	457.46	478.23	449.68	454.34	464.13	450.00	452.67
Apparel	389.20	411.52	411.77	416.48	413.67	412.55	414.41	410.69	415.52	423.00	416.05	420.58	418.82	423.57	413.40
Leather and allied products	445.47	459.43	465.30	457.64	450.66	453.75	462.67	458.59	478.75	484.80	484.36	480.57	499.59	491.31	502.43
Paper and paper products	772.39	795.20	790.09	796.06	799.50	788.73	813.91	806.60	816.37	834.47	826.32	805.81	807.98	802.66	787.27
Printing and related support activities	618.92	632.08	617.70	620.80	621.70	638.18	644.98	644.37	640.14	654.35	630.68	629.92	644.36	640.64	636.03
Petroleum and coal products	1,085.50	1,115.24	1,106.72	1,099.39	1,117.84	1,106.21	1,144.40	1,074.05	1,204.67	1,099.91	1,157.58	1,134.63	1,165.02	1,163.45	1,190.26
Chemicals	833.67	819.99	818.31	822.08	823.46	819.69	821.79	801.09	823.74	818.03	809.54	801.22	810.77	800.81	792.23
Plastics and rubber products	608.41	635.15	627.71	642.18	624.65	635.00	647.36	642.60	652.13	657.30	639.52	637.22	644.86	646.57	644.52
PRIVATE SERVICE-PROVIDING	532.78	554.78	547.49	551.20	560.88	554.13	567.77	557.82	559.11	570.62	558.89	564.32	573.63	567.36	566.40
Trade, transportation, and utilities	514.34	526.38	520.24	527.29	535.49	529.64	542.40	529.21	525.89	535.49	525.46	529.03	538.13	534.90	534.23
Wholesale trade	718.63	748.90	738.81	744.55	758.45	747.96	768.20	752.48	757.81	779.88	758.38	759.14	775.09	764.38	760.94
Retail trade	383.02	385.20	381.90	387.60	392.90	388.51	396.34	386.79	382.27	385.52	379.57	380.75	387.00	385.71	387.00
Transportation and warehousing	636.97	654.83	642.62	656.38	664.09	663.65	668.11	656.56	661.99	678.30	650.88	654.85	667.57	663.56	666.11
Utilities	1,135.34	1,182.17	1,177.25	1,170.22	1,180.02	1,175.75	1,215.61	1,208.70	1,194.41	1,221.65	1,222.07	1,218.79	1,241.84	1,225.06	1,219.93
Information	850.42	873.63	857.16	858.30	884.24	870.53	896.14	874.23	872.78	893.28	877.40	879.84	902.09	887.62	891.24
Financial activities	672.21	705.29	693.32	699.17	717.59	699.54	721.64	702.55	705.95	726.91	708.58	716.50	730.52	721.85	721.14
Professional and business services	662.27	700.15	692.27	696.60	709.10	696.35	715.97	702.61	705.45	727.58	704.17	714.49	734.64	725.23	724.19
Education and health services	564.94	590.18	581.58	585.65	598.12	593.32	603.06	595.73	600.49	607.13	604.83	603.85	608.87	603.61	605.48
Leisure and hospitality	250.34	265.45	263.42	266.77	271.68	270.14	269.57	268.43	266.75	272.48	262.89	269.42	272.23	272.16	274.00
Other services	456.50	476.80	476.78	476.16	480.17	478.33	484.54	478.94	480.79	488.25	480.07	482.87	489.46	485.67	486.60

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:												
2004	50.5	50.5	64.1	62.6	61.7	58.9	56.0	50.0	56.9	56.9	51.3	51.8
2005	52.2	60.6	54.2	58.2	55.8	58.2	58.0	61.3	54.7	53.6	62.4	54.7
2006	65.1	60.9	64.4	59.3	53.3	52.7	60.4	58.9	53.5	55.8	57.1	56.0
2007	51.6	51.8	52.7	51.1	56.6	50.4	52.2	51.6	56.4	54.6	48.2	48.5
2008	45.4	41.4	47.4	45.6	45.6							
Over 3-month span:												
2004	54.4	52.9	57.3	63.5	68.8	66.6	61.3	56.4	57.7	59.5	61.9	54.6
2005	52.2	55.5	57.5	60.8	58.9	61.9	60.4	63.9	61.1	54.4	54.9	61.3
2006	67.2	66.2	66.6	65.5	60.6	58.2	56.0	58.9	55.7	56.4	57.1	58.4
2007	58.4	54.7	55.3	54.7	56.2	53.3	53.1	54.7	58.4	56.8	54.7	52.4
2008	46.7	42.7	42.3	44.0	42.3							
Over 6-month span:												
2004	50.0	51.6	55.3	60.9	63.7	65.1	65.1	63.9	60.4	61.7	58.2	56.0
2005	54.6	57.3	56.8	57.5	57.5	58.2	64.4	62.8	62.0	59.3	61.5	62.0
2006	63.1	64.4	67.2	67.0	64.4	66.4	61.5	61.7	60.4	59.7	60.8	56.0
2007	59.1	56.4	57.5	56.8	58.8	58.2	56.2	58.0	58.2	57.1	54.6	53.8
2008	51.5	49.8	44.7	46.5	43.2							
Over 12-month span:												
2004	40.5	42.3	45.1	48.9	51.3	58.2	57.5	55.7	57.3	58.8	60.6	60.8
2005	60.6	60.8	59.7	58.9	58.0	60.0	60.9	63.3	60.4	58.9	59.5	61.7
2006	67.2	65.1	65.5	62.6	64.8	66.4	64.4	64.4	66.2	65.1	64.4	65.5
2007	62.6	59.1	60.4	58.9	59.5	58.4	57.5	58.8	61.7	60.4	59.9	57.7
2008	53.8	54.6	52.6	50.4	47.3							
	Manufacturing payrolls, 84 industries											
Over 1-month span:												
2004	43.5	47.6	47.0	63.7	50.6	51.2	58.3	42.9	42.9	48.2	42.3	39.9
2005	36.3	48.8	42.9	44.6	42.3	35.1	38.1	47.0	45.8	46.4	47.0	47.0
2006	57.7	45.8	54.8	48.8	38.1	53.0	50.6	44.0	36.3	40.5	38.1	39.3
2007	47.6	35.7	30.4	29.8	37.5	39.3	41.7	33.3	40.5	45.2	44.6	36.3
2008	40.5	28.6	38.1	35.1	41.7							
Over 3-month span:												
2004	41.1	40.5	43.5	56.5	58.9	61.3	57.7	47.0	46.4	41.7	44.6	38.7
2005	38.1	39.3	42.3	44.6	36.3	37.5	33.3	39.9	45.8	41.7	38.7	49.4
2006	54.8	52.4	47.6	48.8	44.6	50.6	42.9	47.6	36.3	37.5	32.1	34.5
2007	33.9	28.6	32.1	27.4	29.8	32.7	31.0	34.5	32.1	39.3	44.0	41.7
2008	35.7	27.4	26.8	29.2	27.4							
Over 6-month span:												
2004	29.2	31.5	32.7	44.6	49.4	54.8	59.5	56.0	51.2	51.8	44.0	38.7
2005	33.9	38.1	35.1	36.9	32.1	32.1	41.7	35.7	36.3	36.9	37.5	42.3
2006	42.9	45.2	50.6	47.6	48.2	47.6	46.4	48.8	43.5	41.7	38.7	29.8
2007	34.5	27.4	23.8	27.4	31.5	34.5	33.3	31.0	29.2	35.1	34.5	32.7
2008	34.5	33.9	32.1	28.0	23.8							
Over 12-month span:												
2004	13.1	14.3	13.1	20.2	23.2	35.7	36.9	38.1	36.9	44.0	44.6	44.6
2005	44.6	43.5	41.7	40.5	36.3	35.1	32.1	33.9	32.7	33.3	33.3	38.1
2006	44.6	40.5	40.5	39.3	39.3	44.6	41.7	42.3	46.4	48.2	45.2	44.0
2007	39.3	36.3	36.9	28.6	29.8	26.2	26.8	29.2	30.4	29.8	33.3	33.9
2008	29.8	29.8	29.8	24.4	26.2							

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)							Percent						
	2007		2008					2007		2008				
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.[p]	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.[p]
Total[2]	3,972	3,974	3,889	3,799	3,672	3,612	3,626	2.8	2.8	2.7	2.7	2.6	2.6	2.6
Industry														
Total private[2]	3,520	3,526	3,449	3,350	3,225	3,192	3,180	3.0	3.0	2.9	2.8	2.7	2.7	2.7
Construction	138	140	133	123	102	99	118	1.8	1.8	1.8	1.6	1.4	1.3	1.6
Manufacturing	303	305	286	239	251	244	236	2.2	2.2	2.0	1.7	1.8	1.8	1.7
Trade, transportation, and utilities	648	667	643	598	562	550	603	2.4	2.4	2.4	2.2	2.1	2.0	2.2
Professional and business services	685	706	752	699	714	676	601	3.7	3.7	4.0	3.7	3.8	3.6	3.2
Education and health services	713	698	680	737	696	684	672	3.7	3.6	3.5	3.8	3.6	3.5	3.4
Leisure and hospitality	591	574	515	530	501	491	518	4.2	4.0	3.6	3.7	3.5	3.5	3.6
Government	454	446	439	450	441	422	453	2.0	2.0	1.9	2.0	1.9	1.8	2.0
Region[3]														
Northeast	629	644	662	576	602	618	617	2.4	2.4	2.5	2.2	2.3	2.3	2.3
South	1,620	1,574	1,536	1,485	1,386	1,364	1,373	3.2	3.1	3.0	2.9	2.7	2.7	2.7
Midwest	755	779	749	766	781	752	719	2.3	2.4	2.3	2.4	2.4	2.3	2.2
West	957	988	966	954	918	883	919	3.0	3.1	3.0	3.0	2.9	2.8	2.9

[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)							Percent						
	2007		2008					2007		2008				
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.[p]	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.[p]
Total[2]	4,672	4,717	4,639	4,586	4,569	4,715	4,301	3.4	3.4	3.4	3.3	3.3	3.4	3.1
Industry														
Total private[2]	4,305	4,314	4,227	4,203	4,147	4,311	3,990	3.7	3.7	3.7	3.6	3.6	3.7	3.5
Construction	351	335	319	349	350	385	300	4.7	4.5	4.3	4.7	4.8	5.3	4.1
Manufacturing	353	350	326	285	309	300	274	2.6	2.5	2.4	2.1	2.3	2.2	2.0
Trade, transportation, and utilities	946	970	916	882	884	943	835	3.5	3.6	3.4	3.3	3.3	3.6	3.2
Professional and business services	902	851	897	780	893	858	799	5.0	4.7	5.0	4.3	5.0	4.8	4.4
Education and health services	527	460	516	522	501	510	499	2.8	2.5	2.8	2.8	2.7	2.7	2.7
Leisure and hospitality	846	880	824	868	801	841	884	6.2	6.4	6.0	6.4	5.9	6.1	6.4
Government	349	390	394	387	429	407	388	1.6	1.7	1.8	1.7	1.9	1.8	1.7
Region[3]														
Northeast	761	770	767	713	715	743	697	3.0	3.0	3.0	2.8	2.8	2.9	2.7
South	1,828	1,802	1,814	1,769	1,703	1,725	1,591	3.7	3.6	3.6	3.6	3.4	3.5	3.2
Midwest	1,027	1,045	998	944	986	986	941	3.3	3.3	3.2	3.0	3.1	3.1	3.0
West	1,018	1,067	1,058	1,186	1,170	1,246	1,149	3.3	3.4	3.4	3.8	3.8	4.0	3.7

[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						
	2007		2008					2007		2008				
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.[p]	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.[p]
Total[2]	4,640	4,408	4,477	4,503	4,390	4,404	4,381	3.4	3.2	3.2	3.3	3.2	3.2	3.2
Industry														
Total private[2]	4,367	4,107	4,188	4,224	4,100	4,112	4,084	3.8	3.5	3.6	3.7	3.6	3.6	3.5
Construction	322	331	311	329	367	378	400	4.3	4.4	4.2	4.5	5.0	5.2	5.5
Manufacturing	400	325	348	350	304	390	362	2.9	2.4	2.5	2.6	2.2	2.9	2.7
Trade, transportation, and utilities	1,065	981	1,005	957	941	1,003	885	4.0	3.7	3.8	3.6	3.5	3.8	3.3
Professional and business services	878	814	790	861	806	739	718	4.9	4.5	4.4	4.8	4.5	4.1	4.0
Education and health services	423	417	447	459	449	429	417	2.3	2.2	2.4	2.5	2.4	2.3	2.2
Leisure and hospitality	799	803	800	854	776	722	831	5.9	5.9	5.9	6.2	5.7	5.3	6.1
Government	286	295	290	278	291	295	294	1.3	1.3	1.3	1.2	1.3	1.3	1.3
Region[3]														
Northeast	860	635	697	770	737	709	750	3.3	2.5	2.7	3.0	2.9	2.8	2.9
South	1,709	1,712	1,699	1,673	1,617	1,666	1,627	3.4	3.4	3.4	3.4	3.3	3.4	3.3
Midwest	974	980	975	902	918	949	931	3.1	3.1	3.1	2.9	2.9	3.0	3.0
West	1,117	1,117	1,107	1,167	1,101	1,094	1,064	3.6	3.6	3.6	3.8	3.6	3.5	3.4

[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 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						
	2007		2008					2007		2008				
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.[p]	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.[p]
Total[2]	2,501	2,494	2,493	2,522	2,375	2,444	2,344	1.8	1.8	1.8	1.8	1.7	1.8	1.7
Industry														
Total private[2]	2,361	2,358	2,355	2,384	2,258	2,301	2,209	2.0	2.0	2.0	2.1	2.0	2.0	1.9
Construction	116	119	113	133	111	127	120	1.5	1.6	1.5	1.8	1.5	1.7	1.6
Manufacturing	187	182	183	187	157	182	167	1.4	1.3	1.3	1.4	1.2	1.3	1.2
Trade, transportation, and utilities	572	590	598	532	535	550	499	2.1	2.2	2.2	2.0	2.0	2.1	1.9
Professional and business services	398	367	351	492	386	385	380	2.2	2.0	1.9	2.7	2.1	2.1	2.1
Education and health services	269	258	276	271	279	270	230	1.5	1.4	1.5	1.5	1.5	1.4	1.2
Leisure and hospitality	557	561	525	539	529	516	546	4.1	4.1	3.8	3.9	3.9	3.8	4.0
Government	140	137	138	135	126	144	134	.6	.6	.6	.6	.6	.6	.6
Region[3]														
Northeast	367	312	358	410	334	368	352	1.4	1.2	1.4	1.6	1.3	1.4	1.4
South	996	1,008	1,045	1,021	996	1,001	948	2.0	2.0	2.1	2.1	2.0	2.0	1.9
Midwest	529	521	502	475	491	500	477	1.7	1.6	1.6	1.5	1.6	1.6	1.5
West	607	632	583	632	568	575	564	2.0	2.0	1.9	2.0	1.8	1.9	1.8

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

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

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

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

[p] = preliminary.

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

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

See footnotes at end of table.

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

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

[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, second quarter 2007.

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

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

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

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

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

[1] Includes establishments that reported no workers in March 2006.

[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 2005 and 2006 for all covered workers[1] by metropolitan area

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

See footnotes at end of table.

26. Average annual wages for 2005 and 2006 for all covered workers[1] by metropolitan area — Continued

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

See footnotes at end of table.

26. Average annual wages for 2005 and 2006 for all covered workers[1] by metropolitan area — Continued

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

See footnotes at end of table.

26. Average annual wages for 2005 and 2006 for all covered workers[1] by metropolitan area — Continued

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

See footnotes at end of table.

26. Average annual wages for 2005 and 2006 for all covered workers[1] by metropolitan area — Continued

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

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

[1] Not strictly comparable with prior years.

28. Annual data: Employment levels by industry

[In thousands]

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

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

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

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

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

[December 2005 = 100]

Series	2006				2007				2008	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2008	
Civilian workers[2]	100.7	101.6	102.7	103.3	104.2	105.0	106.1	106.7	107.6	0.8	3.3
Workers by occupational group											
Management, professional, and related	100.9	101.6	103.0	103.7	104.7	105.5	106.7	107.2	108.3	1.0	3.4
Management, business, and financial	101.3	101.9	102.7	103.2	104.4	105.2	106.2	106.6	108.2	1.5	3.6
Professional and related	100.7	101.4	103.2	104.0	104.9	105.7	107.0	107.6	108.4	.7	3.3
Sales and office	100.5	101.6	102.4	103.0	103.8	104.8	105.5	106.4	106.8	.4	2.9
Sales and related	99.9	101.1	101.7	102.3	102.4	103.6	104.1	105.2	105.0	-.2	2.5
Office and administrative support	100.9	101.9	102.8	103.5	104.7	105.5	106.4	107.1	108.0	.8	3.2
Natural resources, construction, and maintenance	100.8	102.0	103.0	103.6	104.1	105.1	106.1	106.8	107.7	.8	3.5
Construction and extraction	100.7	102.0	103.0	103.7	104.3	105.7	106.5	107.4	108.5	1.0	4.0
Installation, maintenance, and repair	100.9	102.0	103.0	103.6	103.7	104.4	105.6	106.2	106.7	.5	2.9
Production, transportation, and material moving	100.4	101.1	101.8	102.4	102.7	103.5	104.2	104.7	105.6	.9	2.8
Production	100.4	101.0	101.6	102.0	102.1	102.8	103.3	104.1	104.8	.7	2.6
Transportation and material moving	100.5	101.3	102.2	102.8	103.4	104.4	105.3	105.6	106.6	.9	3.1
Service occupations	100.8	101.4	102.5	103.5	104.8	105.5	106.9	107.7	108.4	.6	3.4
Workers by industry											
Goods-producing	100.3	101.3	102.0	102.5	102.9	103.9	104.4	105.0	106.1	1.0	3.1
Manufacturing	100.1	101.0	101.4	101.8	102.0	102.9	103.2	103.8	104.7	.9	2.6
Service-providing	100.9	101.6	102.9	103.5	104.4	105.2	106.4	107.0	107.8	.7	3.3
Education and health services	100.6	101.3	103.5	104.2	104.9	105.5	107.2	107.9	108.6	.6	3.5
Health care and social assistance	101.1	102.0	103.5	104.3	105.4	106.1	107.1	107.9	108.9	.9	3.3
Hospitals	101.2	101.9	103.2	104.0	105.1	105.7	106.7	107.5	108.4	.8	3.1
Nursing and residential care facilities	101.0	101.4	102.6	103.7	104.5	105.0	105.6	106.3	107.3	.9	2.7
Education services	100.2	100.7	103.4	104.1	104.5	104.9	107.3	107.9	108.3	.4	3.6
Elementary and secondary schools	100.2	100.5	103.5	104.2	104.6	105.0	107.4	107.9	108.2	.3	3.4
Public administration [3]	100.6	101.2	102.4	103.8	105.6	106.6	108.0	109.1	109.7	.5	3.9
Private industry workers	100.8	101.7	102.5	103.2	104.0	104.9	105.7	106.3	107.3	.9	3.2
Workers by occupational group											
Management, professional, and related	101.1	101.9	102.9	103.5	104.6	105.5	106.4	106.8	108.1	1.2	3.3
Management, business, and financial	101.3	102.0	102.7	103.1	104.3	105.1	106.0	106.3	108.0	1.6	3.5
Professional and related	101.0	101.8	103.1	103.9	104.9	105.9	106.7	107.3	108.3	.9	3.2
Sales and office	100.5	101.6	102.3	102.9	103.7	104.7	105.3	106.1	106.6	.5	2.8
Sales and related	99.9	101.1	101.7	102.3	102.4	103.6	104.2	105.2	105.0	-.2	2.5
Office and administrative support	100.9	101.9	102.7	103.4	104.5	105.4	106.0	106.7	107.8	1.0	3.2
Natural resources, construction, and maintenance	100.8	102.1	103.0	103.6	104.0	105.0	105.9	106.7	107.6	.8	3.5
Construction and extraction	100.7	102.2	103.1	103.7	104.4	105.7	106.5	107.4	108.6	1.1	4.0
Installation, maintenance, and repair	100.9	102.1	103.0	103.4	103.5	104.1	105.2	105.8	106.3	.5	2.7
Production, transportation, and material moving	100.4	101.1	101.7	102.3	102.5	103.3	103.9	104.5	105.5	1.0	2.9
Production	100.4	101.0	101.6	102.0	102.1	102.8	103.2	104.0	104.8	.8	2.6
Transportation and material moving	100.4	101.2	102.0	102.6	103.1	104.1	104.9	105.3	106.4	1.0	3.2
Service occupations	100.8	101.5	102.3	103.1	104.5	105.2	106.4	107.0	107.8	.7	3.2
Workers by industry and occupational group											
Goods-producing industries	100.3	101.3	102.0	102.5	102.9	103.9	104.4	105.0	106.1	1.0	3.1
Management, professional, and related	100.2	100.7	101.6	102.0	102.7	103.8	104.3	104.4	106.1	1.6	3.3
Sales and office	99.9	102.7	102.1	102.8	103.0	103.7	104.1	104.8	105.1	.3	2.0
Natural resources, construction, and maintenance	100.6	101.9	102.7	103.3	104.0	105.3	106.1	107.0	108.1	1.0	3.9
Production, transportation, and material moving	100.3	101.0	101.6	102.0	102.1	102.9	103.3	104.0	104.8	.8	2.6
Construction	100.7	101.9	103.0	103.6	104.7	105.9	106.9	107.6	108.9	1.2	4.0
Manufacturing	100.1	101.0	101.4	101.8	102.0	102.9	103.2	103.8	104.7	.9	2.6
Management, professional, and related	100.0	100.5	101.3	101.4	102.0	103.3	103.3	103.5	104.9	1.4	2.8
Sales and office	99.5	102.8	101.3	102.1	102.4	103.2	103.5	104.3	105.0	.7	2.5
Natural resources, construction, and maintenance	100.1	100.8	101.5	102.1	101.7	102.4	102.8	103.9	104.6	.7	2.9
Production, transportation, and material moving	100.2	100.9	101.5	101.9	101.9	102.6	103.1	103.8	104.5	.7	2.6
Service-providing industries	101.0	101.8	102.7	103.4	104.3	105.2	106.1	106.7	107.7	.9	3.3
Management, professional, and related	101.3	102.2	103.2	103.8	105.0	105.9	106.8	107.3	108.5	1.1	3.3
Sales and office	100.6	101.5	102.3	102.9	103.7	104.8	105.4	106.3	106.8	.5	3.0
Natural resources, construction, and maintenance	101.2	102.5	103.6	104.0	104.0	104.5	105.7	106.2	106.7	.5	2.6
Production, transportation, and material moving	100.6	101.3	101.9	102.6	103.0	104.0	104.7	105.2	106.4	1.1	3.3
Service occupations	100.9	101.5	102.3	103.1	104.5	105.3	106.4	107.1	107.9	.7	3.3
Trade, transportation, and utilities	100.8	101.4	102.4	103.0	103.1	104.2	104.7	105.5	106.1	.6	2.9

See footnotes at end of table.

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

[December 2005 = 100]

Series	2006				2007				2008	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2008	
Wholesale trade	100.3	100.8	102.4	102.9	103.7	104.6	104.2	105.3	105.7	0.4	1.9
Retail trade	100.6	101.2	101.9	102.7	102.9	103.9	105.1	106.1	106.6	.5	3.6
Transportation and warehousing	100.4	101.0	101.6	102.2	102.8	104.0	104.5	104.5	105.6	1.1	2.7
Utilities	107.8	109.3	110.1	110.4	102.8	104.7	105.0	105.6	106.5	.9	3.6
Information	100.9	102.1	103.0	103.2	104.3	105.6	105.8	106.1	106.1	.0	1.7
Financial activities	101.2	101.8	102.1	102.5	104.2	104.6	105.4	105.6	106.8	1.1	2.5
Finance and insurance	101.5	102.4	102.6	102.9	104.6	104.9	105.7	106.1	107.0	.8	2.3
Real estate and rental and leasing	99.8	99.3	100.2	100.8	102.2	103.0	104.1	103.7	105.5	1.7	3.2
Professional and business services	101.1	102.2	102.9	103.5	104.7	105.9	106.9	107.5	109.0	1.4	4.1
Education and health services	101.0	101.8	103.2	104.1	105.1	105.7	106.9	107.7	108.6	.8	3.3
Education services	100.7	101.5	103.2	104.2	104.5	104.9	106.7	107.5	108.1	.6	3.4
Health care and social assistance	101.1	101.9	103.2	104.1	105.2	105.9	106.9	107.8	108.8	.9	3.4
Hospitals	101.3	102.0	103.2	103.9	105.0	105.6	106.5	107.3	108.2	.8	3.0
Leisure and hospitality	100.6	101.3	102.4	103.7	105.3	106.0	107.5	108.1	109.0	.8	3.5
Accommodation and food services	100.5	101.4	102.5	104.0	105.8	106.4	108.1	108.6	109.5	.8	3.5
Other services, except public administration	101.4	102.7	103.6	104.0	105.7	106.1	107.1	107.6	108.7	1.0	2.8
State and local government workers	100.5	100.9	103.2	104.1	105.1	105.7	107.6	108.4	108.9	.5	3.6
Workers by occupational group											
Management, professional, and related	100.3	100.8	103.3	104.0	104.9	105.4	107.5	108.3	108.8	.5	3.7
Professional and related	100.2	100.8	103.4	104.0	104.8	105.3	107.5	108.2	108.6	.4	3.6
Sales and office	100.9	101.5	103.3	104.1	105.6	106.2	107.9	108.6	108.8	.2	3.0
Office and administrative support	101.0	101.6	103.5	104.2	105.7	106.4	108.2	108.9	109.3	.4	3.4
Service occupations	100.6	101.2	103.1	104.5	105.4	106.3	108.0	109.1	109.7	.5	4.1
Workers by industry											
Education and health services	100.3	100.8	103.7	104.3	104.8	105.3	107.5	108.2	108.6	.4	3.6
Education services	100.2	100.5	103.5	104.1	104.6	105.0	107.4	108.0	108.4	.4	3.6
Schools	100.2	100.5	103.5	104.1	104.6	104.9	107.4	108.0	108.4	.4	3.6
Elementary and secondary schools	100.2	100.5	103.6	104.2	104.7	105.0	107.4	108.0	108.3	.3	3.4
Health care and social assistance	101.3	102.9	105.1	105.7	107.1	107.6	108.6	109.3	110.1	.7	2.8
Hospitals	100.9	101.3	103.3	104.3	105.6	106.3	107.5	108.2	109.2	.9	3.4
Public administration[3]	100.6	101.2	102.4	103.8	105.6	106.6	108.0	109.1	109.7	.5	3.9

[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	2006				2007				2008	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2008	
Civilian workers[1]	100.7	101.5	102.6	103.2	104.3	105.0	106.0	106.7	107.6	0.8	3.2
Workers by occupational group											
Management, professional, and related	100.8	101.6	102.9	103.6	104.7	105.4	106.6	107.1	108.2	1.0	3.3
Management, business, and financial	101.2	102.0	102.7	103.1	104.7	105.4	106.4	106.7	108.2	1.4	3.3
Professional and related	100.6	101.4	103.1	103.8	104.7	105.3	106.7	107.4	108.3	.8	3.4
Sales and office	100.4	101.6	102.4	103.0	103.8	104.8	105.4	106.2	106.7	.5	2.8
Sales and related	99.8	101.3	102.0	102.5	102.7	103.9	104.3	105.5	105.2	-.3	2.4
Office and administrative support	100.8	101.8	102.6	103.3	104.5	105.3	106.1	106.8	107.8	.9	3.2
Natural resources, construction, and maintenance	100.7	101.8	102.7	103.4	104.3	105.1	106.3	107.1	108.1	.9	3.6
Construction and extraction	100.7	101.9	102.9	103.7	104.6	105.7	106.6	107.7	109.0	1.2	4.2
Installation, maintenance, and repair	100.6	101.6	102.6	103.1	103.8	104.4	105.8	106.4	107.0	.6	3.1
Production, transportation, and material moving	100.6	101.2	101.9	102.5	103.2	103.9	104.7	105.1	106.1	1.0	2.8
Production	100.7	101.2	101.8	102.3	103.2	103.6	104.3	104.7	105.7	1.0	2.4
Transportation and material moving	100.5	101.2	102.1	102.7	103.3	104.2	105.1	105.5	106.6	1.0	3.2
Service occupations	100.5	101.2	102.2	103.2	104.6	105.3	106.5	107.3	108.0	.7	3.3
Workers by industry											
Goods-producing	100.7	101.8	102.3	102.9	103.9	104.7	105.4	106.0	107.1	1.0	3.1
Manufacturing	100.7	101.7	101.9	102.3	103.3	103.9	104.5	104.9	105.9	1.0	2.5
Service-providing	100.7	101.5	102.7	103.3	104.3	105.1	106.2	106.8	107.7	.8	3.3
Education and health services	100.4	101.1	103.1	103.8	104.4	104.9	106.6	107.4	108.0	.6	3.4
Health care and social assistance	100.8	101.8	103.2	104.1	105.1	105.9	107.1	107.9	108.9	.9	3.6
Hospitals	100.9	101.7	102.9	103.8	104.8	105.6	106.7	107.4	108.4	.9	3.4
Nursing and residential care facilities	100.7	101.2	102.2	103.3	104.1	104.7	105.8	106.4	107.4	.9	3.2
Education services	100.2	100.5	103.0	103.5	103.7	104.0	106.2	106.9	107.3	.4	3.5
Elementary and secondary schools	100.0	100.3	102.9	103.4	103.6	103.8	106.0	106.6	107.0	.4	3.3
Public administration[2]	100.5	101.1	102.0	103.5	104.5	105.2	106.4	107.4	108.2	.7	3.5
Private industry workers	100.7	101.7	102.5	103.2	104.3	105.1	106.0	106.6	107.6	.9	3.2
Workers by occupational group											
Management, professional, and related	101.1	102.0	103.0	103.6	104.9	105.8	106.7	107.2	108.5	1.2	3.4
Management, business, and financial	101.3	102.2	102.8	103.1	104.7	105.5	106.3	106.6	108.2	1.5	3.3
Professional and related	100.9	101.8	103.1	104.0	105.1	106.0	107.0	107.6	108.7	1.0	3.4
Sales and office	100.4	101.6	102.4	103.0	103.8	104.8	105.3	106.2	106.7	.5	2.8
Sales and related	99.8	101.3	102.0	102.6	102.8	104.0	104.4	105.5	105.3	-.2	2.4
Office and administrative support	100.9	101.9	102.6	103.3	104.5	105.4	106.0	106.7	107.7	.9	3.1
Natural resources, construction, and maintenance	100.7	101.8	102.8	103.4	104.2	105.1	106.2	107.1	108.1	.9	3.7
Construction and extraction	100.7	102.0	103.0	103.7	104.7	105.8	106.7	107.8	109.2	1.3	4.3
Installation, maintenance, and repair	100.7	101.6	102.6	103.0	103.7	104.2	105.6	106.1	106.8	.7	3.0
Production, transportation, and material moving	100.6	101.2	101.8	102.4	103.1	103.8	104.5	105.0	106.0	1.0	2.8
Production	100.7	101.2	101.7	102.2	103.1	103.6	104.2	104.6	105.6	1.0	2.4
Transportation and material moving	100.4	101.2	102.0	102.6	103.2	104.1	105.0	105.4	106.5	1.0	3.2
Service occupations	100.6	101.3	102.0	102.9	104.6	105.3	106.5	107.1	107.9	.7	3.2
Workers by industry and occupational group											
Goods-producing industries	100.7	101.8	102.3	102.9	103.9	104.7	105.4	106.0	107.1	1.0	3.1
Management, professional, and related	101.1	101.7	102.4	102.8	104.4	105.3	105.9	106.0	107.7	1.6	3.2
Sales and office	99.8	103.4	102.2	103.1	103.4	104.1	104.7	105.5	105.8	.3	2.3
Natural resources, construction, and maintenance	100.7	101.9	102.7	103.4	104.4	105.6	106.5	107.6	108.8	1.1	4.2
Production, transportation, and material moving	100.7	101.3	101.9	102.4	103.2	103.7	104.4	104.8	105.7	.9	2.4
Construction	100.6	102.0	102.9	103.7	104.9	106.0	107.0	107.8	109.0	1.1	3.9
Manufacturing	100.7	101.7	101.9	102.3	103.3	103.9	104.5	104.9	105.9	1.0	2.5
Management, professional, and related	101.1	101.5	102.2	102.3	103.8	104.6	105.0	105.3	106.7	1.3	2.8
Sales and office	99.5	103.8	101.1	102.0	102.4	103.2	103.9	104.7	105.5	.8	3.0
Natural resources, construction, and maintenance	100.9	101.7	102.3	103.0	103.8	104.3	105.0	105.9	106.8	.8	2.9
Production, transportation, and material moving	100.7	101.3	101.8	102.3	103.1	103.6	104.2	104.5	105.4	.9	2.2
Service-providing industries	100.8	101.7	102.6	103.3	104.4	105.3	106.1	106.8	107.7	.8	3.2
Management, professional, and related	101.1	102.0	103.1	103.7	105.0	105.9	106.8	107.4	108.6	1.1	3.4
Sales and office	100.5	101.4	102.4	102.9	103.8	104.9	105.4	106.3	106.8	.5	2.9
Natural resources, construction, and maintenance	100.7	101.8	103.0	103.4	103.9	104.3	105.7	106.3	106.9	.6	2.9
Production, transportation, and material moving	100.4	101.0	101.7	102.4	103.0	104.0	104.6	105.2	106.3	1.0	3.2
Service occupations	100.6	101.3	102.0	102.9	104.6	105.3	106.6	107.2	108.0	.7	3.3
Trade, transportation, and utilities	100.4	100.9	102.1	102.7	103.2	104.3	104.6	105.5	105.9	.4	2.6

See footnotes at end of table.

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

[December 2005 = 100]

Series	2006				2007				2008	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2008	
Wholesale trade	100.2	100.7	102.7	103.0	103.8	104.8	104.0	105.2	105.2	0.0	1.3
Retail trade	100.5	100.9	101.9	102.8	103.1	104.2	105.1	106.1	106.4	.3	3.2
Transportation and warehousing	100.1	100.7	101.4	101.9	102.5	103.7	104.1	104.2	105.0	.8	2.4
Utilities	100.8	102.1	103.0	103.5	104.3	105.5	106.1	106.8	108.0	1.1	3.5
Information	101.0	101.7	102.6	102.4	103.8	104.9	105.2	105.3	105.3	.0	1.4
Financial activities	101.3	102.3	102.5	102.8	104.7	104.9	106.0	105.9	107.2	1.2	2.4
Finance and insurance	101.6	102.8	102.9	103.2	105.4	105.5	106.5	106.6	107.9	1.2	2.4
Real estate and rental and leasing	99.8	99.9	100.8	101.4	101.6	102.4	103.6	103.1	104.5	1.4	2.9
Professional and business services	101.0	102.3	103.0	103.5	104.8	105.9	106.7	107.5	109.1	1.5	4.1
Education and health services	100.7	101.6	103.0	104.0	104.8	105.6	106.9	107.7	108.6	.8	3.6
Education services	100.7	101.4	103.1	104.1	104.2	104.6	106.4	107.4	107.9	.5	3.6
Health care and social assistance	100.7	101.6	103.0	103.9	104.9	105.8	107.0	107.8	108.7	.8	3.6
Hospitals	100.9	101.8	102.9	103.7	104.6	105.4	106.5	107.2	108.2	.9	3.4
Leisure and hospitality	100.6	101.3	102.3	103.7	105.7	106.4	108.1	108.8	109.7	.8	3.8
Accommodation and food services	100.5	101.3	102.2	103.8	106.0	106.5	108.4	109.0	110.0	.9	3.8
Other services, except public administration	101.3	102.6	103.4	103.8	105.7	106.1	107.3	107.9	109.2	1.2	3.3
State and local government workers	100.3	100.8	102.8	103.5	104.1	104.6	106.4	107.1	107.7	.6	3.5
Workers by occupational group											
Management, professional, and related	100.2	100.7	102.9	103.5	104.0	104.3	106.3	107.0	107.6	.6	3.5
Professional and related	100.2	100.7	103.0	103.6	103.9	104.2	106.3	107.0	107.5	.5	3.5
Sales and office	100.6	101.2	102.6	103.2	104.5	104.8	106.3	107.0	107.4	.4	2.8
Office and administrative support	100.7	101.4	102.7	103.4	104.7	105.0	106.5	107.3	107.8	.5	3.0
Service occupations	100.3	100.8	102.4	103.9	104.5	105.2	106.5	107.7	108.3	.6	3.6
Workers by industry											
Education and health services	100.2	100.7	103.1	103.6	104.0	104.2	106.3	107.1	107.5	.4	3.4
Education services	100.1	100.4	103.0	103.4	103.7	103.9	106.1	106.8	107.2	.4	3.4
Schools	100.1	100.4	103.0	103.4	103.6	103.9	106.1	106.8	107.2	.4	3.5
Elementary and secondary schools	100.0	100.3	103.0	103.4	103.6	103.8	106.0	106.6	106.9	.3	3.2
Health care and social assistance	101.0	103.0	104.8	105.5	106.6	107.2	108.2	109.2	110.1	.8	3.3
Hospitals	100.9	101.4	103.1	104.4	105.7	106.5	107.6	108.6	109.8	1.1	3.9
Public administration [2]	100.5	101.1	102.0	103.5	104.5	105.2	106.4	107.4	108.2	.7	3.5

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

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

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

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

[December 2005 = 100]

Series	2006				2007				2008	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2008	
Civilian workers	100.9	101.6	102.8	103.6	104.0	105.1	106.1	106.8	107.6	0.7	3.5
Private industry workers	101.0	101.7	102.5	103.1	103.2	104.3	105.0	105.6	106.5	.9	3.2
Workers by occupational group											
Management, professional, and related	101.3	101.8	102.8	103.4	103.8	104.9	105.6	106.0	107.3	1.2	3.4
Sales and office	100.8	101.6	102.0	102.9	103.4	104.3	105.2	106.0	106.5	.5	3.0
Natural resources, construction, and maintenance	101.1	102.7	103.5	104.0	103.4	104.8	105.3	105.9	106.5	.6	3.0
Production, transportation, and material moving	100.1	101.0	101.6	102.0	101.2	102.4	102.7	103.7	104.4	.7	3.2
Service occupations	101.5	102.2	103.0	103.6	104.2	105.1	106.0	106.7	107.6	.8	3.3
Workers by industry											
Goods-producing	99.6	100.4	101.3	101.7	100.9	102.2	102.4	103.2	104.0	.8	3.1
Manufacturing	99.0	99.7	100.5	100.8	99.6	101.0	100.7	101.7	102.3	.6	2.7
Service-providing	101.5	102.3	103.0	103.7	104.1	105.2	106.0	106.6	107.6	.9	3.4
State and local government workers	100.7	101.3	104.1	105.2	107.0	108.0	110.3	111.0	111.4	.4	4.1

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

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

[December 2005 = 100]

Series	2006				2007				2008	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2008	
COMPENSATION											
Workers by bargaining status[1]											
Union	100.5	101.8	102.4	103.0	102.7	103.9	104.4	105.1	105.9	0.8	3.1
Goods-producing	99.9	101.2	101.8	102.2	101.5	102.8	103.1	104.0	104.6	.6	3.1
Manufacturing	99.3	100.1	100.5	100.8	99.2	100.0	100.0	101.0	101.4	.4	2.2
Service-providing	101.0	102.2	102.9	103.6	103.7	104.7	105.4	106.0	107.0	.9	3.2
Nonunion	100.9	101.7	102.6	103.2	104.2	105.1	105.9	106.5	107.5	.9	3.2
Goods-producing	100.5	101.4	102.0	102.5	103.3	104.2	104.8	105.4	106.5	1.0	3.1
Manufacturing	100.3	101.3	101.7	102.1	102.8	103.7	104.1	104.6	105.6	1.0	2.7
Service-providing	101.0	101.8	102.7	103.4	104.4	105.3	106.2	106.8	107.7	.8	3.2
Workers by region[1]											
Northeast	100.9	101.8	102.5	103.3	104.0	105.1	106.2	106.8	107.4	.6	3.3
South	101.0	101.6	102.8	103.5	104.3	105.3	106.1	106.7	107.8	1.0	3.4
Midwest	100.7	101.7	102.3	102.8	103.3	104.2	104.6	105.3	106.0	.7	2.6
West	100.6	101.8	102.5	103.0	104.2	104.9	105.7	106.5	107.8	1.2	3.5
WAGES AND SALARIES											
Workers by bargaining status[1]											
Union	100.3	101.2	101.7	102.3	102.8	103.7	104.4	104.7	105.5	.8	2.6
Goods-producing	100.5	101.6	101.9	102.3	102.7	103.6	104.3	104.3	105.2	.9	2.4
Manufacturing	100.6	101.2	101.4	101.7	102.0	102.5	102.9	102.6	103.4	.8	1.4
Service-providing	100.1	100.9	101.6	102.2	102.9	103.8	104.6	104.9	105.8	.9	2.8
Nonunion	100.8	101.8	102.7	103.3	104.5	105.3	106.2	106.9	107.9	.9	3.3
Goods-producing	100.7	101.9	102.4	103.0	104.2	105.0	105.8	106.4	107.7	1.2	3.4
Manufacturing	100.7	101.8	102.0	102.5	103.6	104.2	104.9	105.5	106.6	1.0	2.9
Service-providing	100.8	101.7	102.7	103.4	104.6	105.4	106.3	107.0	107.9	.8	3.2
Workers by region[1]											
Northeast	100.8	101.7	102.5	103.1	104.0	105.0	106.1	106.6	107.5	.8	3.4
South	101.0	101.6	102.9	103.6	104.6	105.6	106.5	107.0	108.1	1.0	3.3
Midwest	100.4	101.4	102.0	102.6	103.6	104.4	105.0	105.6	106.3	.7	2.6
West	100.7	102.1	102.7	103.2	104.8	105.4	106.2	107.0	108.3	1.2	3.3

[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, particpation, 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		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.[p]
Number of stoppages:															
Beginning in period	20	21	0	2	1	1	5	3	1	2	0	2	2	1	2
In effect during period	23	23	0	2	1	1	6	3	2	4	1	3	4	2	4
Workers involved:															
Beginning in period (in thousands)	70.1	189.2	.0	4.0	1.1	1.0	108.3	41.7	10.5	6.5	.0	6.2	5.7	2.3	3.4
In effect during period (in thousands)	191.0	220.9	.0	4.0	1.1	1.0	108.3	41.7	14.2	20.7	10.5	16.7	11.9	6.0	9.4
Days idle:															
Number (in thousands)	2,687.5	1,264.8	.0	19.6	6.6	9.0	261.5	73.9	284.0	254.8	220.5	148.8	140.9	104.4	125.0
Percent of estimated working time [1]	.01	.01	0	0	0	0	.01	0	.01	.01	.01	.01	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 Review*, October 1968, pp. 54–56.

NOTE: p = preliminary.

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

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS															
All items	201.6	207.342	207.949	208.352	208.299	207.917	208.490	208.936	210.177	210.036	211.080	211.693	213.528	214.823	216.632
All items (1967 = 100)	603.9	621.106	622.921	624.129	623.970	622.827	624.543	625.879	629.598	629.174	632.301	634.139	639.636	643.515	648.933
Food and beverages	195.7	203.300	202.225	202.885	203.533	204.289	205.279	206.124	206.563	206.936	208.837	209.462	209.692	211.365	212.251
Food	195.2	202.916	201.791	202.441	203.121	203.885	204.941	205.796	206.277	206.704	208.618	209.166	209.385	211.102	212.054
Food at home	193.1	201.245	200.334	200.950	201.401	202.126	203.193	204.333	204.745	205.208	207.983	208.329	208.203	210.851	211.863
Cereals and bakery products	212.8	222.107	220.939	222.605	223.297	223.981	223.372	224.691	225.668	226.461	228.661	233.389	236.261	240.034	244.192
Meats, poultry, fish, and eggs	186.6	195.616	195.886	197.175	196.690	197.204	198.323	198.474	198.616	198.755	200.035	199.688	199.775	200.770	200.960
Dairy and related products[1]	181.4	194.770	187.266	191.435	197.899	201.739	203.541	205.319	205.959	205.299	206.905	208.166	206.171	207.680	207.778
Fruits and vegetables	252.9	262.628	264.710	258.337	254.616	252.845	259.100	263.648	268.407	272.482	279.072	272.129	268.446	272.746	276.481
Nonalcoholic beverages and beverage materials	147.4	153.432	152.869	153.104	153.384	154.791	155.007	155.545	154.299	153.648	157.863	157.805	158.089	159.730	158.336
Other foods at home	169.6	173.275	172.657	173.790	174.440	174.686	174.201	174.695	173.963	174.057	176.085	177.863	178.238	181.806	182.680
Sugar and sweets	171.5	176.772	175.453	176.665	178.235	178.256	178.172	177.236	178.600	178.631	180.193	180.588	182.214	184.878	185.097
Fats and oils	168.0	172.921	171.495	171.581	173.691	174.251	174.105	176.050	175.327	176.068	181.813	184.878	182.808	190.640	193.364
Other foods	185.0	188.244	187.921	189.353	189.518	189.781	189.076	189.695	188.340	188.325	190.037	192.064	192.597	195.993	196.787
Other miscellaneous foods[1,2]	113.9	115.105	114.692	116.101	115.017	116.072	114.628	114.850	115.396	115.267	115.162	118.182	117.321	118.500	118.744
Food away from home[1]	199.4	206.659	205.233	205.934	206.931	207.756	208.805	209.275	209.854	210.233	211.070	211.878	212.537	213.083	213.967
Other food away from home[1,2]	136.6	144.068	143.160	143.157	144.785	145.376	146.752	146.074	146.628	145.814	146.649	148.385	148.564	148.667	149.666
Alcoholic beverages	200.7	207.026	206.599	207.383	207.624	208.264	208.408	209.126	209.018	208.704	210.425	212.044	212.407	213.503	213.532
Housing	203.2	209.586	208.902	210.649	211.286	211.098	210.865	210.701	210.745	210.933	212.244	213.026	214.389	214.890	215.809
Shelter	232.1	240.611	239.877	240.980	242.067	242.238	241.990	242.405	242.207	242.372	243.871	244.786	245.995	246.004	246.069
Rent of primary residence	225.1	234.679	233.549	234.071	234.732	235.311	236.058	237.135	238.169	239.102	239.850	240.325	240.874	241.474	241.803
Lodging away from home	136.0	142.813	144.112	148.622	153.016	150.236	144.480	143.172	136.703	133.545	140.176	144.092	149.434	146.378	145.634
Owners' equivalent rent of primary residence[3]	238.2	246.235	245.236	245.690	246.149	246.815	247.487	248.075	248.876	249.532	250.106	250.481	250.966	251.418	251.576
Tenants' and household insurance[1,2]	116.5	117.004	116.386	117.106	116.577	116.926	116.783	116.640	116.997	117.003	117.435	117.622	117.701	118.422	118.411
Fuels and utilities	194.7	200.632	198.574	206.199	206.140	204.334	204.264	200.836	202.161	203.006	204.796	205.795	209.221	213.302	219.881
Fuels	177.1	181.744	179.798	188.040	187.624	185.453	185.306	181.509	182.725	183.516	185.107	185.994	189.693	194.121	201.212
Fuel oil and other fuels	234.9	251.453	241.473	241.589	245.680	246.542	252.580	261.745	291.845	299.296	306.937	308.269	332.139	342.811	363.872
Gas (piped) and electricity	182.1	186.262	184.737	193.911	193.184	190.710	190.158	185.337	184.753	185.155	186.475	187.376	190.105	194.379	200.999
Household furnishings and operations	127.0	126.875	127.309	127.361	126.894	126.520	126.193	126.233	126.252	126.066	126.515	126.753	127.423	127.332	127.598
Apparel	119.5	118.998	121.452	117.225	113.500	114.439	119.535	121.846	121.204	118.257	115.795	117.839	120.881	122.113	120.752
Men's and boys' apparel	114.1	112.368	114.342	110.869	109.568	109.032	112.380	114.953	114.807	112.026	110.691	112.917	114.994	116.653	116.479
Women's and girls' apparel	110.7	110.296	114.444	107.826	101.291	103.237	110.973	113.402	112.166	109.418	104.367	106.340	110.645	111.221	108.722
Infants' and toddlers' apparel[1]	116.5	113.948	113.632	111.546	108.759	110.221	113.611	117.149	117.339	113.779	113.861	115.750	116.037	116.358	114.582
Footwear	123.5	122.374	123.041	120.602	119.375	120.329	123.183	124.675	125.005	122.258	121.148	122.377	124.407	126.212	125.537
Transportation	180.9	184.682	189.961	189.064	187.690	184.480	184.532	184.952	190.677	189.984	190.839	190.520	195.189	198.608	205.262
Private transportation	177.0	180.778	186.376	185.175	183.619	180.408	180.586	180.919	186.839	186.134	186.978	186.571	191.067	194.574	201.133
New and used motor vehicles[2]	95.6	94.303	93.981	93.842	93.961	94.121	93.985	94.201	94.562	94.754	94.834	94.581	94.318	93.973	93.705
New vehicles	137.6	136.254	136.295	135.820	135.415	135.204	134.927	135.344	136.250	136.664	136.827	136.279	135.727	135.175	134.669
Used cars and trucks[1]	140.0	135.747	134.481	135.067	136.024	137.138	137.142	136.950	136.616	136.943	137.203	137.248	137.225	136.787	136.325
Motor fuel	221.0	239.070	265.781	260.655	252.909	238.194	239.104	239.048	262.282	258.132	260.523	259.242	278.739	294.291	322.124
Gasoline (all types)	219.9	237.959	264.830	259.686	251.883	237.108	237.993	237.819	260.943	256.790	259.338	257.845	276.497	291.910	319.787
Motor vehicle parts and equipment	117.3	121.583	120.990	120.885	121.514	121.730	122.292	123.017	123.487	123.928	124.282	125.225	126.325	126.049	126.824
Motor vehicle maintenance and repair	215.6	222.963	221.999	222.553	223.487	224.019	224.302	224.939	225.672	226.120	227.732	228.731	229.765	230.528	231.730
Public transportation	226.6	230.002	228.251	233.389	235.767	233.112	230.694	232.725	233.758	233.408	234.334	235.724	242.929	244.164	251.600
Medical care	336.2	351.054	349.087	349.510	351.643	352.961	353.723	355.653	357.041	357.661	360.459	362.155	363.000	363.184	363.396
Medical care commodities	285.9	289.999	288.661	288.508	290.257	291.164	291.340	292.161	293.201	293.610	295.355	296.130	297.308	296.951	294.896
Medical care services	350.6	369.302	367.127	367.758	370.008	371.461	372.432	374.750	376.250	376.940	380.135	382.196	382.872	383.292	384.505
Professional services	289.3	300.792	299.700	300.052	301.131	302.259	302.410	303.532	303.780	304.784	306.529	307.928	308.726	309.227	310.917
Hospital and related services	468.1	498.922	494.122	494.916	499.400	501.026	504.206	510.006	515.359	515.677	523.313	527.971	528.968	530.144	531.022
Recreation[2]	110.9	111.443	111.659	111.563	111.347	111.139	111.400	111.753	111.842	111.705	112.083	112.365	112.731	112.874	112.987
Video and audio[1,2]	104.6	102.949	103.560	103.416	102.779	102.311	102.759	103.157	102.719	102.691	102.986	103.171	103.548	103.477	102.988
Education and communication[2]	116.8	119.577	118.787	118.734	119.025	120.311	121.273	121.557	121.409	121.506	121.762	121.766	121.832	122.073	122.348
Education[2]	162.1	171.388	168.403	168.601	169.490	172.873	175.486	176.339	176.717	176.927	177.440	177.460	177.407	177.754	177.994
Educational books and supplies	388.9	420.418	414.694	415.635	418.394	427.425	430.114	431.432	431.606	434.352	437.822	439.052	439.906	442.160	442.770
Tuition, other school fees, and child care	468.1	494.079	485.337	485.868	488.382	498.071	505.924	508.449	509.605	510.016	511.301	511.253	511.013	511.887	512.579
Communication[1,2]	84.1	83.367	83.772	83.594	83.553	83.655	83.690	83.659	83.250	83.282	83.396	83.391	83.502	83.670	83.929
Information and information processing[1,2]	81.7	80.720	81.151	80.880	80.840	80.944	80.976	80.946	80.519	80.546	80.642	80.638	80.752	80.921	81.080
Telephone services[1,2]	95.8	98.247	98.491	98.485	98.570	98.813	98.882	99.031	98.775	98.792	98.906	98.837	99.031	99.494	99.879
Information and information processing other than telephone services[1,4]	12.5	10.597	10.787	10.597	10.528	10.487	10.477	10.385	10.204	10.215	10.229	10.253	10.246	10.170	10.118
Personal computers and peripheral equipment[1,2]	120.9	108.411	111.582	108.550	107.439	106.575	105.806	104.336	100.104	100.000	100.998	100.545	100.359	98.853	97.028
Other goods and services	321.7	333.328	332.785	333.378	333.415	333.325	334.801	335.680	336.379	337.633	339.052	340.191	341.827	343.410	344.709
Tobacco and smoking products	519.9	554.184	549.703	552.314	553.987	555.217	559.636	560.626	561.967	566.696	572.684	575.227	574.890	576.359	581.185
Personal care[1]	190.2	195.622	195.641	195.835	195.704	195.521	196.202	196.763	197.156	197.643	198.112	198.716	199.982	201.028	201.523
Personal care products[1]	155.8	158.285	158.594	158.771	158.457	157.788	157.643	158.381	158.561	158.236	158.201	157.677	158.440	159.398	158.790
Personal care services[1]	209.7	216.559	216.228	215.860	216.720	217.028	217.589	217.887	218.604	219.656	219.932	220.848	222.752	222.799	223.649

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		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Miscellaneous personal services	313.6	324.984	324.661	325.259	324.579	325.566	327.783	328.056	328.610	329.908	332.183	333.826	335.427	337.685	339.824
Commodity and service group:															
Commodities	164.0	167.509	169.767	168.921	167.938	166.955	167.952	168.664	171.043	170.511	171.179	171.530	173.884	175.838	178.341
Food and beverages	195.7	203.300	202.225	202.885	203.533	204.289	205.279	206.124	206.563	206.936	208.837	209.462	209.692	211.365	212.251
Commodities less food and beverages	145.9	147.515	151.136	149.669	148.016	146.317	147.289	147.924	151.067	150.162	150.303	150.530	153.682	155.690	158.778
Nondurables less food and beverages	176.7	182.526	190.075	187.249	183.947	180.480	182.902	184.091	190.560	188.635	188.692	189.420	196.185	200.926	207.875
Apparel	119.5	118.998	121.452	117.225	113.500	114.439	119.535	121.846	121.204	118.257	115.795	117.839	120.881	122.113	120.752
and apparel	216.3	226.224	237.116	235.097	231.983	225.694	226.509	227.026	238.067	236.735	238.389	238.297	247.546	254.599	266.943
Durables	114.5	112.473	112.637	112.375	112.177	112.036	111.746	111.889	112.103	112.093	112.300	112.094	112.059	111.671	111.362
Services	238.9	246.848	245.793	247.450	248.331	248.555	248.700	248.878	248.974	249.225	250.648	251.527	252.817	253.426	254.509
Rent of shelter[3]	241.9	250.813	250.055	251.200	252.358	252.530	252.272	252.713	252.495	252.669	254.239	255.199	256.470	256.463	256.532
Transportation services	230.8	233.731	231.777	233.202	234.632	234.563	234.322	235.458	236.449	236.504	237.347	237.929	239.556	240.150	242.343
Other services	277.5	285.559	284.541	284.656	284.859	286.492	288.469	289.307	289.592	289.945	290.905	291.406	292.218	293.016	293.959
Special indexes:															
All items less food	202.7	208.098	208.991	209.353	209.179	208.607	209.100	209.478	210.846	210.610	211.512	212.136	214.236	215.462	217.411
All items less shelter	191.9	196.639	197.783	197.913	197.408	196.803	197.708	198.171	199.998	199.734	200.609	201.110	203.217	205.040	207.566
All items less medical care	194.7	200.080	200.779	201.178	201.042	200.598	201.159	201.544	202.770	202.600	203.569	204.136	205.992	207.317	209.170
Commodities less food	148.0	149.720	153.228	151.825	150.225	148.591	149.541	150.180	153.234	152.344	152.531	152.799	155.881	157.870	160.880
Nondurables less food	178.2	184.012	191.064	188.463	185.382	182.170	184.450	185.610	191.668	189.844	190.000	190.781	197.167	201.693	208.233
Nondurables less food and apparel	213.9	223.411	233.150	231.414	228.641	223.057	223.802	224.338	234.241	233.014	234.667	234.736	243.109	249.571	260.703
Nondurables	186.7	193.468	196.916	195.749	194.326	192.869	194.616	195.646	199.253	198.422	199.346	200.030	203.767	207.096	211.240
Services less rent of shelter[3]	253.3	260.764	259.262	261.677	262.284	262.588	263.243	263.109	263.599	263.966	265.311	266.154	267.567	269.007	271.467
Services less medical care services	229.6	236.847	235.870	237.565	238.357	238.507	238.604	238.657	238.671	238.894	240.201	241.004	242.310	242.921	243.982
Energy	196.9	207.723	219.071	221.088	217.274	209.294	209.637	207.588	219.009	217.506	219.465	219.311	230.505	240.194	257.106
All items less energy	203.7	208.925	208.400	208.636	208.980	209.399	210.000	210.714	210.888	210.890	211.846	212.545	213.420	213.851	214.101
All items less food and energy	205.9	210.729	210.316	210.474	210.756	211.111	211.628	212.318	212.435	212.356	213.138	213.866	214.866	215.059	215.180
Commodities less food and energy	140.6	140.053	140.518	139.589	138.757	138.895	139.828	140.501	140.547	140.014	139.845	140.324	141.056	141.156	140.677
Energy commodities	223.0	241.018	265.562	260.739	253.696	239.885	241.120	241.642	265.420	261.976	264.660	263.508	283.362	298.757	326.414
Services less energy	244.7	253.058	252.050	252.955	253.998	254.491	254.706	255.385	255.549	255.785	257.220	258.098	259.249	259.503	260.049
CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS															
All items	197.1	202.767	203.661	203.906	203.700	203.199	203.889	204.338	205.891	205.777	206.744	207.254	209.147	210.698	212.788
All items (1967 = 100)	587.2	603.982	606.643	607.374	606.759	605.267	607.324	608.662	613.287	612.948	615.828	617.345	622.985	627.606	633.830
Food and beverages	194.9	202.531	201.478	202.185	202.823	203.610	204.584	205.428	205.763	206.141	208.055	208.674	208.927	210.559	211.438
Food	194.4	202.134	201.043	201.722	202.409	203.207	204.241	205.082	205.451	205.855	207.794	208.317	208.571	210.252	211.200
Food at home	192.2	200.273	199.355	200.059	200.569	201.321	202.351	203.442	203.741	204.141	206.870	207.242	207.196	209.657	210.624
Cereals and bakery products	213.1	222.409	221.259	223.009	223.663	224.220	223.895	224.897	225.941	226.696	229.105	233.915	236.764	240.663	244.648
Meats, poultry, fish, and eggs	186.1	195.193	195.331	196.660	196.323	196.844	197.980	198.146	198.325	198.489	199.686	199.141	199.484	200.285	200.501
Dairy and related products[1]	180.9	194.474	186.948	191.235	198.027	201.598	203.464	205.100	205.850	205.149	206.652	207.750	205.660	207.135	207.088
Fruits and vegetables	251.0	260.484	262.669	256.565	252.703	251.575	257.223	261.774	265.736	269.533	275.843	268.954	266.030	270.169	274.136
Nonalcoholic beverages and beverage materials	146.7	152.786	152.173	152.501	152.829	154.152	154.501	154.873	153.610	152.883	157.130	157.456	157.488	158.799	157.285
Other foods at home	169.1	172.630	172.024	173.049	173.727	173.997	173.463	174.215	173.393	173.511	175.572	177.442	177.713	181.215	182.241
Sugar and sweets	170.5	175.323	174.084	175.073	176.736	176.664	176.458	176.248	176.845	177.051	178.902	179.740	181.033	183.725	184.127
Fats and oils	168.7	173.640	172.401	172.222	174.109	174.872	175.039	176.683	176.101	176.736	182.307	185.292	183.706	191.560	194.228
Other foods	185.2	188.405	188.049	189.456	189.667	189.941	189.110	189.987	188.657	188.646	190.364	192.430	192.832	196.106	197.081
Other miscellaneous foods[1,2]	114.2	115.356	115.035	116.366	115.355	116.348	114.584	115.378	115.803	115.658	115.658	118.828	117.754	118.751	119.248
Food away from home[1]	199.1	206.412	205.046	205.691	206.657	207.533	208.578	209.037	209.518	209.931	210.776	211.517	212.193	212.794	213.723
Other food away from home[1,2]	136.2	143.462	143.031	143.018	144.439	144.938	145.783	144.764	145.233	144.454	145.625	146.924	147.188	147.335	148.517
Alcoholic beverages	200.6	207.097	206.636	207.767	207.647	208.253	208.286	209.176	208.958	208.934	210.473	212.507	212.748	213.633	213.486
Housing	198.5	204.795	204.033	205.711	206.183	206.054	206.050	205.916	206.288	206.638	207.692	208.268	209.388	210.161	211.191
Shelter	224.8	232.998	232.181	233.040	233.848	234.169	234.275	234.812	235.069	235.480	236.550	237.158	237.965	238.261	238.353
Rent of primary residence	224.2	233.806	232.690	233.188	233.855	234.457	235.175	236.259	237.288	238.216	238.955	239.419	239.932	240.507	240.818
Lodging away from home[2]	135.3	142.339	143.880	148.948	153.107	149.919	143.727	142.666	136.244	133.179	139.825	143.046	148.110	145.936	144.979
Owners' equivalent rent of primary residence[3]	216.0	223.175	222.264	222.671	223.093	223.693	224.321	224.811	225.548	226.151	226.703	227.057	227.488	227.893	228.007
Tenants' and household insurance[1,2]	116.8	117.366	116.828	117.503	116.912	117.287	117.142	116.982	117.370	117.396	117.740	117.921	117.999	118.683	118.615
Fuels and utilities	193.1	198.863	197.052	204.396	204.272	202.397	202.304	198.796	200.151	200.831	202.663	203.584	206.861	210.912	217.388
Fuels	174.4	179.031	177.372	185.178	184.725	182.518	182.357	178.539	179.777	180.379	182.025	182.823	186.315	190.657	197.554
Fuel oil and other fuels	234.0	251.121	241.052	241.249	245.633	246.382	252.684	261.972	292.098	298.656	306.087	307.599	329.271	339.009	358.947
Gas (piped) and electricity	180.2	184.357	183.103	191.771	191.010	188.511	187.963	183.172	182.781	183.066	184.522	185.324	188.143	192.434	199.045
Household furnishings and operations	122.6	122.477	122.786	122.826	122.550	122.190	121.820	122.039	122.031	121.880	122.322	122.547	123.184	123.108	123.287
Apparel	119.1	118.518	120.931	116.389	113.157	114.146	118.986	121.536	120.920	118.126	115.866	117.883	120.809	121.855	120.407
Men's and boys' apparel	114.0	112.224	113.986	110.739	109.580	108.556	111.981	114.710	114.784	112.487	111.494	113.592	115.808	117.136	116.621
Women's and girls' apparel	110.3	110.202	114.316	107.422	101.709	103.960	110.847	113.623	112.165	109.375	104.456	106.512	110.712	110.971	108.594
Infants' and toddlers' apparel[1]	118.6	116.278	115.555	113.427	110.906	112.879	115.896	119.670	119.897	116.419	116.323	118.442	118.990	119.200	117.213
Footwear	123.1	122.062	122.983	120.367	119.278	119.831	122.846	124.372	124.649	122.029	121.137	122.408	124.343	126.150	125.335
Transportation	180.3	184.344	190.265	189.205	187.606	184.147	184.361	184.639	190.761	189.967	190.918	190.639	195.710	199.556	206.757
Private transportation	177.5	181.496	187.595	186.374	184.684	181.218	181.495	181.717	187.951	187.159	188.093	187.762	192.740	196.641	203.781
New and used motor vehicles[2]	94.7	93.300	93.000	92.917	93.042	93.229	93.118	93.268	93.529	93.733	93.842	93.664	93.455	93.158	92.850

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		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
New vehicles	138.6	137.415	137.535	137.060	136.663	136.414	136.129	136.509	137.372	137.736	137.931	137.445	136.910	136.456	135.933
Used cars and trucks [1]	140.8	136.586	135.320	135.917	136.880	137.999	137.996	137.798	137.457	137.791	138.052	138.094	138.070	137.616	137.145
Motor fuel	221.6	239.900	266.737	261.679	253.893	239.097	240.271	240.040	263.248	259.032	261.531	260.402	279.975	295.618	323.495
Gasoline (all types)	220.7	238.879	265.874	260.799	252.957	238.100	239.252	238.906	262.013	257.792	260.457	259.112	277.842	293.349	321.291
Motor vehicle parts and equipment	116.9	121.356	120.709	120.666	121.350	121.584	122.144	122.830	123.302	123.786	124.416	125.238	126.330	126.032	126.742
Motor vehicle maintenance and repair	218.1	225.535	224.623	225.172	226.090	226.636	226.881	227.472	228.267	228.692	230.255	231.349	232.344	232.983	234.221
Public transportation	225.0	228.531	227.024	231.549	233.390	231.082	229.148	231.182	231.999	231.363	232.594	233.979	240.729	241.966	249.310
Medical care	335.7	350.882	348.801	349.145	351.346	352.704	353.571	355.719	357.165	357.745	360.710	362.329	363.069	363.356	363.462
Medical care commodities	279.0	282.558	281.502	280.862	282.662	283.379	283.712	284.517	285.475	285.913	287.703	288.335	289.254	288.796	286.825
Medical care services	351.1	370.111	367.696	368.384	370.696	372.261	373.306	375.899	377.498	378.119	381.507	383.510	384.149	384.753	385.769
Professional services	291.7	303.169	301.979	302.346	303.481	304.677	304.841	306.072	306.300	307.333	309.169	310.426	311.259	311.757	313.294
Hospital and related services	463.6	493.740	488.523	489.292	493.563	495.191	498.533	505.077	510.836	510.961	518.853	523.654	524.534	526.495	527.230
Recreation [2]	108.2	108.572	108.905	108.681	108.403	108.179	108.495	108.793	108.805	108.702	109.046	109.315	109.742	109.775	109.876
Video and audio [1,2]	103.9	102.559	103.137	103.001	102.358	101.923	102.427	102.833	102.465	102.523	102.839	103.028	103.525	103.414	102.958
Education and communication [2]	113.9	116.301	115.830	115.746	115.980	116.981	117.707	117.891	117.686	117.782	118.097	118.079	118.155	118.462	118.737
Education [2]	160.3	169.280	166.667	166.758	167.527	170.635	173.060	173.700	174.016	174.276	175.134	175.118	175.101	175.545	175.791
Educational books and supplies	390.7	423.730	417.791	418.705	421.529	431.089	433.670	434.800	434.979	437.391	441.207	441.927	442.639	444.594	445.394
Tuition, other school fees, and child care	453.3	477.589	470.148	470.329	472.395	480.960	488.199	490.061	491.022	491.554	493.797	493.672	493.546	494.711	495.384
Communication [1,2]	86.0	85.782	86.140	85.999	86.015	86.148	86.184	86.182	85.807	85.834	85.935	85.919	86.016	86.244	86.496
Information and information processing [1,2]	84.3	83.928	84.304	84.095	84.111	84.248	84.283	84.282	83.894	83.917	84.008	83.992	84.091	84.320	84.511
Telephone services [1,2]	95.9	98.373	98.610	98.603	98.721	98.964	99.024	99.149	98.874	98.887	98.988	98.931	99.090	99.566	99.939
Information and information processing other than telephone services [1,4]	13.0	11.062	11.243	11.062	11.001	10.965	10.958	10.877	10.710	10.722	10.737	10.754	10.745	10.671	10.621
Personal computers and peripheral equipment [1,2]	121.0	108.164	111.305	108.367	107.371	106.531	105.713	104.366	100.257	100.000	101.067	100.582	100.265	98.820	97.010
Other goods and services	330.9	344.004	343.096	343.939	344.221	344.214	345.800	346.742	347.427	348.830	350.630	351.979	353.351	354.887	356.523
Tobacco and smoking products	521.6	555.502	550.888	553.538	555.366	556.517	561.092	562.134	563.435	568.410	574.724	577.359	576.910	578.296	583.296
Personal care [1]	188.3	193.590	193.595	193.858	193.792	193.598	194.160	194.769	195.122	195.467	195.885	196.564	197.803	198.859	199.367
Personal care products [1]	155.7	158.268	158.566	158.739	158.445	157.813	157.654	158.408	158.579	158.407	158.167	157.877	158.730	159.585	158.993
Personal care services [1]	209.8	216.823	216.489	216.174	217.040	217.354	217.822	218.149	218.897	219.945	220.324	221.338	223.043	223.088	223.922
Miscellaneous personal services	314.1	326.100	325.617	326.572	326.135	327.235	329.329	329.706	330.258	330.850	333.154	334.868	336.476	338.851	341.212
Commodity and service group:															
Commodities	165.7	169.554	172.126	171.216	170.252	169.122	170.141	170.865	173.489	172.952	173.711	174.083	176.727	178.900	181.837
Food and beverages	194.9	202.531	201.478	202.185	202.823	203.610	204.584	205.428	205.763	206.141	208.055	208.674	208.927	210.559	211.438
Commodities less food and beverages	148.7	150.865	154.964	153.367	151.724	149.781	150.795	151.448	155.011	154.086	154.345	154.603	158.156	160.488	164.188
Nondurables less food and beverages	182.6	189.507	198.237	195.053	191.603	187.515	189.981	191.230	198.661	196.636	196.910	197.606	205.166	210.558	218.794
Apparel	119.1	118.518	120.931	116.389	113.157	114.146	118.986	121.536	120.920	118.126	115.866	117.883	120.809	121.855	120.407
Nondurables less food, beverages, and apparel	226.1	237.858	250.737	248.347	244.695	237.329	238.345	238.798	251.442	249.863	251.751	251.621	262.252	270.496	285.024
Durables	114.6	112.640	112.686	112.485	112.425	112.362	112.114	112.241	112.413	112.450	112.688	112.560	112.549	112.171	111.845
Services	234.1	241.696	240.672	242.241	242.901	243.118	243.436	243.572	243.906	244.275	245.484	246.154	247.197	248.045	249.175
Rent of shelter [3]	216.6	224.617	223.833	224.655	225.455	225.760	225.867	226.393	226.636	227.035	228.071	228.660	229.443	229.719	229.810
Transporatation services	230.6	233.420	231.542	232.623	233.737	233.831	233.868	234.848	235.874	236.020	236.883	237.426	238.496	239.044	240.728
Other services	268.2	275.218	274.697	274.670	274.766	276.015	277.702	278.404	278.513	278.783	279.780	280.199	281.017	281.829	282.720
Special indexes:															
All items less food	197.5	202.698	203.955	204.121	203.750	203.011	203.638	204.015	205.783	205.575	206.371	206.877	209.055	210.583	212.870
All items less shelter	189.2	193.940	195.463	195.489	194.913	194.109	195.018	195.440	197.479	197.174	198.113	198.592	200.904	202.931	205.774
All items less medical care	191.3	196.564	197.543	197.783	197.504	196.949	197.629	198.022	199.565	199.431	200.329	200.800	202.713	204.290	206.423
Commodities less food	150.6	152.875	156.872	155.339	153.730	151.846	152.837	153.499	156.977	156.073	156.365	156.670	160.152	162.455	166.070
Nondurables less food	183.8	190.698	198.945	195.988	192.714	188.873	191.210	192.442	199.471	197.551	197.892	198.660	205.843	211.005	218.809
Nondurables less food and apparel	223.0	234.201	245.886	243.806	240.471	233.817	234.745	235.233	246.726	245.286	247.136	247.188	256.899	264.488	277.717
Nondurables	189.5	196.772	200.781	199.476	198.000	196.266	198.017	199.075	203.087	202.222	203.268	203.933	208.101	211.757	216.582
Services less rent of shelter [3]	224.7	230.876	229.694	231.965	232.367	232.450	232.982	232.628	233.029	233.314	234.576	235.258	236.483	237.922	240.181
Services less medical care services	225.3	232.195	231.253	232.848	233.415	233.562	233.839	233.850	234.115	234.468	235.557	236.154	237.201	238.048	239.167
Energy	196.8	208.066	220.348	221.832	217.795	209.441	209.933	207.885	219.861	218.104	220.163	219.983	231.533	241.518	258.903
All items less energy	198.0	203.002	202.489	202.582	202.849	203.319	204.037	204.797	205.066	205.155	205.991	206.588	207.296	207.812	208.021
All items less food and energy	199.2	203.554	203.163	203.132	203.310	203.710	204.363	205.107	205.355	205.377	205.992	206.605	207.406	207.687	207.747
Commodities less food and energy	141.1	140.612	141.011	140.019	139.352	139.557	140.491	141.236	141.254	140.815	140.696	141.238	141.973	142.040	141.558
Energy commodities	223.0	241.257	266.260	261.460	254.282	240.247	241.692	241.955	265.598	261.928	264.633	263.601	283.359	298.852	326.565
Services less energy	239.9	247.888	246.894	247.606	248.434	248.977	249.398	250.127	250.546	250.925	252.103	252.756	253.589	254.031	254.517

[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 schedule[1]	All Urban Consumers						Urban Wage Earners					
		2007	2008					2007	2008				
		Dec.	Jan.	Feb.	Mar.	Apr.	May	Dec.	Jan.	Feb.	Mar.	Apr.	May
U.S. city average	M	210.036	211.080	211.693	213.528	214.823	216.632	205.777	206.744	207.254	209.147	210.698	212.788
Region and area size[2]													
Northeast urban	M	223.425	224.325	225.213	226.926	228.133	230.089	220.146	221.065	221.702	223.209	224.794	227.114
Size A—More than 1,500,000	M	225.688	226.310	227.411	229.087	230.038	232.005	220.824	221.492	222.315	223.795	225.144	227.412
Size B/C—50,000 to 1,500,000[3]	M	132.323	133.301	133.511	134.611	135.739	136.913	132.856	133.766	133.893	134.846	136.141	137.624
Midwest urban[4]	M	200.227	201.427	201.896	203.723	205.393	207.168	195.493	196.617	197.110	198.989	200.788	202.912
Size A—More than 1,500,000	M	201.519	202.830	203.347	205.141	206.590	208.291	195.839	196.963	197.549	199.378	200.989	202.969
Size B/C—50,000 to 1,500,000[3]	M	128.040	128.753	128.922	130.121	131.484	132.682	127.740	128.561	128.695	129.922	131.354	132.867
Size D—Nonmetropolitan (less than 50,000)	M	195.819	196.708	197.596	199.472	200.841	202.720	194.099	194.850	195.774	197.864	199.325	201.494
South urban	M	203.457	204.510	205.060	206.676	208.085	210.006	200.850	201.814	202.291	204.044	205.669	207.912
Size A—More than 1,500,000	M	206.078	207.221	207.605	209.065	209.987	211.846	204.370	205.304	205.588	207.336	208.511	210.748
Size B/C—50,000 to 1,500,000[3]	M	129.368	129.937	130.351	131.442	132.516	133.714	128.206	128.767	129.144	130.243	131.428	132.808
Size D—Nonmetropolitan (less than 50,000)	M	202.878	204.524	205.189	206.933	208.746	211.225	203.333	204.954	205.523	207.600	209.641	212.533
West urban	M	214.733	215.739	216.339	218.533	219.437	221.009	209.488	210.342	210.816	213.159	214.355	216.029
Size A—More than 1,500,000	M	218.020	219.036	219.799	221.997	222.689	224.704	211.095	212.040	212.614	214.954	216.055	218.141
Size B/C—50,000 to 1,500,000[3]	M	130.481	131.328	131.538	132.896	133.694	134.023	130.309	130.935	131.148	132.640	133.570	134.133
Size classes:													
A[5]	M	192.140	193.045	193.685	195.314	196.191	197.898	190.622	191.461	191.982	193.702	194.886	196.844
B/C[3]	M	129.718	130.431	130.728	131.892	132.974	133.997	129.156	129.830	130.092	131.273	132.471	133.729
D	M	202.333	203.200	203.803	205.730	207.238	209.308	200.867	201.685	202.292	204.422	205.951	208.246
Selected local areas[6]													
Chicago–Gary–Kenosha, IL–IN–WI	M	207.155	208.757	209.526	211.542	212.662	214.932	200.217	201.525	202.497	204.742	205.885	208.403
Los Angeles–Riverside–Orange County, CA	M	219.373	220.918	221.431	223.606	224.625	226.651	212.282	213.825	214.231	216.493	217.914	219.702
New York, NY–Northern NJ–Long Island, NY–NJ–CT–PA	M	229.395	229.869	231.020	233.122	233.822	236.151	223.873	224.557	225.281	226.951	228.215	230.923
Boston–Brockton–Nashua, MA–NH–ME–CT	1	–	231.980	–	233.084	–	235.344	–	231.291	–	232.656	–	235.419
Cleveland–Akron, OH	1	–	199.686	–	202.500	–	204.882	–	190.115	–	192.995	–	195.898
Dallas–Ft Worth, TX	1	–	197.079	–	198.596	–	202.357	–	199.407	–	201.892	–	206.258
Washington–Baltimore, DC–MD–VA–WV[7]	1	–	136.293	–	138.090	–	139.649	–	135.826	–	137.544	–	139.332
Atlanta, GA	2	202.751	–	204.166	–	206.371	–	202.034	–	203.473	–	205.801	–
Detroit–Ann Arbor–Flint, MI	2	200.201	–	202.378	–	205.281	–	195.866	–	197.670	–	201.037	–
Houston–Galveston–Brazoria, TX	2	186.246	–	187.585	–	188.795	–	184.975	–	185.904	–	188.463	–
Miami–Ft. Lauderdale, FL	2	217.319	–	219.082	–	221.324	–	215.561	–	216.971	–	219.456	–
Philadelphia–Wilmington–Atlantic City, PA–NJ–DE–MD	2	219.025	–	220.935	–	223.622	–	218.791	–	220.718	–	223.295	–
San Francisco–Oakland–San Jose, CA	2	218.485	–	219.612	–	222.074	–	214.204	–	214.913	–	217.913	–
Seattle–Tacoma–Bremerton, WA	2	218.966	–	221.728	–	223.196	–	214.024	–	216.332	–	218.483	–

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

41. Producer Price Indexes, by stage of processing

[1982 = 100]

Grouping	Annual average		2007								2008				
	2006	2007	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.[p]	Mar.[p]	Apr.[p]	May[p]
Finished goods	160.4	166.6	167.5	167.2	168.5	166.1	167.4	168.6	171.4	170.4	172.0	172.2	175.4	176.7	179.6
Finished consumer goods	166.0	173.5	174.8	174.4	176.2	173.0	174.8	175.9	179.4	178.2	180.1	180.2	184.4	186.0	190.1
Finished consumer foods	156.7	167.0	166.8	166.3	166.4	166.3	168.4	169.7	169.5	172.2	174.5	173.8	175.9	175.4	177.7
Finished consumer goods excluding foods	169.2	175.6	177.6	177.2	179.7	175.3	177.0	177.9	182.9	180.1	181.9	182.4	187.3	189.8	194.7
Nondurable goods less food	182.6	191.7	195.0	194.5	198.1	191.8	194.6	194.5	201.5	197.9	200.3	200.7	207.9	211.4	219.6
Durable goods	136.9	138.3	137.7	137.7	137.6	137.2	136.7	139.8	140.2	139.5	140.1	140.4	140.4	140.7	140.1
Capital equipment	146.9	149.5	149.1	149.0	149.1	149.0	148.9	150.6	151.0	150.7	151.4	152.0	152.1	152.5	152.5
Intermediate materials, supplies, and components	164.0	170.7	171.1	172.0	173.6	171.5	172.2	172.2	176.2	175.7	177.8	178.8	184.1	186.9	192.6
Materials and components for manufacturing	155.9	162.4	162.8	163.6	164.5	163.4	163.3	164.4	166.1	166.3	168.4	169.8	172.5	174.5	178.8
Materials for food manufacturing	146.2	161.4	160.6	163.0	163.6	164.5	166.6	166.3	166.6	169.8	173.6	177.2	180.3	179.7	182.8
Materials for nondurable manufacturing	175.0	184.0	182.9	184.9	187.1	185.0	186.0	189.4	195.1	195.1	199.3	201.3	204.3	207.7	214.4
Materials for durable manufacturing	180.5	189.8	195.0	194.8	195.1	191.8	189.1	189.0	188.6	188.1	189.5	192.2	199.6	203.5	212.8
Components for manufacturing	134.5	136.3	136.0	136.2	136.4	136.5	136.5	136.6	136.7	136.8	137.4	137.7	138.1	138.8	139.3
Materials and components for construction	188.4	192.5	192.8	193.1	193.5	193.5	193.2	193.2	193.2	193.4	194.4	195.5	197.2	199.3	203.4
Processed fuels and lubricants	162.8	173.9	176.2	178.1	183.0	175.3	178.4	175.5	189.7	186.3	188.6	188.4	205.7	212.3	227.2
Containers	175.0	180.3	179.6	179.7	180.2	180.5	181.0	182.3	183.2	183.4	185.1	185.6	185.9	187.0	188.0
Supplies	157.0	161.7	160.8	161.4	161.9	162.0	162.3	163.0	163.9	164.6	166.8	168.0	169.5	170.5	172.9
Crude materials for further processing	184.8	207.1	208.0	209.7	210.3	202.8	204.6	211.8	225.6	229.0	235.5	245.5	265.6	274.3	294.4
Foodstuffs and feedstuffs	119.3	146.7	148.1	148.4	150.0	147.8	151.9	150.0	152.9	158.5	162.6	164.5	168.0	166.5	172.7
Crude nonfood materials	230.6	246.3	246.6	249.6	249.2	237.6	237.4	252.0	274.1	275.4	283.8	300.0	333.1	349.9	385.4
Special groupings:															
Finished goods, excluding foods	161.0	166.2	167.4	167.1	168.8	165.8	166.9	168.1	171.6	169.6	171.0	171.5	174.9	176.7	179.8
Finished energy goods	145.9	156.3	161.9	160.9	166.4	155.6	159.7	159.1	170.4	163.8	166.6	166.3	177.5	182.6	193.8
Finished goods less energy	157.9	162.8	162.4	162.3	162.4	162.5	163.0	164.7	164.9	165.5	166.7	167.1	167.9	168.1	168.8
Finished consumer goods less energy	162.7	168.7	168.3	168.2	168.3	168.4	169.2	170.8	171.0	172.0	173.5	173.8	174.8	174.9	176.0
Finished goods less food and energy	158.7	161.7	161.3	161.3	161.4	161.5	161.5	163.2	163.6	163.5	164.4	165.1	165.4	165.9	166.1
Finished consumer goods less food and energy	166.7	170.0	169.5	169.6	169.7	170.0	170.0	171.8	172.2	172.2	173.2	174.1	174.4	175.0	175.3
Consumer nondurable goods less food and energy	191.5	197.0	196.5	196.7	197.1	197.9	198.3	199.0	199.3	200.0	201.4	202.7	203.5	204.2	205.9
Intermediate materials less foods and feeds	165.4	171.5	172.1	172.9	174.5	172.3	172.9	172.9	177.0	176.3	178.2	179.1	184.4	187.4	193.1
Intermediate foods and feeds	135.2	154.4	151.6	154.5	155.9	156.3	158.2	159.6	161.4	164.6	170.6	174.7	179.8	178.6	184.8
Intermediate energy goods	162.8	174.6	176.7	179.2	184.2	177.0	179.5	177.4	191.1	187.8	190.5	190.9	208.1	213.8	228.6
Intermediate goods less energy	162.1	167.6	167.6	168.1	168.8	168.1	168.2	168.9	170.2	170.4	172.3	173.4	175.5	177.4	181.1
Intermediate materials less foods and energy	163.8	168.4	168.6	169.0	169.6	168.8	168.9	169.5	170.8	170.9	172.5	173.5	175.3	177.5	181.0
Crude energy materials	226.9	232.8	233.0	238.0	236.8	221.7	219.9	237.7	267.1	268.3	273.6	291.5	330.5	344.1	389.0
Crude materials less energy	152.3	182.6	183.7	183.6	185.5	183.8	188.3	187.4	189.2	194.1	200.9	205.3	210.7	215.4	224.4
Crude nonfood materials less energy	244.5	282.6	282.8	281.5	284.0	284.7	289.9	292.8	289.9	291.7	307.3	320.2	332.2	359.4	376.2

p = preliminary.

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

[December 2003 = 100, unless otherwise indicated]

NAICS	Industry	2007								2008				
		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.[p]	Mar.[p]	Apr.[p]	May[p]
	Total mining industries (December 1984=100)	221.1	222.6	222.3	212.5	214.3	228.3	249.3	249.5	254.2	263.8	290.0	299.0	328.9
211	Oil and gas extraction (December 1985=100)	268.2	270.9	269.6	254.1	256.2	279.6	314.8	315.9	321.9	334.1	375.6	390.3	440.5
212	Mining, except oil and gas	159.1	159.3	162.4	160.8	162.2	162.4	161.3	161.2	164.9	171.7	175.6	176.4	174.3
213	Mining support activities	172.8	171.2	168.9	168.6	169.7	168.5	168.7	164.9	167.2	168.7	170.0	170.0	171.3
	Total manufacturing industries (December 1984=100)	163.8	163.7	164.9	163.0	163.7	164.5	168.0	166.9	168.5	169.4	173.4	175.1	179.3
311	Food manufacturing (December 1984=100)	158.7	160.3	160.4	160.3	160.8	160.7	161.4	162.8	165.8	167.8	170.2	170.9	174.2
312	Beverage and tobacco manufacturing	109.2	109.3	109.2	109.9	110.3	111.1	111.1	111.2	112.1	112.8	112.6	113.0	114.4
313	Textile mills	107.6	107.8	108.4	108.6	108.7	108.9	109.1	109.3	110.1	110.8	110.3	110.8	111.7
315	Apparel manufacturing	101.5	101.4	101.5	101.5	101.3	101.5	101.5	101.5	101.8	101.8	102.0	102.2	102.2
316	Leather and allied product manufacturing (December 1984=100)	149.6	149.4	149.4	149.9	150.0	150.4	150.5	151.1	152.0	152.6	152.5	152.8	152.7
321	Wood products manufacturing	107.0	107.5	108.4	107.8	107.2	106.5	106.1	106.1	105.7	105.4	105.8	106.0	108.3
322	Paper manufacturing	114.8	115.2	115.4	115.6	116.1	117.1	117.8	118.0	118.5	119.1	119.6	120.2	120.4
323	Printing and related support activities	106.5	106.5	106.7	106.8	107.0	107.1	107.2	107.4	107.8	108.1	108.1	109.2	109.4
324	Petroleum and coal products manufacturing (December 1984=100)	274.3	268.2	283.1	258.0	267.4	266.9	305.5	288.4	294.9	297.1	336.4	347.6	384.1
325	Chemical manufacturing (December 1984=100)	201.9	202.8	203.6	204.9	205.0	206.4	209.2	210.4	213.6	215.7	216.9	220.4	224.1
326	Plastics and rubber products manufacturing (December 1984=100)	149.8	149.9	150.4	151.3	151.2	151.6	152.2	153.2	154.8	155.8	156.5	156.3	158.5
331	Primary metal manufacturing (December 1984=100)	197.1	196.4	196.4	192.1	188.8	188.6	188.9	188.6	190.4	194.4	202.9	210.5	221.6
332	Fabricated metal product manufacturing (December 1984=100)	162.5	162.2	162.3	162.9	162.8	163.3	163.7	164.3	165.6	165.8	167.8	170.6	172.9
333	Machinery manufacturing	112.1	112.0	112.1	112.3	112.5	112.7	113.0	113.1	113.8	114.4	114.8	115.2	115.7
334	Computer and electronic products manufacturing	94.7	94.6	94.1	93.5	93.3	93.1	92.8	92.6	92.6	92.6	92.8	92.7	92.8
335	Electrical equipment, appliance, and components manufacturing	121.8	122.1	123.0	123.6	123.7	124.2	124.5	124.4	125.2	126.1	128.4	127.3	128.1
336	Transportation equipment manufacturing	104.4	104.4	104.4	104.2	103.8	106.3	106.6	106.0	106.6	106.6	106.3	106.5	106.3
337	Furniture and related product manufacturing (December 1984=100)	165.7	165.9	165.6	165.7	165.9	166.1	166.6	166.4	167.1	167.8	167.8	169.7	170.6
339	Miscellaneous manufacturing	107.1	107.0	106.9	107.0	107.1	107.2	107.5	107.7	108.5	109.1	109.3	109.5	109.7
	Retail trade													
441	Motor vehicle and parts dealers	115.6	116.2	115.6	114.9	116.0	115.3	116.1	118.0	118.3	118.9	118.8	119.0	118.5
442	Furniture and home furnishings stores	115.2	116.2	116.5	119.6	119.0	120.1	121.1	119.0	119.6	120.6	122.2	119.2	118.6
443	Electronics and appliance stores	110.2	112.4	111.6	109.8	107.8	111.1	114.9	89.3	109.0	87.9	88.0	110.9	109.5
446	Health and personal care stores	123.0	123.1	123.6	124.3	123.9	123.5	123.8	123.8	124.8	124.0	125.9	128.0	127.9
447	Gasoline stations (June 2001=100)	86.1	86.5	81.6	71.3	73.7	78.0	73.7	66.6	67.1	59.5	61.1	65.6	60.9
454	Nonstore retailers	129.5	127.7	123.1	128.3	126.0	130.2	125.7	134.7	136.0	135.5	134.3	136.2	136.9
	Transportation and warehousing													
481	Air transportation (December 1992=100)	177.8	185.9	188.0	189.1	180.5	187.2	189.4	187.1	192.0	192.4	197.2	199.5	201.4
483	Water transportation	111.5	111.7	113.6	114.7	115.3	117.2	116.5	116.4	119.0	120.5	120.8	122.1	122.3
491	Postal service (June 1989=100)	175.4	175.4	175.5	175.5	175.5	175.5	175.5	175.5	175.5	175.5	175.5	175.5	180.5
	Utilities													
221	Utilities	125.4	129.9	131.6	130.8	129.3	127.2	126.6	127.4	127.8	128.4	129.7	133.6	135.7
	Health care and social assistance													
6211	Office of physicians (December 1996=100)	122.0	122.1	122.2	122.2	122.9	122.9	121.5	122.7	123.3	122.9	121.0	122.3	123.2
6215	Medical and diagnostic laboratories	106.4	107.2	107.0	107.7	107.6	107.7	106.7	106.7	107.3	107.9	106.8	107.4	107.4
6216	Home health care services (December 1996=100)	123.6	123.6	123.8	123.9	124.1	125.1	125.3	125.3	125.4	125.7	125.6	125.5	125.5
622	Hospitals (December 1992=100)	157.4	157.6	158.1	158.0	158.2	161.3	161.9	161.9	162.4	162.0	162.7	162.9	162.7
6231	Nursing care facilities	113.7	113.9	114.9	115.7	115.8	116.4	116.5	117.0	117.9	117.3	117.6	118.2	118.1
62321	Residential mental retardation facilities	112.2	112.5	112.9	113.2	113.5	113.9	114.3	114.6	115.4	116.1	118.2	118.0	117.6
	Other services industries													
511	Publishing industries, except Internet	108.2	108.1	108.2	108.4	108.4	108.5	108.5	108.5	109.7	109.4	110.4	110.7	110.4
515	Broadcasting, except Internet	101.6	101.8	98.7	98.7	99.6	101.0	102.3	103.6	104.4	102.3	103.2	102.4	103.4
517	Telecommunications	100.7	101.0	102.2	101.3	102.0	101.8	101.2	100.7	100.6	100.8	100.8	102.1	101.3
5182	Data processing and related services	100.4	100.3	100.4	100.4	100.4	100.3	100.5	100.4	100.4	100.6	100.6	100.5	100.9
523	Security, commodity contracts, and like activity	118.7	118.6	120.5	120.4	121.1	121.4	124.2	123.0	122.5	117.1	118.4	119.2	120.1
53112	Lessors or nonresidental buildings (except miniwarehouse)	106.0	106.8	106.2	107.9	109.0	108.5	108.5	110.0	108.1	107.8	107.9	109.1	109.2
5312	Offices of real estate agents and brokers	110.4	110.8	111.1	111.1	110.7	110.5	110.5	109.9	110.3	110.1	110.6	110.0	106.1
5313	Real estate support activities	104.0	103.7	103.8	103.2	102.9	103.5	106.1	105.6	106.6	106.1	107.2	107.1	107.1
5321	Automotive equipment rental and leasing (June 2001=100)	114.1	114.4	121.2	122.3	117.2	118.9	118.4	119.1	121.3	120.9	121.6	117.8	123.2
5411	Legal services (December 1996=100)	153.3	153.4	153.7	153.8	154.3	154.8	155.1	155.1	159.9	160.1	160.6	160.8	160.9
541211	Offices of certified public accountants	110.9	111.4	112.2	112.6	112.4	113.1	112.9	113.0	115.6	114.2	113.0	111.9	114.2
5413	Architectural, engineering, and related services (December 1996=100)	139.8	140.1	140.3	140.8	140.7	140.8	140.8	140.8	139.2	139.1	140.0	140.4	140.5
54181	Advertising agencies	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.2	105.0	105.2	106.0	105.8
5613	Employment services (December 1996=100)	121.4	121.6	121.8	121.9	122.0	122.4	122.3	122.2	122.3	122.3	122.5	122.3	122.7
56151	Travel agencies	101.0	101.4	101.1	101.0	100.9	102.5	101.7	100.2	98.8	97.3	98.7	98.8	98.8
56172	Janitorial services	105.4	105.4	105.5	105.5	106.8	106.9	107.1	108.7	108.9	108.2	107.7	109.0	109.7
5621	Waste collection	107.2	107.2	107.3	107.9	108.9	108.9	109.5	108.4	110.7	112.2	112.1	112.3	112.0
721	Accommodation (December 1996=100)	141.1	143.1	147.1	147.2	145.0	145.8	144.7	143.7	145.4	142.9	144.2	146.0	144.8

p = preliminary.

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

[1982 = 100]

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

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

[2000 = 100]

Category	2007								2008				
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
ALL COMMODITIES	115.5	116.0	116.1	116.3	116.7	117.6	118.7	119.3	120.7	121.8	123.8	124.3	124.8
Foods, feeds, and beverages	145.1	148.6	149.2	151.4	157.8	164.1	165.9	171.1	180.5	188.7	196.9	192.8	193.3
Agricultural foods, feeds, and beverages	147.0	151.0	151.5	153.7	160.8	167.6	169.8	175.2	185.0	193.8	202.6	198.2	198.9
Nonagricultural (fish, beverages) food products	129.8	128.5	130.2	132.2	133.0	134.2	133.1	136.1	142.0	144.7	148.3	146.2	144.8
Industrial supplies and materials	148.3	149.0	148.6	148.8	148.8	150.5	153.9	154.1	157.1	159.1	165.5	167.9	169.4
Agricultural industrial supplies and materials	125.1	128.7	138.6	137.4	140.0	142.7	144.9	144.7	146.0	150.6	159.3	158.1	157.1
Fuels and lubricants	199.1	201.1	202.9	197.4	200.9	204.8	224.7	222.8	232.1	225.6	249.5	259.4	274.7
Nonagricultural supplies and materials, excluding fuel and building materials	145.7	146.1	144.6	145.7	145.0	146.5	147.9	148.5	150.9	154.1	158.2	160.1	159.9
Selected building materials	113.3	113.9	114.1	114.0	114.4	114.2	113.8	113.7	113.3	113.8	114.2	114.0	113.8
Capital goods	99.5	99.6	99.7	99.8	99.9	100.1	100.3	100.6	100.9	101.3	101.2	101.5	101.6
Electric and electrical generating equipment	106.4	106.5	106.6	106.7	106.7	107.1	107.2	107.5	107.7	108.3	108.6	108.7	108.6
Nonelectrical machinery	92.9	92.9	93.1	93.1	93.1	93.2	93.4	93.6	93.7	93.9	93.7	93.9	93.9
Automotive vehicles, parts, and engines	106.0	106.1	106.2	106.2	106.3	106.5	106.5	106.7	106.9	107.0	107.1	107.5	107.5
Consumer goods, excluding automotive	105.7	105.8	106.1	106.3	106.2	106.4	106.8	107.3	107.3	107.4	108.0	108.1	108.1
Nondurables, manufactured	106.4	106.7	107.0	107.2	107.0	107.4	108.0	108.2	108.1	108.2	109.3	109.9	110.1
Durables, manufactured	104.0	103.7	104.0	104.2	104.2	104.2	104.4	105.2	105.2	105.5	105.4	105.1	105.0
Agricultural commodities	142.8	146.7	149.0	150.5	156.8	162.8	165.0	169.3	177.5	185.6	194.3	190.5	190.9
Nonagricultural commodities	113.6	113.8	113.7	113.8	113.8	114.4	115.4	115.7	116.6	117.3	118.8	119.6	120.0

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

[2000 = 100]

Category	2007								2008				
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
ALL COMMODITIES	118.6	120.0	121.5	121.1	121.8	123.6	127.5	127.3	129.2	129.5	133.5	137.3	140.9
Foods, feeds, and beverages	127.4	127.8	129.4	130.1	131.8	133.2	133.4	134.4	138.1	137.8	141.8	143.7	145.3
Agricultural foods, feeds, and beverages	139.1	139.5	141.4	142.1	144.4	146.5	147.1	148.3	153.1	152.6	157.3	159.8	162.7
Nonagricultural (fish, beverages) food products	101.2	101.5	102.7	103.2	103.5	103.2	102.5	103.0	104.3	104.4	106.8	107.2	105.9
Industrial supplies and materials	180.5	185.6	190.9	188.5	190.7	197.2	212.8	211.3	218.2	219.0	234.5	248.5	263.3
Fuels and lubricants	228.2	238.2	249.8	244.0	250.0	262.4	294.8	290.3	301.9	300.0	329.0	354.0	384.6
Petroleum and petroleum products	234.3	245.6	260.3	256.4	264.4	277.7	312.2	306.7	319.6	315.6	347.5	375.1	408.4
Paper and paper base stocks	110.6	110.8	110.3	110.7	111.2	112.2	108.0	109.2	112.5	113.4	114.1	116.3	118.2
Materials associated with nondurable supplies and materials	125.1	125.4	126.6	127.3	128.2	131.4	133.7	135.3	143.6	146.6	147.8	148.8	149.4
Selected building materials	111.2	113.1	116.9	116.5	116.9	115.7	115.6	116.0	115.9	113.8	114.1	114.3	116.0
Unfinished metals associated with durable goods	217.1	219.7	215.1	215.3	209.1	211.0	214.8	217.2	215.3	224.5	241.5	259.4	263.6
Nonmetals associated with durable goods	101.7	101.6	102.1	102.2	102.5	103.0	103.3	103.8	105.4	105.9	105.2	106.2	107.3
Capital goods	91.1	91.3	91.6	91.8	91.9	92.0	92.1	92.2	91.9	92.0	92.2	93.0	93.3
Electric and electrical generating equipment	105.2	105.7	105.8	106.4	106.5	106.8	107.5	107.9	107.7	108.7	109.3	111.6	111.7
Nonelectrical machinery	87.0	87.2	87.4	87.6	87.7	87.7	87.7	87.7	87.4	87.4	87.5	88.0	88.3
Automotive vehicles, parts, and engines	104.6	104.7	104.8	105.0	105.2	105.6	106.2	106.8	107.1	107.2	107.4	107.8	107.8
Consumer goods, excluding automotive	101.3	101.4	101.7	102.0	102.1	102.2	102.4	102.6	103.1	103.5	104.0	104.8	105.0
Nondurables, manufactured	104.3	104.3	104.8	104.9	105.0	105.1	105.3	105.5	106.5	106.8	107.5	107.9	108.0
Durables, manufactured	98.1	98.2	98.3	98.8	98.8	99.0	99.2	99.3	99.6	100.0	100.4	101.4	101.7
Nonmanufactured consumer goods	102.4	102.6	103.1	103.4	103.4	103.3	103.3	103.8	104.0	104.1	104.3	105.6	105.8

46. U.S. international price Indexes for selected categories of services

[2000 = 100, unless indicated otherwise]

Category	2006				2007				2008
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.
Import air freight	129.7	135.2	133.1	131.2	130.7	132.3	134.2	141.8	144.4
Export air freight	113.6	115.9	117.9	116.7	117.0	117.0	119.8	127.1	131.4
Import air passenger fares (Dec. 2006 = 100)	114.9	136.7	130.9	125.4	122.9	144.6	140.2	135.3	131.3
Export air passenger fares (Dec. 2006 = 100)	130.8	139.3	142.4	137.3	140.2	147.3	154.6	155.7	156.4

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

[1992 = 100]

Item	2005				2006				2007				2008
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I
Business													
Output per hour of all persons	134.3	134.3	135.9	135.5	136.3	136.7	136.1	136.5	136.8	138.1	140.3	140.6	141.4
Compensation per hour	161.4	161.6	164.1	165.4	168.3	168.1	168.7	173.5	176.1	177.1	178.7	181.2	183.3
Real compensation per hour	120.2	119.6	119.5	119.3	120.8	119.6	118.9	122.7	123.5	122.8	123.1	123.3	123.4
Unit labor costs	120.2	120.4	120.8	122.0	123.4	123.0	123.9	127.1	128.7	128.3	127.4	128.9	129.6
Unit nonlabor payments	128.1	129.8	132.1	133.0	133.0	136.6	136.7	132.0	132.8	135.4	137.1	136.3	136.8
Implicit price deflator	123.1	123.9	125.0	126.1	127.0	128.0	128.7	128.9	130.2	130.9	131.0	131.7	132.3
Nonfarm business													
Output per hour of all persons	133.4	133.5	135.0	134.5	135.2	135.7	135.1	135.6	136.1	137.0	139.0	139.6	140.5
Compensation per hour	160.3	160.8	163.2	164.3	167.0	167.0	167.6	172.5	175.2	175.8	177.2	180.1	182.3
Real compensation per hour	119.4	119.0	118.9	118.5	119.9	118.8	118.1	122.0	122.8	121.9	122.0	122.5	122.7
Unit labor costs	120.2	120.5	120.9	122.1	123.5	123.1	124.0	127.2	128.8	128.4	127.5	129.0	129.7
Unit nonlabor payments	129.6	131.3	133.8	134.7	134.9	138.8	138.6	133.4	133.8	136.4	137.9	136.8	137.5
Implicit price deflator	123.6	124.5	125.6	126.8	127.7	128.9	129.4	129.5	130.6	131.3	131.3	131.9	132.6
Nonfinancial corporations													
Output per hour of all employees	141.0	141.9	141.3	142.1	142.8	141.9	142.7	143.0	143.5	144.2	145.3	146.1	–
Compensation per hour	158.0	158.5	160.8	161.8	163.8	163.9	164.6	169.3	171.4	172.4	173.6	176.1	–
Real compensation per hour	117.7	117.2	117.1	116.7	117.6	116.7	116.0	119.8	120.2	119.5	119.5	119.8	–
Total unit costs	111.8	111.5	113.9	113.5	114.1	115.2	114.9	117.4	118.2	118.3	118.2	119.0	–
Unit labor costs	112.1	111.7	113.8	113.9	114.8	115.5	115.3	118.4	119.5	119.5	119.5	120.5	–
Unit nonlabor costs	111.0	111.0	114.4	112.3	112.3	114.2	114.0	114.7	114.9	115.0	114.7	115.1	–
Unit profits	151.2	160.8	146.6	158.8	164.0	164.8	172.8	150.4	154.7	158.5	154.3	146.8	–
Unit nonlabor payments	121.8	124.4	123.0	124.7	126.1	127.7	129.7	124.3	125.5	126.7	125.3	123.5	–
Implicit price deflator	115.3	115.9	116.9	117.5	118.5	119.6	120.1	120.3	121.5	121.9	121.4	121.5	–
Manufacturing													
Output per hour of all persons	170.0	172.0	172.9	172.8	172.6	172.7	174.5	175.4	177.0	178.7	180.6	182.5	184.1
Compensation per hour	166.2	168.0	170.4	168.7	172.4	170.5	171.6	177.4	181.7	181.6	181.9	185.2	188.7
Real compensation per hour	123.8	124.3	124.1	121.7	123.8	121.3	120.9	125.5	127.4	125.9	125.2	126.0	127.0
Unit labor costs	97.7	97.7	98.6	97.6	99.9	98.7	98.4	101.1	102.7	101.6	100.7	101.5	102.5

NOTE: Dash indicates data not available.

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

[2000 = 100, unless otherwise indicated]

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

NOTE: Dash indicates data not available.

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

[1992 = 100]

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

Dash indicates data not available.

50. Annual indexes of output per hour for selected NAICS industries, 1987-2006

[1997=100]

NAICS	Industry	1987	1990	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	Mining												
21	Mining	85.5	85.1	100.0	103.6	111.4	111.0	109.1	113.6	116.0	106.8	96.0	87.2
211	Oil and gas extraction	80.1	75.7	100.0	101.2	107.9	119.4	121.6	123.8	130.1	111.7	107.8	100.3
2111	Oil and gas extraction	80.1	75.7	100.0	101.2	107.9	119.4	121.6	123.8	130.1	111.7	107.8	100.3
212	Mining, except oil and gas	69.8	79.3	100.0	104.5	105.8	106.3	109.0	110.9	113.6	115.9	114.0	110.6
2121	Coal mining	58.4	68.1	100.0	106.5	110.3	115.8	114.6	112.4	113.2	112.8	107.6	100.0
2122	Metal ore mining	71.2	79.9	100.0	109.3	112.3	122.0	131.9	138.6	142.8	137.4	130.0	123.4
2123	Nonmetallic mineral mining and quarrying	88.5	92.3	100.0	101.3	101.2	96.2	99.3	103.6	108.1	114.2	118.2	118.7
	Utilities												
2211	Power generation and supply	65.6	71.1	100.0	103.7	103.5	107.0	106.4	102.9	105.1	107.5	114.3	115.4
2212	Natural gas distribution	67.8	71.4	100.0	99.0	102.7	113.2	110.1	115.4	114.1	118.3	122.2	119.0
	Manufacturing												
311	Food	94.1	93.9	100.0	103.9	105.9	107.1	109.5	113.8	116.8	117.3	123.3	121.1
3111	Animal food	83.6	91.5	100.0	109.0	110.9	109.7	131.4	142.7	165.8	149.5	165.5	150.4
3112	Grain and oilseed milling	81.1	88.6	100.0	107.5	116.1	113.1	119.5	122.4	123.9	130.3	133.0	130.7
3113	Sugar and confectionery products	87.6	89.5	100.0	103.5	106.5	109.9	108.6	108.0	112.5	118.2	130.7	129.2
3114	Fruit and vegetable preserving and specialty	92.4	87.6	100.0	107.1	109.5	111.8	121.4	126.9	123.0	126.2	132.0	126.9
3115	Dairy products	82.7	91.1	100.0	100.0	93.6	95.9	97.1	105.0	110.5	107.4	109.6	110.2
3116	Animal slaughtering and processing	97.4	94.3	100.0	100.0	101.2	102.6	103.7	107.3	106.6	108.0	117.4	116.9
3117	Seafood product preparation and packaging	123.1	119.7	100.0	120.2	131.6	140.5	153.0	169.8	173.2	162.2	186.1	203.8
3118	Bakeries and tortilla manufacturing	100.9	94.5	100.0	103.8	108.6	108.3	109.9	108.9	109.3	113.8	115.4	110.5
3119	Other food products	97.5	92.5	100.0	107.8	111.4	112.6	106.2	111.9	118.8	119.3	116.2	116.3
312	Beverages and tobacco products	78.1	87.6	100.0	97.6	87.3	88.3	89.5	82.6	90.9	94.7	100.5	94.0
3121	Beverages	77.1	87.6	100.0	99.0	90.7	90.8	92.7	99.4	108.3	114.1	120.3	112.0
3122	Tobacco and tobacco products	71.9	79.1	100.0	98.5	91.0	95.9	98.2	67.0	78.7	82.4	93.1	94.9
313	Textile mills	73.7	77.2	100.0	102.6	106.2	106.7	109.5	125.3	136.1	138.6	152.8	150.5
3131	Fiber, yarn, and thread mills	66.5	74.4	100.0	102.1	103.9	101.3	109.1	133.3	148.8	154.1	143.5	139.7
3132	Fabric mills	68.0	75.3	100.0	104.2	110.0	110.1	110.3	125.4	137.3	138.6	164.1	170.5
3133	Textile and fabric finishing mills	91.3	82.0	100.0	101.2	102.2	104.4	108.5	119.8	125.1	127.7	139.8	126.2
314	Textile product mills	93.0	90.2	100.0	98.7	102.5	107.1	104.5	107.3	112.7	123.4	128.0	121.1
3141	Textile furnishings mills	91.2	88.0	100.0	99.3	99.1	104.5	103.1	105.5	114.4	122.3	125.7	117.3
3149	Other textile product mills	92.2	91.4	100.0	96.7	107.6	108.9	103.1	105.1	104.2	120.4	128.9	126.1
315	Apparel	71.9	73.7	100.0	101.8	111.7	116.8	116.5	102.9	112.4	103.4	110.9	114.0
3151	Apparel knitting mills	76.2	86.2	100.0	96.1	101.4	108.9	105.6	112.0	105.6	96.6	120.0	123.7
3152	Cut and sew apparel	69.8	70.1	100.0	102.3	114.6	119.8	119.5	103.9	117.2	108.4	113.5	117.6
3159	Accessories and other apparel	97.8	101.3	100.0	109.0	99.2	98.3	105.2	76.1	78.7	70.8	74.0	67.3
316	Leather and allied products	71.6	72.7	100.0	106.6	112.7	120.3	122.4	97.7	99.8	109.5	123.6	132.5
3161	Leather and hide tanning and finishing	94.0	90.7	100.0	100.3	98.1	100.1	100.3	81.2	82.2	93.5	118.7	118.1
3162	Footwear	76.7	78.1	100.0	102.1	117.3	122.3	130.7	102.7	104.8	100.7	105.6	115.4
3169	Other leather products	92.3	89.9	100.0	113.3	110.4	122.8	117.6	96.2	100.3	127.7	149.7	174.6
321	Wood products	95.0	97.5	100.0	101.2	102.9	102.7	106.1	113.6	114.7	115.6	123.1	124.9
3211	Sawmills and wood preservation	77.6	79.4	100.0	100.3	104.7	105.4	108.8	114.4	121.3	118.2	127.3	129.7
3212	Plywood and engineered wood products	99.7	102.8	100.0	105.1	98.7	98.8	105.2	110.3	107.0	102.9	110.2	117.4
3219	Other wood products	103.0	105.3	100.0	101.0	104.5	103.0	104.7	113.9	113.9	119.6	126.3	125.3
322	Paper and paper products	85.8	87.1	100.0	102.3	104.1	106.3	106.8	114.2	118.9	123.4	124.5	127.3
3221	Pulp, paper, and paperboard mills	81.7	84.0	100.0	102.5	111.1	116.3	119.9	133.1	141.4	148.0	147.7	151.1
3222	Converted paper products	89.0	90.1	100.0	102.5	100.1	101.1	100.5	105.6	109.6	112.9	114.8	116.6
323	Printing and related support activities	97.6	97.5	100.0	100.6	102.8	104.6	105.3	110.2	111.1	114.5	119.5	121.1
3231	Printing and related support activities	97.6	97.5	100.0	100.6	102.8	104.6	105.3	110.2	111.1	114.5	119.5	121.1
324	Petroleum and coal products	71.1	75.4	100.0	102.2	107.1	113.5	112.1	118.0	119.2	123.4	123.8	122.8
3241	Petroleum and coal products	71.1	75.4	100.0	102.2	107.1	113.5	112.1	118.0	119.2	123.4	123.8	122.8
325	Chemicals	85.9	86.9	100.0	99.9	103.5	106.6	105.3	114.2	118.4	125.8	134.1	137.5
3251	Basic chemicals	94.6	93.4	100.0	102.7	115.7	117.5	108.8	123.8	136.0	154.4	165.2	169.3
3252	Resin, rubber, and artificial fibers	77.4	76.4	100.0	106.0	109.8	109.8	106.2	123.1	122.2	121.9	130.5	134.9
3253	Agricultural chemicals	80.4	85.8	100.0	98.8	87.4	92.1	90.0	99.2	108.4	117.4	132.5	130.7
3254	Pharmaceuticals and medicines	87.3	91.3	100.0	93.8	95.7	95.6	99.5	97.4	101.5	104.1	110.0	115.0
3255	Paints, coatings, and adhesives	89.3	87.1	100.0	100.1	100.3	100.8	105.6	108.9	115.2	119.1	120.8	115.4
3256	Soap, cleaning compounds, and toiletries	84.4	84.8	100.0	98.0	93.0	102.8	106.0	124.1	118.2	135.3	153.1	162.9
3259	Other chemical products and preparations	75.4	77.8	100.0	99.2	109.3	119.7	110.4	120.8	123.0	121.3	123.5	118.1
326	Plastics and rubber products	80.9	84.7	100.0	103.2	107.9	110.2	112.3	120.8	126.0	128.7	132.6	132.8
3261	Plastics products	83.1	85.2	100.0	104.2	109.9	112.3	114.6	123.8	129.5	131.9	135.6	133.8
3262	Rubber products	75.5	83.5	100.0	99.4	100.2	101.7	102.3	107.1	111.0	114.4	118.7	124.9
327	Nonmetallic mineral products	87.6	87.2	100.0	103.7	104.3	102.5	100.0	104.6	111.2	108.7	115.3	114.6
3271	Clay products and refractories	86.9	89.4	100.0	101.2	102.7	102.9	98.4	99.7	103.5	109.2	114.6	111.9
3272	Glass and glass products	82.4	79.1	100.0	101.3	106.7	108.1	102.9	107.5	115.3	113.8	123.1	132.9
3273	Cement and concrete products	93.6	96.6	100.0	105.1	105.9	101.6	98.0	102.4	108.3	102.8	106.5	103.1

50. Continued - Annual indexes of output per hour for selected NAICS industries, 1987-2006

[1997=100]

NAICS	Industry	1987	1990	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
3274	Lime and gypsum products	88.2	85.4	100.0	114.9	104.4	98.5	101.8	99.0	107.1	104.7	119.3	116.5
3279	Other nonmetallic mineral products	83.0	79.5	100.0	99.0	95.6	96.6	98.6	106.9	113.6	110.6	118.9	116.3
331	Primary metals	81.0	84.7	100.0	102.0	102.8	101.3	101.0	115.2	118.2	132.0	135.5	134.3
3311	Iron and steel mills and ferroalloy production	64.8	70.2	100.0	101.3	104.8	106.0	104.4	125.1	130.4	164.9	163.1	163.5
3312	Steel products from purchased steel	79.7	84.4	100.0	100.6	93.8	96.4	97.9	96.8	93.9	88.6	90.8	86.1
3313	Alumina and aluminum production	90.5	90.7	100.0	101.5	103.5	96.6	96.2	124.5	126.8	137.3	154.4	151.7
3314	Other nonferrous metal production	96.8	96.3	100.0	111.3	108.4	102.3	99.5	107.6	120.6	123.1	122.3	115.7
3315	Foundries	81.4	86.5	100.0	101.2	104.5	103.6	107.4	116.7	116.3	123.9	128.6	131.8
332	Fabricated metal products	87.3	87.1	100.0	101.3	103.0	104.8	104.8	110.9	114.4	113.4	116.9	119.7
3321	Forging and stamping	85.4	89.0	100.0	103.5	110.9	121.1	120.7	125.0	133.1	142.0	147.6	152.7
3322	Cutlery and handtools	86.3	85.4	100.0	99.9	108.0	105.9	110.3	113.4	113.2	107.6	114.1	116.6
3323	Architectural and structural metals	88.7	87.9	100.0	100.9	102.0	100.6	101.6	106.0	108.8	105.4	109.2	113.5
3324	Boilers, tanks, and shipping containers	86.0	90.1	100.0	100.0	96.5	94.2	94.4	98.9	101.6	93.6	95.7	96.6
3325	Hardware	88.7	84.8	100.0	100.5	105.2	114.3	113.5	115.5	125.4	126.0	131.8	131.1
3326	Spring and wire products	82.2	85.2	100.0	110.6	111.4	112.6	111.9	125.7	135.3	133.8	143.2	140.6
3327	Machine shops and threaded products	76.9	79.2	100.0	99.6	104.2	108.2	108.8	114.8	115.7	114.6	116.3	117.1
3328	Coating, engraving, and heat treating metals	75.5	81.3	100.0	100.9	101.0	105.5	107.3	116.1	118.3	125.3	136.5	135.5
3329	Other fabricated metal products	91.0	86.5	100.0	101.9	99.6	99.9	96.7	106.5	111.6	111.2	112.5	117.7
333	Machinery	82.3	87.7	100.0	102.9	104.7	111.5	109.0	116.6	125.2	127.0	134.1	137.4
3331	Agriculture, construction, and mining machinery	74.6	83.3	100.0	103.3	94.3	100.3	100.3	103.7	116.1	125.4	129.4	129.1
3332	Industrial machinery	75.1	81.6	100.0	95.1	105.8	130.0	105.8	117.6	117.0	126.5	122.4	135.3
3333	Commercial and service industry machinery	87.0	95.7	100.0	106.3	110.0	101.3	94.5	97.8	104.7	106.5	115.1	122.3
3334	HVAC and commercial refrigeration equipment	84.0	90.6	100.0	106.2	110.2	107.9	110.8	118.6	130.0	132.8	137.1	133.4
3335	Metalworking machinery	85.1	86.5	100.0	99.1	100.3	106.1	103.3	112.7	115.2	117.1	127.3	128.3
3336	Turbine and power transmission equipment	80.2	85.9	100.0	105.0	110.8	114.9	126.9	130.7	143.0	126.4	132.5	128.5
3339	Other general purpose machinery	83.5	86.8	100.0	103.7	106.0	113.7	110.5	117.9	128.1	127.1	138.4	143.8
334	Computer and electronic products	30.1	34.5	100.0	118.4	149.5	181.8	181.4	188.0	217.2	244.3	259.6	282.2
3341	Computer and peripheral equipment	11.9	14.7	100.0	140.4	195.9	235.0	252.2	297.4	373.4	415.1	543.3	715.7
3342	Communications equipment	39.8	48.4	100.0	107.1	135.4	164.1	152.9	128.2	143.1	148.4	143.7	178.2
3343	Audio and video equipment	61.7	77.0	100.0	105.4	119.6	126.3	128.4	150.1	171.0	239.3	230.2	240.7
3344	Semiconductors and electronic components	19.8	21.9	100.0	125.8	173.9	232.2	230.0	263.1	321.6	360.0	381.6	380.4
3345	Electronic instruments	70.2	78.5	100.0	102.3	106.7	116.7	119.3	118.1	125.3	145.4	146.6	150.6
3346	Magnetic media manufacturing and reproduction	85.7	83.7	100.0	106.4	108.9	105.8	99.8	110.4	126.1	142.6	142.1	137.7
335	Electrical equipment and appliances	75.5	76.2	100.0	103.9	106.6	111.5	111.4	113.3	117.2	123.3	130.0	129.4
3351	Electric lighting equipment	91.1	88.2	100.0	104.4	102.7	102.0	106.7	112.4	111.4	122.7	130.3	136.7
3352	Household appliances	73.3	76.5	100.0	105.2	104.0	117.2	124.6	132.3	146.7	159.6	164.5	173.2
3353	Electrical equipment	68.7	73.6	100.0	100.2	98.7	99.4	101.0	101.8	103.4	110.8	118.5	118.1
3359	Other electrical equipment and components	78.8	76.1	100.0	105.8	114.7	119.7	113.1	114.0	116.2	115.6	121.6	115.7
336	Transportation equipment	81.6	83.1	100.0	109.7	118.0	109.4	113.6	127.4	137.5	134.9	140.9	142.4
3361	Motor vehicles	75.4	85.6	100.0	113.4	122.6	109.7	110.0	126.0	140.7	142.1	148.4	163.8
3362	Motor vehicle bodies and trailers	85.0	75.9	100.0	102.9	103.1	98.8	88.7	105.4	109.8	110.7	114.2	110.9
3363	Motor vehicle parts	78.7	76.0	100.0	104.9	110.0	112.3	114.8	130.5	137.0	138.0	144.1	143.7
3364	Aerospace products and parts	87.2	89.1	100.0	119.1	120.8	103.4	115.7	118.6	119.0	113.2	125.0	117.9
3365	Railroad rolling stock	55.6	77.6	100.0	103.3	116.5	118.5	126.1	146.1	139.8	131.5	137.3	148.0
3366	Ship and boat building	95.5	99.6	100.0	99.3	112.0	121.9	121.5	131.0	133.9	138.7	131.7	127.3
3369	Other transportation equipment	73.7	62.9	100.0	111.5	113.8	132.4	140.2	150.9	163.0	168.3	184.1	197.8
337	Furniture and related products	84.8	85.9	100.0	102.0	101.6	101.4	103.4	112.6	117.0	118.4	125.0	127.8
3371	Household and institutional furniture	85.2	88.2	100.0	102.2	103.1	101.9	105.5	111.8	114.7	113.6	120.8	124.0
3372	Office furniture and fixtures	85.8	82.2	100.0	100.0	98.2	100.2	98.0	115.9	125.2	130.7	134.9	134.4
3379	Other furniture related products	86.3	88.9	100.0	106.9	102.0	99.5	105.0	110.2	110.0	121.3	128.3	130.8
339	Miscellaneous manufacturing	81.1	87.0	100.0	105.2	107.8	114.7	116.6	124.2	132.7	134.9	144.6	149.8
3391	Medical equipment and supplies	76.3	82.9	100.0	109.0	111.1	115.5	120.7	129.1	138.9	139.5	148.5	152.8
3399	Other miscellaneous manufacturing	85.4	90.5	100.0	102.1	105.0	113.6	111.8	118.0	124.7	128.6	137.8	143.2
	Wholesale trade												
42	Wholesale trade	73.2	79.9	100.0	103.4	111.2	116.6	117.7	123.3	127.5	134.3	135.2	141.1
423	Durable goods	62.3	67.5	100.0	107.1	119.2	125.1	129.0	140.2	146.7	161.5	167.3	175.8
4231	Motor vehicles and parts	74.5	78.6	100.0	106.4	120.4	116.7	120.0	133.4	137.6	143.5	146.7	165.7
4232	Furniture and furnishings	80.5	90.1	100.0	99.9	102.3	112.5	110.7	116.0	123.9	130.0	127.2	136.6
4233	Lumber and construction supplies	109.1	108.4	100.0	105.4	109.3	107.7	116.6	123.9	133.0	139.4	140.2	136.7
4234	Commercial equipment	28.0	34.2	100.0	125.6	162.2	182.2	218.4	265.2	299.5	353.2	401.0	441.1
4235	Metals and minerals	101.7	103.1	100.0	100.9	94.0	93.9	94.4	96.3	97.4	106.3	103.2	99.9
4236	Electric goods	42.8	50.3	100.0	105.9	127.5	152.8	147.6	159.5	165.7	194.1	204.1	225.6
4237	Hardware and plumbing	82.2	88.0	100.0	101.8	104.4	103.7	100.5	102.6	103.9	107.3	104.9	105.8
4238	Machinery and supplies	74.1	81.5	100.0	104.3	102.9	105.5	102.9	100.3	103.4	112.4	118.8	123.3
4239	Miscellaneous durable goods	89.8	90.5	100.0	100.8	113.7	114.7	116.8	124.6	119.6	135.0	133.5	119.8
424	Nondurable goods	91.0	98.9	100.0	99.1	100.8	105.1	105.1	105.8	110.5	113.6	114.3	117.4

50. Continued - Annual indexes of output per hour for selected NAICS industries, 1987-2006

[1997=100]

NAICS	Industry	1987	1990	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
4241	Paper and paper products	85.6	81.0	100.0	98.4	100.1	100.9	104.6	116.6	119.7	130.9	139.0	137.2
4242	Druggists' goods	70.7	80.6	100.0	94.2	93.1	85.9	84.9	89.8	100.2	105.8	112.3	119.8
4243	Apparel and piece goods	86.3	99.3	100.0	103.6	105.1	108.8	115.2	122.8	125.9	131.0	140.4	149.9
4244	Grocery and related products	87.9	96.2	100.0	101.1	101.0	102.4	101.9	98.6	104.9	104.1	104.3	105.1
4245	Farm product raw materials	81.6	79.4	100.0	94.3	101.6	105.1	102.1	98.1	98.2	109.1	108.2	120.9
4246	Chemicals	90.4	101.1	100.0	97.1	93.3	87.9	85.3	89.1	92.2	91.2	87.9	89.0
4247	Petroleum	84.4	109.8	100.0	88.5	102.9	138.1	140.6	153.6	151.1	163.2	152.5	157.7
4248	Alcoholic beverages	99.3	110.0	100.0	106.5	105.6	108.4	106.4	106.8	107.9	103.1	104.8	107.5
4249	Miscellaneous nondurable goods	111.2	109.0	100.0	105.4	106.8	115.0	111.9	106.1	109.8	120.7	124.2	126.8
425	Electronic markets and agents and brokers	64.3	74.3	100.0	102.4	112.4	120.1	110.7	109.8	104.1	97.0	87.3	93.6
4251	Electronic markets and agents and brokers	64.3	74.3	100.0	102.4	112.4	120.1	110.7	109.8	104.1	97.0	87.3	93.6
	Retail trade												
44-45	Retail trade	79.1	81.4	100.0	105.7	112.7	116.1	120.1	125.6	131.6	137.9	141.5	148.5
441	Motor vehicle and parts dealers	78.3	82.7	100.0	106.4	115.1	114.3	116.0	119.9	124.3	127.3	127.0	129.8
4411	Automobile dealers	79.2	84.1	100.0	106.5	116.3	113.7	115.5	117.2	119.5	124.7	123.8	126.8
4412	Other motor vehicle dealers	70.6	69.7	100.0	109.6	114.8	115.3	124.6	133.6	133.8	143.3	135.1	136.3
4413	Auto parts, accessories, and tire stores	71.8	79.0	100.0	105.1	107.6	108.4	101.3	107.7	115.1	110.1	115.9	115.8
442	Furniture and home furnishings stores	75.1	79.0	100.0	104.1	110.8	115.9	122.4	129.3	134.6	146.7	151.4	162.6
4421	Furniture stores	77.3	84.8	100.0	104.3	107.5	112.0	119.7	125.2	128.8	139.2	143.4	155.5
4422	Home furnishings stores	71.3	71.0	100.0	104.1	115.2	121.0	126.1	134.9	142.6	156.8	161.9	172.6
443	Electronics and appliance stores	38.0	47.7	100.0	122.6	150.6	173.7	196.7	233.5	292.7	334.1	369.6	416.2
444	Building material and garden supply stores	75.8	79.5	100.0	107.4	113.8	113.3	116.8	120.8	127.1	134.5	134.9	143.6
4441	Building material and supplies dealers	77.6	81.6	100.0	108.3	115.3	115.1	116.7	121.3	127.5	134.0	134.9	142.9
4442	Lawn and garden equipment and supplies stores	66.9	69.0	100.0	102.3	105.5	103.1	118.4	118.3	125.7	140.1	135.6	150.1
445	Food and beverage stores	110.8	107.4	100.0	99.9	101.9	101.0	103.8	104.7	107.2	112.9	118.3	122.1
4451	Grocery stores	111.1	106.9	100.0	99.6	102.5	101.1	103.3	104.8	106.7	112.2	117.1	119.2
4452	Specialty food stores	138.5	127.2	100.0	100.5	96.4	98.5	108.2	105.3	112.2	120.3	127.7	153.3
4453	Beer, wine, and liquor stores	93.6	97.6	100.0	104.6	99.1	105.7	107.1	110.1	117.0	127.8	141.8	148.8
446	Health and personal care stores	84.0	91.0	100.0	104.0	107.1	112.2	116.2	122.9	129.5	134.3	133.2	139.7
4461	Health and personal care stores	84.0	91.0	100.0	104.0	107.1	112.2	116.2	122.9	129.5	134.3	133.2	139.7
447	Gasoline stations	83.9	84.2	100.0	106.7	110.7	107.7	112.9	125.1	119.9	122.2	124.6	121.8
4471	Gasoline stations	83.9	84.2	100.0	106.7	110.7	107.7	112.9	125.1	119.9	122.2	124.6	121.8
448	Clothing and clothing accessories stores	66.3	69.8	100.0	106.3	114.0	123.5	126.4	131.3	138.9	139.1	147.8	163.3
4481	Clothing stores	67.1	70.0	100.0	108.7	114.2	125.0	130.3	136.0	141.8	140.9	153.1	169.9
4482	Shoe stores	65.3	70.8	100.0	94.2	104.9	110.0	111.5	125.2	132.5	124.8	132.9	149.3
4483	Jewelry, luggage, and leather goods stores	64.5	68.1	100.0	108.7	122.5	130.5	123.9	118.7	132.9	144.3	139.0	148.8
451	Sporting goods, hobby, book, and music stores	74.9	82.3	100.0	107.9	114.0	121.1	127.1	127.6	131.5	151.1	164.8	175.3
4511	Sporting goods and musical instrument stores	73.2	82.2	100.0	111.5	119.8	129.4	134.5	136.0	141.1	166.0	181.7	203.1
4512	Book, periodical, and music stores	78.9	82.3	100.0	101.0	103.2	105.8	113.0	111.6	113.7	123.6	133.7	124.9
452	General merchandise stores	73.5	75.1	100.0	105.3	113.4	120.2	124.8	129.1	136.9	140.7	145.0	152.3
4521	Department stores	87.2	83.9	100.0	100.4	104.5	106.2	103.8	102.0	106.8	109.0	109.9	113.1
4529	Other general merchandise stores	54.8	61.2	100.0	114.7	131.0	147.3	164.7	179.3	188.8	192.9	199.7	210.4
453	Miscellaneous store retailers	65.1	69.5	100.0	108.9	111.3	114.1	112.6	119.1	126.1	130.8	142.0	159.3
4531	Florists	77.6	73.3	100.0	102.3	116.2	115.2	102.7	113.8	108.9	103.4	120.6	125.3
4532	Office supplies, stationery and gift stores	61.4	66.4	100.0	111.5	119.2	127.3	132.3	141.5	153.9	172.8	187.9	215.5
4533	Used merchandise stores	64.5	70.4	100.0	119.1	113.4	116.5	121.9	142.0	149.7	152.6	159.5	166.6
4539	Other miscellaneous store retailers	68.3	75.0	100.0	105.3	103.0	104.4	96.9	94.4	99.9	96.9	103.5	118.5
454	Nonstore retailers	50.7	54.7	100.0	114.3	128.9	152.2	163.6	182.1	195.5	215.5	218.4	256.3
4541	Electronic shopping and mail-order houses	39.4	43.4	100.0	120.2	142.6	160.2	179.6	212.7	243.6	273.0	285.2	337.1
4542	Vending machine operators	95.5	95.1	100.0	106.3	105.4	111.1	95.7	91.2	102.3	110.5	105.1	110.7
4543	Direct selling establishments	70.8	74.1	100.0	101.9	104.2	122.5	127.9	135.0	127.0	130.3	121.5	135.6
	Transportation and warehousing												
481	Air transportation	81.1	77.5	100.0	97.6	98.2	98.1	91.9	102.1	112.8	126.9	135.5	142.5
482111	Line-haul railroads	58.9	69.8	100.0	102.1	105.5	114.3	121.9	131.9	142.0	146.4	138.4	142.8
48412	General freight trucking, long-distance	85.7	89.2	100.0	99.4	99.1	101.9	103.2	107.0	110.7	110.7	113.2	112.3
48421	Used household and office goods moving	106.7	112.6	100.0	91.0	96.1	94.8	84.0	81.6	86.2	88.6	88.3	87.0
491	U.S. Postal service	90.9	94.2	100.0	101.6	102.8	105.5	106.3	106.4	107.8	110.0	111.2	111.3
4911	U.S. Postal service	90.9	94.2	100.0	101.6	102.8	105.5	106.3	106.4	107.8	110.0	111.2	111.3
492	Couriers and messengers	148.3	138.5	100.0	112.6	117.6	121.9	123.4	131.1	134.0	126.8	125.1	128.6
493	Warehousing and storage	-	-	100.0	106.4	107.7	109.3	115.3	122.1	124.8	122.5	124.9	122.3
4931	Warehousing and storage	-	-	100.0	106.4	107.7	109.3	115.3	122.1	124.8	122.5	124.9	122.3
49311	General warehousing and storage	-	-	100.0	112.1	112.9	115.8	126.3	136.1	138.9	131.0	132.2	127.9
49312	Refrigerated warehousing and storage	-	-	100.0	97.9	103.4	95.4	85.4	87.2	92.3	99.3	97.5	88.5
	Information												
511	Publishing industries, except internet	64.1	67.1	100.0	116.1	116.3	117.1	116.6	117.2	126.4	130.7	136.5	142.7
5111	Newspaper, book, and directory publishers	105.0	95.5	100.0	103.9	104.1	107.7	105.8	104.7	109.5	106.6	107.6	110.8

50. Continued - Annual indexes of output per hour for selected NAICS industries, 1987-2006

[1997=100]

NAICS	Industry	1987	1990	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
5112	Software publishers	10.2	28.5	100.0	134.8	129.2	119.2	117.4	122.1	138.1	160.6	173.7	177.0
51213	Motion picture and video exhibition	90.7	109.2	100.0	99.8	101.8	106.5	101.6	99.8	100.4	103.6	102.4	105.7
515	Broadcasting, except internet	99.5	98.2	100.0	100.8	102.9	103.6	99.2	104.0	107.9	112.5	117.7	125.5
5151	Radio and television broadcasting	98.1	97.7	100.0	91.5	92.6	92.1	89.6	95.1	94.6	96.6	100.9	109.5
5152	Cable and other subscription programming	105.6	100.3	100.0	136.2	139.1	141.2	128.1	129.8	146.0	158.7	164.6	169.9
5171	Wired telecommunications carriers	56.9	66.0	100.0	107.7	116.7	122.7	116.7	124.1	130.5	131.7	138.2	146.2
5172	Wireless telecommunications carriers	75.6	70.4	100.0	110.5	145.2	152.8	191.9	217.9	242.6	292.2	381.9	435.9
5175	Cable and other program distribution	105.2	100.0	100.0	97.1	95.8	91.6	87.7	95.0	101.3	113.8	110.6	110.6
	Finance and insurance												
52211	Commercial banking	72.8	80.7	100.0	97.0	99.8	102.7	99.6	102.1	103.6	108.4	108.5	114.2
	Real estate and rental and leasing												
532111	Passenger car rental	92.7	90.8	100.0	100.1	112.2	112.3	111.1	114.6	121.1	118.2	110.2	111.8
53212	Truck, trailer, and RV rental and leasing	60.3	68.5	100.0	115.4	120.9	121.7	113.5	114.0	115.8	136.6	145.1	162.2
53223	Video tape and disc rental	77.0	97.1	100.0	113.2	129.4	134.9	133.3	130.3	148.5	154.5	144.2	176.4
	Professional and technical services												
541213	Tax preparation services	82.9	76.2	100.0	107.6	105.8	100.9	94.4	111.4	110.0	99.9	103.6	99.7
54131	Architectural services	90.0	93.8	100.0	111.4	106.8	107.6	111.0	107.6	112.6	118.3	120.8	119.1
54133	Engineering services	90.2	99.4	100.0	98.2	98.0	102.0	100.1	100.5	100.5	107.8	115.4	116.2
54181	Advertising agencies	95.9	107.9	100.0	89.2	97.9	107.5	106.9	113.1	121.1	133.4	131.5	132.8
541921	Photography studios, portrait	98.1	95.9	100.0	124.8	109.8	108.9	102.2	97.6	104.1	93.0	93.5	95.3
	Administrative and waste services												
56131	Employment placement agencies	-	-	100.0	86.8	93.2	89.8	99.6	116.8	115.4	119.8	115.9	122.9
56151	Travel agencies	89.3	94.6	100.0	111.4	115.5	119.4	115.2	127.6	147.2	167.2	182.4	189.9
56172	Janitorial services	75.1	94.3	100.0	95.3	98.6	101.0	102.1	105.6	118.8	116.6	121.5	115.6
	Health care and social assistance												
6215	Medical and diagnostic laboratories	-	-	100.0	118.8	124.7	131.9	135.3	137.6	140.8	140.8	137.9	140.1
621511	Medical laboratories	-	-	100.0	117.2	121.4	127.4	127.7	123.1	128.6	130.7	126.0	128.2
621512	Diagnostic imaging centers	-	-	100.0	121.4	129.7	139.9	148.3	163.3	160.0	153.5	154.0	156.3
	Arts, entertainment, and recreation												
71311	Amusement and theme parks	112.0	112.5	100.0	110.5	105.2	106.0	93.0	106.5	113.2	101.4	109.9	97.7
71395	Bowling centers	106.0	94.0	100.0	89.9	89.4	93.4	94.3	96.4	102.4	107.9	106.1	110.6
	Accommodation and food services												
7211	Traveler accommodation	85.1	81.9	100.0	100.1	105.6	111.8	107.6	112.1	114.4	120.4	115.0	111.8
722	Food services and drinking places	96.0	102.4	100.0	101.0	100.9	103.5	103.8	104.4	106.3	107.0	108.2	110.9
7221	Full-service restaurants	92.1	99.4	100.0	100.9	100.8	103.0	103.6	104.4	104.2	104.8	105.6	108.6
7222	Limited-service eating places	96.5	103.6	100.0	101.2	100.4	102.0	102.5	102.7	105.4	106.8	107.8	111.2
7223	Special food services	89.9	99.8	100.0	100.6	105.2	115.0	115.3	114.9	117.6	118.0	119.2	116.4
7224	Drinking places, alcoholic beverages	136.7	123.3	100.0	99.7	98.8	100.6	97.6	102.9	118.6	112.2	121.1	124.2
	Other services												
8111	Automotive repair and maintenance	85.9	89.9	100.0	103.6	106.1	109.4	108.9	103.7	104.1	112.0	111.9	112.8
81211	Hair, nail, and skin care services	83.5	82.1	100.0	108.6	108.6	108.2	114.6	110.4	119.7	125.0	129.9	122.3
81221	Funeral homes and funeral services	103.7	98.4	100.0	106.8	103.3	94.8	91.8	94.6	95.7	92.9	93.2	99.7
8123	Drycleaning and laundry services	97.1	94.8	100.0	100.1	105.0	107.6	110.9	112.5	103.8	110.6	120.5	119.6
81292	Photofinishing	95.8	107.7	100.0	69.3	76.3	73.8	81.2	100.5	100.5	102.0	112.4	114.4

NOTE: Dash indicates data are not available.

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

[Percent]

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

NOTE: Dash indicates data not available.

Quarterly figures for France, Germany, Italy, and the Netherlands are calculated by applying annual adjustment factors to current published data and therefore should be viewed as less precise indicators of unemployment under U.S. concepts than the annual figures. Quarterly figures for Sweden are BLS seasonally adjusted estimates derived from Swedish not seasonally adjusted data.

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

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

[Numbers in thousands]

Employment status and country	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Civilian labor force											
United States	136,297	137,673	139,368	142,583	143,734	144,863	146,510	147,401	149,320	151,428	153,124
Canada	14,884	15,135	15,403	15,637	15,891	16,366	16,733	16,955	17,108	17,351	17,696
Australia	9,204	9,339	9,414	9,590	9,744	9,893	10,079	10,221	10,506	10,699	10,948
Japan	67,200	67,240	67,090	66,990	66,860	66,240	66,010	65,770	65,850	65,960	66,080
France	25,116	25,434	25,791	26,099	26,393	26,646	26,851	26,937	27,092	27,322	27,509
Germany	39,415	39,752	39,375	39,302	39,459	39,413	39,276	39,711	40,760	41,250	-
Italy	22,753	23,004	23,176	23,361	23,524	23,728	24,020	24,084	24,179	24,395	24,459
Netherlands	7,612	7,744	7,881	8,052	8,199	8,345	8,379	8,439	8,459	8,541	8,686
Sweden	4,414	4,401	4,423	4,482	4,522	4,537	4,557	4,571	4,694	4,748	4,823
United Kingdom	28,401	28,474	28,777	28,952	29,085	29,337	29,559	29,791	30,126	30,586	30,774
Participation rate[1]											
United States	67.1	67.1	67.1	67.1	66.8	66.6	66.2	66.0	66.0	66.2	66.0
Canada	65.1	65.4	65.9	66.0	66.1	67.1	67.7	67.7	67.4	67.4	67.7
Australia	64.3	64.3	64.0	64.4	64.4	64.3	64.6	64.6	65.3	65.6	66.0
Japan	63.2	62.8	62.4	62.0	61.6	60.8	60.3	60.0	60.0	60.0	60.0
France	55.6	56.0	56.3	56.6	56.7	56.8	56.8	56.6	56.5	56.6	56.7
Germany	57.3	57.7	56.9	56.7	56.7	56.4	56.0	56.4	57.6	58.2	-
Italy	47.3	47.7	47.9	48.1	48.3	48.5	49.1	49.1	48.7	48.9	48.6
Netherlands	61.1	61.8	62.5	63.4	64.0	64.7	64.6	64.8	64.7	65.1	65.9
Sweden	63.2	62.8	62.7	63.7	63.6	63.9	63.8	63.6	64.8	65.0	65.3
United Kingdom	62.5	62.5	62.8	62.9	62.7	62.9	63.0	63.0	63.1	63.5	63.4
Employed											
United States	129,558	131,463	133,488	136,891	136,933	136,485	137,736	139,252	141,730	144,427	146,047
Canada	13,637	13,973	14,331	14,681	14,866	15,223	15,586	15,861	16,080	16,393	16,767
Australia	8,444	8,618	8,762	8,989	9,086	9,264	9,480	9,668	9,975	10,186	10,470
Japan	64,900	64,450	63,920	63,790	63,460	62,650	62,510	62,640	62,910	63,210	63,510
France	22,176	22,597	23,080	23,714	24,167	24,312	24,373	24,354	24,493	24,717	25,135
Germany	35,508	36,059	36,042	36,236	36,350	36,018	35,615	35,604	36,185	36,978	-
Italy	20,169	20,370	20,617	20,973	21,359	21,666	21,972	22,124	22,290	22,721	22,953
Netherlands	7,189	7,408	7,605	7,813	8,014	8,114	8,069	8,052	8,056	8,205	8,408
Sweden	3,969	4,033	4,110	4,222	4,295	4,303	4,293	4,271	4,334	4,416	4,530
United Kingdom	26,413	26,686	27,051	27,368	27,599	27,813	28,075	28,372	28,665	28,917	29,120
Employment-population ratio[2]											
United States	63.8	64.1	64.3	64.4	63.7	62.7	62.3	62.3	62.7	63.1	63.0
Canada	59.6	60.4	61.3	62.0	61.9	62.4	63.1	63.3	63.4	63.6	64.2
Australia	59.0	59.3	59.6	60.3	60.0	60.2	60.7	61.1	62.0	62.5	63.1
Japan	61.0	60.2	59.4	59.0	58.4	57.5	57.1	57.1	57.3	57.5	57.6
France	49.1	49.7	50.4	51.4	51.9	51.8	51.5	51.1	51.1	51.2	51.8
Germany	51.6	52.3	52.1	52.2	52.2	51.5	50.8	50.6	51.2	52.2	-
Italy	41.9	42.2	42.6	43.2	43.8	44.3	44.9	45.1	44.9	45.5	45.6
Netherlands	57.7	59.1	60.3	61.5	62.6	62.9	62.2	61.8	61.6	62.5	63.8
Sweden	56.8	57.6	58.3	60.0	60.4	60.6	60.1	59.4	59.9	60.4	61.3
United Kingdom	58.2	58.5	59.1	59.4	59.5	59.6	59.8	60.0	60.1	60.1	60.0
Unemployed											
United States	6,739	6,210	5,880	5,692	6,801	8,378	8,774	8,149	7,591	7,001	7,078
Canada	1,248	1,162	1,072	956	1,026	1,143	1,147	1,093	1,028	958	929
Australia	759	721	652	602	658	629	599	553	531	512	478
Japan	2,300	2,790	3,170	3,200	3,400	3,590	3,500	3,130	2,940	2,750	2,570
France	2,940	2,837	2,711	2,385	2,226	2,334	2,478	2,583	2,599	2,605	2,374
Germany	3,907	3,693	3,333	3,065	3,110	3,396	3,661	4,107	4,575	4,272	-
Italy	2,584	2,634	2,559	2,388	2,164	2,062	2,048	1,960	1,889	1,673	1,506
Netherlands	423	337	277	239	186	231	310	387	402	336	278
Sweden	445	368	313	260	227	234	264	300	361	332	293
United Kingdom	1,987	1,788	1,726	1,584	1,486	1,524	1,484	1,419	1,462	1,669	1,654
Unemployment rate											
United States	4.9	4.5	4.2	4.0	4.7	5.8	6.0	5.5	5.1	4.6	4.6
Canada	8.4	7.7	7.0	6.1	6.5	7.0	6.9	6.4	6.0	5.5	5.3
Australia	8.3	7.7	6.9	6.3	6.8	6.4	5.9	5.4	5.1	4.8	4.4
Japan	3.4	4.1	4.7	4.8	5.1	5.4	5.3	4.8	4.5	4.2	3.9
France	11.7	11.2	10.5	9.1	8.4	8.8	9.2	9.6	9.6	9.5	8.6
Germany	9.9	9.3	8.5	7.8	7.9	8.6	9.3	10.3	11.2	10.4	8.7
Italy	11.4	11.5	11.0	10.2	9.2	8.7	8.5	8.1	7.8	6.9	6.2
Netherlands	5.6	4.4	3.5	3.0	2.3	2.8	3.7	4.6	4.8	3.9	3.2
Sweden	10.1	8.4	7.1	5.8	5.0	5.2	5.8	6.6	7.7	7.0	6.1
United Kingdom	7.0	6.3	6.0	5.5	5.1	5.2	5.0	4.8	4.9	5.5	5.4

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

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

NOTE: Dash indicates data not available.

There are breaks in series for the United States (1998, 1999, 2000, 2003, 2004), Australia (2001), Germany (1999, 2005), the Netherlands (2000), and Sweden (2005). For further qualifications and historical annual data, see the BLS report *Comparative Civilian Labor Force Statistics, 10 Countries* (on the Internet at **http://www.bls.gov/fls/flscomparelf.htm**). Unemployment rates may differ from those in the BLS report *Unemployment rates in 10 countries, civilian labor force basis, approximating U.S. concepts, seasonally adjusted* (on the Internet at **http://www.bls.gov/fls/flsjec.pdf**), because the former is updated semi-annually, whereas the latter is updated monthly and reflects the most recent revisions in source data.

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

[1992 = 100]

Measure and economy	1980	1990	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Output per hour																
United States	68.4	93.5	102.8	108.2	112.3	116.7	121.7	130.1	136.7	147.1	148.6	164.4	174.8	185.3	189.4	193.2
Canada	74.0	94.7	104.5	110.4	111.7	111.2	116.3	121.8	127.0	134.7	131.8	134.1	134.4	136.5	141.7	141.6
Australia	68.5	92.4	104.5	107.0	106.4	112.3	115.4	118.5	119.7	128.1	131.4	137.1	140.1	142.3	143.7	144.1
Japan	63.6	94.4	101.7	103.3	111.0	116.1	120.2	121.3	124.5	131.2	128.4	133.1	142.2	152.1	162.0	165.1
Korea	–	82.7	108.3	118.1	129.7	142.6	160.8	179.3	199.4	216.4	214.8	235.8	252.2	281.2	300.4	332.7
Taiwan	49.1	89.8	101.3	105.2	112.9	121.5	126.5	132.7	140.9	148.4	155.1	169.0	174.5	183.2	196.5	209.9
Belgium	65.4	96.8	102.5	107.9	112.7	114.3	125.5	127.1	125.9	130.5	131.8	136.2	139.5	145.8	150.3	153.6
Denmark	82.0	98.5	100.3	112.7	112.7	109.0	117.7	117.1	119.0	123.2	123.4	124.2	129.3	136.8	138.3	145.4
France	66.0	95.3	101.8	109.5	114.9	115.5	122.3	128.7	134.4	143.7	146.0	152.0	158.7	162.3	169.2	175.4
Germany	77.2	99.0	101.0	108.5	110.2	113.3	119.9	120.4	123.4	132.0	135.4	136.7	141.6	146.8	152.3	163.1
Italy	75.3	97.3	102.8	107.6	111.1	112.5	113.3	112.5	112.5	116.1	116.6	114.8	112.1	110.4	110.3	111.8
Netherlands	70.8	98.0	103.7	113.3	117.7	120.3	120.7	124.2	129.3	138.6	139.2	143.5	146.5	156.3	161.7	166.8
Norway	78.5	98.3	99.9	99.9	98.7	101.6	101.8	99.2	102.7	105.9	108.8	111.9	121.6	128.8	133.3	137.7
Spain	67.3	93.1	101.8	104.9	108.6	107.2	108.3	110.2	112.1	113.2	115.8	116.3	119.2	121.4	123.3	126.6
Sweden	78.3	96.4	107.8	118.9	126.3	130.5	142.4	150.8	164.7	175.9	170.9	189.6	205.0	226.8	241.0	255.2
United Kingdom	57.3	90.1	104.1	106.7	105.0	104.1	105.1	106.4	111.6	117.2	122.2	125.7	132.1	140.0	145.0	151.5
Output																
United States	73.6	98.2	104.2	112.2	117.3	121.6	129.0	137.7	143.7	152.7	144.2	148.2	149.9	158.2	159.8	164.5
Canada	85.6	106.7	105.4	113.5	118.7	120.3	127.8	134.3	145.5	160.1	153.9	155.2	154.0	157.5	160.1	158.5
Australia	89.8	104.2	103.8	109.1	108.5	111.9	114.5	117.8	117.5	123.1	121.9	127.8	130.1	130.1	130.3	128.7
Japan	60.8	97.1	96.3	94.9	98.9	103.0	105.6	100.1	99.7	104.9	99.1	97.6	102.8	108.8	114.4	119.4
Korea	28.6	88.1	105.1	117.1	130.8	139.2	146.0	134.5	163.7	191.5	195.7	210.5	222.2	246.8	264.3	286.5
Taiwan	45.4	91.0	100.9	106.9	112.7	118.7	125.5	129.5	139.0	149.2	138.1	150.4	158.4	173.8	185.3	198.7
Belgium	78.2	101.0	97.0	101.4	104.2	104.6	113.2	115.1	115.2	120.1	120.1	119.2	117.6	121.9	121.6	124.9
Denmark	92.0	101.7	97.0	107.5	112.7	107.5	116.3	117.2	118.2	122.5	122.5	119.0	115.7	117.5	113.8	120.0
France	88.3	100.5	96.6	100.7	105.2	105.2	110.1	115.4	119.3	124.8	126.0	125.9	128.3	129.4	131.2	133.2
Germany	85.3	99.1	92.0	94.9	94.0	92.0	96.1	97.2	98.2	104.8	106.6	104.4	105.1	108.9	110.4	116.9
Italy	81.0	100.5	97.6	104.1	109.1	107.8	109.6	109.9	109.6	112.9	111.8	110.4	107.8	106.4	103.7	107.6
Netherlands	77.7	98.3	99.4	104.7	108.6	110.2	111.7	115.5	119.8	127.8	127.6	127.7	126.2	130.6	130.6	133.7
Norway	105.7	101.7	102.0	104.7	105.2	109.4	114.1	113.3	113.2	112.6	111.8	111.2	114.9	121.4	126.8	132.4
Spain	78.6	98.4	96.1	97.8	101.5	104.0	110.7	117.4	124.1	129.6	133.7	133.5	135.2	136.0	137.4	141.3
Sweden	92.4	110.7	102.0	117.8	133.3	137.7	148.4	160.7	175.8	190.2	185.8	197.5	207.1	226.2	236.6	248.8
United Kingdom	87.3	105.3	101.4	106.2	107.9	108.6	110.6	111.3	112.3	115.0	113.5	110.5	110.7	113.0	111.6	113.2
Total hours																
United States	107.6	104.9	101.3	103.7	104.4	104.2	106.0	105.8	105.1	103.8	97.0	90.1	85.7	85.4	84.4	85.1
Canada	115.8	112.6	100.9	102.8	106.3	108.1	109.9	110.2	114.5	118.9	116.7	115.8	114.6	115.4	112.9	112.0
Australia	131.1	112.7	99.3	102.0	101.9	99.7	99.2	99.4	98.2	96.0	92.8	93.2	92.8	91.4	90.7	89.3
Japan	95.5	102.9	94.7	91.9	89.1	88.8	87.9	82.5	80.0	80.0	77.2	73.3	72.3	71.5	70.6	72.3
Korea	–	106.4	97.1	99.2	100.9	97.6	90.8	75.0	82.1	88.5	91.1	89.3	88.1	87.8	88.0	86.1
Taiwan	92.4	101.4	99.6	101.7	99.8	97.7	99.2	97.6	98.7	100.5	89.0	89.0	90.8	94.9	94.3	94.6
Belgium	119.7	104.3	94.7	94.0	92.4	91.5	90.2	90.5	91.5	92.1	91.2	87.5	84.3	83.6	80.9	81.3
Denmark	112.1	103.3	96.8	95.4	100.0	98.6	98.8	100.1	99.4	99.4	99.3	95.8	89.5	85.9	82.3	82.5
France	133.8	105.5	94.8	91.9	91.6	91.0	90.1	89.7	88.7	86.8	86.3	82.8	80.8	79.7	77.5	75.9
Germany	110.5	100.1	91.1	87.5	85.3	81.3	80.1	80.8	79.6	79.4	78.7	76.4	74.3	74.2	72.5	71.7
Italy	107.6	103.3	95.0	96.8	98.2	95.8	96.7	97.7	97.4	97.2	95.9	96.2	96.1	96.4	94.1	96.2
Netherlands	109.8	100.4	95.9	92.5	92.3	91.6	92.6	93.0	92.7	92.2	91.7	89.0	86.2	83.5	80.8	80.2
Norway	134.7	103.4	102.1	104.8	106.6	107.7	112.1	114.2	110.3	106.4	102.7	99.3	94.4	94.2	95.1	96.1
Spain	116.7	105.7	94.4	93.2	93.5	97.0	102.2	106.5	110.7	114.4	115.4	114.8	113.4	112.1	111.5	111.6
Sweden	118.0	114.8	94.7	99.1	105.6	105.6	104.3	106.5	106.7	108.1	108.7	104.2	101.1	99.7	98.2	97.5
United Kingdom	152.3	116.9	97.4	99.5	102.7	104.4	105.2	104.6	100.6	98.1	92.9	88.0	83.8	80.7	77.0	74.7
Hourly compensation (national currency basis)																
United States	55.9	90.5	102.0	105.3	107.3	109.3	112.2	118.7	123.4	134.7	137.8	147.8	158.2	161.5	168.3	172.4
Canada	47.4	89.2	101.2	104.1	106.6	108.2	110.9	116.6	119.0	123.0	126.3	130.5	135.8	139.8	146.6	149.4
Australia	–	87.5	105.2	106.1	113.5	121.7	126.0	128.4	132.9	140.2	149.2	156.0	162.7	171.7	182.2	192.7
Japan	58.6	90.6	102.7	104.7	108.3	109.1	112.7	115.5	115.4	114.7	116.2	117.0	114.5	115.5	116.5	114.9
Korea	–	68.0	115.9	133.1	161.6	188.1	204.5	222.7	223.9	239.1	246.7	271.6	285.0	325.5	351.5	375.5
Taiwan	29.6	85.2	105.9	111.1	120.2	128.2	132.1	137.1	139.6	142.3	151.4	146.7	149.1	151.6	158.2	161.5
Belgium	52.5	90.1	104.8	105.6	108.6	110.6	114.7	116.5	118.0	120.1	126.4	131.9	135.8	138.7	143.5	146.5
Denmark	44.5	93.6	102.4	106.0	108.2	112.6	116.5	119.6	122.6	125.0	130.9	136.5	145.7	151.3	161.7	166.7
France	36.7	88.5	104.3	108.0	110.7	112.5	116.3	117.2	121.0	127.0	130.6	136.9	141.0	144.6	143.7	147.5
Germany	53.6	89.4	106.2	111.0	117.0	122.5	124.9	126.7	129.6	136.3	140.6	144.0	147.2	148.0	149.8	155.9
Italy	30.6	87.7	105.7	107.3	112.0	120.0	124.1	123.3	125.6	128.7	134.0	137.5	141.6	145.7	150.2	152.9
Netherlands	59.8	89.8	104.4	108.9	111.8	113.8	116.4	121.4	125.7	132.1	138.1	146.1	151.9	158.1	161.3	165.8
Norway	39.0	92.3	101.5	104.5	109.2	113.8	118.8	125.8	133.0	140.5	148.9	157.9	164.3	169.7	177.7	185.8
Spain	28.0	79.9	109.4	113.4	118.3	121.1	124.0	124.9	124.7	126.6	131.6	135.4	142.2	147.1	152.8	157.4
Sweden	37.4	87.9	97.4	99.9	105.3	113.5	119.6	124.2	128.1	133.0	139.4	146.9	153.5	157.6	163.0	169.2
United Kingdom	35.8	88.7	104.5	107.0	108.9	108.7	112.3	121.2	128.3	133.8	140.7	149.0	156.9	165.1	172.3	184.2

See notes at end of table.

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

Measure and economy	1980	1990	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Unit labor costs (national currency basis)																
United States	81.8	96.7	99.2	97.3	95.5	93.7	92.2	91.2	90.3	91.6	92.7	89.9	90.5	87.2	88.9	89.3
Canada	64.1	94.2	96.9	94.3	95.4	97.3	95.4	95.7	93.7	91.3	95.8	97.4	101.0	102.4	103.4	105.5
Australia	–	94.6	100.6	99.2	106.6	108.4	109.2	108.4	111.0	109.4	113.6	113.8	116.1	120.7	126.8	133.7
Japan	92.1	95.9	101.0	101.4	97.6	94.0	93.8	95.2	92.7	87.4	90.5	87.9	80.5	76.0	71.9	69.6
Korea	44.4	82.1	107.0	112.7	124.6	131.9	127.1	124.2	112.3	110.5	114.8	115.2	113.0	115.8	117.0	112.8
Taiwan	60.3	94.9	104.6	105.6	106.5	105.5	104.5	103.4	99.1	95.9	97.6	86.8	85.5	82.7	80.5	76.9
Belgium	80.3	93.0	102.3	97.9	96.4	96.8	91.4	91.6	93.7	92.0	95.9	96.9	97.3	95.1	95.5	95.4
Denmark	54.3	95.0	102.2	94.1	96.0	103.3	98.9	102.1	103.0	101.4	106.1	109.9	112.7	110.6	116.9	114.6
France	55.6	92.8	102.4	98.6	96.3	97.4	95.0	91.0	90.0	88.4	89.4	90.1	88.9	89.1	85.0	84.1
Germany	69.4	90.3	105.2	102.4	106.2	108.2	104.2	105.2	105.1	103.3	103.8	105.3	104.0	100.8	98.3	95.6
Italy	40.7	90.2	102.9	99.8	100.8	106.6	109.5	109.6	111.7	110.9	114.9	119.8	126.3	132.0	136.2	136.7
Netherlands	84.5	91.7	100.7	96.2	95.0	94.6	96.5	97.7	97.3	95.3	99.2	101.8	103.7	101.2	99.8	99.4
Norway	49.7	93.9	101.6	104.6	110.7	112.0	116.7	126.7	129.5	132.7	136.8	141.0	135.1	131.7	133.3	134.9
Spain	41.5	85.8	107.4	108.1	108.9	112.9	114.5	113.4	111.2	111.8	113.6	116.4	119.3	121.2	124.0	124.3
Sweden	47.7	91.2	90.4	84.0	83.4	87.0	84.0	82.3	77.7	75.6	81.6	77.5	74.9	69.5	67.7	66.3
United Kingdom	62.4	98.5	100.4	100.2	103.7	104.4	106.8	113.9	115.0	114.2	115.1	118.6	118.8	117.9	118.8	121.6
Unit labor costs (U.S. dollar basis)																
United States	81.8	96.7	99.2	97.3	95.5	93.7	92.2	91.2	90.3	91.6	92.7	89.9	90.5	87.2	88.9	89.3
Canada	66.3	97.5	90.7	83.4	84.0	86.3	83.2	77.9	76.2	74.3	74.8	74.9	87.2	95.1	103.2	112.4
Australia	–	100.5	93.0	98.7	107.4	115.4	110.4	92.7	97.5	86.5	79.8	84.1	103.0	120.9	131.5	137.0
Japan	51.5	83.9	115.3	125.8	131.7	109.5	98.3	92.2	103.3	102.8	94.3	89.0	88.0	89.0	82.8	75.8
Korea	57.3	90.7	104.2	109.6	126.5	128.6	105.3	69.6	74.0	76.7	69.7	72.3	74.4	79.3	89.7	92.8
Taiwan	42.1	88.7	99.6	100.4	101.1	96.7	91.3	77.5	77.2	77.2	72.6	63.2	62.5	62.4	63.0	59.5
Belgium	88.3	89.5	95.1	94.2	105.2	100.4	82.1	81.1	79.6	67.7	68.4	73.0	87.8	94.3	94.7	95.5
Denmark	58.1	92.7	95.1	89.4	103.5	107.6	90.4	92.0	89.0	75.6	76.9	84.2	103.4	111.5	117.7	116.5
France	69.6	90.2	95.7	94.1	102.2	100.7	86.2	81.7	77.4	65.8	64.6	68.7	81.2	89.5	85.4	85.3
Germany	59.6	87.3	99.3	98.6	115.8	112.3	93.8	93.4	89.4	76.2	74.2	79.5	94.0	100.1	97.8	95.9
Italy	58.5	92.7	80.6	76.3	76.2	85.2	79.2	77.7	75.7	65.1	65.5	72.1	91.0	104.5	107.9	109.3
Netherlands	74.8	88.5	95.2	93.0	104.1	98.6	86.9	86.6	82.7	70.2	70.9	76.8	93.7	100.4	99.1	99.7
Norway	62.6	93.3	88.9	92.1	108.6	107.7	102.3	104.3	103.1	93.6	94.5	109.8	118.6	121.4	128.6	130.8
Spain	59.3	86.2	86.3	82.6	89.5	91.3	80.0	77.7	72.9	63.5	62.6	67.7	83.1	92.8	95.0	96.1
Sweden	65.7	89.7	67.5	63.4	68.0	75.6	64.0	60.3	54.7	48.0	46.0	46.4	54.0	55.1	52.8	52.4
United Kingdom	82.2	99.5	85.3	86.9	92.7	92.3	99.0	106.9	105.3	98.0	93.8	100.9	109.9	122.4	122.5	126.9

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

54. Occupational injury and illness rates by industry,[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 Classification Manual*, 1987 Edition. For this reason, they are not strictly comparable with data for the years 1985–88, which were based on the *Standard Industrial Classification Manual*, 1972 Edition, 1977 Supplement.

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

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

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

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

NOTE: Dash indicates data not available.

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.

Work Schedules in the National Compensation Survey

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Work schedules in the United States are generally viewed as consisting of an 8-hour day and a 40-hour week. But the National Compensation Survey (NCS) covers many occupations that have different types of work schedules: fire fighters, for example, who often work 24 straight hours followed by 48 hours off; truck drivers, many of whom spend days at a time on the road; waiters and waitresses, whose schedules may vary every week; and school teachers, who tend to work many hours at home. Fitting all of these different schedules into a common form for data publication can be challenging.

The National Compensation Survey (NCS) produces data on occupational earnings, compensation cost trends--the Employment Cost Index (ECI) and the Employer Cost for Employee Compensation (ECEC) series--and benefits. The wage and benefit data collected from NCS respondents come in several time frames: hourly, weekly, biweekly, monthly, or annually. Converting the raw data into a common format requires accurate work schedules. This article explains how the NCS calculates these work schedules and the role that they play in the calculation of the published data series.

Definition Of The Work Schedule

The NCS work schedule is defined as, "The number of daily hours, weekly hours, and annual weeks that employees in an occupation are scheduled and do work." The work schedule is the standard schedule for the occupation; short-term fluctuations and one-time events are not considered unless the change becomes permanent. For example, paid or unpaid time off due to a snowstorm would not result in the adjustment of the work schedule because this would not represent a permanent change. Paid lunch periods are included in the work schedule, as is incidental time off, such as coffee breaks, or wash-up time. Vacation, holidays, sick leave, and other kinds of leave hours are included in the work schedule, but they are subtracted when calculating the number of hours worked in a year.

Overtime hours are hours worked beyond the normal work schedule and are collected separately for nonexempt employees and any exempt employees the employer chooses to pay for overtime.[1] Nonexempt employees must be paid a premium for all time worked beyond 40 hours during a week.[2] Overtime pay for nonexempt employees is reported separately in the premium pay category; overtime hours are included in the calculation of annual hours worked, but they are not part of the work schedule. For exempt employees who are not paid a premium for work beyond 40 hours, "hours scheduled and worked" would include any time normally worked beyond 40 hours. Hours worked beyond the normal work schedules are not reported separately for exempt employees unless the employer chooses to compensate them for those hours.

The number of weeks worked per year is 52 in most cases. For employees of seasonal establishments, the NCS collects the number of weeks actually worked. For example, an amusement park in a cold weather environment might close between November and April. If employees in a job worked 8 hours per day, 40 hours per week, when the park was open, the work schedule is 8 hours per day, 40 hours per week, 26 weeks per year.[3] The job is considered full-time and seasonal. Any jobs at the park that required 52 weeks of work per year have a 52-week work schedule.

Annual scheduled hours and annual hours worked. The work schedule is used to calculate both "annual scheduled hours," which is a measure of the annual hours an employee is scheduled to work, and "annual hours worked," which is the number of hours actually worked during the year. Annual scheduled hours are calculated by multiplying scheduled weekly hours by scheduled annual weeks. Annual hours worked are calculated by adding any overtime hours worked to the annual scheduled hours and subtracting all leave hours taken. For example, consider a job in which the employees work 8 hours per day, 5 days per week, 52 weeks per year; and they work 60 hours of overtime (paid at time and one-half) and receive 3 weeks vacation, 7 paid holidays, 4 sick days and 2 personal days per year.[4] The calculation of annual hours worked is as follows:

Scheduled annual hours (40 hours × 52 weeks):	*2,080 hours*
+ Overtime hours:	*60 hours*
- Vacation time (40 hours × 3 weeks):	*120 hours*
- Holidays (8 hours × 7 days):	*56 hours*
- Sick days (8 hours × 4 days):	*32 hours*
- Personal days (8 hours × 2 days):	*16 hours*
= Annual hours worked:	***1,916 hours***

Calculating Wage And Benefit Costs Using Work Schedules

Wages and salaries. Wage and salary data are collected separately from work schedule data. The straight-time average hourly earnings are calculated from actual earnings and matching actual hours worked or paid in the collection reference period. If the hourly rate is available, no additional calculations are needed. The hours for a collection reference period may vary from what is normally scheduled. The calculation of straight-time hourly earnings for the reference period reflects short-term fluctuations in the work schedule; the calculation of the "permanent" work schedule does not reflect such fluctuations. For example, a sales worker who receives only commissions and had a biweekly commission of $600 but worked only 1 week during the period would receive straight-time average hourly earnings of $15.00 per hour ($600 ÷ 40 hours). If the $600 was divided by the normal work schedule, the straight-time average hourly earnings would be $7.50 ($600 ÷ 80 hours), which would be an understatement of the actual hourly earnings.[5]

Benefit costs. The ECI and ECEC publish data for a wide variety of benefits. The costs for these benefits may take different forms, such as monthly premiums, percent of gross earnings, or days of paid leave. These costs must be converted to a common cost form to allow for the calculation of individual benefit and total benefit costs across occupations, industries, and other publication categories in the survey. The NCS uses a cost-per-hour-worked concept as the common cost form. To convert all costs to a per-hour-worked basis, the cost of each benefit is converted to an annual cost and then divided by the number of annual hours worked.

The work schedule is used to calculate the annual cost of the benefits, annual gross earnings, and the annual hours worked for the job. Calculation of the annual benefit cost varies by the way the benefit is paid. In the work schedule for the example shown in which annual hours worked equal 1,916, assume the employer pays a premium for health insurance of $300 per month. The annual cost would be $3,600 ($300 × 12 months), and the cost per hour worked would be $1.88 ($3,600 ÷ 1,916 annual hours worked). If the job had a wage rate of $10 per hour, the total cost of 3 weeks of vacation would be $1,200 ($10.00 × 40 hours per week × 3 weeks per year) and the cost per hour worked would be $0.63 ($1,200 ÷ 1,916 annual hours worked). The annual cost of Medicare (1.45 percent × gross earnings[6]) is $ 314.65 and the cost per hour worked would be $0.164 ($314.65 ÷ 1916 annual hours worked).

Types Of Work Schedules

Work schedules fall into one of four types: fixed, flexible, rotating, and nonfixed. The various types of work schedules are discussed in the paragraphs that follow.

Fixed work schedules. Employees who work the same schedule on an ongoing basis are considered to be on a fixed schedule. For example, employees who work from 9:00 A.M. to 5:30 P.M. each day, with 30 minutes unpaid lunch, and who work Monday through Friday each week are on a fixed schedule. Their schedule is 8 hours per day, 40 hours per week (8 hours × 5 days) and 52 weeks per year.

Flexible work schedules. Flexible work schedules are very similar to fixed work schedules. Under a flexible work schedule, employees set their own hours, generally within guidelines and with a fixed number of total hours. For example, an individual

worker might be permitted to arrive and leave work at various times provided she or he works 40 hours between Monday and Friday and is at work during certain core hours. An individual might work 9 hours one day, 7 hours one day, and 8 hours the other three days. For NCS purposes, these short-term fluctuations are ignored and would be treated as an 8-hour day and a 40-hour week.

Rotating work schedules. Rotating work schedules have a fixed number of hours and time off over a period of more than 1 week but not a set weekly schedule. Rotating schedules are most common among occupations in establishments that operate 24 hours per day, 7 days per week, such as nurses, police officers, and firefighters. Calculation of these types of work schedules is complicated by the overtime provisions of the Fair Labor Standards Act.[7] For example, a common work schedule for firefighters is 24 hours on duty followed by 48 hours off duty. Over a 3-week period, they work 3 days in one week and 2 days in the other two weeks. Every 3 weeks, the rotation starts again. The total hours worked would be 168 over the 3-week cycle, which is an average of 56 hours per week.

In this example, the work schedule would actually be recorded in the NCS as 53 hours per week, because that is the maximum number of straight-time hours allowed for firefighters under the Fair Labor Standards Act. For nonexempt firefighters, the other 3 hours would be considered overtime, and the cost would be recorded as premium pay; the hours would be added to "annual hours worked," but not to the work schedule. This schedule would be 24 hours per day, 53 hours per week, and 52 weeks per year.

Nonfixed work schedules. Nonfixed work schedules are found in situations in which one job has multiple work schedules. In such cases, the varying schedules are often due to particular traits of individual workers or because the work required varies by individual. For the purposes of the NCS, the nonfixed work schedule recorded is often an average of the work schedules of the employees in the job and therefore may not reflect the actual work schedules of particular individuals in the job. The nonfixed schedules are grouped into three broad subcategories: multiple fixed schedules for a job, individualized schedules for each employee, and schedules based on additional requirements of the job.

1. *Multiple fixed schedules for a job*. This type of schedule is most common when there is a mixture of full-time and part-time employees in a job. An example would be a retail establishment that has full-time sales clerks who work 40 hours per week and part-time clerks who work 20 hours per week. The NCS does not mix part-time and full-time workers in the same job; full-time and part-time workers are classified in separate jobs in the NCS. If all of the full-time workers or all of the part-time workers have the same schedule, the schedule is treated as if it were a fixed schedule. If multiple schedules are present for the selected group, the NCS calculates an average work schedule.
2. *Individualized schedules for each employee*. Individualized schedules are based on employer need or on individual preferences. This type of scheduling occurs most frequently in food service and retail trade establishments, and for some occupations within the transportation industry. For example, a restaurant may have a given number of waiters and waitresses whose total hours and times of work may vary each week. Assignment of weekly hours would depend on the needs of the restaurant and employee preferences. It is possible in these situations that each employee in the occupation could have a different work schedule. Because the NCS does not mix full- and part-time employees in one job, if the job contained a mix of full- and part-time workers, the NCS would define it as two different jobs, one part-time and one full-time. The NCS would then calculate an average work schedule for all of the full-time employees or all of the part-time employees separately. For example, if a restaurant had five part-time waiters and waitresses who worked 24, 22, 20, 16, and 12 hours per week, respectively, the average work schedule would be 18.8 hours per week.[9] The daily number of hours would be the average weekly hours divided by the average number of days worked.

   Work schedules for over-the-road truck drivers may vary between individual drivers, as well as from week to week for individual drivers, based on transportation schedules and legal limits on the amount of time worked per day or week. Over-the-road truck drivers are generally paid by mileage, not hours worked, and it is difficult to collect the actual hours worked. If NCS is unable to collect the driver's actual hours worked, it uses the employer's best estimate instead, subject to the limits of Federal Highway Administration (FHA) regulations.[10] FHA regulations limit drivers to no

more than 60 hours per week if the company does not operate every day, 70 hours in any 8 consecutive days, and no more than 10 hours a day.

Work schedules for individual members of flight crews might vary every month, depending on flight assignments. These workers are paid an hourly rate when flying, but they also receive pay for time spent in other activities, such as training or ground travel between flights. Collection of pay data for these nonflying periods and the hours associated with this pay has been attempted in a field test and proven not to be feasible for regular collection.[11] In many cases, the hourly flight pay begins when the plane leaves the departure gate and ends when the plane pulls into the arrival gate. In these cases, time spent on pre- and post-flight activities is not compensated and is difficult to collect. As a result of these collection problems, the NCS collects only the hourly flight rate and the flight hours for flight crews.

3. *Additional requirements of the job*. Professional and managerial employees often work beyond the established work schedule of the employer due to the requirements of their jobs. Because such workers are exempt from the overtime provisions of the Fair Labor Standards Act, employers are not required to compensate them for the additional hours. If the hours worked are not compensated for, then they usually are not recorded. Collection of the actual hours normally worked would be the preferred way of determining the work schedule, but records of hours worked by exempt employees are usually not available. In most cases, the NCS collects the employer's best estimate of the hours normally worked by exempt employees. If the respondent is unwilling or unable to estimate the hours, then the normal work hours of other employees in the establishment are used.

   The actual hours worked by elementary and secondary school teachers (who are exempt) are often not available. Time spent in lesson preparation, test construction and grading, providing additional help to students, and other nonclassroom activities are not available and therefore not recorded. The NCS uses contract hours for teachers in determining the work schedule.[12] Contracts usually specify the length of the school day, the number of teaching and required nonteaching days, and the amount of time, if any, teachers are required to be in the school before and after school hours. These hours are used to construct the work schedule. For example, it is common for teacher contracts to specify that teachers will work 185 days per year. In these cases, the daily work schedule would be the length of the school day plus any time teachers are required to be in school before or after the school day, and the weekly work schedule would be the daily schedule multiplied by 5 days (Monday through Friday). The number of weeks would be 37 (185 days ÷ 5 days per week). The time not worked during summer, Christmas break, and spring break would be excluded from the work schedule and would not be considered vacation or holiday. Jobs in schools are not considered to be seasonal.

Summary

The work schedule is intended to reflect the hours of work performed in a particular job. In most cases, the actual schedule can be collected. There are times, however, when actual data are not available for a job. In those cases, the NCS attempts to collect the employer's best estimate of the work schedule. If the employer is unable or unwilling to make an estimate, the work schedule used is that of other similarly situated employees in the establishment, if available; if such a work schedule is not available, the job is not included in the calculation of NCS estimates.

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Notes

1 The Fair Labor Standards Act (FLSA) mandates that employers in covered establishments pay time and one-half for time worked beyond 40 hours in a week. Exempt employees, who are salaried and meet specified job content and weekly pay guidelines, are exempt from the overtime provisions. Exempt employees are generally supervisors or professional employees. Nonexempt employees are covered by the overtime provisions. They are hourly, nonsupervisory employees who make less than a specified weekly income (currently $455 per week).

Nonsupervisory salaried employees who make less than $455 per week may also be nonexempt. For more information on exemptions, see the U.S. Department of Labor's "Fair Labor Standards Act Advisor," on the Internet at http://www.dol.gov/elaws/esa/flsa/screen75.asp.

2 The 40-hour standard applies to most occupations, but there are specific occupations that may have different standards. For example, overtime is required for nonexempt police officers after 42 hours and nonexempt firefighters after 53 hours.

3 The number of weeks is calculated by multiplying the months open (6) by the number of weeks per month, 4.333: 6 × 4.333 = 25.999 (or 26) weeks. The number of weeks per month is calculated by dividing the total number of weeks (52) by the total number of months (12): 52 ÷ 12 = 4.333.

4 The NCS assumes that all vacation, holiday, and personal days are used during the year, but it collects the average number of sick days actually used by the employees in the year. The number of sick days used is held constant over time unless there is a change in the sick leave plan. It is assumed that employees have an opportunity to use all vacation, holiday, and personal days during the year, but they use sick days only when they are actually sick and may not have the opportunity to use them if they are healthy during the year.

5 It is not necessary to adjust for leave taken if the employee is paid for the leave at the same rate as regular pay. For example, an employee whose salary is $1,000 per week would be paid $2,000 biweekly. If the employee worked 1 week and was on vacation for 1 week (employee works 40 hours per week), the payment of $2,000 could be divided by 80 hours paid to get a straight-time average hourly earnings rate of $25 per hour. It would not be necessary to subtract the $1,000 of vacation pay and the 40 hours of vacation time taken from the calculation because the resulting calculation ($1,000 divided by 40 hours worked) would also yield a straight-time average hourly earnings rate of $25.

6 The calculation of gross earnings would be as follows: hours paid × straight-time average hourly earnings. Hours paid would be the sum of scheduled annual hours, overtime hours (1.0 × the number of overtime hours), and the premium (0.5 × the number of overtime hours).

7 See note 1.

8 For example, if there were three part-time workers who worked 3 days per week, five who worked 2 days per week, and two who worked 1 day per week (all worked an 8-hour day) the weighted weekly average of the three schedules would be 16.8 hours, calculated as follows: {[(3 × 3 × 8) + (5 × 2 × 8) + (2 × 1 × 8)] ÷ (3 + 5 + 2)} = 168 ÷ 10 = 16.8.

9 The average would be calculated by adding all of the hours worked and dividing by the number of employees. In this case, calculation would be as follows: (24 + 22 + 20 + 16 + 12) ÷ 5 = 18.8. The average number of days worked would be calculated in the same way. The daily work schedule would be the number of hours per week divided by the average days worked per week. In this example, if the average number of days worked were 4, and the weeks worked were 52, the work schedule would be 4.7 hours per day (18.8 ÷ 4), 18.8 hours per week, 52 weeks per year.

10 The straight-time average hourly earnings would not be affected if an estimate were used for the work schedule. The straight-time average hourly earnings would be calculated by dividing actual straight-time earnings for the pay period by the straight-time hours reported for that pay period. The straight-time pay would include any add-ons, such as pay for carrying hazardous cargo.

11 Collection of "only flight" pay can distort the average hourly rate for flight crew members by understating both income and hours worked. For example, payments received and hours associated with training and ground transportation are not included. Flight pay may also exclude add-ons such as additional pay for flying at night or carrying hazardous cargo.

12 Because actual hours for teachers are not available, contract hours are used for both the work schedule and the calculation of straight-time average hourly earnings. Because contract hours are less than the actual hours worked, the straight-time average hourly earnings for teachers are often higher than those for occupations that have higher annual earnings. For more information about teachers' actual hours worked, see Rachel Krantz-Kent, "Teachers' work patterns: when, where, and how much do U.S. teachers work?" *Monthly Labor Review*, March 2008, pp. 52-5; available on the Internet at http://www.bls.gov/opub/mlr/2008/03/art4full.pdf.

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