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## Schedule of Economic News Releases, March 2010

Date	Time	Release
Thursday, March 04, 2010	8:30 AM	Productivity and Costs (R) for Fourth Quarter 2009
Friday, March 05, 2010	8:30 AM	Employment Situation for February 2010
Tuesday, March 09, 2010	10:00 AM	Job Openings and Labor Turnover Survey for January 2010
Wednesday, March 10, 2010	10:00 AM	Employer Costs for Employee Compensation for December 2009
Wednesday, March 10, 2010	10:00 AM	Regional and State Employment and Unemployment (Monthly) for January 2010
Tuesday, March 16, 2010	8:30 AM	U.S. Import and Export Price Indexes for February 2010
Wednesday, March 17, 2010	8:30 AM	Producer Price Index for February 2010
Thursday, March 18, 2010	8:30 AM	Consumer Price Index for February 2010
Thursday, March 18, 2010	8:30 AM	Real Earnings for February 2010
Friday, March 19, 2010	10:00 AM	Metropolitan Area Employment and Unemployment (Monthly) for January 2010
Tuesday, March 23, 2010	10:00 AM	Mass Layoffs (Monthly) for February 2010
Friday, March 26, 2010	10:00 AM	Regional and State Employment and Unemployment (Monthly) for February 2010

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The tentative schedule to update the BLS Online Calendar is every Friday at approximately 3:30 PM Eastern Time.

# MONTHLY LABOR REVIEW

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### The February Review

Consumer expenditures and price indexes are the topics at hand in this issue of the *Review*. The articles present these topics in a comparative manner by evaluating multiple data sources, highlighting their differences, and, if applicable, offering alternative methods of compilation.

The lead article, by BLS economist Ann C. Foster, takes an in-depth look at annual aggregate health care expenditure data from three separate data sources—the Consumer Expenditure Survey (CE), the household component of the Medical Expenditure Panel Survey (MEPS), and the National Health Expenditure Accounts (NHEA). “Out-of-pocket health care expenditures: a comparison” analyzes health care expenditures from 1996 to 2006 to determine whether or not these data sources are consistent. The article compares each survey on the basis of the categories into which it classifies, or counts, specific types of expenditures. For example, the CE includes expenditures on nursing home care as “all services provided and billed by a convalescent or nursing home,” MEPS does not include this category or an analogous one, and the NHEA uses the category “services provided by freestanding nursing home facilities” for nursing home expenditures. The author finds that some comparisons across the surveys are possible, but that methodology differences appear to explain the differences in estimates.

Continuing with the health-related theme, “Producing disease-based price indexes” compares two differ-

ent methods of measuring health care costs. One method, which is used in creating the BLS Consumer Price Index, is called the “goods-and-services” concept; it measures the cost of each medical good and service separately. The other method, called the “treatment concept,” measures the cost of all goods and services used to treat a particular disease. The authors explain that each approach provides different information: the “goods-and-services concept” measures the contribution of each medical input to total health care inflation, whereas the “treatment concept” indicates how much disease influences health care inflation. The authors conclude that, if BLS had used the “treatment concept” approach, there would have been little change to the medical CPI during the period examined. Further, the analysis shows that increased productivity and substitutions towards less expensive services have reduced the total price of health care, but that these reductions did not lead to any significant reduction in consumer premiums during the timespan studied.

The CE is the primary topic in the final article of this issue. As with the lead article, the authors compare CE data with similar data from another source, but in this case, the other source is the Panel Study of Income Dynamics (PSID). The authors find that, generally, CE and PSID estimates of expenditures align closely in most broad categories despite differences in their instruments and design features. The paper concludes that the CE “will remain the primary dataset for cross-sectional analyses” but that the PSID’s longitudinal nature and genealogical design will allow for “new

areas of research...with the use of PSID consumption expenditure data.”

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### Work stoppages in 2009

This month, BLS released data on major work stoppages in 2009. For the year, there were 5 major strikes or lockouts involving 1,000 or more workers. This is the lowest number of major work stoppages since BLS began collecting data for the series in 1947. The news release regarding these data is available online at <http://www.bls.gov/news.release/pdf/wkstp.pdf>. Additional information is available at <http://www.bls.gov/wsp/>.

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### Manufacturing multifactor productivity

Manufacturing-sector multifactor productivity increased at a 4.7 percent annual rate in 2007. Multifactor productivity, which measures the change in output per unit of combined inputs, increased 6.0 percent in the durable goods manufacturing sector and 3.0 percent in the nondurable goods manufacturing sector for the year. Multifactor productivity differs from labor productivity (output per hour worked) and is designed to measure the joint influences on economic growth of technological change, efficiency improvements, and other factors, allowing for the effects of capital, labor, and intermediate inputs (energy, materials, and purchased business services). The news release regarding these data is available online at <http://www.bls.gov/news.release/pdf/prod5.pdf>. Additional information is available at <http://www.bls.gov/mfp/>. □

# Out-of-pocket health care expenditures: a comparison

*An examination of aggregate out-of-pocket health care expenditures from the CE, MEPS, and the NHEA for the 1996–2006 period indicates that methodological differences account for the lack of agreement among estimates*

Ann C. Foster

**H**ealth care expenditure data produced by the Federal Government come from a variety of data sources, including the Bureau of Labor Statistics (BLS) Consumer Expenditure Survey (CE), the household component of the Medical Expenditure Panel Survey (MEPS-HC) of the Department of Health and Human Services (DHHS) Agency for Healthcare Research and Quality, the National Health Expenditure Accounts (NHEA) of the DHHS Centers for Medicare and Medicaid Services, and the Personal Consumption Expenditures (PCE) of the Bureau of Economic Analysis (BEA). The purpose of this article is to examine annual aggregate CE, MEPS, and NHEA out-of-pocket health care expenditures for comparable categories from 1996 to 2006 to determine whether they are consistent across the three data sources.<sup>1</sup>

The CE collects information about out-of-pocket spending on health care and other expenses from consumer units<sup>2</sup> throughout the United States. The MEPS-HC collects nationwide data on the cost and use of health care and on health insurance coverage at the household and the individual level.<sup>3</sup> The NHEA are the official estimates of total health care spending in the United States. The NHEA measure aggregate an-

nual expenditures for health care goods and services, public-health activities, program administration, and research and other investment related to health care, as well as the net cost of private insurance. The PCE measure the market value of health care and other goods and services purchased by the “personal sector” of the U.S. Census Bureau’s National Income and Product Accounts. Data for the NHEA and the PCE are obtained from secondary sources. Although health insurance premiums are a major part of household health care spending, they will not be examined in this article because the MEPS data that were used did not provide the information needed for the research undertaken.

The first section of the article compares and contrasts the content and methodology of the CE, MEPS, and NHEA. The next section describes the methods to be used subsequently to carry out the comparison, including spending category alignment, population adjustment, and expenditure computation. Then, the relevant findings from the analysis are presented and examined, followed by conclusions and implications.<sup>4</sup>

## Consumer Expenditure Survey

Conducted continuously since 1980, the CE has two components: a quarterly Interview Survey and a weekly Diary Survey. Each com-

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ponent queries an independent sample of consumer units designed to be representative of the U.S. civilian noninstitutionalized population.<sup>5</sup> The CE collects information not just on health care expenditures, but on all spending components, including food, housing, apparel and services, transportation, and entertainment. Data are collected on an ongoing basis in 91 areas of the country.

CE data are used in various ways, one of which is in the periodic revision of the BLS Consumer Price Index (CPI). CE data form the basis of the selection of new market baskets of goods and services for the CPI, determine the relative importance of CPI components, and are used to derive new cost weights for the market baskets.<sup>6</sup>

CE data are collected by the U.S. Census Bureau under contract with the BLS. The Interview Survey is designed to collect spending information that usually can be remembered after 3 or more months. Included is information about fairly large expenditures, such as major appliances, and those which occur regularly, such as rent or health insurance premiums. Also included is information on expenses for reimbursements for medical care costs that are not collected in the Diary Survey. Interview Survey respondents are interviewed every 3 months for a total of five interviews. Information on spending (net of any reimbursements) is collected from respondents in the second through fifth interviews, by means of uniform questions. About 7,000 consumer units are interviewed each quarter.

Although the Diary Survey is designed to obtain information about small, frequently purchased items, such as food and personal care products, that are hard to remember over long periods, it is not limited to these expenses. With few exceptions, all expenses a consumer unit incurs during a survey week are recorded in a self-administered diary. Health care expenditures collected only in the Diary Survey are repair of medical equipment, nonprescription drugs, nonprescription vitamins, and topicals and dressings. About 7,000 consumer units are sampled annually for the Diary Survey, with each consumer unit completing two consecutive 1-week diaries, yielding around 14,000 diaries a year.<sup>7</sup>

Data from the Diary and Interview Surveys are combined to provide a more complete picture of consumer expenditures and income that neither component alone is designed to do. Most of the published health care expenditures are obtained from the Interview Survey; however, there is considerable overlap in item coverage between the two surveys. Thus, the problem of determining the best survey component from which to select expenditure items must be addressed. When overlap occurs, the more

reliable of the two estimates is determined by statistical methods.<sup>8</sup> Integrated CE data will be used in the analysis that follows, for a more complete picture of out-of-pocket health care spending.

## Medical Expenditure Panel Survey

The MEPS-HC, which began in 1996, is a household-based survey that contains individual and household-level estimates of health care expenditures and use, health insurance coverage, and a wide range of other health-related and socioeconomic characteristics.<sup>9</sup>

MEPS data are used for policy-related and behavioral research on the determinants of health care use, spending, and insurance coverage. The Federal Government uses MEPS data to prepare national estimates of health care use and spending, private and public health insurance coverage, and the availability, cost, and scope of private health insurance benefits for the U.S. population and for subgroups of policy interest.<sup>10</sup>

With the use of an overlapping panel design, MEPS-HC data are collected from a sample that is selected to be representative of the U.S. civilian noninstitutionalized population. Data are collected at the household and the individual level. In 2006, for example, data were collected from 12,811 families in order to obtain information on 32,577 individuals. Each year, a new panel of households is selected from those that participated in the previous year's National Health Interview Survey conducted by the National Center for Health Statistics of the DHHS. For each panel, 2 years of data are collected in five in-person interviews over 2½ years.<sup>11</sup>

Each of the five interview rounds of the MEPS-HC contains core component questions that request information about demographic characteristics; charges and payments by source (household, private insurance, Medicare, Medicaid, and so forth); health status; medical conditions; utilization data for hospital visits, physicians' services, home health care, and prescription drugs; public and private health insurance coverage; and employment status. Rounds 2 and 4 have supplemental sections to elicit information about access to care, child preventive health care, and satisfaction with health plans and providers. Rounds 3 and 5 have supplemental sections requesting information on income, preventative health care, and priority conditions, while information on assets is requested in round 5 only. Unlike the CE, which collects data on the consumer unit only, the MEPS-HC collects data on individual household members.<sup>12</sup>

The medical provider component of MEPS (MEPS-MPC) supplements and validates information reported



in the MEPS-HC by means of telephone interviews with, and survey materials mailed to, medical providers and pharmacies reported by HC respondents. The MPC sample includes hospitals and hospital-based physicians, home health care agencies, office-based physicians, and pharmacies. Information about dates of visits, diagnosis and procedure codes, charges, and payments is collected from all medical providers. The MPC pharmacy component collects detailed information on drugs, including the National Drug Code, name of the medicine, date filled, and sources and amounts of payments. MPC data are used to replace expenditure data reported by HC respondents with data reported by their providers, because the latter data generally are more complete and less prone to reporting errors. MPC data also are used as an imputation source for item nonresponse in order to reduce the level of bias in survey estimates of medical expenditure.<sup>13</sup>

Methodological differences between the CE and MEPS could produce low CE-MEPS ratios. One factor is that, as mentioned in the previous paragraph, the MEPS-MPC uses provider data to verify respondent data for hospital, physician, and prescription drug spending, while the CE relies on respondent data only. The nature of the MEPS interview also could play a part because respondents are asked about health conditions and associated treatments, as well as related expenses, for all household members. This format could increase respondents' recall of expenditures, compared with the CE practice of asking about total consumer unit out-of-pocket expenses only. CE respondents provide information about outlays on food, housing, transportation, entertainment, and more, in addition to health care, further complicating their recall of expenditures.

## National Health Expenditure Accounts

Dating back to 1960, the NHEA are compiled to measure aggregate health care spending and to provide a way to examine the relationship between payers and providers of goods and services over time. The NHEA cover a larger population than the CE and MEPS, because all persons, military and civilian, living in the United States are considered part of the resident population.<sup>14</sup>

NHEA data provide valuable information on health care spending as a proportion of the gross domestic product (GDP), on changes over time in expenditures for types of goods and services and in sources of funds, and on health care spending projections. NHEA data also provide specialized historical estimates of spending by age and State, along with estimates by sponsor (businesses, households, and government) of health care.<sup>15</sup>

The NHEA use many secondary data sources. For hospital care, the basic data sources are the American Hospital Association's Annual Survey and the Census Bureau's Services Annual Survey (SAS); Federal hospital estimates are based on data from the Federal agencies that administer them. Data sources for physician and clinical services, dental services, and other professional services include the Census Bureau's SAS and Census of Service Industries, as well as data from the BLS Current Employment Statistics, Consumer Price Index, and Producer Price Index programs. Data sources for the NHEA home health care component include SAS and the Census of Service Industries for private establishments; for government-owned home health care agencies, the NHEA derive their estimates from Medicare data.<sup>16</sup>

In the NHEA, the categories of prescription drugs, other nondurable medical products, and durable medical equipment include products purchased or leased from retail outlets or through mail order only. Expenditures made in connection with hospital care, nursing home care, or a professional visit are included in the estimates for those providers' services. However, optical goods, such as eyeglasses and contact lenses, are included in durable medical equipment instead of with optometrists' receipts.

Through 2002, the NHEA used detailed data from the Census Bureau's Census of Retail Trade to estimate prescription drug spending. Estimates for subsequent years are prepared by extrapolating the 2002 levels with IMS Health, Inc., data on retail and wholesale purchases.<sup>17</sup>

Estimates for other nondurable medical products (nonprescription drugs and medical sundries) and for durable medical products (for example, eyeglasses, hearing aids, and medical equipment) are benchmarked to the national Input-Output (I-O) tables produced by the BEA in years ending in 2 and 7. The nonprescription drug estimate is interpolated between I-O years and extrapolated to recent periods on the basis of retail sales data from Kline & Company; for medical sundries, detailed Personal Consumption Expenditure data from the BEA's National Income and Product Accounts are used. From 1987 through 2007, private (nongovernment) spending estimates for durable medical equipment were prepared by interpolating between, and extrapolating from, adjusted I-O levels, using CE data, adjusted and distributed National Medical Expenditure Survey or MEPS data. For 2008, durable medical equipment expenditures were prepared by using the historical relationship of CPI for eyeglasses and eye care, real GDP, and current population data combined with public data sources.<sup>18</sup>

The NHEA estimate sources of payment as follows for a majority of the personal health expenditure sectors de-

scribed in the preceding paragraphs: government spending for both Federal Government programs and State and local government programs is calculated. Private spending (out-of-pocket spending; private health insurance; and other private sources, such as philanthropy) is calculated as personal health care expenditures minus government expenditures. The NHEA allocation of private expenditures across out-of-pocket, private health insurance, and other private sources is determined from numerous data sources.<sup>19</sup> The way in which the NHEA allocate health care expenditures across categories will influence CE-NHEA ratios compared with ratios computed under alternative assumptions. The exact impact of the NHEA assumptions on these categories, however, cannot be determined from available data.

In the NHEA, out-of-pocket spending for health care consists of direct spending by consumers. This estimate includes the amount spent for health care goods and services not covered by insurance and for coinsurance and deductibles (including provider payments covered by Health Savings Accounts) required by private insurance and by public programs such as Medicare and Medicaid.<sup>20</sup>

## Health care categories

Because each data source categorizes health care expenditures differently, a comparison of the categories helps in constructing research variables with the greatest possible alignment across the three sources. Exhibit 1 summarizes expenditure categories and other differences among them.

*Inpatient hospital care.* The CE collects information on spending for inpatient hospital rooms and services provided by facilities such as general-care hospitals, psychiatric hospitals, substance abuse hospitals, and birthing centers. MEPS also collects information on spending for inpatient hospital facilities, but excludes charges for hospital-based nursing home care, skilled nursing facilities, and intermediate care facilities for those with intellectual disabilities. Hospital stays of 45 or more days also are out of scope for MEPS, whereas hospital-based home health care is included in the home health care category.

In the NHEA, the type of product consumed or the type of establishment providing a service determines what is included in a spending category. Thus, hospital expenses cover all services provided by hospitals, including room and board, operating room fees, resident physician fees, prescription drugs, hospital-based nursing home care, and hospital-based home health care.<sup>21</sup> In contrast to the CE and MEPS, the NHEA do not distinguish between inpatient, outpatient, and emergency room care. All U.S.

hospitals are within the scope of the NHEA.

*Laboratory tests and x rays.* The CE collects information on laboratory tests and x rays received neither as a hospital inpatient nor in connection with eye and dental care. MEPS places these expenses into several categories, including emergency room facilities charges, outpatient facilities charges, and office visits. Medical laboratory services billed directly from medical and diagnostic laboratories are part of the “other professional services” category.

The NHEA include laboratory tests and x rays in with the charges of the establishment providing the service. Laboratory tests and x rays provided by hospitals on an inpatient, outpatient, or emergency room basis are part of the hospital care category. Charges for laboratory tests and x rays also are included in physician and clinical services spending. Establishments in this category include offices of physicians (NAICS 62111) and outpatient care centers, such as health maintenance organizations (NAICS 6214). Medical laboratory services billed directly from medical and diagnostic laboratories (NAICS 62151) also are included in the physician and clinical services category.

*Other medical care services.* In the CE, outpatient hospital care, emergency room services, and ambulance services are part of the “other medical services” category. MEPS has separate categories for outpatient and emergency room facilities charges, while ambulance services are part of the “other medical equipment and services” category. The NHEA include outpatient hospital care and emergency room services in the hospital care category. Ambulance services are not included in consumer outlays for health care, but ambulance services reimbursed by Medicare are included in “other professional services.”

*Physicians’ services.* CE respondents are asked to give information about all services provided and billed by physicians. Information about whether these services were related to hospital care, an office visit, or a home visit is not requested. MEPS classifies separately billed physician charges by whether they were made in connection with an inpatient hospital stay, outpatient hospital care, hospital emergency room treatment, or an office visit. Besides obtaining this information from respondents, MEPS requests additional verification from providers.

In the NHEA, spending on the services of physicians, dentists, and other medical professionals is categorized by the establishment providing the service. The NHEA physician and clinical services category covers spending on services provided by offices of physicians (NAICS 62111)

**Exhibit 1. Comparison of the Consumer Expenditure Survey, Medical Expenditure Panel Survey, and National Health Expenditure Accounts**

Category	Consumer Expenditure Survey	Medical Expenditure Panel Survey	National Health Expenditure Accounts
Population represented	U.S. civilian noninstitutionalized population.	U.S. civilian noninstitutionalized population.	U.S. resident population plus net undercount.
Databases	Data based on expenditures classified by type of service, regardless of medical event leading to expenditure.	Data based on event-level expenditures classified by type of service.	Data based on estimates of revenues received by providers, classified by type of establishment.
Data sources	Information from Interview and Diary Survey respondents. Information for each service is the total for all consumer unit members.	Information provided for each event leading to an expenditure. Survey estimates at individual and household level. Information obtained by interview, with information on hospital services, hospital-based physicians, home health agencies, office-based physicians, and pharmacies verified by providers.	Aggregate data from secondary sources. Includes information from Federal agencies administering public programs such as Medicare and Medicaid; the Annual Survey of the American Hospital Association; and the Census Bureau's Service Annual Survey, Census of Service Industries, and Census of Retail Trade.
Inpatient hospital care	Includes spending for inpatient hospital rooms and services from facilities such as general-care hospitals, psychiatric hospitals, substance abuse hospitals, and birthing centers.	Information on inpatient hospital facilities charges. Excludes charges for hospital-based nursing home care, skilled-nursing facilities, and intermediate care facilities for those with intellectual disabilities. Hospital stays of 45 days or more are out of scope. Hospital-based home health care part of home health care category.	Hospital care category includes charges for all services provided by hospitals, including inpatient, outpatient, and emergency room services; prescription drugs; and hospital-based nursing home and home health care.
Laboratory tests and x rays	Spending for laboratory tests or x rays not received as a hospital inpatient or in connection with eye and dental care.	Included in outpatient facilities charges, emergency room facilities charges, and office-based visits categories. Medical laboratory services billed directly from medical and diagnostic laboratories are in the "other professional services" category.	Usually included in the charges of the establishment providing the service. Part of hospital care category if provided by hospitals on an inpatient, outpatient, or emergency room basis. Part of physician and clinical services category if billed by physician's office or outpatient care center. Also in physician and clinical services category if billed directly by laboratory.
Other medical care services	Includes outpatient hospital care, emergency room services, and ambulance services.	Included in outpatient facilities charges and emergency room facilities charges. Ambulance services part of "other medical equipment and services" category.	Outpatient hospital care and emergency room services charges included in hospital care category. Out-of-pocket spending for ambulance services not included.
Physicians' services	Includes all services provided and billed by physicians.	Separately billed physicians' charges collected for hospital inpatient, outpatient, and emergency room care and office visits.	Spending for physicians' services categorized by the establishment providing the service. Physician and clinical services category includes services by physicians' offices and freestanding outpatient care centers. Physicians' charges also included in hospital care, nursing home care, and home health care categories.
Other professional services	Services provided by other medical professionals except physicians, dentists, and optometrists. Includes services provided both inside and outside the home.	Services by medical professionals except physicians and dentists. Information collected in connection with outpatient hospital care and office visits. In-home care included in home health care category. Independently billed lab tests also included in this category.	Services of professionals (other than physicians or dentists) in independent practice (NAICS 6213) included in "other professional services" category. Services of other professionals also included in hospital care, physicians and clinical services, home health care, nursing home care, and dental services categories.



<b>Exhibit 1. Continued—Comparison of the Consumer Expenditure Survey, Medical Expenditure Panel Survey, and National Health Expenditure Accounts</b>			
<b>Category</b>	<b>Consumer Expenditure Survey</b>	<b>Medical Expenditure Panel Survey</b>	<b>National Health Expenditure Accounts</b>
Dental services	Dental care, such as examinations, cleaning, bridges, crowns, dentures, orthodontia, root canals, and x rays.	Includes services of general dentists, dental hygienists, technicians, and surgeons; orthodontists; endodontists; and periodontists.	Dental services category includes services provided by offices of dentists (NAICS 6212). Independently practicing denturists and dental hygienists included in “other professional services” category.
Eye care services	Eye examinations, treatments, or surgery. Does not distinguish between optometrists, who perform eye examinations and basic treatments, and ophthalmologists, who perform surgery and may also prescribe eyeglasses or contact lenses.	Services of optometrists included in “other professional services.” Services of ophthalmologists included in physicians’ charges.	See “other professional services” category for treatment of optometrists’ charges and physicians’ services category for treatment of ophthalmologists’ charges.
Eyeglasses and contact lenses	Spending for eyeglasses and contact lenses.	Included in “other medical equipment and services” category.	Retail purchases of eyeglasses and contact lenses included in durable medical equipment category. Items obtained from other providers included in spending for those providers’ services.
Prescription drugs	All prescribed medicines not connected with an inpatient hospital stay. Insulin included in prescription drugs; diabetic supplies in medical equipment for general use.	Prescribed medicines obtained from retail outlets, in health maintenance organization/clinic/hospital pharmacies, by mail order, and online. Includes diabetic supplies and insulin.	Limited to items obtained from retail outlets or by mail order. Insulin syringes included in “other nondurable medical products” category.
Other nondurable medical products	Separate categories for nonprescription drugs, nonprescription vitamins, and topicals and dressings. Collected from Diary Survey respondents only.	No estimates for nonprescription, nondurable goods.	Retail purchases of items in the three categories included in “other nondurable medical products” category. Items obtained from other providers included in spending for those providers’ services.
Repair of medical equipment	Classified as a medical service. Information obtained from Diary Survey respondents only.	All medical equipment spending included in “other medical equipment and services” category.	Included in durable medical equipment category. Services obtained from other providers included in spending for those providers’ services.
Hearing aids	Purchase of hearing aids.	Included in “other medical equipment and services” category.	Included in durable medical equipment category. Services obtained from other providers included in spending for those providers’ services.
Supportive or convalescent medical equipment	One category for purchase, one category for rental. Includes items such as crutches, wheelchairs, and Ace bandages.	All medical equipment included in “other medical equipment and services” category.	Some retail purchases and rentals included in durable medical equipment category; other retail purchases and rentals included in “other nondurable medical products” category. Items obtained from other providers included in spending for those providers’ services.
Medical equipment for general use	One category for purchase, one category for rental. Includes items such as ice bags, thermometers, heating pads, sun lamps, and insulin needles.	Diabetic supplies included in prescription drugs category; other items included in “other medical equipment and services” category.	Some retail purchases and rentals included in durable medical equipment category; other retail purchases and rentals included in “other nondurable medical products” category. Items obtained from other providers included in spending for those providers’ services.

**Exhibit 1. Continued—Comparison of the Consumer Expenditure Survey, Medical Expenditure Panel Survey, and National Health Expenditure Accounts**

Category	Consumer Expenditure Survey	Medical Expenditure Panel Survey	National Health Expenditure Accounts
Nursing home care	All services provided and billed by a convalescent or nursing home.	Not included.	Services provided by freestanding nursing home facilities.
Home health care	No specific category. Some charges might be included in other categories.	Care provided by home health care agencies and independent providers. Agency data verified by provider. Nonagency data collected once a year from households.	Medical care in the home provided by non-facility-based home health care agencies. Medical equipment sales or rentals not billed through agency and nonmedical care. (For example, chore worker or custodial services and Meals on Wheels are excluded.)
Health insurance	Premiums paid for private health insurance obtained individually or through a group plan. Premiums paid to the Medicare Supplementary Medical Insurance (SMI) Trust Fund (Part B, C, and D coverage). Amounts paid to the Medicare Hospital Insurance (HI) Trust Fund (Part A coverage) are treated as deductions from income for Social Security.	Premiums paid for private health insurance, excluding long-term care insurance, obtained individually or through a group plan. Data available for 2001–06 only. Information on premiums paid to the Medicare SMI and HI Trust Funds is not requested.	Premiums paid for private health insurance, including long-term care insurance, obtained individually or through a group plan. Unlike the Consumer Expenditure Survey and the Medical Expenditure Panel Survey, the National Health Expenditure Accounts include the portion of property and casualty insurance premiums covering health care in private health insurance. Premiums paid to Medicare SMI and HI Trust Funds.

and outpatient care centers (NAICS 6214). The category also includes medical laboratory services billed directly from medical and diagnostic laboratories (NAICS 62151).

Spending on the services of a professional whose salary is paid by a hospital, nursing home, or other health establishment is reported together with spending on the relevant establishment's services. For example, services provided by hospital interns are categorized as hospital care and the services of nursing home staff nurses are included in nursing home care. However, doctors' fees received from arrangements with hospitals are included in hospital care instead of physician and clinical services.

*Dental services.* CE respondents are asked to provide information about dental care expenses such as exams, cleaning, x rays, fillings, dentures, bridges, orthodontia, crowns, and root canals. The type of provider is not requested.

The MEPS dental services category includes services from any dental care provider, such as general dentists, dental hygienists, dental technicians, and orthodontists. In the NHEA, the dental services category includes services provided by offices of dentists (NAICS 6212). Services received from dentists working for other providers are included in the spending for those providers' services.

*Other professional services.* In the CE, other professional

services includes those provided by health professionals other than physicians, dentists, and optometrists. Among these professionals are chiropractors, acupuncturists, marriage counselors, nurse practitioners, podiatrists, physical therapists, psychologists, substance abuse professionals, and certified medical massage therapists. The "other professional services" category includes services provided both inside and outside the home. The services of optometrists are included in the eye care services category.

MEPS classifies separately billed charges from other medical professionals (that is, medical professionals other than physicians and dentists) by whether the charges were made in connection with outpatient hospital care or an office visit. Unlike the CE, MEPS includes optometrists' services and independently billed laboratory charges in the category of "other professional services."

In the NHEA, the "other professional services" category covers spending for services provided by health professionals (other than physicians and dentists) in independent practice (NAICS 6213). The services of other professionals working for other providers are included in the spending for those providers' services.<sup>22</sup>

*Eye care services.* In the CE, the eye care services category covers eye examinations, treatments, and surgery. There is no distinction between optometrists, who perform eye ex-

aminations and basic treatments, and ophthalmologists, who perform surgery and also can prescribe eyeglasses and contact lenses. MEPS includes optometrists' services in "other professional services" and ophthalmologists' services among those provided by physicians.

In the NHEA, the services of independently practicing optometrists are classified into the "other professional services" category, while the services of independently practicing ophthalmologists are in the physician and clinical services category. If these eye care professionals work for other providers, their services are included in the spending for those providers' services.

*Prescription drugs.* The CE requests spending information on prescription drugs, but not on the type of outlet where they were obtained. MEPS requests information about prescription drugs obtained from a retail outlet, from a health maintenance organization, clinic, or hospital, by mail order, or online. This information is then verified by pharmacies identified by respondents who have authorized the release of their pharmacy records. MEPS includes diabetic supplies, such as syringes and insulin, in the prescription drugs category, even though this spending information is requested in the "other medical supplies" section of the MEPS-HC survey. MEPS data in the latter section are obtained from households, but are not verified by pharmacies. In the CE, spending on syringes and insulin needles is in the category titled "medical equipment for general use."

In the NHEA, the prescription drugs category is included under retail purchase of medical products. This expenditure class is limited to spending on items obtained from retail outlets or by mail order. The value of drugs and of other medical products such as nonprescription drugs and medical equipment provided to patients in hospitals (on an inpatient or outpatient basis), nursing homes, and other provider settings is implicit in the estimates of spending on those providers' services. Optical goods are an exception because they are subtracted from optometrists' receipts and placed in the durable medical products category.

*Nonprescription drugs, nonprescription vitamins, and topicals and dressings.* In the CE, spending information about nonprescription drugs, nonprescription vitamins, and topicals and dressings is collected from Diary Survey respondents only. MEPS estimates, however, do not include spending on nonprescription nondurable goods like those in the three CE categories.<sup>23</sup> The NHEA place retail purchases of items from all three CE categories in the nondurable medical products category.

*Repair of medical equipment.* In the CE, information about spending on medical equipment repair, classified separately as a medical service, is requested from Diary Survey respondents only. In MEPS, all medical equipment spending is in the "other medical equipment and services" category. In the NHEA, the repair of medical equipment is not separated from the purchase or rental of durable medical equipment.

*Medical supplies.* Some of the products in the CE categories classified as medical supplies, such as hearing aids, and eyeglasses and contact lenses, would be considered durable medical products by the NHEA. Other categories—for example, the purchase or rental of medical equipment for general use—contain both durable and nondurable items.

In MEPS, the "other medical equipment and services" category includes durable medical products such as eyeglasses and contact lenses, hearing aids, and medical equipment. Spending on ambulance services; spending on home alterations and modifications, including ramps, handrails, and elevators; and spending on automobile modifications also are in the "other medical equipment and services" category. In the CE, spending on ambulance services is part of the "other medical care services" category, while home alterations and modifications are considered a capital improvement, not an expense. NHEA data do not include information on these two expenditures, except for ambulance services reimbursed by Medicare. MEPS collects spending information about eyeglasses and contact lenses every 6 months, but only once a year for hearing aids, medical equipment, ambulance services, home alterations and modifications, and automobile modifications.

In classifying retail purchases of medical products, the NHEA distinguish between durable and nondurable medical products. The former, which include items such as contact lenses, eyeglasses, and other ophthalmic products; surgical and orthopedic products; medical equipment; oxygen; and hearing aids, generally have a useful life of more than 3 years. Items purchased from other providers are included in the spending on those providers' goods and services.

Nondurable products, such as prescription and nonprescription drugs, needles, and thermometers, generally have a useful life of less than 3 years.

*Nursing home care.* The CE requests information about all services provided and billed by a convalescent or nursing home, whereas nursing home care is out of scope in MEPS.

In the NHEA, the nursing home care category is for

services provided by freestanding nursing homes only: (1) private-sector establishments engaged primarily in providing inpatient nursing and rehabilitative services and continuous care to those requiring nursing care (NAICS 6231), and (2) continuing-care retirement communities with onsite nursing care facilities (NAICS 623311). As mentioned earlier, hospital-based nursing home care outlays are included in the hospital care category (NAICS 622).

*Home health care.* The CE does not request specific information about home health care outlays. In MEPS, the home health care category includes services provided by home health care agencies and paid independent providers. Agencies include hospital-based home health care agencies, as well as freestanding home health care agencies such as visiting-nurse associations. In the NHEA, the home health care category is for freestanding home health care agencies only; hospital-based home health care is included in the hospital care category.

*Health insurance.* The CE collects information about premiums for both private health insurance and Medicare. Private insurance includes coverage obtained individually or through a group plan sponsored by an employer or other organization. Premiums for Medicare supplemental (Medigap) plans, long-term care insurance, and special-purpose plans (dental insurance, vision insurance, prescription drug insurance, and dread-disease policies, among others) also are part of this category. The CE collects information about premiums paid to the Medicare Supplementary Medical Insurance (SMI) Trust Fund (Parts B, C, and D coverage); amounts paid to the Medicare Hospital Insurance (HI) Trust Fund for Part A coverage are treated as deductions from income that go to Social Security.

MEPS-HC respondents provide information about premiums for private health insurance, except for long-term care insurance, but this information is available only from 2001 on. Information about amounts paid to the Medicare SMI and HI Trust Funds is not requested.<sup>24</sup>

In the NHEA, premiums paid by households for private health insurance are part of the private health insurance source of funds. Unlike the CE and MEPS, the NHEA include the portion of property and casualty insurance premiums that covers health care in with household spending for private insurance. In the CE, these amounts are part of the premiums paid for property and casualty coverage as a whole, while MEPS does not collect this information at all. In the NHEA, premiums that individuals pay to the Medicare SMI and HI Trust Funds are in the Federal Government source-of-funds category.<sup>25</sup>

## Comparison methods

The CE data used in this research are unpublished integrated data showing the most detailed (least aggregated) breakdowns available. The MEPSnet/HC query tool was used to obtain expenditure data from the MEPS-HC public-use files. The NHEA data source was the file titled “National Health Expenditures by Type of Service and Source of Funds: Calendar Years 1960–2007.” Data for the years 1996–2006 were examined because MEPS-HC data were available for that period only.<sup>26</sup> Variables examined were out-of-pocket expenses for the following categories:

- Total health care
- Hospital care
- Physicians’ services
- Other professional services
- Dental services
- Prescription drugs
- Medical supplies

Exhibit 1 indicates many differences in scope and methodology among the CE, MEPS, and NHEA. Although data were adjusted to make the data source components as comparable as possible, perfect alignment is not attainable for a number of reasons, to be discussed shortly. At the outset, MEPS and NHEA estimates were adjusted so that they would refer to the CE population concept. A multiplier was computed for each year covered by the research. For MEPS, the multiplier was derived by finding the ratio of the population covered by the CE to the population covered by MEPS. The same procedure was used with NHEA data.<sup>27</sup>

Aggregate out-of-pocket expenses were obtained for all relevant variables for the survey years covered. CE-MEPS and CE-NHEA spending ratios were computed for all variables of interest. The discussion that follows describes these variables and any additional adjustments that were made.

*Total health care expenditures.* This variable is the sum of the following expenditures:

- Hospital care
- Physicians’ services
- Other professional services
- Dental services
- Prescription drugs
- Medical supplies

Out-of-pocket expenses for nursing home care, other non-durable medical products (nonprescription drugs, medi-



cal sundries, and others), and Medicare premiums were excluded because they are out of scope in the MEPS-HC. Premiums for private health insurance were not included because MEPS data were available only for a portion of the period covered by the study. Home health care expenses were excluded because the CE does not specifically request such information.<sup>28</sup>

*Hospital care.* Because the NHEA hospital care category covers all services provided by hospitals, some CE and MEPS categories were combined to make them more comparable to the NHEA hospital care category. For the CE, the categories titled “inpatient hospital care,” “laboratory tests and x rays,” and “other medical services” were combined to form the hospital care category. For MEPS, hospital care was set to the sum of out-of-pocket spending for inpatient, outpatient, and emergency room facilities.

The CE hospital care category was not a perfect fit with either the MEPS or the NHEA category. Because the CE category includes all laboratory tests and x rays, as well as ambulance services, it could overstate CE-MEPS ratios, given that MEPS includes separately billed laboratory tests and x rays in the “other professional services” category and ambulance charges in the “other medical equipment and services” category.

Because the NHEA hospital care category includes all services provided by hospitals, it is possible that hospital-based prescription drug sales, home health and nursing care, and outpatient and emergency room physicians’ charges will reduce CE-NHEA ratios despite the inclusion of ambulance charges and the additional charges for laboratory tests and x rays in the CE category.

*Physicians’ services.* For the CE, the physicians’ services category was used without modification. For MEPS, physicians’ services comprised the combination of separately billed physicians’ charges for (1) hospital inpatient, outpatient, and emergency room care and (2) office visits. Although the CE and MEPS data appeared to be fairly comparable, the choice of NHEA data was difficult because the NHEA categorize such data by the establishment providing the service. The physician and clinical services category was chosen because it was the closest match. Because the NHEA category includes items not found in the CE category (for example, separately billed laboratory charges and prescription drugs from health maintenance organization pharmacies), it was anticipated that CE-NHEA ratios would be lower than CE-MEPS ratios for comparable years.

*Dental services.* The dental services categories were used

without additional adjustment in all three data sources. Although the three categories were fairly similar, CE-NHEA ratios could be higher than CE-MEPS ratios for comparable years. One reason is that the NHEA category covers services rendered by independently practicing dentists only. Charges made by dentists employed by other establishments would be reflected in the charges made by those establishments. Also, services rendered by dental hygienists in independent practice would be included in the “other professional services” category, not in dental services.

*Other professional services.* For the CE, the eye care services category was combined with the “other professional services” category to better align the data with the category in MEPS and the NHEA. However, it is possible that the combined category contains some spending on physicians’ services because some of the procedures captured in eye care services often are provided by ophthalmologists.

For MEPS, the “other professional services” category, which includes optometrists, was used. Although this category is the best fit possible, it also contains separately billed laboratory charges found elsewhere in the CE and the NHEA. Because MEPS data did not permit the removal of these charges, CE-MEPS ratios would likely be lower than ratios calculated without such charges. The amount of the reduction, however, cannot be determined from the data used in this research.

For the NHEA, the “other professional services” category was used. Because this NHEA category includes only those in independent practice, not all services of other professionals will be captured, possibly increasing CE-NHEA ratios.

*Prescription drugs.* The prescription drugs category was used without additional adjustment in all three data sources. For the CE and MEPS, this was a close alignment, because both surveys include prescriptions drugs received from retail outlets and by mail order, as well as from other outlets such as health maintenance organizations, clinics, and hospital pharmacies. Because the NHEA category includes only prescription drugs obtained from retail outlets and by mail order, CE-NHEA ratios are likely to be higher than CE-MEPS ratios for comparable years.

*Medical supplies.* For the CE, the following categories were combined to form the category of medical supplies: eyeglasses and contact lenses, hearing aids, repair of medical equipment, purchase or rental of supportive or convalescent medical equipment, and purchase or rental of



medical equipment for general use.

For MEPS, the “other medical equipment and services” category was used as the measure of medical supplies. This choice was not the best alignment, because the category also includes spending on ambulance services; home modifications, such as ramps, handrails, and elevators; and automobile modifications.

The durable medical products category was used for the NHEA because it was the closest to the CE medical supplies category. Because the NHEA category includes spending on durable items from retail outlets only, it was not an ideal fit with the CE category, which includes spending on durable and nondurable items from all outlets.

## Findings

Table 1 and charts 1 and 2 summarize the information discussed in this section.

*Total health care.* CE-MEPS ratios for total health care spending ranged from 0.68 to 0.93. The highest ratios were for hospital care, while the lowest were for prescription drugs.

CE-NHEA ratios moved between 0.72 and 0.86 during the study period. The highest ratios were for prescription drugs, the lowest for physicians’ services.

*Hospital care.* CE-MEPS ratios for hospital care ranged from 0.98 to 1.82, higher than what might be expected, because MEPS is able to contact hospitals to verify data provided by respondents.

Breaking down CE and MEPS data by inpatient expenditures and outpatient/emergency room expenditures provides some insights into all three findings. The CE-MEPS ratios for inpatient hospital care are the largest, ranging from 1.22 to 2.92. The inpatient hospital findings appear to reflect MEPS out-of-scope charges, which might have been picked up in the CE. Except for 1999, CE-MEPS ratios for outpatient/emergency room hospital care were less than 1.0, ranging from 0.55 to 0.95. These ratios appear to reflect the dissimilar nature of the items in the CE and MEPS categories.<sup>29</sup>

CE-NHEA hospital care ratios ranged from 0.76 to 1.27. Several factors could account for these relatively high ratios. One is that the CE outpatient/emergency room hospital category includes ambulance charges that are not tracked in the NHEA. Also, some of the CE laboratory tests or x-ray charges might be charges that the NHEA would consider separately billed and included in the physician and clinical services category. Because the NHEA hospital

care data did not allow for additional breakdowns, it was not possible to obtain further insights into these findings.

*Physicians’ services.* CE-MEPS ratios for these services ranged from 0.65 to 0.83. The fact that MEPS contacts many of these providers to verify respondents’ information could reduce underreporting, compared with the CE, which does not verify data through a third party.

Physicians’ services had the lowest CE-NHEA ratios, ranging from 0.42 to 0.58. One reason is that separately billed laboratory charges are part of the NHEA category. Another is that, in the NHEA, the establishment providing the service determines what is included in the spending category. For example, health maintenance organizations (part of NAICS 6214, outpatient care centers) often have their own pharmacies. Although these pharmacy charges would fall under the NHEA physician and clinical services category, they would be part of the CE prescription drugs category.

*Other professional services.* CE-MEPS ratios for this category ranged from a low of 0.68 to a high of 1.32. Differences in items included in the CE and MEPS categories could have had an influence. For example, MEPS includes separately billed laboratory charges in the “other professional services” category, whereas these charges would be in the CE hospital care category. Also, the CE includes acupuncture and homeopathic therapy in “other professional services,” but MEPS does not include services provided by these alternative caregivers in its official estimates.

CE-NHEA ratios for the “other professional services” category were higher than those for physicians’ services, ranging from 0.67 to 0.84. One reason is that similar expenses are found in both categories. The less-than-complete alignment could be due to methodological differences between the two data sources and possible underreporting by CE respondents.

*Dental services.* CE-MEPS ratios for dental services varied from 0.76 to 0.97. Although MEPS dental charges are not verified by providers, the more detailed nature of the MEPS interview process could have resulted in less underreporting of dental expenses compared with those reported in the CE.

CE-NHEA ratios for dental services were closely aligned at the beginning of the period, but were 0.72 by the end. One reason for the relatively high ratios is that most, if not all, expenditures for dental services fall under the same classification in both the CE and the NHEA. Underreporting by CE respondents or the NHEA methodology

**Table 1. Comparison of aggregate out-of-pocket health care expenditures: Consumer Expenditure Survey (CES), Medical Expenditure Panel Survey (MEPS), and National Health Expenditure Accounts (NHEA)**

[Aggregate expenditures, in millions]

Expenditure category	1996			1997			1998		
	CE aggregate expenditure	CE-MEPS ratio	CE-NHEA ratio	CE aggregate expenditure	CE-MEPS ratio	CE-NHEA ratio	CE aggregate expenditure	CE-MEPS ratio	CE-NHEA ratio
Health care, total <sup>1</sup> ....	82,949	0.93	0.86	85,814	0.86	0.83	89,366	0.86	0.80
Hospital care .....	12,639	1.82	1.27	12,228	1.20	1.15	12,350	1.21	1.06
Inpatient care .....	8,973	2.92	( <sup>2</sup> )	9,212	2.17	( <sup>2</sup> )	8,918	1.87	( <sup>2</sup> )
Outpatient/emergency room care..	3,666	.95	( <sup>2</sup> )	3,016	.64	( <sup>2</sup> )	3,432	.63	( <sup>2</sup> )
Physicians' services .	14,821	.79	.58	14,104	.75	.52	14,772	.83	.51
Dental services .....	20,130	.93	1.04	21,491	.97	1.01	22,824	.92	.99
Other professional services .....	5,845	.96	.77	6,775	1.12	.79	6,453	1.13	.69
Prescription drugs...	21,799	.77	.94	22,866	.69	.93	24,792	.68	.93
Medical supplies....	7,715	.97	.75	8,351	.92	.76	8,176	.99	.69
Expenditure category	1999			2000			2001		
	CE aggregate expenditure	CE-MEPS ratio	CE-NHEA ratio	CE aggregate expenditure	CE-MEPS ratio	CE-NHEA ratio	CE aggregate expenditure	CE-MEPS ratio	CE-NHEA ratio
Health care, total <sup>1</sup> ....	96,362	.88	.82	100,443	.87	.80	105,290	.78	.79
Hospital care .....	11,087	1.29	.89	11,785	1.29	.89	12,843	1.38	.93
Inpatient care .....	6,693	1.42	( <sup>2</sup> )	8,430	2.17	( <sup>2</sup> )	9,694	2.76	( <sup>2</sup> )
Outpatient/emergency room care .	4,394	1.12	( <sup>2</sup> )	3,355	.64	( <sup>2</sup> )	3,149	.55	( <sup>2</sup> )
Physicians' services .	14,552	.81	.49	14,700	.82	.47	14,580	.71	.45
Dental services .....	24,199	.94	.99	24,147	.90	.90	24,346	.85	.86
Other professional services .....	8,532	1.28	.84	7,877	1.32	.74	7,837	.91	.70
Prescription drugs...	28,075	.66	.95	33,376	.72	1.03	35,572	.62	1.02
Medical supplies....	8,919	1.08	.75	8,569	.91	.72	8,110	.82	.69

See footnotes at end of table.

(or both) might account for the less-than-complete alignment exhibited in recent years.

*Prescription drugs.* CE-MEPS ratios in the prescription drugs category ranged from a low of 0.51 to a high of 0.77. Spending on prescription drugs is verified by pharmacies in the MPC component of the MEPS-HC, most likely increasing accuracy and reducing underreporting among MEPS, compared with CE, respondents.

Although underreporting is a problem in interview surveys, accurate reporting of prescription drug spending is even more difficult than it is for many other expenditures, because respondents must provide details of often numer-

ous purchases for all household members. MEPS handles this problem by relieving the respondent of the burden of reporting detailed spending information for every drug purchase. Instead, computerized printouts or completed survey forms are obtained from respondents' pharmacies. To improve accuracy, MEPS respondents are asked about medications prescribed in connection with other medical events, such as emergency room and office visits.

MEPS research has found that, among respondents with at least one purchase of a prescribed medicine, the average annual number of purchases increased from 11.1 prescriptions per person in 1997 to 16.0 prescriptions in 2004.<sup>30</sup> If CE respondents have had similar experiences,

**Table 1. Continued—Comparison of aggregate out-of-pocket health care expenditures: Consumer Expenditure Survey (CES), Medical Expenditure Panel Survey (MEPS), and National Health Expenditure Accounts (NHEA)**

[Aggregate expenditures, in millions]

Expenditure category	2002			2003			2004		
	CE aggregate expenditure	CE-MEPS ratio	CE-NHEA ratio	CE aggregate expenditure	CE-MEPS ratio	CE-NHEA ratio	CE aggregate expenditure	CE-MEPS ratio	CE-NHEA ratio
Health care, total <sup>1</sup> .....	115,358	0.78	0.80	113,458	0.68	0.72	120,789	0.69	0.75
Hospital care .....	13,938	1.35	.92	13,004	1.10	.76	16,445	1.49	.89
Inpatient care .....	9,874	2.27	( <sup>2</sup> )	8,006	1.64	( <sup>2</sup> )	10,606	2.31	( <sup>2</sup> )
Outpatient/emergency room care.....	4,064	.68	( <sup>2</sup> )	4,998	.72	( <sup>2</sup> )	5,839	.90	( <sup>2</sup> )
Physicians' services .....	16,539	.70	.48	16,569	.73	.45	17,045	.68	.43
Dental services.....	25,477	.83	.81	26,213	.82	.77	27,977	.82	.78
Other professional services .....	8,628	.78	.75	8,437	.74	.67	9,120	.68	.68
Prescription drugs.....	41,909	.68	1.07	40,205	.51	.92	40,630	.51	.89
Medical supplies.....	8,897	.89	.74	9,028	.81	.70	9,570	.79	.73

See footnotes at end of table.

underreporting could have increased because of a recall problem associated with an increase in the number of prescribed drugs.

Although there is no consistent pattern, CE-NHEA ratios for prescription drugs were among the highest, ranging from 0.89 to 1.07. One reason, mentioned earlier, is the fact that the NHEA prescription drug category includes spending on items obtained from retail outlets and mail-order pharmacies only, while the CE also includes items obtained from other sources, such as health maintenance organization pharmacies.

*Medical supplies.* CE-MEPS ratios for medical supplies ranged from 0.76 to 1.08. Because the MEPS category includes ambulance charges and remodeling and alteration expenses, whereas the CE category does not, it is difficult to determine the influence of these expenses on CE-MEPS ratios. The effect of underreporting also is hard to determine. Except for eyeglasses and contact lenses, MEPS collects information on the remaining items in the medical supplies category only once a year. MEPS respondents could be less likely to recall spending on these items, compared with CE respondents, who more frequently report spending on items in this category.

CE-NHEA ratios for medical supplies moved between 0.66 and 0.78 during the 1996–2006 period. Underreporting by CE respondents or the NHEA methodology (or both) might account for the less-than-complete alignment.

AGGREGATE OUT-OF-POCKET HEALTH CARE expenditures from the Consumer Expenditure Survey (CE), the Medical Expenditure Panel Survey (MEPS), and the National Health Expenditure Accounts (NHEA) were examined for the years 1996–2006. CE-MEPS and CE-NHEA ratios were computed for total health care spending and for selected health care spending categories. Although some alignment of the three data sets was possible, differences in methodology appear to be responsible for the lack of agreement among the estimates.

Methodological differences affect the magnitude of the CE-MEPS and CE-NHEA ratios, but they fail to explain the fact that these ratios were generally lower at the end of the period than at the beginning. Data, however, indicate that, for most categories, the greatest declines were during the 1996–2003 period. Since 2003, both ratios have been fairly constant.

*CE-MEPS ratios.* The CE-MEPS ratios may reflect the fact that the MEPS-MPC verifies respondent data for hospital, physician, and prescription drug spending, whereas the CE relies on respondent data only. The nature of the MEPS interview also could play a part, because respondents are asked about health conditions and associated treatments, as well as related expenses, for all household members. This format could increase respondents' recall of expenditures, compared with the CE practice of asking only about the consumer unit's total expenditures.

**Table 1. Continued—Comparison of aggregate out-of-pocket health care expenditures: Consumer Expenditure Survey (CES), Medical Expenditure Panel Survey (MEPS), and National Health Expenditure Accounts (NHEA)**

[Aggregate expenditures, in millions]

Expenditure category	2005			2006		
	CE aggregate expenditure	CE-MEPS ratio	CE-NHEA ratio	CE aggregate expenditure	CE-MEPS ratio	CE-NHEA ratio
Health care, total <sup>1</sup> .....	132,718	0.71	0.75	134,456	0.71	0.74
Hospital care .....	17,854	1.06	.91	18,235	.98	.86
Inpatient care.....	11,100	1.22	( <sup>2</sup> )	11,149	1.23	( <sup>2</sup> )
Outpatient/emergency room care .....	6,754	.87	( <sup>2</sup> )	7,087	.74	( <sup>2</sup> )
Physicians' services .....	18,058	.65	.42	19,954	.65	.43
Dental services .....	29,847	.85	.79	28,399	.76	.72
Other professional services .....	10,350	.73	.73	10,452	.75	.70
Prescription drugs.....	47,551	.58	.99	46,702	.61	1.01
Medical supplies.....	9,054	.76	.66	10,714	.87	.78

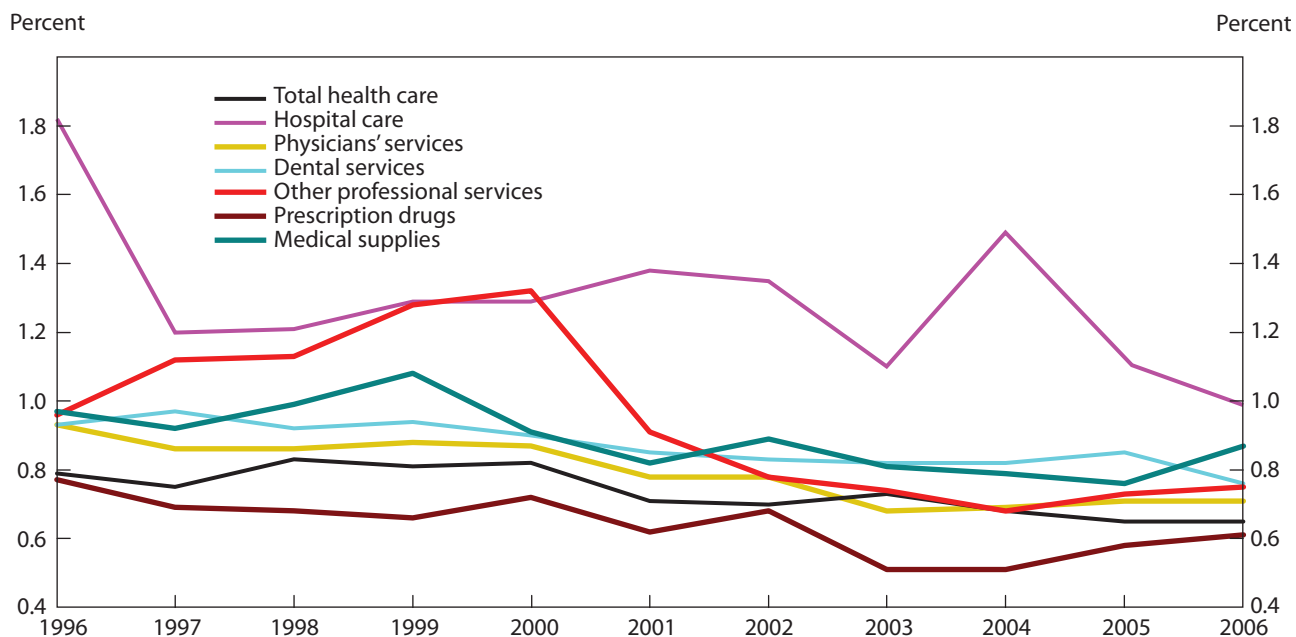
<sup>1</sup> Excludes health insurance premiums, nursing home care, nonprescription drugs, nonprescription vitamins, and topicals and dressings.      <sup>2</sup> Data not available.

The CE is designed to collect information on household expenditures on goods and services used in day-to-day living. Because the survey encompasses more than just health care, it would not be feasible to query respondents in as detailed a manner for all expenses and to verify expenses with third parties, as MEPS does. For this reason, it is likely that the CE will lag MEPS in many of the health care items reported.

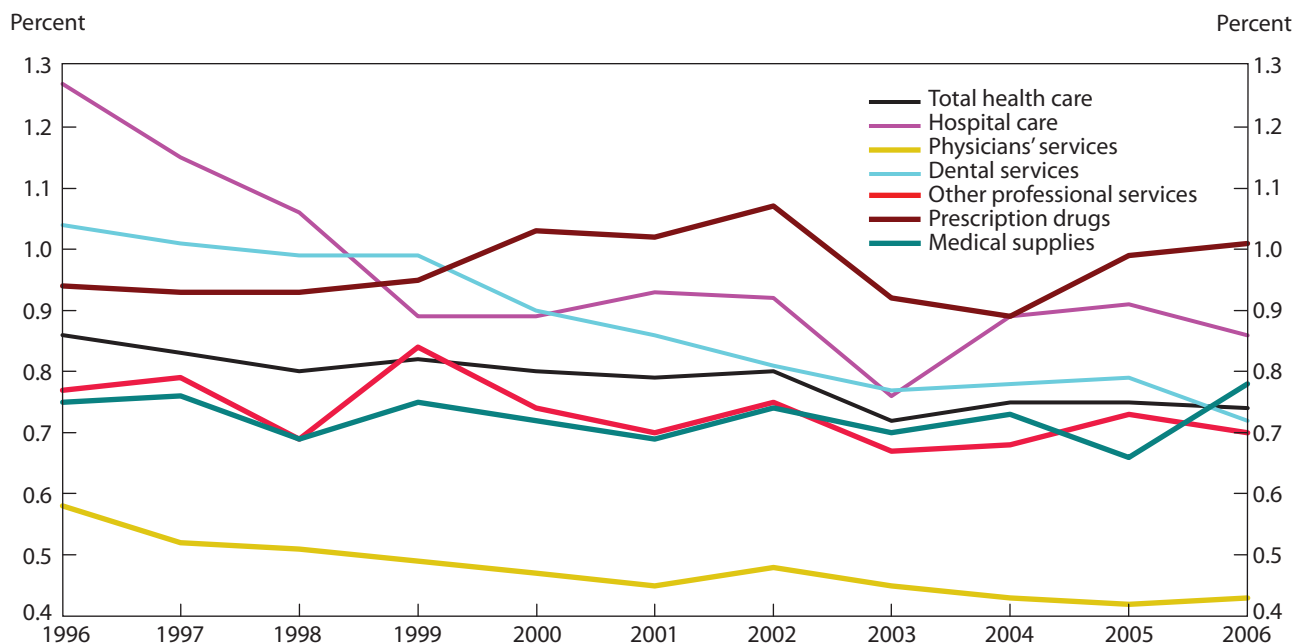
Clearly, a more detailed examination of CE and MEPS health care expenses is needed. Additional research using CE public-use microdata and MEPS household-component full-year public-use data files could result in better data alignment and provide further insights into how consistent the results are.

*CE-NHEA ratios.* NHEA expenditures are based on secondary data sources, whereas CE information is collected directly from households. NHEA estimates are made for business, government, and consumer sources of payment, CE estimates for consumer unit payments only. When NHEA spending by source of payment is estimated, government sources of payment (Medicare, Medicaid, and so forth) are estimated, and then private expenditures (out-of-pocket payments and private health insurance expenditures) are calculated as the residual of total expenditures less government expenditures. The allocation between out-of-pocket expenses and private health insurance expenditures depends on the assumptions that are made by the NHEA. These assumptions ultimately influence CE-NHEA ratios.<sup>31</sup> □

**Chart 1. Consumer Expenditure Survey–Medical Expenditure Panel Survey ratios, 1996–2006**



**Chart 2. Consumer Expenditure Survey–National Health Expenditure Accounts ratios, 1996–2006**





## Notes

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<sup>1</sup> CE data have been regularly compared with estimates from other sources to check for consistency. Because the PCE have been a major source of independent data for comparison, PCE data are not used in this article. For more information, see “Consumer Expenditure Survey compared with Personal Consumption Expenditures,” in *Consumer Expenditure Survey, 2004–2005*, Report 1008 (Bureau of Labor Statistics, October 2008), pp. 6–11, on the Internet at [www.bls.gov/cex/twoyear/200405/csxtwoyr.pdf](http://www.bls.gov/cex/twoyear/200405/csxtwoyr.pdf) (visited Feb. 22, 2010); Thesia I. Garner, George Janini, William Passero, Laura Paszkiewicz, and Mark Vendemia, “The CE and the PCE: a comparison,” *Monthly Labor Review*, September 2006, pp. 20–46, on the Internet at [www.bls.gov/opub/mlr/2006/09/art3full.pdf](http://www.bls.gov/opub/mlr/2006/09/art3full.pdf) (visited Feb. 22, 2010); and Clinton P. McCully, Brian C. Moyer, and Kenneth J. Stewart, “A Reconciliation between the Consumer Price Index and the Personal Consumption Expenditures Price Index” (Bureau of Economic Analysis, September 2007), on the Internet at [www.bea.gov/papers/pdf/cpi\\_pce.pdf](http://www.bea.gov/papers/pdf/cpi_pce.pdf) (visited Feb. 22, 2010).

<sup>2</sup> A consumer unit is defined as (1) all members of a particular household who are related by blood, marriage, adoption, or some other legal arrangement, such as foster children; (2) a financially independent person living alone, sharing a housing unit with others, or living as a roomer in a private home, lodging house, or permanently in a hotel or motel; or (3) two or more persons living together who pool their incomes to make joint expenditures. For more information, see *BLS Handbook of Methods* (Bureau of Labor Statistics, April 2007), chapter 16, “Consumer Expenditures and Income,” on the Internet at [www.bls.gov/opub/hom/pdf/homch16.pdf](http://www.bls.gov/opub/hom/pdf/homch16.pdf) (visited Feb. 22, 2010).

<sup>3</sup> MEPS also has an insurance component (MEPS-IC), which is a separate survey of employers that provides data on employer-based health insurance. For more information, see “Medical Expenditure Panel Survey: Insurance/Employer Component” (U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, Oct. 17, 2008), on the Internet at [www.meps.ahrq.gov/mepsweb/survey\\_comp/Insurance.jsp](http://www.meps.ahrq.gov/mepsweb/survey_comp/Insurance.jsp) (visited Feb. 22, 2010).

<sup>4</sup> CE-NHEA data comparisons have been less extensive than CE-PCE comparisons. For more information, see “Consumer Expenditure Survey Comparisons,” pp. 19–21; and E. Raphael Branch, “The Consumer Expenditure Survey: a comparative analysis,” *Monthly Labor Review*, December 1994, pp. 47–55, on the Internet at [www.bls.gov/opub/mlr/1994/12/art6full.pdf](http://www.bls.gov/opub/mlr/1994/12/art6full.pdf) (visited Feb. 22, 2010). Research attempting to reconcile MEPS with NHEA data has examined out-of-pocket expenses, insurance reimbursement, and public-program (Medicare, Medicaid, and so forth) spending on health care. (See Thomas M. Selden, Katharine R. Levit, Joel W. Cohen, Samuel H. Zuvekas, John F. Moeller, David McKusick, and Ross H. Arnett, III, “Reconciling Medical Expenditure Estimates from the MEPS and the NHA, 1996,” *Health Care Financing Review*, fall 2001, pp. 161–78, on the Internet at [www.cms.hhs.gov/HealthCareFinancingReview/Downloads/01fallpg161.pdf](http://www.cms.hhs.gov/HealthCareFinancingReview/Downloads/01fallpg161.pdf) (visited Feb. 22, 2010); Merrile Sing, Jessica S. Banthin, Thomas M. Selden, Cathy A. Cowan, and Sean P. Keehan, “Reconciling Medical Expenditure Estimates from the MEPS and NHEA, 2002,” *Health Care Financing Review*, fall 2006, pp. 25–40, on the Internet at [www.cms.hhs.gov/HealthCareFinancingReview/downloads/06Fallpg25.pdf](http://www.cms.hhs.gov/HealthCareFinancingReview/downloads/06Fallpg25.pdf) (visited Feb. 23, 2010); and Thomas M. Selden and Merrile Sing, *Aligning the Medical Expenditure Panel*

*Survey to Aggregate U.S. Benchmarks*, Working Paper No. 08006 (U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, July 2008), on the Internet at [www.gold.ahrq.gov/pdf/110pdf](http://www.gold.ahrq.gov/pdf/110pdf) (visited Feb. 23, 2010).

<sup>5</sup> Excluded are members of the active-duty military and persons residing in institutions such as nursing homes, mental hospitals, jails, prisons, and juvenile correctional facilities. For more information, see *BLS Handbook of Methods*, chapter 16.

<sup>6</sup> For more information, see *BLS Handbook of Methods*, chapter 16.

<sup>7</sup> For more information, see *Consumer Expenditures in 2007*, Report 1016 (Bureau of Labor Statistics, October 2008), on the Internet at [www.bls.gov/cex/csxann07.pdf](http://www.bls.gov/cex/csxann07.pdf) (visited Feb. 23, 2010); and *BLS Handbook of Methods*, chapter 16.

<sup>8</sup> The selection of the survey source is evaluated periodically. For more information, see *BLS Handbook of Methods*, chapter 16.

<sup>9</sup> MEPS is the third in a series of national medical expenditure surveys conducted by the Agency for Healthcare Research and Quality, formerly the Agency for Health Care Policy and Research. The first of these surveys, the National Medical Care Expenditure Surveys (NMCES) was conducted in 1977, the second, the National Medical Expenditure Survey (NMES), in 1987. For more information about these earlier surveys, see “Medical Expenditure Panel Survey: Survey Background” (U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, Sept. 5, 2006), on the Internet at [www.meps.ahrq.gov/mepsweb/about\\_meps/survey\\_back.jsp](http://www.meps.ahrq.gov/mepsweb/about_meps/survey_back.jsp) (visited Feb. 23, 2010).

<sup>10</sup> Additional information about the uses of MEPS data may be found in “Medical Expenditure Panel Survey” (U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, no date), on the Internet at [www.meps.ahrq.gov/mepsweb](http://www.meps.ahrq.gov/mepsweb) (visited Feb. 23, 2010).

<sup>11</sup> For more information, see T. M. Ezzati-Rice, F. Rohde, and J. Greenblatt, *Sample Design of the Medical Expenditure Survey Household Component, 1998–2007*, Methodology Report No. 22 (U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, March 2008), on the Internet at [www.meps.ahrq.gov/mepsweb/data\\_files/publications/mr22/mr22.pdf](http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr22/mr22.pdf) (visited Feb. 23, 2010). Tables providing detailed information about MEPS-HC sample sizes from 1996 to 2006 may be found in “Medical Expenditure Panel Survey: MEPS-HC Sample Sizes” (U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, May 1, 2007), on the Internet at [www.meps.ahrq.gov/mepsweb/survey\\_comp/hc\\_sample\\_size.jsp](http://www.meps.ahrq.gov/mepsweb/survey_comp/hc_sample_size.jsp) (visited Feb. 23, 2010).

<sup>12</sup> For a more detailed explanation, see “Medical Expenditure Panel Survey: MEPS Online Workbook” (U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, no date), on the Internet at [www.meps.ahrq.gov/mepsweb/about\\_meps/online\\_workbook.jsp](http://www.meps.ahrq.gov/mepsweb/about_meps/online_workbook.jsp) (visited Feb. 23, 2010).

<sup>13</sup> The MPC is not designed as an independent survey of nationwide medical expenditures. One reason is that it does not cover all types of health care providers. Another is that the MPC sample is generated from responses to the MEPS-HC and only providers for whom there is a signed respondent permission form are contacted. (For more information, see Marie N. Stagnitti, Karen Beauregard, and Amy Solis, *Design, Methods, and Field Results of the Medical Expenditure Panel Survey Medical Provider Component (MEPS-MPC)—2006 Calendar Year Data*, Methodology Report No. 23 (U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality,

November 2008), on the Internet at [www.meps.ahrq.gov/mepsweb/data\\_files/publications/mr23/mr23.pdf](http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr23/mr23.pdf) (visited Feb. 23, 2010); and Steven R. Machlin and Amy K. Taylor, *Design, Methods, and Field Results of the 1996 MEPS Medical Provider Component*, Methodology Report No. 9 (U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, May 2000), on the Internet at [www.meps.ahrq.gov/mepsweb/data\\_files/publications/mr9/mr9.pdf](http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr9/mr9.pdf) (visited Feb. 23, 2010).

<sup>14</sup> The NHEA define the population used in their data tables as the U.S. Census resident population plus the net undercount. The resident population includes all residents (both civilian and in the Armed Forces) living in the United States. The geographic universe for the resident population is the 50 States and the District of Columbia. (For more information, see “Population Estimates: Terms & Definitions” (U.S. Census Bureau, Dec. 22, 2009), on the Internet at [www.census.gov/popest/topics/terms/national.html](http://www.census.gov/popest/topics/terms/national.html) (visited Feb. 23, 2010); and “Category Definitions: National Health Expenditures” (U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services, no date), on the Internet at [www.cms.hhs.gov/NationalHealthExpendData/downloads/quickref.pdf](http://www.cms.hhs.gov/NationalHealthExpendData/downloads/quickref.pdf) (visited Feb. 23, 2010).)

<sup>15</sup> For more information, see “National Health Expenditures Accounts: Definitions, Sources, and Methods, 2008” (Centers for Medicare and Medicaid Services, 2008) on the Internet at [www.cms.hhs.gov/NationalHealthExpendData/downloads/dsm-08.pdf](http://www.cms.hhs.gov/NationalHealthExpendData/downloads/dsm-08.pdf) (visited Feb. 23, 2010).

<sup>16</sup> *Ibid.*

<sup>17</sup> *Ibid.*

<sup>18</sup> *Ibid.*

<sup>19</sup> *Ibid.*

<sup>20</sup> *Ibid.* Consumer outlays for private insurance and Medicare premiums are not included in this source of funds because payment is made to a third-party insurer, which the NHEA classify as a separate source of funds.

<sup>21</sup> In the NHEA, services are categorized according to the framework provided by the North American Industrial Classification System (NAICS). (For more information about NAICS, see *North American Industrial Classification System* (Washington, DC, Executive Office of the President, Office of Management and Budget, 2007), on the Internet at [www.census.gov/cgi-bin/sssd/naics/naicsrch?chart=2007](http://www.census.gov/cgi-bin/sssd/naics/naicsrch?chart=2007) (visited Feb. 23, 2010).)

<sup>22</sup> For more information, see “National Health Expenditure Accounts.”

<sup>23</sup> At one time, MEPS collected a limited amount of information on nonprescription, nondurable goods, but the information was not included in official MEPS estimates. Questions requesting this information were omitted from the questionnaire beginning in 2002 (Panel 6, Round 3; and Panel 7, Round 1). (See Selden and others, “Reconciling Medical Expenditure Estimates”; and “Survey Questionnaires—Household Component” (U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, Nov. 1, 2006), on the Internet at [www.meps.ahrq.gov/mepsweb/survey\\_comp/survey\\_questionnaires.jsp](http://www.meps.ahrq.gov/mepsweb/survey_comp/survey_questionnaires.jsp) (visited Feb. 23, 2010).)

<sup>24</sup> *Ibid.*

<sup>25</sup> *Ibid.* (For more information, see “Sponsors of Health Care Costs: Business, Households and Government, 1987–2008” (U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services, Jan. 4, 2010), on the Internet at [www.cms.hhs.gov/NationalHealthExpendData/downloads/bhg08.pdf](http://www.cms.hhs.gov/NationalHealthExpendData/downloads/bhg08.pdf) (visited Feb. 23, 2010); and “2009 Annual Report of the Boards of

Trustees of the Federal Hospital Insurance and the Federal Supplementary Medical Insurance Trust Fund” (Centers for Medicare and Medicaid Services, May 12, 2009), on the Internet at [www.cms.hhs.gov/ReportsTrustFunds](http://www.cms.hhs.gov/ReportsTrustFunds) (visited Feb. 23, 2010).)

<sup>26</sup> The MEPS data used in this research were accessed on February 24, 2009. The MEPSnet/HC query tool has since been updated to include 2007 MEPS data. (For more information about the MEPSnet/HC query tool, see “Medical Expenditure Panel Survey” (U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, Dec. 31, 2009), on the Internet at [www.meps.ahrq.gov/mepsweb/data\\_stats/MEPSnetHC.jsp](http://www.meps.ahrq.gov/mepsweb/data_stats/MEPSnetHC.jsp) (visited Feb. 23, 2010).)

Note that when the Centers for Medicare and Medicaid Services publish data for subsequent years, data from previous years often are revised. The NHEA data used in this article were those released with the 2007 estimates and accessed February 24, 2009. NHEA data for 2008 were released on January 5, 2010, and the earlier data were replaced with newer data titled “National Health Expenditures by Type of Service and Source of Funds: Calendar Years 1960–2008” (U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services, Jan. 4, 2010), on the Internet at [www.cms.hhs.gov/NationalHealthExpendData/02\\_NationalHealthAccountsHistorical.asp](http://www.cms.hhs.gov/NationalHealthExpendData/02_NationalHealthAccountsHistorical.asp) (visited Feb. 23, 2010).

<sup>27</sup> This was the method employed by Garner and colleagues, “The CE and the PCE,” in comparing expenditures reported in those two data sources.

<sup>28</sup> MEPS data were available for 2001–06 only. In addition, MEPS-HC information about private insurance premium payments was not available from the MEPSnet/HC query tool. Also, despite adjustments, it was not possible to remove all nursing home and home health care expenses from the data, because the NHEA includes hospital-based nursing home and home health care in its hospital care category. Finally, nondurable medical products obtained from nonretail outlets, such as hospital or health maintenance organization pharmacies, also would be included in NHEA out-of-pocket expenses for those nondurable medical products obtained from nonretail outlets.

<sup>29</sup> The CE outpatient/emergency room category was formed as the combination of the laboratory tests and x-rays category and the “other medical services” category. The MEPS category includes only charges for hospital outpatient and emergency room facilities. The CE category comprises both spending on laboratory tests and x rays not rendered on an outpatient or emergency room basis and ambulance charges, neither of which is included in the MEPS category.

<sup>30</sup> MEPS data indicate that in 2006 there were 16.5 prescription purchases among those with at least 1 purchase during the year. (For more information, see Marie N. Stagnitti, “Trends in Outpatient Prescription Drug Utilization and Expenditures, 1997 and 2004,” Statistical Brief no. 168 (U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, April 2007), on the Internet at [www.meps.ahrq.gov/mepsweb/data\\_files/publications/st168/stat168.pdf](http://www.meps.ahrq.gov/mepsweb/data_files/publications/st168/stat168.pdf) (visited Feb. 23, 2010); and “Average number of Total (Including Refills) and Unique Prescriptions by Select Person Characteristics, 2006,” Statistical Brief no. 245 (U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, May 2009), on the Internet at [www.meps.ahrq.gov/mepsweb/data\\_stats/Pub\\_ProdResults\\_Details.jsp?pt=Statistical%20Brief&opt=2&id=906](http://www.meps.ahrq.gov/mepsweb/data_stats/Pub_ProdResults_Details.jsp?pt=Statistical%20Brief&opt=2&id=906) (visited Feb. 23, 2010).)

<sup>31</sup> Research attempting to align MEPS data with NHEA data found that estimated out-of-pocket spending was 12 percent greater in MEPS than in the NHEA. However, estimates of spending on personal health insurance, Medicare, and Medicaid were lower than those of the NHEA. (For more information, see Sing and colleagues, “Reconciling Medical Expenditure Estimates.”)

## Producing disease-based price indexes

*Using a total-expenditure scope and adjusting for utilizations under a treatment concept for measuring health care costs slows down the rate of growth of medical prices; the downside is that most of the saving is seen in insurance benefit payments and not in out-of-pocket payments or lower insurance premiums for consumers*

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There are two basic ways of measuring health care costs. The first, labeled the “goods-and-services” concept, measures the cost of each medical good and service separately. The second, called the “treatment concept,” measures the cost of all the goods and services used to treat a particular disease. With an eye toward improving the accuracy of the Consumer Price Index (CPI), the National Academies’ Committee on National Statistics (CNSTAT) recommends the latter approach. In pursuit of satisfying the CNSTAT recommendation, this article compares these two concepts as they apply to constructing price indexes for medical care. The article does not select which concept is best: each approach provides different information. The first measures the contribution of each medical input to total health care inflation, whereas the second indicates how each disease influences health care inflation.

Ideally, what is sought to be measured is the cost of the healing that is derived from using medical goods and services. However, the amount of healing derived from a service cannot be directly measured; instead, only what is readily observable, such as the physician office

visit, the hospital stay, or the prescription drug purchase, can be measured. Accordingly, in measuring medical care inflation as part of the CPI, the BLS collects prices for goods and services such as physician visits, emergency room visits, and prescription drug purchases. The resulting measures of medical price change are published, under the goods-and-services concept, as distinct indexes for physicians’ services, hospital and related services, prescription drugs, and nonprescription drugs and medical supplies.<sup>1</sup>

As long ago as 1967, it was recognized that “the average consumer of medical care is not as interested in the price of a visit or hospital day as he is in the total cost of an episode of illness.”<sup>2</sup> Several well-known economists have been interested in the “total cost of an episode of illness” (the treatment concept) because there is evidence that, over time, the mix of goods and services used to treat a particular disease has changed and less expensive treatments have become substitutes for more expensive ones. In addition, interest has arisen in the economic effects of improved healing outcomes for certain diseases.

Over the years, economists have attempted to compute price indexes for the entire treatment of an episode of disease, rather than computing separate indexes for each of the

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goods and services used to treat a particular disease. Matthew D. Shapiro and David Wilcox constructed a price index for treating a cataract and found that, during the last quarter of the 20th century, there was a shift in point of service for this procedure from an inpatient hospital setting to an outpatient surgical center.<sup>3</sup> This move away from the inpatient hospital reduced the price of treating an episode of surgery for removal of a cataract. David M. Cutler, Mark McClellan, Joseph P. Newhouse, and Dahlia Remler examined how acute myocardial infarction (one kind of heart attack) was treated and found that prices for treating the condition had actually decreased when the increased longevity resulting from new surgical procedures was taken into account.<sup>4</sup> Finally, Ernst R. Berndt and colleagues argued that prices for treating depression fell with the introduction of a new generation of antidepressants—the selected serotonin reuptake inhibitors—as the improved pharmaceuticals became a cheaper alternative to expensive psychotherapy.<sup>5</sup>

In treating medical conditions, not only do the relative proportions of goods and services change over time, but the average intensity of use also changes. For instance, in the treatment of diabetes, the utilization of all medical goods and services has increased. The treatment concept allows changes to be incorporated into the composition and intensity of use of the goods and services utilized to treat particular diseases. But because the BLS computes medical indexes under the goods-and-services concept, it does not incorporate either the substitution of less expensive treatments for more expensive ones or the change in intensity of use of treatments into its medical price indexes.<sup>6</sup>

Although current national accounts measure medical consumption and output with a goods-and-services concept, the U.S. Bureau of Economic Analysis (BEA) is seeking to create an alternative, or satellite, account that would redefine the final medical good as the entire treatment of a disease under the treatment concept.<sup>7</sup> Deriving a real-dollar amount for this nominal expenditure requires a price index that is categorized by disease, not medical services and products. As a result, there is a need for experimental disease-based price indexes that would properly deflate medical expenditures measured under a treatment concept.<sup>8</sup> This article is a summary of BLS research into the production of these indexes.

The BLS is not the only agency that is producing indexes under the two concepts described. Having found evidence of input substitution and changes in

intensity of use of treatments, Ana Aizcorbe, of the BEA, and Nicole Nestoriak have generated disease-based indexes that account for both phenomena.<sup>9</sup> The Steering Committee for the Workshop to Provide Guidance for Development of a Satellite Health Care Account at the BEA published the proceedings of a meeting between academic economists and government agencies that discussed implementing a satellite account for medical expenditures by disease. Disease-based price indexes also were discussed at the meeting.<sup>10</sup>

The BLS's first experience with the production of disease-based indexes derives from the following recommendation made by CNSTAT:

BLS should select between 15–40 diagnoses from the ICD (International Classification of Diseases), chosen randomly in proportion to their direct medical treatment expenditures and use information from retrospective claims databases to identify and quantify the inputs used in their treatment and to estimate their cost. On a monthly basis, the BLS could reprice the current set of specific items (e.g., anesthesia, surgery, and medications), keeping quantity weights temporarily fixed. Then, at appropriate intervals, perhaps every year or two, the BLS should reconstruct the medical price index by pricing the treatment episodes of the 15 to 40 diagnoses—including the effects of changed inputs on the overall cost of those treatments. The frequency with which these diagnosis adjustments should be made will depend in part on the cost to BLS of doing so. The resulting MCPI [medical consumer] price indexes should initially be published on an experimental basis. The panel also recommends that the BLS appoint a study group to consider, among other things, the possibility that the index will “jump” at the linkage points and whether a prospective smoothing technique should be used.<sup>11</sup>

Rather than producing the indexes in-house, the BLS contracted with Thomson Healthcare Company to construct price indexes using insurance claims filed by self-insured companies. Medical indexes were constructed for three metropolitan areas by randomly selecting from 40 narrowly defined diseases, with a probability of selection proportional to the area's expenditure share on each disease. Each year, the inputs used to treat the selected diseases were updated and reflected in the index. The results of this study were reported in a work by Xue Song, William Marder, William Houchens, John E. Conklin, and Ralph Bradley.<sup>12</sup>

In the process of completing the Thomson study, BLS researchers discovered important characteristics and limitations of the data used to calculate the disease-based indexes. First, the insurance claims data did not represent those who had only public insurance or who were uninsured; this was because the data contained records for privately insured patients

alone. Second, because the claims data covered just those companies which had contracted with Thomson, the data may not have been representative of the overall privately insured population. Third, the data included unobserved additions of patients, as well as attrition; therefore, it was not possible to determine whether the change in inputs was the result of using inputs more efficiently or the result of a change in the patient mix.<sup>13</sup> Fourth, several claim records did not have a diagnosis (records of this kind are known as orphan records); hence, it could not be guaranteed that all the treatments being used to treat a particular disease were included. Fifth, under the CNSTAT recommendation, it was possible to track only the price indexes of randomly selected diseases; consequently, the aggregate treatment price for a disease that was not in the sample could not be tracked.

The price indexes computed under the method recommended by CNSTAT did not differ statistically from the currently published medical CPI under the goods-and-services concept. The point estimates from the CNSTAT indexes, however, were lower than those of the BLS indexes.

Because of the limitations of the Thomson study, it was decided to recalculate disease-based price indexes with a data source that is more representative and has less attrition than an insurance claims database. Thus, instead of randomly selecting 40 narrowly defined disease categories, a price index was computed for every major disease so that it could readily be understood how each disease source contributed to the overall medical inflation rate. The final set of indexes computed complies with the CNSTAT recommendations and is representative of what the Nation is paying for treating each disease.

In what follows, the methods of computing medical price indexes under the goods-and-services concept and under the treatment concept are described and compared. Then, the data and the methods used to construct the disease-based indexes are presented. Finally, the resulting indexes are analyzed, and the article closes with an explication of how the disease-based indexes differ from indexes based on the goods-and-services concept.

No quality adjustment issues are addressed, because many improvements in medical care cannot be immediately observed—if they can be observed at all. The CPI is a real-time index; consequently, the BLS must generate and publish indexes for price movements roughly 2 to 3 weeks after the end of each month. This schedule does not allow enough time to observe the quality changes associated with, for example, the increased longevity resulting from heart bypass surgery, which could be measured only years after the surgery has been performed. When the BLS

collects a price quote for heart surgery, it cannot adjust for this increased longevity because it will not occur until long after the quote has been collected and the index published.

### **The CPI: the goods-and-services concept**

The BLS currently publishes medical price indexes under the goods-and-services concept. The prices used in the generation of these indexes are collected from medical goods and services outlets (such as physicians' offices) and hospitals. Indexes are calculated by the type of provider, expressed as a service (that is, physicians' services, hospital and related services, and so forth) or good.

Sampling for prices is done at the outlet level. Outlets of a particular medical good or service are selected with a probability proportional to their share of total spending. The BLS identifies the responses of medical outlets through a household survey. For example, suppose that there are three physicians' offices, labeled A, B, and C, in a certain geographical area. Suppose also that office A accounts for 50 percent of the area's expenditures on physicians; then it will have a 50-percent chance of getting selected in a sample draw.

Once the outlet is selected, a particular good or service must be selected inside the outlet. Taking the example of physicians' offices again, suppose that office B offers three services. Then, if each of the services accounts for a third of the office's revenue, each service will have a one-third chance of being sampled.

The published CPI has four major medical indexes: prescription drugs, nonprescription drugs and medical supplies, professional services (physician, dental, and so forth), and hospital and related services (inpatient, outpatient, and emergency room). A fifth, minor, index, health insurance, essentially prices the part of the premium that does not finance the insurance benefit.

Implicit quantity weights are derived when the sample is initiated, and they stay fixed throughout the entire sample period. Many claim that this method produces an upward bias because the savings from substituting less expensive or more efficient inputs are not incorporated into the index. But it also could be a source of downward bias because the method does not adjust for increases in utilization.

### **Disease-based indexes: the treatment concept**

Under the treatment concept, disease-based indexes are computed for each disease, following the guidelines of the



CNSTAT recommendation. The disease categories used are set forth in the chapters of the ICD-9 manual and are as follows:

- Infectious diseases
- Neoplasms
- Endocrine, nutritional, and related diseases
- Diseases of the blood
- Mental disorders
- Diseases of the nervous system
- Diseases of the circulatory system
- Diseases of the respiratory system
- Diseases of the digestive system
- Diseases of the genitourinary system
- Complications of pregnancy
- Diseases of the skin
- Diseases of the musculoskeletal system
- Congenital anomalies
- Certain conditions in the prenatal period
- Injury and poisoning
- Other conditions

To compute disease-based indexes, data are needed on the amounts of goods and services used to treat each disease for each year.<sup>14</sup> For example, one needs to know how many emergency room visits took place in 2003 to treat diseases of the skin. The data source for this important information is the Medical Expenditures Panel Survey (MEPS), a survey administered by the U.S. Agency for Healthcare Research and Quality. This panel survey queries households about the diseases they contract and their expenditures and utilizations for the goods and services used to treat those diseases.<sup>15</sup>

Because monthly indexes had to be computed, but MEPS data had only yearly prices, a monthly update was imputed by increasing the yearly price by the growth in the monthly price index counterpart in the CPI. For physicians' services, the yearly price was increased by the growth in the monthly CPI index for that expenditure category. For outpatient and inpatient services, the monthly price was increased by the CPI index for hospital services; for pharmaceuticals, the yearly price was increased by the CPI for pharmaceutical goods.

The year-opening quantities of each type of good and service used to treat any disease were updated to account for substitutions of products or services and changes in their intensity of utilization. Thus, if there was a substitution away from expensive inpatient hospitals to inexpensive prescription medicines, then the index would be lower than it would have been if that substitution had not

been incorporated.

A simple example will serve to explain how disease-based indexes are generated, both for this article and in general. Suppose that there are two diseases, A and B, and two services, 1 and 2, used to treat these diseases. Suppose also that in 2002 the price of service 1 is \$1,000 per visit and the price of service 2 is \$100 per visit. To treat disease A in 2002 requires 2 visits of service 1 and 2 visits of service 2. (These figures represent the utilization of the two services.) To treat disease B in 2002 requires 1 visit of service 1 and 1 visit of service 2. Now, suppose further that there is a substitution away from the higher priced service 1 to the lower priced service 2 in 2003, so that the treatment of disease A now requires 1 visit of service 1 and 4 visits of service 2. Suppose also that it has become more difficult to treat disease B in 2003, so that utilizations have doubled for both services and it now requires 2 visits each of service 1 and service 2 to treat disease B. Finally, suppose that the price for both services increases by 10 percent from 2002 to 2003. Then, under the services approach, the price index for medical care would increase by 10 percent. Under the disease approach, there would be a 30-percent *drop* in the price index for treating disease A, because the index would account for the substitution from the high-priced to the low-priced service. By contrast, the price index for treating disease B would *increase* by 120 percent, because the utilization of each service has doubled and the price for each service has increased by 10 percent. Applying the broad outlines of this example to utilizations in the MEPS database reveals that there are some diseases like disease A, such as mental disorders, for which there has been a substitution from higher priced services, such as visits to a therapist, to lower priced pharmaceuticals, and some diseases like disease B, such as endocrine disease, for which the utilization of all goods and services has increased over time.

In constructing disease-based indexes, the problem of *comorbidities*—instances in which the patient has more than one condition or disease and the doctor is treating more than one disease in a single office visit—needs to be addressed. As table 1 shows, comorbidities for physician visits are increasing over time. What is the best approach to measure utilizations in situations with comorbidities? In what follows, two sets of indexes are generated that treat comorbidities differently. Under the first method, if a patient uses a service to treat more than one disease, then the use of that service is recorded for each disease treated. In the second method, the use of the service is prorated to each disease, so that if a patient had three diseases treated in one physician visit, only one-third of

**Table 1. Indicators of comorbidity, 1996–2004**

Year	Physician office visits			
	Mean number of diseases per visit	Number of visits for one disease	Number of visits for two diseases	Number of visits for three diseases
1996.....	1.532	914,097,000	88,510,626	23,576,756
1997.....	1.802	857,015,927	105,222,051	27,585,681
1998.....	1.780	877,451,281	110,900,249	30,690,505
1999.....	1.800	845,212,132	116,441,032	27,143,362
2000.....	1.939	847,517,668	103,487,437	31,378,739
2001.....	1.900	936,244,257	110,942,893	36,068,550
2002.....	2.085	1,006,756,597	131,275,941	39,673,678
2003.....	2.216	1,012,850,592	143,401,176	40,693,481
2004.....	2.033	1,026,306,773	156,835,092	40,904,072

a visit is recorded for each of the diseases treated. Both methods have their shortcomings. The first method will overcount utilizations if the patient would have used less of the service if he or she were treated for just one of the diseases alone. In the second method, the increase in comorbidities by itself will increase the productivity of medical services solely because the patient is sicker and the service is treating more diseases per visit. This result might not be desirable.

Another price index problem is that a substantial fraction of providers are not paid for their services and the cost of these uncompensated services must be defrayed from other sources. Current CPI methods do not account for this situation, because the price that the BLS collects is for services that get full reimbursement. However, when a patient pays nothing, the BLS does not collect any price data. The MEPS database, by contrast, does account for nonpayment. Average prices computed by sampling only those who do ultimately pay puts an upward bias on the average price that all patients pay. Tables 2 and 3 and the following tabulation of the relationship between growth in the incidence of unpaid emergency room visits and the difference of price growth for all emergency room visits and for reimbursed visits illustrate the problem:

Year	Yearly growth in incidence of unpaid emergency room visits (percent)	Difference of price growth for all visits and price growth for reimbursed visits
1999.....	5.61	0.46
2000.....	15.64	1.32
2001.....	5.62	.61
2002.....	-29.64	-3.10
2003.....	17.28	1.28
2004.....	10.39	1.08

Six percent to nine percent of emergency room visits go unreimbursed. In years when there was an increase in the incidence of unreimbursed visits, the average price for reimbursed visits rose more rapidly than that for all visits. It is plausible to assume that part of this price increase for reimbursed visits financed the increases in delinquencies (unpaid visits). Likewise, in 2002 there was a dramatic drop in the unreimbursed share, and only in that year did the average price for all emergency room visits grow more rapidly than that for just the reimbursed visits. Over the 1998–2004 period, the reimbursed price grew more rapidly than the all-visits price while, at the same time, the incidence of unpaid visits also increased. However, the all-visits price is reflective of all consumers, not just those who pay. The BLS prices reimbursed visits only and does not account for those patients who, for example, have been able to receive emergency room care for which no reimbursement was made on their behalf.

Finally, the notion of *expenditure* scope is important in the construction of price indexes. In the medical sector, there are several alternative scopes. At the Bureau of Economic Analysis, the scope for personal consumption expenditures is all expenditures, regardless of how they are financed. Their corresponding price deflators are then also based on total expenditures. In addition, there is an out-of-pocket scope covering only expenditures that are financed directly from consumers' disposable income. Medicare, Medicaid, and private insurance reimbursements are included in measured medical expenditures under the total-expenditure scope, but are not included in that expenditure category under the out-of-pocket scope. Different expenditures scopes generate different prices. For the total-expenditure scope, the price is the total price, regardless of the source of financing, whereas for the out-of-pocket scope, the price is merely the out-of-pocket price that the consumer pays directly. The BLS scope is a hybrid between the total-expenditure scope and the out-of-pocket scope: all out-of-pocket payments are included, and the portion of both public and private insurance reimbursement that is attributed to the consumer's out-of-pocket payments for premiums also is included. So, too, are all employee contributions to employer-sponsored plans, as well as the individual's payment of the Parts B and D Medicare insurance premium. In what follows, indexes are generated for the total-expenditure scope, the out-of-pocket scope, and the BLS scope.

Year and status of patient	Percent of visits unreimbursed
<b>1998</b>	
All .....	7.14
Privately insured .....	4.34
Publicly insured.....	6.87
Uninsured.....	24.32
<b>1999</b>	
All .....	7.54
Privately insured .....	4.13
Publicly insured.....	8.17
Uninsured.....	28.33
<b>2000</b>	
All .....	8.72
Privately insured .....	5.75
Publicly insured.....	7.38
Uninsured.....	31.12
<b>2001</b>	
All .....	9.21
Privately insured .....	6.67
Publicly insured.....	8.15
Uninsured.....	27.74
<b>2002</b>	
All .....	6.48
Privately insured .....	4.01
Publicly insured.....	5.67
Uninsured.....	26.16
<b>2003</b>	
All .....	7.60
Privately insured .....	5.04
Publicly insured.....	6.15
Uninsured.....	27.34
<b>2004</b>	
All .....	8.39
Privately insured .....	5.73
Publicly insured.....	5.98
Uninsured.....	33.34

## Results

Table 4 lists the number of diagnoses for each major disease category for the United States. The endocrine and nutritional disease category, which includes all diabetes diagnoses and confirms the rapid growth in type II diabetes in the Nation, grew the most rapidly between 1998 and 2004, increasing nearly 61 percent. The challenge here is that diabetes leads to additional comorbidities and is in part the reason for the growth in comorbidities depicted in table 1. Growth in the number of visits for one disease increased 12.3 percent between 1998 and 2004, while the growth rates in the number of visits for two and three diseases increased 77.2 percent and 73.5 percent, respectively. The increase in diabetes is perhaps also part of the reason for the 33.2-percent increase in the incidence of circulatory system diseases between 1998 and 2004, given that diabetes and circulatory problems are comorbidities.

Year and type of visit	Price per visit	Standard error	Yearly price growth
<b>1998</b>			
All visits .....	\$381.38	6.4	...
Reimbursed visits .....	410.69	6.5	...
<b>1999</b>			
All visits .....	399.60	9.1	4.78
Reimbursed visits .....	432.21	9.4	5.24
<b>2000</b>			
All visits .....	410.21	8.2	2.65
Reimbursed visits .....	449.39	8.5	3.97
<b>2001</b>			
All visits .....	463.82	9.1	13.07
Reimbursed visits .....	510.85	9.5	13.68
<b>2002</b>			
All visits .....	493.93	9.1	6.49
Reimbursed visits .....	528.16	9.4	3.39
<b>2003</b>			
All visits .....	524.84	8.2	6.26
Reimbursed visits .....	567.98	8.4	7.54
<b>2004</b>			
All visits .....	646.73	14.7	23.22
Reimbursed visits .....	705.99	15.3	24.30

mon comorbidities.

The following tabulation lists the aggregate medical indexes based on the different methods outlined in this article for the period from 1999 to 2004 (because of rounding, differences of columns may not exactly equal the resulting number shown):

Scope	(1) Goods and services	(2) Treatment with updated utilization	(3) Adjusted for comor- bidities	(2) – (1)	(3) – (2)
Total expenditures.....	1.3585	1.3342	1.3091	-0.0243	-0.0251
Out of pocket only.....	1.2831	1.3163	1.3057	.0332	-.0106
BLS scope .....	1.3032	1.3055	1.2881	.0024	-.0175

Column 1 lists the results obtained from the treatment concept, in which utilizations are updated annually. Column 2 lists the results for indexes computed by the goods-and-services concept, for which there is no utilization update. Column 3 lists the indexes computed under the treatment concept by prorating comorbidities such that if a service treated more than one disease, the utilization of that service would be prorated across the diseases treated. Under the total-expenditure scope, accounting for utilization changes results in a 2.43-percent drop in the cumulative index, compared with computing no utilization adjustment. When utilizations are prorated for comorbidities, there is a further 2.51-percent

**Table 4. Number of diagnoses for major categories of disease, 1998–2004**

[In millions]

Disease	1998	1999	2000	2001	2002	2003	2004
Infectious diseases.....	25.1	23.8	24.5	26.2	26.1	26.0	23.9
Neoplasms.....	17.2	16.9	17.2	18.9	20.7	20.6	20.1
Endocrine, nutritional, and related diseases.....	47.1	50.2	55.0	60.8	64.7	67.7	75.6
Diseases of the blood.....	3.1	3.3	3.9	4.2	4.2	4.1	4.2
Mental disorders.....	40.7	38.2	39.8	45.7	54.5	56.0	59.7
Diseases of the nervous system.....	85.5	79.1	76.9	81.7	82.6	86.6	88.2
Diseases of the circulatory system.....	65.7	65.1	68.8	72.4	80.0	83.6	87.5
Diseases of the respiratory system.....	175.6	172.7	168.9	183.2	179.1	184.4	177.4
Diseases of the digestive system.....	79.1	82.1	82.7	83.4	90.4	93.8	92.2
Diseases of the genitourinary system.....	34.7	35.3	38.0	40.8	41.3	41.8	41.3
Complications of pregnancy.....	13.7	14.6	16.9	18.4	18.0	19.0	18.8
Diseases of the skin.....	27.4	25.8	28.2	31.4	31.6	30.9	29.2
Diseases of the musculoskeletal system.....	75.9	75.8	76.4	86.3	96.6	99.6	102.6
Congenital anomalies.....	2.3	1.6	1.6	1.7	1.7	1.8	1.9
Certain conditions in the prenatal period.....	.4	.5	.8	.8	.9	1.1	.9
Injury and poisoning.....	64.3	60.1	60.8	64.7	66.1	68.0	68.5
Other conditions.....	64.2	66.6	71.3	79.2	81.7	83.4	83.7

drop in the cumulative index, reflecting the effect of growing comorbidities on the productivity of medical services. Both differences are statistically significant.

When an out-of-pocket scope is used, the results differ. Here, utilization adjustment actually *increases* the index by a statistically significant 3.32 percent. There are two major reasons for this difference. First, most of the savings that occur are the result of shifting from inpatient hospital services to outpatient services. The share of total medical expenditures that finance inpatient services is much higher than the out-of-pocket counterpart. Therefore, the savings from the inpatient-to-outpatient shift are higher for the total-expenditure approach. Adjusting for comorbidity then yields a drop in the index; for example, under the BLS scope, the drop is a statistically significant 1.75 percent.

Table 5 lists the ratio of out-of-pocket payments to total payments for various services from 1998 to 2004. In 2004, out-of-pocket payments were 1.8 percent for inpatient facilities and 6.7 percent of total payments for outpatient facilities. Suppose that there was a shift in 2004 from inpatient to outpatient facilities that resulted in a 50-percent saving for total expenditures. Then, given the preceding ratios, consumer out-of-pocket payments would still have risen 86 percent, because their rate of insurance reimbursement on outpatient services was less than their rate of reimbursements on inpatient services. A second reason that the utilization-adjusted out-of-pocket index is higher than the unadjusted indexes is that the utiliza-

tion intensity of pharmaceutical products has increased, disproportionately affecting out-of-pocket payments.

Because the BLS scope is a hybrid of the total-expenditure and out-of-pocket scopes, the results are mixed. There is no statistically significant difference in the indexes between adjusting and not adjusting for utilization. Note, however, that table 5 covers only the 1998–2004 period, and another period might produce differences that are statistically significant. Accounting for comorbidities does create a significant 1.75-percent drop in the index.

The savings from the substitution toward less expensive inputs have been concentrated in several disease categories that have relatively large expenditure shares—such as neoplasms, mental disorders, and pregnancies—for which inpatient utilization has dropped dramatically.

THE BLS RESPONSE TO CNSTAT'S RECOMMENDATION that the BLS construct disease-based consumer medical price indexes has produced mixed results. With the total-expenditure scope, adjusting for utilizations under the treatment concept results in a drop in the rate of medical price growth for the 1999–2004 period. But this drop does not extend to all diseases and all scopes. Most of the savings accrues to insurance benefit payments; the consumer sees no drop in either out-of-pocket payments or lower insurance premiums. Thus, using an out-of-pocket scope actually results in an *increase* in the index when utilization changes are taken into account. During the 1999–2004 period, had the BLS kept its expenditure scope and shifted



**Table 5. Ratio of out-of-pocket payments to total payments, selected services, 1998–2004**

[In percent]

Year	Total expenditures	Emergency room facilities	Emergency room physicians	Outpatient facilities	Outpatient physician	Inpatient facilities	Inpatient physician	Office based visits	Prescriptions
1998 .....	19.3	15.7	13.0	8.1	6.4	2.7	4.4	18.2	48.0
1999 .....	19.2	14.7	10.4	5.1	6.2	2.6	3.7	18.0	46.2
2000 .....	19.4	11.7	14.6	8.1	5.5	2.0	3.5	16.8	46.1
2001 .....	19.7	11.6	13.6	6.8	7.0	1.8	5.6	15.2	44.0
2002 .....	19.1	11.0	13.1	5.9	8.1	2.0	5.1	16.0	42.3
2003 .....	19.6	12.5	11.0	5.9	7.6	1.9	3.7	15.2	44.9
2004 .....	19.0	11.5	13.1	6.7	7.6	1.8	5.1	14.1	42.2

from pricing services directly to pricing diseases, there would have been little change to the medical CPI.

Unlike the study by Song and colleagues, most of the results presented here are statistically significant. Significance was achieved by computing indexes for broad disease categories, rather than randomly selecting 40 disease categories from a narrowly defined classification system. This approach resulted in more degrees of freedom and reduced the variance of the parameter estimates. One might argue that there is little homogeneity within these broadly defined groups and that, consequently, overall disease severity could vary widely. The proper reply to this critique is that, although it is true that there is much within-group variance in the broad categories used in this article, it is evident that narrowing the categories will not substantially reduce that variance.

The results presented here are likely more representative of U.S. consumers than are the results obtained in Song and colleagues' study, because the sample used herein is representative of the entire U.S. civilian noninstitutional population. By contrast, Song and colleagues used a private claims database that perhaps is not representative of the privately insured population, and the scope of the study was limited to three metropolitan areas.

Even if more narrowly defined disease categories were used here, the within-category variance would still be large. Bradley computed summary statistics for utilizations within a more narrowly defined clinical classification system than the one used in this study.<sup>16</sup> Even under that system, the standard deviations were large relative to their means. For example, the number of hospital nights used to treat an episode of acute myocardial infarction ranged from 0 to 325. The diagnosis can give only limited information about the overall severity of the disease and therefore only limited information about the resources used to treat the disease. Other factors, such as age and stage of the disease, play key roles. Perhaps the use of reporting re-

forms recommended in the next paragraph would reduce some of the variance.

As is true of any medical care statistic, the accuracy of the disease-based index depends on the accuracy of the records kept by the medical system. If physicians do not diagnose patients accurately or do not report their diagnoses accurately, then the resulting indexes will contain measurement error. Oftentimes, the physician cannot immediately diagnose an ailment, and the recordkeeping system must allow for this possibility. If a physician makes a misdiagnosis, there needs to be a process by which both the misdiagnosis and the corrected diagnosis can be reported. If misdiagnoses are not reported, then it is not possible to estimate the true quantity of services used to treat a disease.

Another area of reform centers around the documentation of treatments. Usually, it is the responsibility of the primary physician to organize and record all treatments, including the use of any additional physician specialties. However, when physicians submit their claims to insurers, they often do not give the insurer this information, so the insurer must use a "grouper" to try to determine which treatments the physician actually used when he or she treated a particular disease. Bradley found that the groupers utilized by insurers generally fail to link all the goods and services that are used to treat a particular disease.<sup>17</sup> Frequently, there are treatments that cannot be assigned a diagnosis, and this generates what is called an "orphan" record. Consequently, for many diagnoses, utilizations are underreported. For instance, if an expenditure for Glucophage does not have a diagnosis linked to it, then there is a diagnosis (most likely, diabetes) for which the total amount of money spent on Glucophage by prescription will be underreported. This situation can introduce a systematic downward bias in disease-based indexes. At other times, there are diagnoses that do not have links to all the treatments used to treat the disease in question. Both the MEPS database and claims data have records of



acute myocardial infarction diagnoses that have no physician office visit assigned to them,<sup>18</sup> yet, in order to establish the diagnosis, there had to be at least one such visit.

Finally, improved outcomes have not been factored into these indexes. Whether or not the BLS publishes disease-based indexes, accounting for improvements in outcomes will continue to be a deficiency. At this point in time, it is difficult to estimate a reliable value that a consumer places on an outcome. Using an approach such as that of Cutler and colleagues,<sup>19</sup> in which a dollar value is placed on an additional “quality-adjusted life year,” is likely too controversial to incorporate into a monthly published index.

The findings presented in this study show that there

have been both productivity gains and substitutions toward less expensive services that have reduced the total price of health care. However, it is also evident that these price reductions have not “trickled down” to patient out-of-pocket payments. Nor have they led to any significant reduction in premiums. In another study, Bradley constructed a cost-of-living index that directly prices health insurance and that accounts for increases in productivity.<sup>20</sup> However, the main conclusion drawn by Bradley was no different from that presented in this article: although these savings from substituting toward less expensive inputs generated savings in insurance benefit payments, they did not induce reductions in premiums. □

## Notes

<sup>1</sup> A full description of how the CPI measures medical care price movement can be found in “Consumer Price Index: Measuring Price Change for Medical Care in the CPI” (Bureau of Labor Statistics, Feb. 23, 2010), on the Internet at [www.bls.gov/cpi/cpifact4.htm](http://www.bls.gov/cpi/cpifact4.htm) (visited Feb. 28, 2010).

<sup>2</sup> *A Report to the President on Medical Prices* (U.S. Department of Health, Education, and Welfare, 1967), p. 13.

<sup>3</sup> Matthew D. Shapiro and David Wilcox, “Mismeasurement in the Consumer Price Index: An Evaluation,” *NBER Macroeconomics Annual*, December 1996, pp. 93–142.

<sup>4</sup> David M. Cutler, Mark McClellan, Joseph P. Newhouse, and Dahlia Remler, “Are Medical Prices Declining? Evidence from Heart Attack Treatments,” *Quarterly Journal of Economics*, November 1998, pp. 991–1024.

<sup>5</sup> See Ernst R. Berndt, Iain M. Cockburn, Zvi Griliches, Theodore E. Keeler, and Martin Neil Baily, “Pharmaceutical Innovations and Market Dynamics: Tracking Effects on Price Indexes on Anti-Depressant Drugs,” *Brookings Papers on Economic Activity, Microeconomics* (Washington, DC, Brookings Institution, 1996), pp. 133–99; and Ernst R. Berndt, Anupa Bir, Susan H. Busch, Richard G. Frank, and Sharon-Lise T. Normand, “The Medical Treatment of Depression, 1991–1996: Productive Inefficiency, Expected Outcome Variations, and Price Indexes,” *Journal of Health Economics*, May 2002, pp. 373–96.

<sup>6</sup> An exception is the substitution of less expensive generic drugs for brand-name drugs.

<sup>7</sup> See Ana M. Aizcorbe, Bonnie A. Retus, and Shelly Smith, “BEA Briefing: Toward a Health Care Satellite Account,” *Survey of Current Business*, May 2008, pp. 24–30.

<sup>8</sup> The Federal Medicare Part A program sets its schedule of reimbursement by diagnosis-related groups, which some private insurers use. However, reimbursement is for a particular medical service that treats a particular disease, not for all the treatments for a given diagnosis-related group.

<sup>9</sup> See Ana Aizcorbe and Nicole Nestoriak, “The Importance of Pricing the Bundle of Treatments,” BEA working Paper no. 2008-04 (Bureau of Economic Analysis, July 2008), on the Internet at [www.bea.gov/papers/pdf/wp2008-04\\_bundle\\_treatments\\_paper.pdf](http://www.bea.gov/papers/pdf/wp2008-04_bundle_treatments_paper.pdf) (visited Mar. 4, 2010).

<sup>10</sup> See Christopher J. Mackie and the National Research Council,

*Strategies for a BEA Satellite Health Care Account: Summary of a Workshop/Committee on National Statistics, Division of Behavioral and Social Sciences and Education, Christopher Mackie, Rapporteur* (Washington, DC, National Academies Press, 2009).

<sup>11</sup> See Charles Schultze and Christopher Mackie, eds., *At What Price? Conceptualizing and Measuring Cost-of-Living and Price Indexes* (Washington, DC, National Academies, 2002). “ICD-9” is an abbreviation used in the medical field that stands for “International Classification of Diseases, ninth revision.” The ICD-9 provides a standard classification of diseases for the purpose of maintaining health records. The World Health Organization assigns, publishes, and uses the ICD-9 to classify diseases and to track mortality rates on the basis of death certificates and other vital health records. Medical conditions and diseases are translated into a single format by means of ICD-9 codes.

<sup>12</sup> Xue Song, William Marder, William Houchens, John E. Conklin, and Ralph Bradley, “Can a Disease Based Price Index Improve the Estimation of the Medical CPI?” in *Price Index Concepts and Measurement* (NBER, 2008), pp. 329–72.

<sup>13</sup> As a rule, patients move in and out of databases. Thus, when an increase in, for example, the number of patient visits used to treat diabetics is observed in a database, it is unclear whether the change was due to a less effective use of physicians’ services or an increase in the number of relatively less healthy patients.

<sup>14</sup> In the medical field, the quantity (amount) of a service or good used to treat a disease is oftentimes referred to as utilization. In this article, the quantity of a service (that is, the number of hospital visits) is synonymous with the utilization of that service.

<sup>15</sup> Additional information on the MEPS may be found on the Internet at [www.meps.ahrq.gov/mepsweb](http://www.meps.ahrq.gov/mepsweb) (visited Feb. 28, 2010).

<sup>16</sup> Ralph Bradley, “Issues in Computing Disease Based Price Indexes,” unpublished BLS manuscript, 2006.

<sup>17</sup> *Ibid.*

<sup>18</sup> *Ibid.*

<sup>19</sup> Cutler, McClellan, Newhouse, and Remler, “Are Medical Prices Declining?”

<sup>20</sup> Ralph Bradley, “The Effects of Health Insurance Prices on the Cost of Living Index: The Shadow Price of Worry,” unpublished BLS manuscript, 2008.

# New expenditure data in the PSID: comparisons with the CE

*New data in the Panel Study of Income Dynamics (PSID) align closely with corresponding measures from the Consumer Expenditure Survey (CE), for each broad category in the former; imputed total PSID expenditures are very close to total CE expenditures, and cross-sectional life-cycle estimates of household expenditures are similar across the two surveys, both for total expenditures and for the distinct categories*

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Consumption is a fundamental concept in economics, figuring prominently in the theoretical literature of both microeconomics and macroeconomics. However, data on consumption expenditures at the household level have been quite limited. The Consumer Expenditure Survey (CE), the modern version of which began regular data collection in 1980, is the most widely used data set for studying consumption in the United States.

Another national survey that has collected data on some consumption expenditures over a long period is the Panel Study of Income Dynamics (PSID).<sup>1</sup> Historically, this survey collected information only on food and housing expenditures. Beginning in 1999, however, the PSID added questions about other expenditures, including spending on transportation, health care, education, utilities, and childcare. With this expanded set of questions on consumption expenditures, the PSID covered more than 70 percent of the total outlays measured in the CE.

Several features of the PSID's design make the survey a unique resource for studying consumption expenditure issues that cannot be addressed with the cross-sectional CE data. Among these features are the PSID's longitudinal design, the inclusion of consumption expenditure data on the parents

and siblings of respondents, and many additional variables, including detailed information on health status, wealth, pensions, income, employment, and family structure.

This article describes the expanded expenditure data collected in the PSID, outlines the questions that have been included in each wave, and examines item nonresponse. Because most empirical studies of consumption expenditures have used CE data, and because the CE remains the gold-standard source for information on consumption expenditures in any given period, benchmarking exercises are conducted to establish the quality of the PSID expenditure data compared with the corresponding CE data. Specifically, estimates of total expenditures based on the PSID are compared with those based on the CE, as are cross-sectional estimates of life-cycle expenditure patterns derived from the two surveys. Overall, the comparisons show that the PSID expenditure data compare favorably with the CE data.

## The data sets

*The Panel Study of Income Dynamics.* The PSID began in 1968 with a sample of roughly 5,000 families, including a low-income oversample. The PSID has a unique genealogical design. All 1968 family members

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living in households are followed in future waves. When children left their parents' homes or when couples who were married in 1968 separated or divorced, both individuals were followed and continue to be interviewed today. In addition, children born to sample members after 1968 are followed. Thus, since 1968, interviews have been completed with numerous members of the same extended families, including siblings, parents and adult children, and, in some cases, grandparents and grandchildren.

The sample grew to nearly 10,000 households by 1997. Then, budget constraints resulted in about two-thirds of the low-income oversample being dropped, reducing the sample to about 6,500 families. Because sample members are followed when they leave the PSID family and form a new one, 7,822 families completed interviews in 2003. Consistently high core response rates of 95 percent to 98 percent, together with the fact that the sample is replenished through births and marriages, enable the PSID, when weighted appropriately, to remain representative of the U.S. population.<sup>2</sup>

Families were interviewed annually from 1968 to 1997 and every other year since 1997. The interviews, which averaged 72 minutes in 2003, are completed by telephone for 97 percent of the families and face to face for the other 3 percent. Expenditures are reported for the family as a whole, with a PSID family defined as a group of people living together. Family members are generally related by blood, marriage, or adoption, but unrelated persons can be part of a PSID family if they permanently reside together and share both income and expenses.

Exhibit 1 reports the spending questions from the 2003 wave, along with an indication of whether the same or a similar question was asked in earlier waves. As mentioned, the PSID included a few expenditure questions from the start. Spending on food eaten at home has been collected in all but three waves, spending on food away from home in all but four waves. Housing-related expenditures have been included in many waves, with data on mortgage payments collected in all but 6 years since 1968. Rental payments for housing and property taxes have been included in most waves. Utility payments were collected from 1981 to 1983, dropped for 15 years, and added back in 1999. Childcare spending was asked in each wave since 1988 and in several earlier years.

In 1999, the expenditure questions were expanded. Four questions on out-of-pocket spending for health care were added: hospital and nursing home care, doctor's visits, prescription drugs, and insurance premiums.<sup>3</sup> Assessments of educational expenses include payments for tuition, books, supplies, and room and board. Transporta-

tion-related expenses (for up to three owned or leased vehicles) include outlays on vehicles, vehicle loan and lease payments, downpayments on vehicles, vehicle insurance payments, gasoline, repairs and maintenance, parking, bus fares, and taxicabs.

The period over which PSID expenditures are reported—weekly, monthly, or yearly—varies across spending categories. Even when a preferred period is specified in the questionnaire, respondents usually are allowed to report spending over alternative periods if doing so facilitates recall. Table 1 summarizes item nonresponse rates and the period of reported spending for the 1999, 2001, and 2003 waves. For food at home, respondents are asked to report the amount they currently spend in an average week, but they are allowed to report annual or monthly amounts. Because the question mentions “average week” in each of the 1999, 2001, and 2003 waves, 89 percent of respondents report a weekly amount. Questions about spending on food delivered and food away from home are asked right after the question about food at home, but the question does not specify that they be reported for an average week. As a result, 48 percent and 68 percent, respectively, of respondents report these expenditures as weekly amounts.

Education and child care spending are reported on an annual basis for the previous calendar year (that is, in the 2001 interview, respondents report spending for calendar year 2000), whereas health care spending is reported for the previous 2 calendar years combined. Most housing and transportation expenses refer to current spending and typically are reported for an average month. Respondents are asked to report annual spending for home and vehicle insurance and for property taxes because these payments are not typically made on a monthly basis.

Item nonresponse is low in the PSID. (See column 1 of table 1). In most spending categories, less than 2 percent of families failed to report a valid response. Nonresponse was highest for housing insurance and health insurance payments, at 8 percent and 11 percent, respectively. For food, the most extensively studied expenditure, 1.3 percent had invalid responses for food at home, while 0.9 percent had invalid responses for food eaten away from home.<sup>4</sup>

*The Consumer Expenditure Survey.* In addition to fulfilling its role as the official source for the Consumer Price Index, the CE is used to answer various important research questions about household consumption. For example, David Cutler and Lawrence Katz used CE data to describe the dispersion of total expenditures in the U.S. popula-

**Table 1. Item nonresponse and time period of reporting in the Panel Survey of Income Dynamics, average for 1999–2003<sup>1</sup>**

Expenditure category	Percent of families with valid response	Are unfolding brackets used?	Period of spending					
			Asked in the survey	Actually reported by respondent, percent				
				Weekly	Biweekly	Monthly	Annually	Other
<b>Food:</b>								
At home.....	98.7	No	weekly	89.4	2.1	7.9	0.5	0.0
Away from home.....	99.1	No	not defined	68.3	2.2	27.7	1.7	.0
Delivered.....	99.9	No	not defined	48.0	6.9	41.3	3.7	.0
<b>Housing:</b>								
Mortgage.....	99.3	No	monthly	.0	.0	100.0	.0	.0
Rent.....	99.0	No	monthly	.4	.1	99.3	.3	.0
Insurance.....	91.7	No	annual	.0	.0	.0	100.0	.0
Property tax.....	93.9	No	annual	.0	.0	.0	100.0	.0
Electricity.....	96.6	No	monthly	.0	.0	99.2	.7	.1
Heat.....	95.2	No	monthly	.0	.0	91.3	8.0	.8
Water.....	96.0	No	monthly	.0	.0	86.7	9.8	3.4
Other utility.....	99.8	No	monthly	.0	.0	97.2	2.2	.6
<b>Transportation:</b>								
Loan payment.....	99.1	No	monthly	.0	.0	96.2	.4	3.4
Downpayment.....	98.1	No	annual	.0	.0	.0	<sup>2</sup> 100.0	.0
Lease payment.....	99.9	No	monthly	.0	.0	98.8	.1	1.1
Insurance.....	92.9	No	annual	.0	.0	22.1	77.9	.0
Gasoline.....	97.8	No	monthly	.0	.0	100.0	.0	.0
Repairs.....	99.0	No	monthly	.0	.0	100.0	.0	.0
Other vehicle expenses.....	99.1	No	monthly	.0	.0	100.0	.0	.0
Parking.....	99.6	No	monthly	.0	.0	100.0	.0	.0
Bus and train.....	99.7	No	monthly	.0	.0	100.0	.0	.0
Taxicab.....	99.8	No	monthly	.0	.0	100.0	.0	.0
Other transportation.....	99.8	No	monthly	.0	.0	100.0	.0	.0
Education.....	99.2	No	annual	.0	.0	.0	100.0	.0
Child care.....	99.3	No	annual	.0	.0	.0	100.0	.0
<b>Health care:</b>								
Hospital and nursing home care.....	99.6	Yes	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Doctor's visits.....	99.3	Yes	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Prescription drugs in-home medical care, special facilities.....	99.3	Yes	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Insurance premiums.....	88.8	Yes	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )

<sup>1</sup> Weights are not used to calculate values in table.

the previous calendar year.

<sup>2</sup> Survey asks about down payments in the previous two calendar years, but one can identify the date of each down payment to determine the amount in<sup>3</sup> Previous two calendar years combined.

tion across various years.<sup>5</sup> The CE consists of the quarterly Interview Survey and the Diary survey, which together provide data on the buying habits of consumers, including expenditures, income, and basic demographic characteristics.<sup>6</sup> The Diary Survey collects data on all spending during each day for two consecutive 1-week periods, focusing on frequently purchased items such as food, tobacco, and personal-care products. The Interview Survey, conducted in person, consists of five interviews 3 months apart, with key expenditure data collected in the last four interviews, covering a 12-month period. In both the surveys, expenditures are reported for the “consumer unit.”<sup>7</sup> The sample frame includes noninstitutionalized persons.

This article compares the PSID with the Interview Survey and shows that PSID expenditures provide a good approximation to reported Interview Survey expenditures. Since the first quarter of 1999, the Interview Survey has been given to 7,000 to 8,000 households each quarter, with respondents reporting spending during the previous 3 months. The survey measures 578 separate categories at the Universal Classification Code (ucc) level, covering about 95 percent of total spending; among excluded items are spending on nonprescription drugs, household supplies, and personal care.<sup>8</sup> The response (consumer unit cooperation) rate was 80 percent in 2000.<sup>9</sup> Because it is PSID and Interview Survey expenditures, and not consumption,



Consumer Expenditures

<b>Exhibit 1. Expenditures data collected in the PSID: 1968–2003</b>		
<b>Domain</b>	<b>Question in 2003</b>	<b>Waves Available</b>
Food:		
At home	F17 and F18: In addition to what you buy with food stamps, [you and anyone else in your family/you] do spend any money on food that you use at home? How much do you spend on that food in an average week?	1968–2003, except '73, '88, '89
Delivered	F19 and F20: Do you have any food delivered to the door which isn't included in that? How much do you spend on that food?	1968, 1994–2003
Away from home	F21: About how much do [you and anyone else in your family/you] spend eating out?	1969–2003, except '73, '88, '89
Health care:		
Hospital and nursing home	H64: About how much did you pay out-of-pocket for nursing home and hospital bills in 2001 and 2002 combined?	1999–2003
Doctor	H70: About how much did you pay out-of-pocket for doctor, outpatient surgery, dental bills in 2001 and 2002 combined?	1999–2003
Prescription drugs	H76: About how much did you pay out-of-pocket for prescriptions, in-home medical care, special facilities, and other services in 2001 and 2002 combined?	1999–2003
Insurance	H63: Altogether, how much did [you/your family] pay for health insurance premiums, in 2001 and 2002 combined, for (all of) the health insurance or health care coverage(s) you just mentioned? Please include amounts you had automatically deducted from your pay, as well as amounts you paid directly.	1999–2003
Housing:		
Mortgage	A25: How much are your monthly mortgage payments? A30: Do your payments include insurance premiums? A29: Do your payments include property tax?	1968–2003, except '73, '74, '75, '82, '88, '89
Rent	A31: About how much rent do you pay a month?	1968–2003, except '88, '89
Insurance	A22: How much is your total yearly homeowner's insurance premium?	1991–2003
Property tax	A21: About how much are your total yearly property taxes, including city, county, and school taxes?	1968–2003, except '78, '88, '89
Electricity	A48: The next few questions are about amounts paid for utilities, such as electricity and water. How much [do you/does your family] usually pay for electricity per month on average?	1981–83, 1999–2003
Heat	A49: How much for gas or other types of heating fuel per month?	1981–83, 1999–2003
Water and sewer	A50: How much [do you/does your family] usually pay for water and sewer per month?	1981–83, 1999–2003
Other utilities	A51, A52, and A53: And do you have any other utility expenses? What were those other utilities expenses? On average, how much are these other utility expenses per month? [Cable, garbage, phone, sewer]	1981–83, 1999–2003
Transportation:		
Vehicle loan payment	V20: How much are your payments and how often are they made?	1968, 1999–2003
Down payment	V17: How much did you put down in cash? (Asked up to three times if the household has multiple vehicles?)	1999–2003
Vehicle lease payment	V24: How much was your initial outlay for that lease—including your down payment and any fees? V25: How much are your payments and how often are they made? (Asked up to three times if the household has multiple vehicles?)	
Other vehicle expenditures	X3: (Other than the car payments you already told me about,) how much did you pay in car payments?	1999–2003
Insurance	X1: How much do [you/you and your family living there] pay for car insurance [per year/for all your vehicles per year]?	1968, 1999–2003
Gasoline	X4: In the last month how much did [you/you and your family living there] pay for each of these transportation related expenses?	1999–2003
Repairs and maintenance	X4:	1999–2003
Parking and carpool	X4:	1999–2003
Bus fares and train fares	X4:	1999–2003
Taxicabs	X4:	1999–2003
Other transportation	X4:	1999–2003
Education	X6 and X7: In 2002, did [you/you and your family living there] have any school-related expenses such as -Purchase or rental of books, supplies, uniforms, or equipment including computers and software -Tuition or tutoring not including any amounts for day care or nursery school. I will ask you about those later; -Room and board for a family member who is away at school? How much in total were these expenses?	1999–2003
See footnotes at end of table.		



**Exhibit 1. Continued—Expenditures data collected in the PSID: 1968–2003**

Domain	Question in 2003	Waves Available
Child Care	X8, X9, and X10: In 2002, were there any other school-related expenses not already covered in the previous question? What other types of school-related expenses did you have? Altogether, how much were these other expenses?  F7: How much did [you/you and your family living there] pay for child care in 2002?	1970, '71, '72, '76, '77, '79, '85, 1988–2003
<p><sup>1</sup> Mortgage payment question, A25, was asked for up to two mortgages.</p> <p><sup>2</sup> Vehicle loan and lease payment questions, V17, V20, V24 and V25, were asked up to three times if the household has multiple vehicles. Other vehicle lease and loan related payment information was asked in question X3. X3 will be positive if, for example, the household has four or more vehicles.</p>		

that are being compared, expenditures on durables are not converted into flows of services received.<sup>10</sup>

### A comparison of PSID and CE expenditures

Consumption expenditures in both data sets were annualized. For the PSID, if an amount was reported for a period of less than 1 year, it was inflated by the reciprocal of the fraction of the year that the report covers. If the report was for more than 1 year, the amount was deflated, effectively assuming that spending was uniform over the period. For the CE, BLS procedures for calculating the weighted mean across interviews were followed.<sup>11</sup>

There are many reasonable approaches to imputing values for families with item nonresponse. However, given the PSID's low rate of nonresponse, estimates of spending are relatively insensitive to the choice of imputation strategy. Table 2 reports average PSID spending for each category when the missing data are dropped (implicitly assuming that spending for families with item nonresponse is equal to the average among families that responded) and when the missing data are imputed with the use of a model that includes a third-order polynomial in age and an unrestricted spline for family size. The imputation models were fit separately for each expenditure category listed in table 2 using ordinary least squares.

The CE measures far more spending categories than the PSID does. Accordingly, we mapped the UCC codes from the CE into the PSID categories. Details of this mapping are given in exhibit 2. The mapping was determined by having two coders independently map the UCC codes into the PSID categories. Differences were reconciled through close inspection of each UCC.

For each PSID category, average spending for the PSID and the CE in 2001 is shown in the first and third columns of table 3; subsequent columns report comparisons

for 1999 and 2003. Estimates for certain subcategories are significantly different in some cases, most likely because of respondent misallocation of spending into narrowly defined categories. These differences aside, total spending in each major category aligns fairly closely across the two surveys, especially considering the differences in survey design. For example, in 2001 total spending on food in the PSID is 8 percent higher than in the CE, total housing aligns exactly, and total transportation spending is 5 percent lower. These three categories account for 86 percent of spending measured in the PSID.

The gaps are larger for spending on health care, education, and child care, with PSID respondents reporting higher amounts in each case. In mapping education expenditures between the two surveys, the CE UCCs of computers, computer systems, and related hardware for nonbusiness use, and those of computer software and accessories for nonbusiness use (but not limited to school-related use) were included, which would lead to a higher estimate for the CE than the PSID. Moreover, CE UCC 660900—supplies and equipment expenses for “other schools,” such as business, secretarial, technical, and trade schools—also was included, to match with the PSID category “other school-related expenditures.” However, this UCC also covers such expenses for daycare centers and nursery schools, which, alternatively, can be counted as child care expenses. In this article, these expenditures are characterized as school related. However, even given this potential inconsistency, the PSID education expenditure estimate is still higher than that of the CE.

With all PSID categories combined, annual spending totals \$25,961, a figure that is 2 percent greater than CE spending. (See table 3.) Estimates for 1999 and 2003 are similar, with PSID total spending 4 percent lower than CE spending in 1999 and 1 percent higher in 2003.

Spending on categories included in the PSID totals

**Table 2. Average spending before and after imputation for item nonresponse, Panel Study of Income Dynamics, 2001 wave**

Imputation	Before imputation			After imputation		
	Number of families with valid responses	Percent of families with spending greater than 0	Unconditional mean	Number of families	Unconditional mean	Unconditional mean after trimming top 1 percent
Food, total.....	7,228	98.8	5,936	7,406	5,899	5,724
At home.....	7,276	97.1	3,990	7,406	3,969	3,881
Away from home.....	7,318	89.9	1,829	7,406	1,825	1,770
Delivered.....	7,397	13.1	105	7,406	105	81
Housing, total.....	5,841	100.0	10,783	7,406	1,0471	9,777
Mortgage.....	6,543	42.2	4,493	7,406	4,737	4,153
Rent.....	7,337	33.9	2,006	7,406	2,014	1,789
Insurance.....	6,822	54.5	363	7,406	376	344
Property tax.....	6,977	56.1	1,210	7,406	1,224	1,107
Utilities <sup>1</sup> .....	6,867	92.8	2,128	7,406	2,120	2,048
Transportation, total.....	6,496	84.0	5,892	7,406	5,921	5,471
Loan payment.....	7,246	27.7	1,188	7,406	1,192	1,072
Downpayment <sup>1</sup> .....	7,219	19.8	1,363	7,406	1,367	996
Lease payment <sup>1</sup> .....	7,365	5.4	393	7,406	392	256
Insurance.....	6,871	83.5	1,163	7,406	1,158	1,073
Gasoline.....	7,264	84.6	1,343	7,406	1,342	1,259
Repairs.....	7,332	40.5	110	7,406	110	90
Other vehicle expenses.....	7,338	24.1	97	7,406	97	84
Parking.....	7,374	6.2	46	7,406	46	24
Bus and train.....	7,383	4.7	42	7,406	42	18
Taxicab.....	7,383	2.4	15	7,406	15	4
Other transportation.....	7,387	3.1	160	7,406	160	46
Education.....	7,362	32.9	1,199	7,406	1,199	831
Child care.....	7,379	14.9	341	7,406	342	234
Health care, total.....	6,746	88.4	2,100	7,406	2,129	1,873
Hospital and nursing home.....	7,383	27.2	310	7,406	311	147
Doctor.....	7,366	68.7	427	7,406	426	351
Prescriptions, in-home medical care, special facilities.....	7,370	74.2	338	7,406	339	272
Insurance.....	6,770	63.6	1,056	7,406	1,052	974

<sup>1</sup> PSID family weights are used to calculate means and percents.  
<sup>2</sup> For utilities, downpayments, and leases, the proportion with valid responses reported in table 1 multiplied by the sample size (7,406) does not equal the number of families with valid responses reported here. For utilities, if any individual component does not have a valid response, total utilities are counted as not having a valid response. For vehicles, some households can have multiple cars. In table 1, if the family reports one valid downpayment for a car, it is counted as valid. Here, the sum of all car downpayments for cars is reported, and if any car downpayments is invalid, the sum is invalid. The same is true of lease payments.

\$25,340, as measured by the CE in 2001. This figure accounts for 72 percent of total spending across all CE categories, including those not collected in the PSID (not shown in tables). This spending gap falls largely into five categories not measured in the 1999, 2001, or 2003 PSID waves: home repairs and maintenance (\$1,200 in the 2001 CE), household furnishing and equipment (\$1,400), clothing and apparel (\$1,300), trips and vacations (\$1,300), and recreation and entertainment (\$1,200). To capture spending on these items, questions were added to the 2005 and subsequent waves of the PSID.

*Life-cycle expenditure profiles.* Chart 1 displays weighted cross-sectional life-cycle expenditure profiles from both the PSID and the CE surveys.<sup>12</sup> The chart also shows the 95-percent confidence interval for the PSID expenditures. For each data source, two different measures of expenditures are plotted, by the age of the family head. The first measure is the total of the expenditure categories collected in the PSID. The second measures total expenditures—for the PSID, the imputed value of total expenditures; for the CE, the sum of all expenditure categories. The three-age-group moving average for each single year of age (for

**Table 3. Estimated expenditures in the Panel Survey of Income Dynamics (PSID) and the Consumer Expenditure Survey (CE), 2001, and means and ratios of means, 1999, 2001, and 2003<sup>1</sup>**

Expenditure category	2001					1999		2003	
	PSID		CE			Unconditional mean, PSID	Ratio of means, PSID/CE	Unconditional mean, PSID	Ratio of means, PSID/CE
	Unconditional mean	Percent of total expenditures	Unconditional mean	Percent of total expenditures	Ratio of means, PSID/CE				
Total.....	25,961	100.0	25,340	100.0	1.02	22,449	0.96	26,994	1.01
<b>Food</b>									
Total food.....	5,899	22.7	5,482	21.6	1.08	5,397	1.03	6,058	1.10
At home.....	3,969	15.3	3,817	15.1	1.04	3,735	1.04	4,070	1.06
Away from home.....	1,825	7.0	1,339	5.3	1.36	1,575	1.16	1,858	1.35
Delivered.....	105	.4	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	87	( <sup>2</sup> )	130	( <sup>2</sup> )
Alcohol.....	( <sup>2</sup> )	( <sup>2</sup> )	326	1.3	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Housing</b>									
Total housing.....	10,471	40.3	10,482	41.4	1.00	8,931	.94	10,764	.97
Mortgage.....	4,737	18.2	3,737	1.5	1.27	3,773	1.10	4,762	1.17
Rent.....	2,014	7.8	2,096	8.3	.96	1,918	.96	2,053	.96
Insurance.....	376	1.4	256	1.0	1.47	334	1.40	447	1.51
Property tax.....	1,224	4.7	1,291	5.1	.95	1,046	.87	1,331	.95
Utility.....	2,120	8.2	2,206	8.7	.96	1,860	1.02	2,171	.95
Telephone.....	( <sup>2</sup> )	( <sup>2</sup> )	896	3.5	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Transportation</b>									
Total transportation.....	5,921	2.3	6,251	24.7	.95	4,994	.86	6,148	.94
Loan payment.....	1,192	4.6	1,514	6.0	.79	1,071	.76	1,403	.80
Downpayment.....	1,367	5.3	1,214	4.8	1.13	1,186	.98	1,237	.96
Lease payment.....	392	1.5	340	1.3	1.15	291	.96	227	.96
Insurance.....	1,158	4.5	819	3.2	1.41	1,085	1.13	1,475	1.63
Gasoline.....	1,342	5.2	1,268	5.0	1.06	979	.94	1,315	1.00
Repairs.....	110	.42	631	2.5	.17	89	.14	100	.17
Other vehicle expenses.....	97	.37	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	95	( <sup>2</sup> )	103	( <sup>2</sup> )
Parking.....	46	.18	28	.10	1.64	34	1.36	43	1.54
Bus and train.....	42	.16	98	.40	0.43	35	.38	58	.70
Taxicab.....	15	.06	17	.10	0.88	11	.65	24	1.50
Other transportation.....	160	.62	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	118	( <sup>2</sup> )	163	( <sup>2</sup> )
Public transportation.....	( <sup>2</sup> )	( <sup>2</sup> )	322	1.3	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Education.....	1,199	4.6	914	3.6	1.31	1,030	1.16	1,217	1.13
Childcare.....	342	1.3	273	1.1	1.25	274	1.21	346	1.26
<b>Health care</b>									
Total health care.....	2,129	8.2	1,938	.40	1.10	1,823	1.04	2,461	1.14
Hospital and nursing home.....	311	1.2	109	1.8	2.85	315	3.08	354	3.03
Doctor.....	426	1.6	455	.94	.94	368	.85	480	1.04
Prescriptions, in-home medical care, special facilities.....	339	1.3	364	1.4	.93	272	.83	412	.87
Insurance.....	1,052	4.1	952	3.8	1.11	868	.97	1,215	1.09

<sup>1</sup> Weights are used to calculate all estimates.

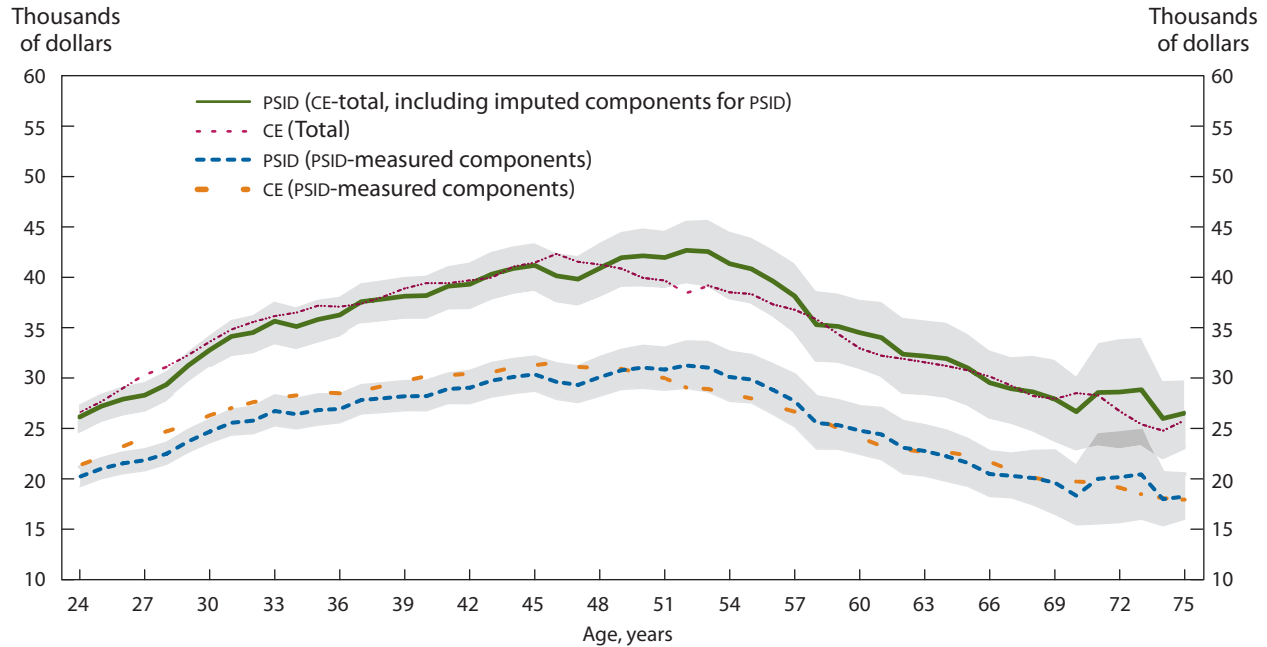
<sup>2</sup> Not applicable.

example, 25 to 27 years, 26 to 28 years, 27 to 29 years and so forth.) is calculated for each year (1999, 2001, and 2003) and then averaged across the years. Chart 1 does not control for any household characteristics (for instance, gender of head of household and family size). The profiles represent how, at a given point in time, consumption expenditures differ for family heads at different points in

the life cycle and thus reflect changes in household size, composition, and other factors over the life cycle.

The chart shows that, for the categories measured in the PSID, the life-cycle expenditure profiles in the two data sets are similar. The lower profiles show that spending in the categories measured in the PSID rise through the late forties or early fifties and then fall almost monotonically

**Chart 1. Life-cycle expenditure profiles for PSID and CE, average for 1999, 2001, and 2003 combined**



NOTE: Shaded areas represent 95-percent confidence interval for PSID.

through the mid-seventies. The one period when the patterns for the two data sources diverge somewhat is in the early fifties, and this is due almost entirely to the gap in education expenditures at those ages. Notice that, despite this slight divergence, the CE series lies almost everywhere within the 95-percent confidence band of the PSID series.

The upper two profiles display total spending. For the CE, the data are total measured expenditures, including categories not measured in the PSID. For the PSID, total spending is imputed with a strategy developed by Jonathan Skinner.<sup>13</sup> The CE data are used to estimate a regression of total expenditures on the expenditure categories measured in the PSID. Then, the coefficients from that regression are used together with PSID data to predict total PSID expenditures. The value of R-squared from the imputation regression is 0.89; the estimated coefficients are reported in table 4.

Chart 1 shows that total CE expenditures and imputed total PSID expenditures are similar. The profiles imply spending of roughly \$30,000 per year in the late twenties, increasing to above \$40,000 in the late forties (CE) and early fifties (PSID). Spending falls thereafter, so that by the late sixties it is about the same as the level experienced by families headed by people in their midtwenties. The

two series are generally very close, with the CE series lying within the 95-percent confidence interval for the PSID throughout virtually the entire life cycle. The point estimate of the PSID series is often somewhat higher than that of the CE after middle age, but the difference is typically statistically insignificant. The slightly higher point estimate of the imputed expenditure in the PSID is consistent with what Jonathan Fisher and David Johnson found. Expanding the Skinner imputation strategy by including demographic characteristics, they also report a slightly higher imputed total consumption in the PSID than in the CE.<sup>14</sup> On balance, both their results and the ones presented here indicate that, measured against the benchmark of the CE, the PSID expenditure data provide a high-quality estimate of household expenditure behavior.

THIS ARTICLE HAS DEMONSTRATED that PSID and CE estimates of expenditures in most broad categories align closely despite substantial differences in their instruments and design features. Also, cross-sectional lifecycle consumption expenditure profiles are similar in the two surveys. Because the PSID expanded the set of questions on consumption expenditures 1999, it now gives a very good approximation of the consumption expenditures provided



**Exhibit 2. Mapping of Universal Classification Codes from Consumer Expenditure Survey into Panel Survey of Income Dynamics Categories**

Panel Survey of Income Dynamics Consumption Category	Consumer Expenditure Survey Universal Classification Codes
Food <sup>1</sup> .	
At home	190904, 790220, 790230
Delivered	
Away from home	190901, 190902, 190903, 790410, 790430, 800700
Health care	
Hospital and nursing home	570110, 570210, 570220, 570230
Doctor	560110, 560210, 560310, 560330, 560400
Prescription drugs	340906, 540000, 550110, 550320, 550330, 550340, 570901, 570903, 570240
Insurance.	580111, 580112, 580113, 580114, 580311, 580312, 580901, 580903, 580904, 580905, 580906
Housing	
Mortgage	220311, 220312, 220321, 220322, 830201, 830202
Rent	210110, 800710
Insurance	220121, 220122
Property tax	220211, 220212
Utilities <sup>2</sup>	250111, 250112, 250113, 250114, 250211, 250212, 250213, 250214, 250221, 250222, 250223, 250224, 250901, 250902, 250903, 250904, 260111, 260112, 260113, 260114, 260211, 260212, 260213, 260214, 270211, 270212, 270213, 270214, 270310, 270411, 270412, 270413, 270414, 270901, 270902, 270903, 270904
Transportation.	
Vehicle loan payment	870103, 870104, 870203, 870204
Downpayment	870101, 870102, 870201, 870202
Vehicle lease payment	450310, 450313, 450314, 450410, 450413, 450414
Insurance	450311, 450411, 500110
Gasoline	470111, 470112, 470113
Repairs	470220, 470211, 470212, 480110, 480213, 480214, 490110, 490211, 490212, 490221, 490231, 490232, 490311, 490312, 490313, 490314, 490318, 490319, 490411, 490412, 490413, 490501, 490502, 490900, 520410
Other vehicle payments	
Parking	520531, 520532
Bus	530311, 530312, 530501, 530902, 530210
Taxicab	530411, 530412
Other transportation	520511, 520512, 520521, 520522, 520542, 520902, 520903, 520904, 520905, 520906, 520907, 530110, 530901
Education	
Schooling	190901, 210310, 370903, 390901, 660110, 660210, 660310, 660900, 670110, 670210, 670901, 670902, 800802, 800804
Other school-related expenditures	690111, 690112
Childcare	340211, 340212, 670310

<sup>1</sup> The Universal Classification Codes of alcoholic beverages consumed at home, in restaurants, and on trips—200900, 790310, 790320, and 790420—are also included to match with the PSID total food expenditure, although these UCCs are not assigned to food at home or food away from home.

<sup>2</sup> The Universal Classification Codes of telephone services—270101 and 270102—are included in order to match the PSID total housing expenditures.

<sup>3</sup> The Consumer Expenditure Survey has Universal Classification Codes for expenditures on motorcycles, mopeds, scooters, and private airplanes. The Panel Survey of Income Dynamics explicitly asked households not to include these payments when they report vehicle expenditures.

<sup>4</sup> Universal Classification Codes 450311 and 450411 encompass other charges on leased vehicles, such as maintenance charges.

by the CE.

Most likely, the CE will remain the primary data set for cross-sectional analyses. The survey collects detailed expenditure data on a continuous quarterly basis, so CE data permit highly accurate assessments of year-to-year

changes in expenditures across the population. Also, because the CE has collected comprehensive expenditure data for more than two decades, long-term trends can only be analyzed with that survey.

Still, given the PSID's longitudinal nature, its genealogical

**Table 4. Ordinary least square model of total Consumer Expenditure survey expenditures used to impute total expenditures in the Panel Study of Income Dynamics**

Imputation	Coefficient	p-value
Spending on:		
Constant.....	-2546	<0.0001
Food at home.....	1.19	<0.0001
Food away.....	2.35	<0.0001
Mortgage.....	1.01	<0.0001
Rent.....	1.16	<0.0001
Home insurance.....	2.10	<0.0001
Property tax.....	2.62	<0.0001
Utilities.....	2.00	<0.0001
Transportation.....	1.26	<0.0001
Education.....	1.18	<0.0001
Child care.....	1.59	<0.0001
Health care.....	1.42	<0.0001

design, and the wealth of information it provides on labor market and demographic variables, several new areas of research can be advanced with the use of PSID consumption expenditure data. For example, previous research using cross-sectional data has documented that income-poor families consume substantially more than their annual income.<sup>15</sup> Does this result hold when both income and consumption expenditures are measured over multiple years? Similarly, a large literature documents a strong intergenerational relationship between wealth and income.<sup>16</sup> Is there a similar intergenerational pattern for consumption expenditure? Using the PSID to answer these and other questions will greatly enrich our understanding of consumption behavior and provide a useful complement to research that analyzes the CE. □

**Notes**

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<sup>1</sup> The 2001 and 2003 Consumption and Activities Mail Surveys, supplements to the Health and Retirement Study, gathered comprehensive assessments of expenditures of people 50 years and older, allowing longitudinal analyses of consumption in this panel study.

<sup>2</sup> John Fitzgerald, Peter Gottschalk, and Robert Moffitt, “An Analysis of Sample Attrition in Panel Data,” *Journal of Human Resources*, Spring 1998, pp. 251–99; and Sean Beckett, William Gould, Lee Lillard, and Finis Welch, “The Panel Study of Income Dynamics after Fourteen Years: An Evaluation,” *Journal of Labor Economics*, October 1988, pp. 472–92.

<sup>3</sup> The use of so-called unfolding brackets in the PSID questions on wealth has been found to reduce item nonresponse substantially. (See Thomas Juster and James P. Smith, “Improving Quality of Economic Data: Lessons from the HRS and AHEAD,” *Journal of the American Statistical Association*, March, 1997, pp. 1268–78.). The health care expenditure questions added in 1999 also offer respondents unfolding brackets. For example, if the respondent says “don’t know” when asked the amount spent on prescription drugs, in-home medical care, special facilities, and other services combined, the respondent is asked, “Would it amount to \$5,000 or more?” If the respondent says “yes,” then he or she is asked in subsequent questions whether it is more than \$10,000 and then more than \$20,000. If the respondent says “no,” then he or she is asked in subsequent questions whether it was more than \$1,000. If the respondent says “no” again, he or she is then asked if the amount was more than \$500. If the respondent continues to respond

“don’t know,” the series of questions is terminated.

<sup>4</sup> Over the 1999, 2001, and 2003 waves analyzed in this article, 15 respondents had expenditures in one category that were several orders of magnitude larger than the average spending across all families for that category. In these cases, the value was assumed to be invalid and was imputed using the same approach used for item nonresponse (described subsequently).

<sup>5</sup> David Cutler and Lawrence Katz, “Rising Inequality? Changes in the Distribution of Income and Consumption in the 1980s,” *American Economic Review*, May 1992, pp. 546–51.

<sup>6</sup> *Consumer Expenditure Survey Anthology, 2003*, Report 967 (Bureau of Labor Statistics, 2003), on the Internet at [www.bls.gov/cex/csxanthol03.pdf](http://www.bls.gov/cex/csxanthol03.pdf) (visited March 3, 2010).

<sup>7</sup> A consumer unit is defined as (1) all members of a household who are related by blood, marriage, adoption, or some other legal arrangement; (2) a person living alone or sharing a household with others, living as a roomer in a private home or lodging house, or living permanently in a hotel or motel, but who is financially independent; or (3) two or more persons living together who combine their incomes and make joint expenditure decisions. Financial independence is determined by three expense categories: housing, food, and other living expenses. To be considered financially independent, the respondent must provide expenditures, either entirely or in part, in at least two of the three categories.

<sup>8</sup> *Consumer Expenditure Survey, 2000: Interview Survey and Detailed Expenditure Files* (Bureau of Labor Statistics, 2002), distributed by Inter-university Consortium for Political and Social Research, Ann Arbor, MI, 2002.

<sup>9</sup> *Ibid.*, p. 247.

<sup>10</sup> Note that the conventional method for imputing consumption expenditure is to apply a linear transformation to the stock of durable goods. If expenditure outlays on durables are similar across the two surveys, it is likely that the stock of durables and the flows of services would be similar across the surveys as well.

<sup>11</sup> Because of the evolving structure of the CE sample design, the weight assigned to each consumer unit changes over quarters. Therefore, the annual weighted mean is computed by adding four quarterly weighted

means together. (For details, see *Consumer Expenditure Survey, 2000*.)

<sup>12</sup> Comparisons of life-cycle profiles for detailed expenditure categories are reported in Kerwin Kofi Charles, Sheldon Danziger, Geng Li, and Robert Schoeni, *Studying Consumption with the Panel Study of Income Dynamics: Comparisons with the Consumer Expenditure Survey and an Application to the Intergenerational Transmission of Well-being*, Finance and Economics Discussion Series (Washington, DC, Federal Reserve Board, 2007).

<sup>13</sup> Jonathan Skinner, "A Superior Measure of Consumption from the Panel Study of Income Dynamics," *Economics Letters*, February 1987, pp. 213–16.

<sup>14</sup> Jonathan D. Fisher and David S. Johnson, "Consumption Mobility in the United States: Evidence from Two Panel Data Sets," *Topics in*

*Economic Analysis and Policy*, vol. 6, no. 1, 2006, Article 16, on the Internet at [www.bepress.com/bejeap/topics/vol6/iss1/art16](http://www.bepress.com/bejeap/topics/vol6/iss1/art16) (visited March 4, 2010). Another distinction between Fisher and Johnson's imputation and the one presented here is that they focus on consumption, instead of expenditure, by replacing durable goods and housing expenditures with estimated service flows.

<sup>15</sup> Bruce Meyer and James Sullivan, "Changes in the Consumption, Income, and Well-Being of Single Mother Headed Families," *American Economic Review*, December 2008, pp. 2221–41.

<sup>16</sup> See Gary Solon, "Intergenerational Income Mobility in the United States," *American Economic Review*, June 1992, pp. 393–408; and Kerwin Kofi Charles and Erik Hurst, "The Correlation of Wealth Across Generations," *Journal of Political Economy*, December 2003, pp. 1155–82.

## Virtual immigration

From 1996 to 2008, immigration to the United States rose about 68 percent. Although this statistic represents strong growth, it appears that a much newer phenomenon—*virtual immigration*—has been increasing substantially faster. Virtual immigration is similar to physical immigration in that tasks are done by people from other countries; the difference is that it is the work—not the worker—that moves when virtual immigration occurs. One example is a bookkeeper in India who creates a report of financial data for a company in the United States.

“Labor Market Globalization in the Recession and Beyond” is an article by W. Michael Cox, Richard Alm, and Justyna Dymerska (Federal Reserve Bank of Dallas, *Economic Letter*, December 2009) that discusses virtual immigration before and during the recession that started in December 2007. The article explains that there are no nations that measure virtual immigration explicitly. However, there are numerous data which indicate that virtual immigration has increased rapidly. For example, about two-thirds of the categories of imports and exports tracked by the Department of Commerce are categories that are likely to include strong concentrations of virtual immigrants, and U.S. imports and exports in these categories climbed by 180 percent from 1998 to 2008. According to the article, the growth of data transmission capacity to the point at which large quantities of information can be uploaded and downloaded has made a great difference in the amount of virtual immigration in recent years. Wealthier countries tend to specialize in exporting knowledge-intensive services, whereas less developed

countries generally export more back-office work such as computer programming and claims processing; thus, there are virtual immigrants in both rich and poor nations.

Data indicate that physical immigration is very sensitive to the business cycle. During the most recent recession, for example, workers from other countries have been among the first laid off. Virtual immigration, in contrast, though having slowed recently, appears to have continued to grow in spite of the recession. The article theorizes that the continued growth occurs because, whereas most physical immigrants work in highly cyclical industries involving goods, most virtual immigrants work in services, a sector that traditionally has been less sensitive than goods to the business cycle. The authors state that market forces have had a greater impact than protectionist policies in reducing both kinds of immigration. In addition, they affirm that physical and virtual immigration are likely to increase once the demand for labor rises again.

## Female athletes paid long-term dividends by Title IX

Being a member of a high school sports team has long been touted as a way to stay fit, make friends, and gain self-esteem, but a new study indicates that women reap additional benefits from high school athletics many years after they receive a diploma. Evidence suggests that increased female participation in high school sports leads to increased college attendance and labor force participation rates.

In a recent National Bureau of Economic Research (NBER) study entitled “Beyond the Classroom: Using Title IX to Measure the Return to High School Sports” (NBER Working Paper

No. 15728, February 2010), Betsey Stevenson examines the returns that Title IX has given to the generation of American women that first benefited from the legislation and how Title IX continues to affect younger generations. By controlling for a large number of factors and analyzing boys’ data alongside girls’ data, Stevenson determines that athletic participation in high school has had important causal effects on women’s educational and labor market outcomes.

Enacted by Congress in 1972 as an amendment to the 1964 Civil Rights Act, Title IX banned gender discrimination in any educational program or activity that received Federal financial assistance. Title IX had a particular effect on gender equality in athletic participation. From 1972 to 1978, high schools across the United States experienced a rapid increase in the female athletic participation rate, from 7 percent to over a third; by the latter date, there was roughly the same proportion of female students participating in sports as male students.

The author calculates that changes brought about by Title IX led to a 30-percentage-point rise in female sports participation and that a roughly 0.12-year rise in educational attainment and a 4.5-percentage-point rise in labor force participation can be attributed to the increased opportunities to participate in sports. Stevenson finds that, in the post-Title IX era, women who participate in high school sports receive 0.4 years more education and 8 percent higher wages, even when the study controls as thoroughly as possible for a student’s underlying abilities and resources. Further, since Title IX was enacted, there has been a 20-percent increase in education and a roughly 40-percent rise in employment for 25- to 34-year-old women. □



## Wallowing in significance

*The Cult of Statistical Significance: How the Standard Error Costs Us Jobs, Justice, and Lives.* By Stephen T. Ziliak and Deirdre N. McCloskey, Ann Arbor, MI, The University of Michigan Press, 2007, 321 pp., \$24.95/paper.

All but the most astute BLS news release reader might overlook the note near the end of some BLS regional reports that states, “A value that is statistically different from another does not necessarily mean that the difference has economic or practical significance.” This reviewer thought he understood what that meant, but after a reading of *The Cult of Statistical Significance*, that statement has taken on new “significance.”

Stephen T. Ziliak and Deirdre N. McCloskey are “not professional statisticians, only amateur historians and philosophers of science.” They are both professors and economists who are also artful writers. Ziliak has taught at Emory University and the Georgia Institute of Technology; he is currently Professor of Economics at Roosevelt University. Ziliak’s resume includes a stint working as a state labor market analyst, in which he was not able to provide black teenage unemployment rates because they did not meet an “arbitrary level of statistical significance.” McCloskey, the Distinguished Professor of Economics, History, English, and Communication at the University of Illinois at Chicago, has authored 20 books and 300 articles. This reviewer was first introduced to McCloskey’s work over 20 years ago when a colleague shared the article, “Economic Writing” (Western Economic Association, *Economic Inquiry*, April 1985), an entertaining and engaging piece that provides writing guidance

to economists.

According to *Cult’s* authors, the problem is that significance has become a broken, or highly overused and abused, statistical instrument. “The offering of statistically significant coefficients seems ceremonial,” write Professors Ziliak and McCloskey, who document a history of the problem while attacking its misuse. “In statistical fields such as economics...the idol is the test of significance.” Put succinctly, Ziliak and McCloskey feel statistical significance is simply bad science—“One erects little ‘significance’ hurdles, six inches tall, and makes a great show of leaping over them, concluding from a test of statistical significance that the data are ‘consistent with’ one’s own very charming hypothesis.”

Their point of contention is that “fit is not the same thing as importance. Statistical significance is not the same thing as scientific finding.” A scientific study is concerned with determining the magnitude of effect, answering the question, “How much?” Contrast this with conclusions based solely on a statement of statistical significance. The difference is one of what the authors call “oomph” versus a “philosophy of mere existence.” This point is masterfully illustrated with a number of case histories (including the 1990 South Carolina salmonella outbreak and studies on both St. John’s-Wort and Vioxx).

In 1996, the authors analyzed scholarly American Economic Review (AER) articles from the 1980s, subjecting them to 19 critical evaluative questions, in order to assess the quality of their statistical analyses. Among their findings was that 70 percent of the applied econometric papers published made no distinction between statistical significance and economic significance. The authors

repeated the study with articles from the 1990s, and the results were not much better.

“No competent statistician would recommend,” write Ziliak and McCloskey, “that economists use only tests of statistical significance without a loss function or a consideration of power...” Explain the *Cult’s* authors, “Power asks, ‘What in the proffered experiment is the probability of correctly rejecting the null hypothesis, concluding that the null hypothesis is indeed false when it is false?’” Ziliak and McCloskey assert, “Calculations of Type I error pretend otherwise... they act as if the null hypothesis... is the only hypothesis that is worthy of probabilistic assessment. They ignore the other hypotheses.”

To help solve the statistical significance problem, Ziliak and McCloskey propose issuing a “Statement on the proprieties of substantive significance” and distributing it to editors and researchers. “Undergraduates need to hear from the beginning that size matters,” state the authors. Size matters from more than one perspective: in terms of the size of the error (and, the authors point out, random error is but “one out of many dozens of errors and seldom the biggest”); in terms of sample size; and in terms of the size of the observed economic effect.

How did it happen that statistical significance became the expected and most abused litmus test of modern research? McCloskey and Ziliak raise a number of possibilities, including sociological reasons, to explain the current situation. “Testimators rest content with a nominal level of statistical significance, ignoring the real significance—the rise or fall in the price of the ostensible object of inquiry. Suffering from precision illusion, they ignore real error.”

In addition to exposing us to the

development of ideas, the authors also paint a picture of the personalities behind the number theories. This added color, though sometimes entertaining, may occasionally border on character attack. Some of the portrayals, in this reviewer's opinion, may have detracted from the book's potency.

Nevertheless, the message remains: Even employees of major U.S. statistical agencies might take statistical significance for granted. After all, we and other statistical practitioners and data disseminators know all about estimate formulation and sample error. We can analyze data and present

our survey results and research findings to the public, providing valuable information about our economy. Relatively few of us, however, know the history of significance analysis, the controversy that surrounds its use, and the "substantive" strength added by considerations of power and other analytical methods.

*Cult's* strength is that it fills that void...and then some. The authors are not shy about their message: "We hope you, oh significance tester, will read the book optimistically—with a sense of how "real" significance can transform your science." Whether or not one agrees with their conclusions,

some benefit might still accrue from a close reading of this work. Beyond the many-faceted descriptions of the problem, *Cult* provides a "reader's guide" for further direction and additional background in statistical testing estimation and error. And, if you are a researcher, the most valuable part of this work might be the discussion that surrounds Ziliak and McCloskey's 19-question AER evaluation—how would *your* study fare? □

—Bruce Bergman  
New York Office  
Bureau of Labor Statistics

### Book review interest?

Interested in reviewing a book for the *Monthly Labor Review*? We have a number of books by distinguished authors on economics, industrial relations, other social sciences, and related issues waiting to be reviewed. If you have good writing skills and/or experience, then please contact us via E-mail at [mlr@bls.gov](mailto:mlr@bls.gov).

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# Notes on Current Labor Statistics

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

## General notes

The following notes apply to several tables in this section:

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

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

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

**Adjustments for price changes.** Some data—such as the “real” earnings shown in table 14—are adjusted to eliminate the effect of changes in price. These adjustments are made by dividing current-dollar values by the Consumer Price Index or the appropriate component of the index, then multiplying by 100. For example, given a current hourly wage rate of \$3 and a current price index number of 150, where 1982 = 100, the hourly rate expressed in 1982 dollars is \$2 ( $\$3/150 \times 100 = \$2$ ). The \$2 (or any other resulting

values) are described as “real,” “constant,” or “1982” dollars.

## Sources of information

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

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

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

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

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

Additional information on labor force data for areas below the national level are provided in the BLS annual report, *Geographic Profile of Employment and Unemployment*.

For a comprehensive discussion of the Employment Cost Index, see *Employment Cost Indexes and Levels, 1975–95*, BLS Bulletin 2466. The most recent data from the Employee Benefits Survey appear in the following Bureau of Labor Statistics bulletins: *Employee Benefits in Medium and Large Firms*; *Employee Benefits in Small Private Establishments*; and *Employee Benefits in State and Local Governments*.

More detailed data on consumer and producer prices are published in the monthly periodicals, *The CPI Detailed Report* and *Producer Price Indexes*. For an overview of the 1998 revision of the CPI, see the December 1996 issue of the *Monthly Labor Review*. Additional data on international prices appear in monthly news releases.

Listings of industries for which productivity indexes are available may be found on the Internet:

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

For additional information on international comparisons data, see *International Comparisons of Unemployment*, Bulletin

1979.

Detailed data on the occupational injury and illness series are published in *Occupational Injuries and Illnesses in the United States, by Industry*, a BLS annual bulletin.

Finally, the *Monthly Labor Review* carries analytical articles on annual and longer term developments in labor force, employment, and unemployment; employee compensation and collective bargaining; prices; productivity; international comparisons; and injury and illness data.

## Symbols

n.e.c. = not elsewhere classified.

n.e.s. = not elsewhere specified.

p = preliminary. To increase the timeliness of some series, preliminary figures are issued based on representative but incomplete returns.

r = revised. Generally, this revision reflects the availability of later data, but also may reflect other adjustments.

## Comparative Indicators

(Tables 1–3)

Comparative indicators tables provide an overview and comparison of major BLS statistical series. Consequently, although many of the included series are available monthly, all measures in these comparative tables are presented quarterly and annually.

**Labor market indicators** include employment measures from two major surveys and information on rates of change in compensation provided by the Employment Cost Index (ECI) program. The labor force participation rate, the employment-population ratio, and unemployment rates for major demographic groups based on the Current Population (“household”) Survey are presented, while measures of employment and average weekly hours by major industry sector are given using nonfarm payroll data. The Employment Cost Index (compensation), by major sector and by bargaining status, is chosen from a variety of BLS compensation and wage measures because it provides a comprehensive measure of employer costs for hiring labor, not just outlays for wages, and it is not affected by employment shifts among occupations and industries.

Data on **changes in compensation, prices, and productivity** are presented in table 2. Measures of rates of change of compensation and wages from the Employment Cost Index



program are provided for all civilian nonfarm workers (excluding Federal and household workers) and for all private nonfarm workers. Measures of changes in consumer prices for all urban consumers; producer prices by stage of processing; overall prices by stage of processing; and overall export and import price indexes are given. Measures of productivity (output per hour of all persons) are provided for major sectors.

**Alternative measures of wage and compensation rates of change**, which reflect the overall trend in labor costs, are summarized in table 3. Differences in concepts and scope, related to the specific purposes of the series, contribute to the variation in changes among the individual measures.

### Notes on the data

Definitions of each series and notes on the data are contained in later sections of these notes describing each set of data.

## Employment and Unemployment Data

(Tables 1; 4–29)

### Household survey data

#### Description of the series

Employment data in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 60,000 households selected to represent the U.S. population 16 years of age and older. Households are interviewed on a rotating basis, so that three-fourths of the sample is the same for any 2 consecutive months.

#### Definitions

**Employed persons** include (1) all those who worked for pay any time during the week which includes the 12th day of the month or who worked unpaid for 15 hours or more in a family-operated enterprise and (2) those who were temporarily absent from their regular jobs because of illness, vacation, industrial dispute, or similar reasons. A person working at more than one job is counted only in the job at which he or she worked the greatest number of hours.

**Unemployed persons** are those who did not work during the survey week, but were available for work except for temporary illness and had looked for jobs within the preceding 4 weeks. Persons who did not look for work

because they were on layoff are also counted among the unemployed. **The unemployment rate** represents the number unemployed as a percent of the civilian labor force.

The **civilian labor force** consists of all employed or unemployed persons in the civilian noninstitutional population. Persons **not in the labor force** are those not classified as employed or unemployed. This group includes discouraged workers, defined as persons who want and are available for a job and who have looked for work sometime in the past 12 months (or since the end of their last job if they held one within the past 12 months), but are not currently looking, because they believe there are no jobs available or there are none for which they would qualify. The **civilian noninstitutional population** comprises all persons 16 years of age and older who are not inmates of penal or mental institutions, sanitariums, or homes for the aged, infirm, or needy. The **civilian labor force participation rate** is the proportion of the civilian noninstitutional population that is in the labor force. The **employment-population ratio** is employment as a percent of the civilian noninstitutional population.

#### Notes on the data

From time to time, and especially after a decennial census, adjustments are made in the Current Population Survey figures to correct for estimating errors during the intercensal years. These adjustments affect the comparability of historical data. A description of these adjustments and their effect on the various data series appears in the Explanatory Notes of *Employment and Earnings*. For a discussion of changes introduced in January 2003, see “Revisions to the Current Population Survey Effective in January 2003” in the February 2003 issue of *Employment and Earnings* (available on the BLS Web site at [www.bls.gov/cps/rvcps03.pdf](http://www.bls.gov/cps/rvcps03.pdf)).

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

At the beginning of each calendar year, historical seasonally adjusted data usually are revised, and projected seasonal adjustment factors are calculated for use during the January–June period. The historical season-

ally adjusted data usually are revised for only the most recent 5 years. In July, new seasonal adjustment factors, which incorporate the experience through June, are produced for the July–December period, but no revisions are made in the historical data.

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

## Establishment survey data

### Description of the series

Employment, hours, and earnings data in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies by about 160,000 businesses and government agencies, which represent approximately 400,000 individual worksites and represent all industries except agriculture. The active CES sample covers approximately one-third of all nonfarm payroll workers. Industries are classified in accordance with the 2007 North American Industry Classification System. In most industries, the sampling probabilities are based on the size of the establishment; most large establishments are therefore in the sample. (An establishment is not necessarily a firm; it may be a branch plant, for example, or warehouse.) Self-employed persons and others not on a regular civilian payroll are outside the scope of the survey because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

### Definitions

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

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

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

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

probability-based sample design. The industry-coding update included reconstruction of historical estimates in order to preserve time series for data users. Normally 5 years of seasonally adjusted data are revised with each benchmark revision. However, with this release, the entire new time series history for all CES data series were re-seasonally adjusted due to the NAICS conversion, which resulted in the revision of all CES time series.

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

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

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

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

lished as preliminary in January and February and as final in March.

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

## Unemployment data by State

### Description of the series

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

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

### Notes on the data

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

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

## Quarterly Census of Employment and Wages

### Description of the series

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

The Quarterly Census of Employment and Wages (QCEW) data, also referred as ES-202 data, are the most complete enumeration of employment and wage information by

industry at the national, State, metropolitan area, and county levels. They have broad economic significance in evaluating labor market trends and major industry developments.

## Definitions

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

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

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

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

Most employers have only one establishment; thus, the establishment is the

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

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

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

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

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

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

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

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

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

## Notes on the data

Beginning with the release of data for 2007, publications presenting data from the Covered Employment and Wages program have



switched to the 2007 version of the North American Industry Classification System (NAICS) as the basis for the assignment and tabulation of economic data by industry. NAICS is the product of a cooperative effort on the part of the statistical agencies of the United States, Canada, and Mexico. Due to difference in NAICS and Standard Industrial Classification (SIC) structures, industry data for 2001 is not comparable to the SIC-based data for earlier years.

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

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

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

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

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

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

## Job Openings and Labor Turnover Survey

### Description of the series

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

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

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

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

### Definitions

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

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



by 100.

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

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

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

## Notes on the data

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

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

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

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

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

JOLTS hires and separations estimates cannot be used to exactly explain net changes in payroll employment. Some reasons why it is problematic to compare changes in payroll employment with JOLTS hires and separations, especially on a monthly basis, are: (1) the reference period for payroll employment is the pay period including the 12th of the month, while the reference period for hires and separations is the calendar month; and (2) payroll employment can vary from month

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

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

## Compensation and Wage Data

(Tables 1-3; 30-37)

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

## Employment Cost Index

### Description of the series

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

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

Sample establishments are classified by industry categories based on the 2007 North American Classification System (NAICS). Within a sample establishment, specific job categories are selected and classified into about 800 occupations according to the 2000 Standard Occupational Classification (SOC) System. Individual occupations are combined to represent one of ten intermediate

aggregations, such as professional and related occupations, or one of five higher level aggregations, such as management, professional, and related occupations.

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

## Definitions

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

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

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

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

## Notes on the data

The ECI data in these tables reflect the conversion to the 2002 North American Industry Classification System (NAICS) and the 2000 Standard Occupational Classification (SOC) system. The NAICS and SOC data shown prior to 2006 are for informational purposes only. ECI series based on NAICS and SOC became the official BLS estimates starting in March 2006.

The ECI for changes in wages and salaries in the private nonfarm economy was pub-

lished beginning in 1975. Changes in total compensation cost—wages and salaries and benefits combined—were published beginning in 1980. The series of changes in wages and salaries and for total compensation in the State and local government sector and in the civilian nonfarm economy (excluding Federal employees) were published beginning in 1981. Historical indexes (December 2005=100) are available on the Internet: [www.bls.gov/ect/](http://www.bls.gov/ect/)

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

## National Compensation Survey Benefit Measures

### Description of the series

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

### Definitions

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

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

Employees in contributory plans are considered as **participating** in an insurance or retirement plan if they have paid required contributions and fulfilled any applicable

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

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

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

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

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

## Notes on the data

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

## Work stoppages

### Description of the series

Data on work stoppages measure the number and duration of major strikes or lockouts (involving 1,000 workers or more) occurring during the month (or year), the number of workers involved, and the amount of work time lost because of stoppage. These data are presented in table 37.

Data are largely from a variety of published sources and cover only establishments directly involved in a stoppage. They do not measure the indirect or secondary effect of stoppages on other establishments whose employees are idle owing to material shortages or lack of service.

### Definitions

**Number of stoppages:** The number of strikes and lockouts involving 1,000 workers or more and lasting a full shift or longer.

**Workers involved:** The number of workers directly involved in the stoppage.

**Number of days idle:** The aggregate number of workdays lost by workers involved

in the stoppages.

**Days of idleness as a percent of estimated working time:** Aggregate workdays lost as a percent of the aggregate number of standard workdays in the period multiplied by total employment in the period.

## Notes on the data

This series is not comparable with the one terminated in 1981 that covered strikes involving six workers or more.

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

## Price Data

(Tables 2; 38-46)

Price data are gathered by the Bureau of Labor Statistics from retail and primary markets in the United States. Price indexes are given in relation to a base period—December 2003 = 100 for many Producer Price Indexes (unless otherwise noted), 1982-84 = 100 for many Consumer Price Indexes (unless otherwise noted), and 1990 = 100 for International Price Indexes.

## Consumer Price Indexes

### Description of the series

The **Consumer Price Index** (CPI) is a measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The CPI is calculated monthly for two population groups, one consisting only of urban households whose primary source of income is derived from the employment of wage earners and clerical workers, and the other consisting of all urban households. The wage earner index (CPI-W) is a continuation of the historic index that was introduced well over a half-century ago for use in wage negotiations. As new uses were developed for the CPI in recent years, the need for a broader and more representative index became apparent. The all-urban consumer index (CPI-U), introduced in 1978, is representative of the 1993-95 buying habits of about 87 percent of the noninstitutional population of the United States at that time, compared with 32 percent represented in the CPI-W. In addition to wage earners and clerical workers, the CPI-U covers professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, fuel, drugs, transportation fares, doctors' and dentists' fees, and other goods and services that people buy for day-to-day living. The quantity and quality of these items are kept essentially unchanged between major revisions so that only price changes will be measured. All taxes directly associated with the purchase and use of items are included in the index.

Data collected from more than 23,000 retail establishments and 5,800 housing units in 87 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 14 major urban centers are presented in table 39. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

### Notes on the data

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

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

## Producer Price Indexes

### Description of the series

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

try Classification System and product codes developed by the U.S. Census Bureau.

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

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

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

## International Price Indexes

### Description of the series

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

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

To the extent possible, the data gathered refer to prices at the U.S. border for exports and at either the foreign border or the U.S. border for imports. For nearly all products, the prices refer to transactions completed during



the first week of the month. Survey respondents are asked to indicate all discounts, allowances, and rebates applicable to the reported prices, so that the price used in the calculation of the indexes is the actual price for which the product was bought or sold.

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

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

### Notes on the data

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

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

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

## Productivity Data

(Tables 2; 47-50)

### Business and major sectors

#### Description of the series

The productivity measures relate real output to real input. As such, they encompass a family of measures which include single-factor input measures, such as output per hour,

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

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

### Definitions

**Output per hour of all persons** (labor productivity) is the quantity of goods and services produced per hour of labor input.

**Output per unit of capital services** (capital productivity) is the quantity of goods and services produced per unit of capital services input. **Multifactor productivity** is the quantity of goods and services produced per combined inputs. For private business and private nonfarm business, inputs include labor and capital units. For manufacturing, inputs include labor, capital, energy, nonenergy materials, and purchased business services.

**Compensation per hour** is total compensation divided by hours at work. Total compensation equals the wages and salaries of employees plus employers' contributions for social insurance and private benefit plans, plus an estimate of these payments for the self-employed (except for nonfinancial corporations in which there are no self-employed). **Real compensation per hour** is compensation per hour deflated by the change in the Consumer Price Index for All Urban Consumers.

**Unit labor costs** are the labor compensation costs expended in the production of a unit of output and are derived by dividing compensation by output. **Unit nonlabor payments** include profits, depreciation, interest, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from current-dollar value of output and dividing by output.

**Unit nonlabor costs** contain all the components of unit nonlabor payments except unit profits.

**Unit profits** include corporate profits with inventory valuation and capital consumption adjustments per unit of output.

**Hours of all persons** are the total hours at work of payroll workers, self-employed persons, and unpaid family workers.

**Labor inputs** are hours of all persons adjusted for the effects of changes in the education and experience of the labor force.

**Capital services** are the flow of services from the capital stock used in production. It

is developed from measures of the net stock of physical assets—equipment, structures, land, and inventories—weighted by rental prices for each type of asset.

**Combined units of labor and capital inputs** are derived by combining changes in labor and capital input with weights which represent each component's share of total cost. Combined units of labor, capital, energy, materials, and purchased business services are similarly derived by combining changes in each input with weights that represent each input's share of total costs. The indexes for each input and for combined units are based on changing weights which are averages of the shares in the current and preceding year (the Tornquist index-number formula).

### Notes on the data

Business sector output is an annually-weighted index constructed by excluding from real gross domestic product (GDP) the following outputs: general government, nonprofit institutions, paid employees of private households, and the rental value of owner-occupied dwellings. Nonfarm business also excludes farming. Private business and private nonfarm business further exclude government enterprises. The measures are supplied by the U.S. Department of Commerce's Bureau of Economic Analysis. Annual estimates of manufacturing sectoral output are produced by the Bureau of Labor Statistics. Quarterly manufacturing output indexes from the Federal Reserve Board are adjusted to these annual output measures by the BLS. Compensation data are developed from data of the Bureau of Economic Analysis and the Bureau of Labor Statistics. Hours data are developed from data of the Bureau of Labor Statistics.

The productivity and associated cost measures in tables 47-50 describe the relationship between output in real terms and the labor and capital inputs involved in its production. They show the changes from period to period in the amount of goods and services produced per unit of input.

Although these measures relate output to hours and capital services, they do not measure the contributions of labor, capital, or any other specific factor of production. Rather, they reflect the joint effect of many influences, including changes in technology; shifts in the composition of the labor force; capital investment; level of output; changes in the utilization of capacity, energy, material, and research and development; the organization of production; managerial skill; and characteristics and efforts of the work force.

FOR ADDITIONAL INFORMATION on this



productivity series, contact the Division of Productivity Research: (202) 691-5606.

## Industry productivity measures

### Description of the series

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

The industry measures differ in methodology and data sources from the productivity measures for the major sectors because the industry measures are developed independently of the National Income and Product Accounts framework used for the major sector measures.

### Definitions

**Output per hour** is derived by dividing an index of industry output by an index of labor input. For most industries, **output** indexes are derived from data on the value of industry output adjusted for price change. For the remaining industries, output indexes are derived from data on the physical quantity of production.

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

**Unit labor costs** represent the labor compensation costs per unit of output produced, and are derived by dividing an index of labor compensation by an index of output. **Labor compensation** includes payroll as well as supplemental payments, including both legally required expenditures and payments for voluntary programs.

**Multifactor productivity** is derived by dividing an index of industry output by an index of combined inputs consumed in producing that output. **Combined inputs** include capital, labor, and intermediate purchases. The measure of **capital input** represents the flow of services from the capital stock used in production. It is developed from measures of the net stock of physical assets—equipment, structures, land, and inventories. The measure of **intermediate purchases** is a combination of purchased materials, services, fuels, and electricity.

### Notes on the data

The industry measures are compiled from data produced by the Bureau of Labor Statistics and the Census Bureau, with additional data supplied by other government agencies, trade associations, and other sources.

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

## International Comparisons

(Tables 51-53)

### Labor force and unemployment

#### Description of the series

Tables 51 and 52 present comparative measures of the labor force, employment, and unemployment 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/pub/mlr/2000/06/art1full.pdf](http://www.bls.gov/pub/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 job seekers. These conceptual differences have little impact on the measures. Furthermore, BLS studies have concluded that no adjustments should be made for persons on layoff who are counted as employed in some countries because of their strong job attachment as evidenced by, for example, payment of salary or the existence of a recall date. In the United States, persons on layoff have weaker job attachment and are classified as unemployed.

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

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

## Manufacturing productivity and labor costs

### Description of the series

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

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

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

### Definitions

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

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

To preserve the comparability of the U.S.

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

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

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

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

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

### Notes on the data

The measures for recent years may be based on current indicators of manufacturing output (such as industrial production indexes), employment, average hours, and hourly compensation until national ac-

counts and other statistics used for the long-term measures become available.

FOR ADDITIONAL INFORMATION on this series, go to <http://www.bls.gov/news.release/prod4.toc.htm> or contact the Division of International Labor Comparison at (202) 691-5654.

## Occupational Injury and Illness Data

(Tables 54–55)

### Survey of Occupational Injuries and Illnesses

#### Description of the series

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

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

#### Definitions

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

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

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

**Lost workday injuries and illnesses** are cases that involve days away from work, or

days of restricted work activity, or both.

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

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

### Notes on the data

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

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

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

tunnel syndrome).

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

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

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

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

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

## Census of Fatal Occupational Injuries

The Census of Fatal Occupational Injuries compiles a complete roster of fatal job-related injuries, including detailed data about the fatally injured workers and the fatal events. The program collects and cross checks fatality information from multiple sources, including death certificates, State and Federal workers'

compensation reports, Occupational Safety and Health Administration and Mine Safety and Health Administration records, medical examiner and autopsy reports, media accounts, State motor vehicle fatality records, and follow-up questionnaires to employers.

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

### Definition

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

### Notes on the data

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

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

**1. Labor market indicators**

Selected indicators	2008	2009	2007	2008					2009			
			IV	I	II	III	IV	I	II	III	IV	
<b>Employment data</b>												
Employment status of the civilian noninstitutional population (household survey): <sup>1</sup>												
Labor force participation rate.....	66.0	65.4	66.0	66.1	66.1	66.0	65.9	65.7	65.7	65.3	64.9	
Employment-population ratio.....	62.2	59.3	62.8	62.8	62.6	62.0	61.3	60.3	59.7	59.0	58.4	
Unemployment rate.....	5.8	9.3	4.8	5.0	5.3	6.0	6.9	8.2	9.3	9.7	10.0	
Men.....	6.1	10.3	4.9	5.1	5.5	6.4	7.6	9.0	10.4	10.8	11.2	
16 to 24 years.....	14.4	20.1	12.1	12.7	13.3	14.9	16.5	18.1	19.9	20.7	22.0	
25 years and older.....	4.8	8.8	3.7	3.9	4.2	5.1	6.1	7.6	8.9	9.4	9.5	
Women.....	5.4	8.1	4.7	4.8	5.1	5.6	6.2	7.3	8.0	8.3	8.7	
16 to 24 years.....	11.2	14.9	9.9	10.2	11.0	11.7	11.7	13.2	14.6	15.6	15.9	
25 years and older.....	4.4	6.9	3.8	3.9	4.1	4.5	5.3	6.2	6.9	7.1	7.5	
Employment, nonfarm (payroll data), in thousands: <sup>1</sup>												
Total nonfarm.....	136,790	130,912	138,152	137,858	137,285	136,283	134,328	132,070	130,637	129,857	129,547	
Total private.....	114,281	108,369	115,783	115,419	114,775	113,715	111,767	109,510	108,075	107,377	107,067	
Goods-producing.....	21,334	18,620	22,043	21,815	21,511	21,092	20,294	19,233	18,503	18,124	17,906	
Manufacturing.....	13,406	11,883	13,777	13,654	13,528	13,270	12,822	12,212	11,782	11,634	11,529	
Service-providing.....	115,456	112,292	116,109	116,043	115,774	115,191	114,031	112,837	112,134	111,733	111,641	
Average hours:												
Total private.....	33.6	33.1	33.8	33.8	33.7	33.5	33.3	33.1	33.0	33.1	33.2	
Manufacturing.....	40.8	39.8	41.2	41.3	41.0	40.4	39.8	39.4	39.5	39.9	40.6	
Overtime.....	3.7	2.9	4.1	4.1	3.9	3.5	2.9	2.6	2.8	3.0	3.4	
<b>Employment Cost Index<sup>1, 2, 3</sup></b>												
Total compensation:												
Civilian nonfarm <sup>4</sup> .....	2.6	1.5	.6	.8	.7	.8	.3	.4	.4	.5	.3	
Private nonfarm.....	2.4	1.2	.6	.9	.7	.6	.2	.4	.3	.4	.2	
Goods-producing <sup>5</sup> .....	2.4	1.0	.6	1.0	.7	.4	.3	.4	.3	.2	.2	
Service-providing <sup>5</sup> .....	2.5	1.3	.6	.9	.7	.6	.3	.4	.3	.4	.3	
State and local government.....	3.0	2.4	.7	.5	.5	1.7	.3	.6	.5	1.0	.3	
Workers by bargaining status (private nonfarm):												
Union.....	2.8	2.9	.7	.8	.8	.7	.6	1.0	.6	.6	.5	
Nonunion.....	2.4	.9	.6	.9	.7	.6	.2	.3	.2	.3	.2	

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

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

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

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

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

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



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

Selected measures	2008	2009	2007	2008					2009			
			IV	I	II	III	IV	I	II	III	IV	
<b>Compensation data<sup>1,2,3</sup></b>												
Employment Cost Index—compensation:												
Civilian nonfarm.....	2.6	1.5	0.6	0.8	0.7	0.8	0.3	0.4	0.4	0.5	0.3	
Private nonfarm.....	2.4	1.2	.6	.9	.7	.6	.2	.4	.3	.4	.2	
Employment Cost Index—wages and salaries:												
Civilian nonfarm.....	2.7	1.5	.7	.8	.7	.8	.3	.4	.4	.5	.3	
Private nonfarm.....	2.6	1.4	.6	.9	.7	.6	.3	.4	.3	.5	.3	
<b>Price data<sup>1</sup></b>												
Consumer Price Index (All Urban Consumers): All Items.....	3.8	-4	.7	1.7	2.5	0	-3.9	1.2	1.4	.1	.0	
Producer Price Index:												
Finished goods.....	6.3	-2.5	1.8	2.8	4.2	-1	-7.4	.2	3.1	-5	1.6	
Finished consumer goods.....	7.4	-3.8	1.9	3.4	5.2	-4	-10.0	.3	4.3	-6	1.9	
Capital equipment.....	2.9	2.0	1.2	.7	.6	1.0	1.9	-.2	-.2	-.3	.7	
Intermediate materials, supplies, and components.....	10.3	-8.3	2.0	5.0	6.9	.7	-13.6	-2.1	2.8	1.5	.8	
Crude materials.....	21.6	-30.5	11.9	14.5	14.9	-15.6	-32.1	-7.2	12.3	-3.2	11.3	
<b>Productivity data<sup>4</sup></b>												
Output per hour of all persons:												
Business sector.....	1.9	3.0	1.6	.2	3.1	.3	.8	.2	6.8	7.4	6.5	
Nonfarm business sector.....	1.8	2.9	2.0	-.1	3.1	-.1	.8	.3	6.9	7.2	6.2	
Nonfinancial corporations <sup>5</sup> .....	1.9	-	5.3	-2.7	6.9	3.2	-1.4	-7.3	8.4	6.3	-	

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

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

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

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

<sup>4</sup> Annual rates of change are computed by comparing annual averages. Quarterly percent changes reflect annual rates of change in quarterly indexes. The data are seasonally adjusted.

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

## 3. Alternative measures of wage and compensation changes

Components	Quarterly change					Four quarters ending—					
	2008	2009				2008	2009				
	IV	I	II	III	IV	IV	I	II	III	IV	
Average hourly compensation: <sup>1</sup>											
All persons, business sector.....	2.6	-4.7	6.7	5.9	1.6	2.5	0.9	2.2	2.5	2.2	
All persons, nonfarm business sector.....	2.9	-4.7	6.9	5.5	1.5	2.6	.9	2.3	2.5	2.2	
Employment Cost Index—compensation: <sup>2</sup>											
Civilian nonfarm <sup>3</sup> .....	.3	.4	.4	.5	.3	2.6	2.1	1.8	1.5	1.5	
Private nonfarm.....	.2	.4	.3	.4	.2	2.4	1.9	1.5	1.2	1.2	
Union.....	.6	1.0	.6	.6	.5	2.8	3.0	2.9	2.9	2.9	
Nonunion.....	.2	.3	.2	.3	.3	2.4	1.8	1.2	.9	.9	
State and local government.....	.3	.6	.5	1.0	.3	3.0	3.1	3.2	2.4	2.4	
Employment Cost Index—wages and salaries: <sup>2</sup>											
Civilian nonfarm <sup>3</sup> .....	.3	.4	.4	.5	.3	2.7	2.2	1.8	1.5	1.5	
Private nonfarm.....	.3	.4	.3	.5	.3	2.6	2.0	1.6	1.4	1.4	
Union.....	.7	.6	.7	.5	.6	3.2	3.1	2.7	2.6	2.6	
Nonunion.....	.2	.4	.2	.4	.3	2.5	1.9	1.4	1.1	1.2	
State and local government.....	.3	.5	.5	.8	.2	3.1	3.0	3.0	2.1	2.0	

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

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

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

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

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

[Numbers in thousands]

Employment status	Annual average		2008		2009										
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>TOTAL</b>															
Civilian noninstitutional population <sup>1</sup>	233,788	235,801	235,035	234,739	234,913	235,086	235,271	235,452	235,655	235,870	236,087	236,322	236,550	236,743	236,924
Civilian labor force	154,287	154,142	154,587	154,140	154,401	154,164	154,718	154,956	154,759	154,351	154,426	153,927	153,854	153,720	153,059
Participation rate	66.0	65.4	65.8	65.7	65.7	65.6	65.8	65.8	65.7	65.4	65.4	65.1	65.0	64.9	64.6
Employed	145,362	139,877	143,188	142,221	141,687	140,854	140,902	140,438	140,038	139,817	139,433	138,768	138,242	138,381	137,792
Employment-population ratio <sup>2</sup>	62.2	59.3	60.9	60.6	60.3	59.9	59.9	59.6	59.4	59.3	59.1	58.7	58.4	58.5	58.2
Unemployed	8,924	14,265	11,400	11,919	12,714	13,310	13,816	14,518	14,721	14,534	14,993	15,159	15,612	15,340	15,267
Unemployment rate	5.8	9.3	7.4	7.7	8.2	8.6	8.9	9.4	9.5	9.4	9.7	9.8	10.1	10.0	10.0
Not in the labor force	79,501	81,659	80,448	80,599	80,512	80,922	80,554	80,496	80,895	81,519	81,661	82,396	82,696	83,022	83,865
<b>Men, 20 years and over</b>															
Civilian noninstitutional population <sup>1</sup>	104,453	105,493	105,083	104,902	104,999	105,095	105,196	105,299	105,412	105,530	105,651	105,780	105,906	106,018	106,125
Civilian labor force	79,047	78,897	79,108	78,769	78,859	78,680	79,106	79,339	79,246	78,984	79,196	78,977	79,024	78,901	78,402
Participation rate	75.7	74.8	75.3	75.1	75.1	74.9	75.2	75.3	75.2	74.8	75.0	74.7	74.6	74.4	73.9
Employed	74,750	71,341	73,237	72,625	72,266	71,667	71,665	71,552	71,354	71,255	71,142	70,861	70,662	70,662	70,391
Employment-population ratio <sup>2</sup>	71.6	67.6	69.7	69.2	68.8	68.2	68.1	68.0	67.7	67.5	67.3	67.0	66.7	66.7	66.3
Unemployed	4,297	7,555	5,871	6,144	6,593	7,013	7,441	7,787	7,892	7,728	8,055	8,116	8,362	8,239	8,011
Unemployment rate	5.4	9.6	7.4	7.8	8.4	8.9	9.4	9.8	10.0	9.8	10.2	10.3	10.6	10.4	10.2
Not in the labor force	25,406	26,596	25,975	26,133	26,140	26,415	26,091	25,961	26,166	26,547	26,455	26,803	26,882	27,117	27,723
<b>Women, 20 years and over</b>															
Civilian noninstitutional population <sup>1</sup>	112,260	113,265	112,825	112,738	112,824	112,908	112,999	113,089	113,189	113,296	113,405	113,522	113,636	113,737	113,832
Civilian labor force	68,382	68,856	68,904	68,793	68,914	68,972	69,105	69,060	68,984	68,910	68,847	68,686	68,687	68,742	68,620
Participation rate	60.9	60.8	61.1	61.0	61.1	61.1	61.2	61.1	60.9	60.8	60.7	60.5	60.4	60.4	60.3
Employed	65,039	63,699	64,744	64,391	64,238	64,110	64,147	63,847	63,741	63,685	63,552	63,280	63,133	63,269	62,998
Employment-population ratio <sup>2</sup>	57.9	56.2	57.4	57.1	56.9	56.8	56.8	56.5	56.3	56.2	56.0	55.7	55.6	55.6	55.3
Unemployed	3,342	5,157	4,160	4,402	4,676	4,863	4,957	5,213	5,243	5,225	5,295	5,406	5,554	5,473	5,622
Unemployment rate	4.9	7.5	6.0	6.4	6.8	7.1	7.2	7.5	7.6	7.6	7.7	7.9	8.1	8.0	8.2
Not in the labor force	43,878	44,409	43,921	43,946	43,910	43,936	43,894	44,029	44,205	44,386	44,558	44,837	44,949	44,994	45,212
<b>Both sexes, 16 to 19 years</b>															
Civilian noninstitutional population <sup>1</sup>	17,075	17,043	17,126	17,098	17,090	17,083	17,076	17,064	17,053	17,044	17,031	17,020	17,008	16,988	16,967
Civilian labor force	6,858	6,390	6,575	6,578	6,628	6,512	6,507	6,557	6,529	6,457	6,383	6,264	6,143	6,077	6,037
Participation rate	40.2	37.5	38.4	38.5	38.8	38.1	38.1	38.4	38.3	37.9	37.5	36.8	36.1	35.8	35.6
Employed	5,573	4,837	5,207	5,205	5,183	5,077	5,089	5,039	4,943	4,877	4,740	4,627	4,448	4,450	4,403
Employment-population ratio <sup>2</sup>	32.6	28.4	30.4	30.4	30.3	29.7	29.8	29.5	29.0	28.6	27.8	27.2	26.1	26.2	25.9
Unemployed	1,285	1,552	1,368	1,373	1,445	1,435	1,418	1,518	1,586	1,581	1,643	1,637	1,696	1,627	1,634
Unemployment rate	18.7	24.3	20.8	20.9	21.8	22.0	21.8	23.2	24.3	24.5	25.7	26.1	27.6	26.8	27.1
Not in the labor force	10,218	10,654	10,551	10,519	10,462	10,571	10,569	10,507	10,525	10,586	10,648	10,756	10,865	10,911	10,930
<b>White<sup>3</sup></b>															
Civilian noninstitutional population <sup>1</sup>	189,540	190,902	190,351	190,225	190,331	190,436	190,552	190,667	190,801	190,944	191,086	191,244	191,394	191,516	191,628
Civilian labor force	125,635	125,644	125,792	125,524	125,835	125,659	126,108	126,326	126,088	125,911	126,038	125,581	125,567	125,258	124,605
Participation rate	66.3	65.8	66.1	66.0	66.1	66.0	66.2	66.3	66.1	65.9	66.0	65.7	65.6	65.4	65.0
Employed	119,126	114,996	117,335	116,709	116,427	115,663	115,896	115,451	115,102	114,984	114,784	114,215	113,754	113,669	113,339
Employment-population ratio <sup>2</sup>	62.8	60.2	61.6	61.4	61.2	60.7	60.8	60.6	60.3	60.2	60.1	59.7	59.4	59.4	59.1
Unemployed	6,509	10,648	8,458	8,815	9,408	9,996	10,213	10,874	10,986	10,927	11,254	11,366	11,813	11,589	11,266
Unemployment rate	5.2	8.5	6.7	7.0	7.5	8.0	8.1	8.6	8.7	8.7	8.9	9.1	9.4	9.3	9.0
Not in the labor force	63,905	65,258	64,559	64,701	64,496	64,777	64,443	64,342	64,713	65,033	65,048	65,663	65,827	66,258	67,024
<b>Black or African American<sup>3</sup></b>															
Civilian noninstitutional population <sup>1</sup>	27,843	28,241	28,059	28,052	28,085	28,118	28,153	28,184	28,217	28,252	28,290	28,330	28,369	28,404	28,437
Civilian labor force	17,740	17,632	17,797	17,741	17,692	17,543	17,795	17,716	17,665	17,651	17,596	17,455	17,516	17,660	17,600
Participation rate	63.7	62.4	63.4	63.2	63.0	62.4	63.2	62.9	62.6	62.5	62.2	61.6	61.7	62.2	61.9
Employed	15,953	15,025	15,646	15,463	15,296	15,176	15,119	15,066	15,048	15,050	14,914	14,754	14,763	14,904	14,758
Employment-population ratio <sup>2</sup>	57.3	53.2	55.8	55.1	54.5	54.0	53.7	53.5	53.3	53.3	52.7	52.1	52.0	52.5	51.9
Unemployed	1,788	2,606	2,150	2,278	2,396	2,367	2,676	2,650	2,617	2,600	2,682	2,701	2,754	2,757	2,843
Unemployment rate	10.1	14.8	12.1	12.8	13.5	13.5	15.0	15.0	14.8	14.7	15.2	15.5	15.7	15.6	16.2
Not in the labor force	10,103	10,609	10,262	10,311	10,393	10,575	10,358	10,467	10,552	10,601	10,694	10,875	10,853	10,744	10,837

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		2008	2009											
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Hispanic or Latino ethnicity</b>															
Civilian noninstitutional population <sup>1</sup> .....	32,141	32,891	32,649	32,417	32,501	32,585	32,671	32,753	32,839	32,926	33,017	33,110	33,202	33,291	33,379
Civilian labor force.....	22,024	22,352	22,145	22,004	22,120	22,236	22,403	22,459	22,348	22,540	22,320	22,444	22,492	22,564	22,404
Participation rate.....	68.5	68.0	67.8	67.9	68.1	68.2	68.6	68.6	68.1	68.5	67.6	67.8	67.7	67.8	67.1
Employed.....	20,346	19,647	20,056	19,817	19,687	19,664	19,855	19,599	19,609	19,748	19,411	19,595	19,553	19,692	19,513
Employment-population ratio <sup>2</sup> .....	63.3	59.7	61.4	61.1	60.6	60.3	60.8	59.8	59.7	60.0	58.8	59.2	58.9	59.2	58.5
Unemployed.....	1,678	2,706	2,089	2,186	2,433	2,571	2,548	2,860	2,739	2,792	2,908	2,849	2,939	2,872	2,891
Unemployment rate.....	7.6	12.1	9.4	9.9	11.0	11.6	11.4	12.7	12.3	12.4	13.0	12.7	13.1	12.7	12.9
Not in the labor force.....	10,116	10,539	10,505	10,414	10,382	10,350	10,268	10,294	10,491	10,386	10,697	10,666	10,710	10,727	10,976

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

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

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

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

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

[In thousands]

Selected categories	Annual average		2008	2009											
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Characteristic</b>															
Employed, 16 years and older..	145,362	139,877	143,188	142,221	141,687	140,854	140,902	140,438	140,038	139,817	139,433	138,768	138,242	138,381	137,792
Men.....	77,486	73,670	75,812	75,118	74,756	74,072	74,107	73,974	73,727	73,613	73,436	73,120	72,844	72,794	72,499
Women.....	67,876	66,208	67,376	67,103	66,931	66,782	66,794	66,463	66,311	66,205	65,997	65,648	65,398	65,587	65,293
Married men, spouse present.....	45,860	43,998	45,155	44,694	44,449	44,451	44,424	44,214	44,242	43,955	43,847	43,656	43,401	43,336	43,312
Married women, spouse present.....	35,869	35,207	35,622	35,347	35,545	35,465	35,438	35,347	35,402	35,321	35,151	34,891	34,736	34,867	35,004
<b>Persons at work part time<sup>1</sup></b>															
All industries:															
Part time for economic reasons.....	5,875	8,913	8,090	7,897	8,672	9,023	8,888	9,048	8,962	8,808	9,077	9,158	9,240	9,225	9,165
Slack work or business conditions.....	4,169	6,648	6,068	5,833	6,511	6,839	6,699	6,788	6,779	6,831	6,895	6,815	6,882	6,684	6,453
Could only find part-time work.....	1,389	1,966	1,617	1,689	1,771	1,847	1,819	1,917	1,970	1,826	2,065	2,081	2,084	2,238	2,346
Part time for noneconomic reasons.....	19,343	18,710	18,964	18,879	18,861	18,829	18,976	18,848	18,715	18,993	18,768	18,590	18,632	18,354	18,364
Nonagricultural industries:															
Part time for economic reasons.....	5,773	8,791	7,972	7,755	8,584	8,910	8,795	8,894	8,825	8,664	8,946	8,983	9,158	9,137	9,055
Slack work or business conditions.....	4,097	6,556	5,990	5,713	6,455	6,761	6,634	6,670	6,685	6,713	6,797	6,695	6,797	6,616	6,378
Could only find part-time work.....	1,380	1,955	1,616	1,676	1,771	1,848	1,826	1,910	1,964	1,789	2,046	2,063	2,033	2,241	2,349
Part time for noneconomic reasons.....	19,005	18,372	18,647	18,563	18,556	18,494	18,595	18,478	18,358	18,610	18,383	18,251	18,317	18,066	18,056

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

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

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

[Unemployment rates]

Selected categories	Annual average		2008	2009											
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Characteristic</b>															
Total, 16 years and older.....	5.8	9.3	7.4	7.7	8.2	8.6	8.9	9.4	9.5	9.4	9.7	9.8	10.1	10.0	10.0
Both sexes, 16 to 19 years.....	18.7	24.3	20.8	20.9	21.8	22.0	21.8	23.2	24.3	24.5	25.7	26.1	27.6	26.8	27.1
Men, 20 years and older.....	5.4	9.6	7.4	7.8	8.4	8.9	9.4	9.8	10.0	9.8	10.2	10.3	10.6	10.4	10.2
Women, 20 years and older.....	4.9	7.5	6.0	6.4	6.8	7.1	7.2	7.5	7.6	7.6	7.7	7.9	8.1	8.0	8.2
White, total <sup>1</sup> .....	5.2	8.5	6.7	7.0	7.5	8.0	8.1	8.6	8.7	8.7	8.9	9.1	9.4	9.3	9.0
Both sexes, 16 to 19 years.....	16.8	21.8	18.9	18.6	19.3	20.3	20.0	20.7	21.7	22.5	24.3	23.3	25.1	23.0	23.6
Men, 16 to 19 years.....	19.1	25.2	21.5	22.0	22.4	23.5	22.9	24.6	24.4	26.1	28.1	26.8	28.6	26.0	27.4
Women, 16 to 19 years.....	14.4	18.4	16.3	15.0	16.3	17.1	17.1	16.6	19.0	18.7	20.2	19.7	21.4	20.0	19.8
Men, 20 years and older.....	4.9	8.8	6.6	7.0	7.6	8.1	8.5	9.0	9.2	9.1	9.3	9.6	9.9	9.8	9.3
Women, 20 years and older.....	4.4	6.8	5.7	5.9	6.1	6.5	6.4	6.9	6.8	6.8	7.0	7.1	7.4	7.4	7.4
Black or African American, total <sup>1</sup> .....	10.1	14.8	12.1	12.8	13.5	13.5	15.0	15.0	14.8	14.7	15.2	15.5	15.7	15.6	16.2
Both sexes, 16 to 19 years.....	31.2	39.5	33.3	36.8	38.9	33.1	35.1	39.9	38.5	36.2	35.0	41.7	42.1	49.8	48.4
Men, 16 to 19 years.....	35.9	46.0	35.3	44.4	45.6	41.7	41.7	46.2	44.8	39.2	46.8	50.8	43.6	57.1	52.2
Women, 16 to 19 years.....	26.8	33.4	31.3	30.1	32.5	26.0	28.2	34.8	33.1	33.5	24.5	32.7	40.7	41.4	44.8
Men, 20 years and older.....	10.2	16.3	13.8	14.4	15.1	15.6	17.2	16.7	16.4	16.0	17.0	16.5	17.0	16.8	16.6
Women, 20 years and older.....	8.1	11.5	8.9	9.4	10.1	10.1	11.4	11.3	11.5	11.9	12.2	12.5	12.5	11.7	13.1
Hispanic or Latino ethnicity.....	7.6	12.1	9.4	9.9	11.0	11.6	11.4	12.7	12.3	12.4	13.0	12.7	13.1	12.7	12.9
Married men, spouse present.....	3.4	6.6	4.6	5.1	5.6	6.0	6.3	6.7	6.9	6.9	7.1	7.3	7.5	7.5	7.3
Married women, spouse present.....	3.6	5.5	4.6	4.8	5.2	5.5	5.5	5.6	5.6	5.5	5.5	5.8	5.9	5.7	5.8
Full-time workers.....	5.8	10.0	7.7	8.1	8.8	9.3	9.6	10.2	10.3	10.2	10.5	10.7	11.1	11.0	10.9
Part-time workers.....	5.5	6.0	5.9	5.9	5.8	5.9	6.0	6.1	6.0	6.0	6.3	6.4	6.1	5.6	6.0
<b>Educational attainment<sup>2</sup></b>															
Less than a high school diploma.....	9.0	14.6	11.2	12.4	13.0	13.8	14.9	15.4	15.4	15.3	15.5	15.0	15.5	15.0	15.3
High school graduates, no college <sup>3</sup> .....	5.7	9.7	7.8	8.1	8.4	9.1	9.4	10.0	9.8	9.4	9.8	10.8	11.2	10.4	10.5
Some college or associate degree.....	4.6	8.0	5.9	6.4	7.1	7.3	7.5	7.8	8.0	8.0	8.2	8.6	9.0	9.0	9.0
Bachelor's degree and higher <sup>4</sup> .....	2.6	4.6	3.7	3.9	4.2	4.4	4.4	4.8	4.7	4.7	4.7	4.8	4.7	4.9	5.0

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

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

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

[Numbers in thousands]

Weeks of unemployment	Annual average		2008	2009											
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Less than 5 weeks.....	2,932	3,165	3,294	3,633	3,364	3,314	3,284	3,219	3,152	3,181	2,992	2,938	3,131	2,774	2,929
5 to 14 weeks.....	2,804	3,828	3,535	3,622	3,961	4,032	3,962	4,300	3,994	3,539	4,093	3,838	3,671	3,517	3,486
15 weeks and over.....	3,188	7,272	4,599	4,762	5,369	5,815	6,296	7,013	7,844	7,819	7,849	8,405	8,804	8,976	8,969
15 to 26 weeks.....	1,427	2,775	1,987	2,073	2,405	2,574	2,571	2,983	3,404	2,847	2,825	2,958	3,184	3,075	2,840
27 weeks and over.....	1,761	4,496	2,612	2,689	2,964	3,241	3,725	4,030	4,440	4,972	5,024	5,447	5,620	5,901	6,130
Mean duration, in weeks.....	17.9	24.4	19.6	19.9	20.0	20.8	21.8	22.9	24.4	25.3	25.2	26.5	27.2	28.6	29.1
Median duration, in weeks.....	9.4	15.1	10.7	10.6	11.4	11.9	13.1	14.9	18.2	15.9	15.5	17.8	19.0	20.2	20.5

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



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

[Numbers in thousands]

Reason for unemployment	Annual average		2008	2009											
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Job losers <sup>1</sup> .....	4,789	9,160	6,729	7,251	7,878	8,434	8,867	9,428	9,562	9,549	9,814	10,236	10,261	9,965	9,701
On temporary layoff.....	1,176	1,630	1,550	1,468	1,519	1,581	1,638	1,842	1,741	1,670	1,704	1,918	1,671	1,548	1,558
Not on temporary layoff.....	3,614	7,530	5,179	5,784	6,359	6,853	7,229	7,586	7,821	7,880	8,110	8,318	8,590	8,418	8,143
Job leavers.....	896	882	1,007	912	820	884	887	909	822	882	835	869	909	929	932
Reentrants.....	2,472	3,187	2,802	2,792	2,912	3,017	3,127	3,200	3,322	3,306	3,294	3,255	3,461	3,221	3,334
New entrants.....	766	1,035	820	792	1,016	881	919	977	969	994	1,096	1,134	1,114	1,270	1,270
<b>Percent of unemployed</b>															
Job losers <sup>1</sup> .....	53.7	64.2	59.2	61.7	62.4	63.8	64.3	65.0	65.2	64.8	65.3	66.1	65.2	64.8	63.7
On temporary layoff.....	13.2	11.4	13.6	12.5	12.0	12.0	11.9	12.7	11.9	11.3	11.3	12.4	10.6	10.1	10.2
Not on temporary layoff.....	40.5	52.8	45.6	49.2	50.4	51.9	52.4	52.3	53.3	53.5	53.9	53.7	54.6	54.7	53.4
Job leavers.....	10.0	6.2	8.9	7.8	6.5	6.7	6.4	6.3	5.6	6.0	5.6	5.6	5.8	6.0	6.1
Reentrants.....	27.7	22.3	24.7	23.8	23.1	22.8	22.7	22.0	22.6	22.4	21.9	21.0	22.0	20.9	21.9
New entrants.....	8.6	7.3	7.2	6.7	8.0	6.7	6.7	6.7	6.6	6.8	7.3	7.3	7.1	8.3	8.3
<b>Percent of civilian labor force</b>															
Job losers <sup>1</sup> .....	3.1	5.9	4.4	4.7	5.1	5.5	5.7	6.1	6.2	6.2	6.4	6.6	6.7	6.5	6.3
Job leavers.....	.6	.6	.7	.6	.5	.6	.6	.6	.5	.6	.5	.6	.6	.6	.6
Reentrants.....	1.6	2.1	1.8	1.8	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2
New entrants.....	.5	.7	.5	.5	.7	.6	.6	.6	.6	.6	.7	.7	.7	.8	.8

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

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

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

[Civilian workers]

Sex and age	Annual average		2008	2009											
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total, 16 years and older.....	5.8	9.3	7.4	7.7	8.2	8.6	8.9	9.4	9.5	9.4	9.7	9.8	10.1	10.0	10.0
16 to 24 years.....	12.8	17.6	14.9	15.0	15.8	16.4	16.7	17.5	17.9	18.0	18.3	18.3	19.2	19.1	18.9
16 to 19 years.....	18.7	24.3	20.8	20.9	21.8	22.0	21.8	23.2	24.3	24.5	25.7	26.1	27.6	26.8	27.1
16 to 17 years.....	22.1	25.9	23.7	21.5	23.1	23.9	23.4	23.8	25.5	26.0	26.5	28.2	30.2	28.8	29.9
18 to 19 years.....	16.8	23.4	19.4	20.3	21.2	21.1	21.7	23.2	23.8	23.3	25.2	24.4	25.7	26.1	25.8
20 to 24 years.....	10.2	14.7	12.4	12.4	13.2	14.0	14.6	15.1	15.2	15.3	15.1	15.0	15.6	15.9	15.6
25 years and older.....	4.6	7.9	6.1	6.5	7.0	7.3	7.6	8.1	8.2	8.1	8.4	8.6	8.7	8.5	8.5
25 to 54 years.....	4.8	8.3	6.4	6.9	7.3	7.7	7.9	8.5	8.5	8.4	8.8	9.1	9.2	8.9	8.9
55 years and older.....	3.8	6.6	5.0	5.3	5.7	6.2	6.4	6.7	7.0	6.7	6.8	6.8	7.0	7.1	7.2
Men, 16 years and older.....	6.1	10.3	8.1	8.5	9.0	9.6	10.1	10.5	10.6	10.5	11.0	11.0	11.4	11.2	11.0
16 to 24 years.....	14.4	20.1	17.0	17.3	17.9	19.2	19.6	20.3	19.9	20.3	20.8	20.9	22.2	21.8	22.0
16 to 19 years.....	21.2	27.8	23.2	24.4	25.0	25.9	25.9	27.1	26.5	27.9	29.9	29.9	31.0	30.4	30.9
16 to 17 years.....	25.2	28.7	26.5	26.3	26.6	28.2	26.4	26.5	26.5	28.5	29.6	31.1	33.5	30.5	33.1
18 to 19 years.....	19.0	27.4	21.8	23.3	24.9	24.8	25.7	28.0	27.1	27.3	29.9	28.3	28.9	30.5	30.2
20 to 24 years.....	11.4	17.0	14.4	14.4	14.9	16.5	17.0	17.4	17.2	17.1	17.0	17.2	18.6	18.3	18.4
25 years and older.....	4.8	8.8	6.6	7.1	7.7	8.0	8.5	9.0	9.2	9.1	9.5	9.7	9.7	9.5	9.2
25 to 54 years.....	5.0	9.2	7.0	7.5	8.1	8.4	8.9	9.5	9.6	9.6	10.0	10.3	10.2	10.0	9.6
55 years and older.....	3.9	7.0	5.2	5.5	6.1	6.4	6.8	7.0	7.8	7.4	7.5	7.3	7.8	7.8	7.9
Women, 16 years and older.....	5.4	8.1	6.6	6.9	7.3	7.6	7.6	8.1	8.3	8.2	8.3	8.5	8.8	8.6	8.8
16 to 24 years.....	11.2	14.9	12.7	12.5	13.6	13.4	13.6	14.5	15.8	15.6	15.6	15.5	15.9	16.2	15.7
16 to 19 years.....	16.2	20.7	18.3	17.3	18.6	18.2	17.6	19.1	22.1	20.9	21.4	22.2	24.0	23.1	23.1
16 to 17 years.....	19.1	23.1	20.9	16.5	19.9	19.7	20.4	21.2	24.6	23.6	23.3	25.1	26.8	27.1	26.8
18 to 19 years.....	14.3	19.4	16.8	17.3	17.3	17.4	17.5	18.0	20.3	19.2	20.2	20.2	22.4	21.5	21.3
20 to 24 years.....	8.8	12.3	10.2	10.3	11.4	11.3	11.8	12.5	12.9	13.2	13.1	12.7	12.4	13.3	12.5
25 years and older.....	4.4	6.9	5.5	5.9	6.2	6.6	6.6	7.0	7.0	7.0	7.1	7.3	7.6	7.3	7.6
25 to 54 years.....	4.6	7.2	5.8	6.1	6.5	6.8	6.8	7.2	7.2	7.2	7.3	7.7	8.0	7.5	8.1
55 years and older <sup>1</sup> .....	3.7	6.0	4.3	5.4	5.3	5.8	5.4	5.8	6.4	7.1	6.7	6.3	6.1	6.2	5.8

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

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

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

State	Nov. 2008	Oct. 2009 <sup>P</sup>	Nov. 2009 <sup>P</sup>	State	Nov. 2008	Oct. 2009 <sup>P</sup>	Nov. 2009 <sup>P</sup>
Alabama.....	6.2	10.9	10.5	Missouri.....	6.8	9.3	9.4
Alaska.....	6.8	8.7	8.4	Montana.....	4.9	6.4	6.4
Arizona.....	6.4	9.3	8.9	Nebraska.....	3.6	4.9	4.6
Arkansas.....	5.5	7.6	7.4	Nevada.....	8.0	12.9	12.3
California.....	8.3	12.5	12.4	New Hampshire.....	4.1	6.8	6.7
Colorado.....	5.4	7.0	6.9	New Jersey.....	6.3	9.7	9.7
Connecticut.....	6.3	8.8	8.2	New Mexico.....	4.6	7.8	7.8
Delaware.....	5.6	8.6	8.6	New York.....	6.3	9.0	8.6
District of Columbia.....	8.0	11.9	11.8	North Carolina.....	7.5	10.9	10.7
Florida.....	7.2	11.3	11.5	North Dakota.....	3.2	4.2	4.1
Georgia.....	7.1	10.1	10.1	Ohio.....	7.1	10.5	10.6
Hawaii.....	4.9	7.3	6.8	Oklahoma.....	4.4	7.3	7.1
Idaho.....	5.8	9.0	9.1	Oregon.....	7.8	11.2	10.7
Illinois.....	6.9	11.0	10.9	Pennsylvania.....	6.1	8.9	8.5
Indiana.....	7.0	9.8	9.6	Rhode Island.....	9.1	12.9	12.7
Iowa.....	4.3	6.6	6.7	South Carolina.....	8.2	12.0	12.3
Kansas.....	4.8	6.7	6.4	South Dakota.....	3.4	5.0	4.9
Kentucky.....	7.2	11.3	10.6	Tennessee.....	7.2	10.5	10.2
Louisiana.....	5.3	7.4	6.7	Texas.....	5.4	8.3	8.0
Maine.....	6.2	8.2	8.0	Utah.....	3.8	6.5	6.3
Maryland.....	5.1	7.3	7.3	Vermont.....	5.3	6.5	6.4
Massachusetts.....	6.1	8.9	8.7	Virginia.....	4.6	6.6	6.6
Michigan.....	9.6	15.1	14.7	Washington.....	6.1	9.3	9.0
Minnesota.....	6.1	7.6	7.4	West Virginia.....	4.3	8.5	8.4
Mississippi.....	7.4	9.8	9.8	Wisconsin.....	5.4	8.4	8.2
				Wyoming.....	3.1	7.4	7.2

<sup>P</sup> = preliminary

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

State	Nov. 2008	Oct. 2009 <sup>P</sup>	Nov. 2009 <sup>P</sup>	State	Nov. 2008	Oct. 2009 <sup>P</sup>	Nov. 2009 <sup>P</sup>
Alabama.....	2,159,990	2,080,140	2,064,495	Missouri.....	3,013,992	3,000,046	2,990,799
Alaska.....	359,103	357,889	358,041	Montana.....	507,037	496,472	497,748
Arizona.....	3,172,433	3,142,551	3,144,961	Nebraska.....	999,107	979,583	981,721
Arkansas.....	1,374,877	1,369,261	1,377,307	Nevada.....	1,399,659	1,386,954	1,378,058
California.....	18,536,742	18,340,446	18,338,695	New Hampshire.....	738,462	737,980	739,164
Colorado.....	2,741,519	2,660,555	2,663,960	New Jersey.....	4,510,423	4,526,252	4,539,686
Connecticut.....	1,888,407	1,900,582	1,895,165	New Mexico.....	964,878	957,693	962,650
Delaware.....	445,174	428,357	426,713	New York.....	9,731,708	9,729,641	9,692,492
District of Columbia.....	332,550	329,809	330,754	North Carolina.....	4,572,175	4,529,162	4,534,637
Florida.....	9,315,998	9,183,076	9,210,521	North Dakota.....	371,465	362,349	362,933
Georgia.....	4,868,341	4,717,661	4,717,491	Ohio.....	5,968,907	5,886,475	5,905,692
Hawaii.....	657,186	645,628	643,502	Oklahoma.....	1,763,972	1,781,426	1,783,645
Idaho.....	759,373	753,774	755,245	Oregon.....	1,977,264	1,953,078	1,946,772
Illinois.....	6,652,844	6,639,555	6,647,839	Pennsylvania.....	6,432,891	6,339,778	6,328,949
Indiana.....	3,236,966	3,107,954	3,108,442	Rhode Island.....	567,033	569,817	570,649
Iowa.....	1,677,612	1,685,358	1,682,172	South Carolina.....	2,180,411	2,170,975	2,173,419
Kansas.....	1,507,088	1,526,472	1,521,896	South Dakota.....	446,447	446,677	445,723
Kentucky.....	2,055,583	2,072,191	2,064,336	Tennessee.....	3,047,058	2,986,985	2,982,649
Louisiana.....	2,105,168	2,065,775	2,055,096	Texas.....	11,823,440	12,059,825	12,092,607
Maine.....	709,121	700,499	702,402	Utah.....	1,393,949	1,361,012	1,363,377
Maryland.....	3,006,457	2,934,716	2,946,776	Vermont.....	356,472	356,694	359,872
Massachusetts.....	3,429,595	3,443,540	3,453,832	Virginia.....	4,163,788	4,134,999	4,139,313
Michigan.....	4,900,202	4,850,045	4,843,939	Washington.....	3,515,329	3,543,201	3,514,488
Minnesota.....	2,947,270	2,950,414	2,963,981	West Virginia.....	804,331	789,582	790,040
Mississippi.....	1,317,273	1,281,915	1,283,931	Wisconsin.....	3,096,819	3,047,729	3,041,399
				Wyoming.....	294,289	291,748	291,638

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

<sup>P</sup> = preliminary

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

[In thousands]

Industry	Annual average		2008		2009										
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. <sup>P</sup>	Dec. <sup>P</sup>
<b>TOTAL NONFARM.....</b>	137,066	131,997	135,074	134,333	133,652	133,000	132,481	132,178	131,715	131,411	131,257	131,118	130,991	130,995	130,910
<b>TOTAL PRIVATE.....</b>	114,566	109,482	112,542	111,793	111,105	110,457	109,865	109,573	109,182	108,936	108,770	108,670	108,507	108,507	108,443
<b>GOODS-PRODUCING.....</b>	21,419	18,938	20,532	20,127	19,832	19,520	19,253	19,041	18,829	18,713	18,583	18,488	18,379	18,321	18,240
<b>Natural resources and mining.....</b>	774	727	789	781	771	754	740	731	721	715	706	705	700	704	703
Logging.....	57.0	51.8	55.7	55.2	54.5	51.9	51.4	51.3	51.4	51.1	51.2	51.9	50.5	50.7	50.4
Mining.....	717.0	674.9	733.3	725.3	716.4	701.9	689.0	679.6	669.3	663.8	655.1	653.2	649.9	652.8	652.7
Oil and gas extraction.....	161.6	166.6	169.4	167.7	167.8	166.9	167.0	168.1	166.9	165.5	165.2	166.1	165.4	166.2	166.2
Mining, except oil and gas <sup>1</sup> .....	227.7	218.0	229.2	227.9	225.7	222.8	220.4	219.4	217.4	215.6	214.3	214.4	212.4	213.6	212.6
Coal mining.....	80.6	80.2	84.5	84.9	84.1	83.3	82.4	81.4	80.3	79.0	78.9	78.5	77.3	76.9	76.4
Support activities for mining.....	327.7	290.3	334.7	329.7	322.9	312.2	301.6	292.1	285.0	282.7	275.6	272.7	272.1	273.0	273.9
<b>Construction.....</b>	7,215	6,234	6,841	6,706	6,593	6,470	6,367	6,310	6,231	6,162	6,096	6,043	5,987	5,960	5,907
Construction of buildings.....	1,659.3	1,434.2	1,572.9	1,536.9	1,509.5	1,481.5	1,461.7	1,451.2	1,433.4	1,415.1	1,406.1	1,391.9	1,381.6	1,381.1	1,369.6
Heavy and civil engineering.....	970.2	866.1	933.2	926.6	919.0	907.2	885.5	876.1	862.1	854.4	849.2	841.2	827.0	829.0	810.6
Specialty trade contractors.....	4,585.3	3,933.5	4,335.2	4,242.2	4,164.4	4,081.4	4,019.6	3,983.1	3,935.9	3,892.4	3,840.2	3,810.0	3,778.5	3,750.1	3,726.5
<b>Manufacturing.....</b>	13,431	11,978	12,902	12,640	12,468	12,296	12,146	12,000	11,877	11,836	11,781	11,740	11,692	11,657	11,630
Production workers.....	9,649	8,420	9,174	8,946	8,804	8,654	8,532	8,409	8,316	8,301	8,265	8,243	8,211	8,192	8,164
<b>Durable goods.....</b>	8,476	7,360	8,085	7,881	7,753	7,620	7,490	7,372	7,271	7,248	7,204	7,169	7,134	7,105	7,089
Production workers.....	5,986	5,046	5,633	5,458	5,352	5,239	5,130	5,034	4,957	4,957	4,924	4,906	4,882	4,863	4,847
Wood products.....	459.6	372.9	416.2	403.9	390.4	388.4	382.4	373.5	367.1	364.3	362.2	361.6	362.0	361.6	363.3
Nonmetallic mineral products.....	468.1	408.5	441.2	434.3	425.8	417.0	415.5	410.7	406.1	405.5	402.6	400.9	395.7	394.5	395.1
Primary metals.....	443.3	369.9	419.6	409.3	395.2	386.4	376.2	367.8	360.3	358.8	359.3	357.3	356.8	357.0	357.6
Fabricated metal products.....	1,528.3	1,320.4	1,461.5	1,425.3	1,399.0	1,370.3	1,344.1	1,325.9	1,308.8	1,295.1	1,288.3	1,280.2	1,275.1	1,270.6	1,269.9
Machinery.....	1,185.6	1,024.9	1,150.2	1,126.0	1,100.8	1,070.5	1,051.4	1,032.0	1,016.3	1,003.2	997.5	989.8	981.3	974.1	969.6
Computer and electronic products <sup>1</sup> .....	1,247.6	1,147.7	1,223.7	1,212.9	1,196.9	1,187.1	1,171.1	1,156.1	1,142.4	1,134.5	1,125.6	1,120.2	1,114.3	1,108.3	1,105.9
Computer and peripheral equipment.....	182.8	165.1	180.0	180.3	175.5	173.5	167.8	164.2	162.7	162.4	160.5	160.4	159.1	158.1	157.7
Communications equipment.....	129.0	126.9	129.1	129.6	129.0	128.5	127.8	127.4	126.5	126.3	125.7	126.1	125.0	124.0	124.4
Semiconductors and electronic components.....	432.4	378.8	417.4	410.5	403.3	397.6	389.2	382.8	375.6	371.0	367.6	365.2	363.7	362.6	362.4
Electronic instruments.....	441.6	423.3	437.5	433.8	431.9	430.9	431.1	427.2	424.4	422.2	420.0	417.3	415.5	412.7	410.7
Electrical equipment and appliances.....	424.9	379.2	412.0	406.1	399.1	389.7	382.0	378.4	377.0	374.0	372.3	371.8	368.0	365.1	363.7
Transportation equipment.....	1,606.5	1,352.2	1,501.8	1,423.5	1,423.7	1,400.4	1,365.9	1,335.3	1,309.6	1,339.0	1,330.0	1,326.9	1,326.7	1,320.1	1,315.7
Furniture and related products.....	481.0	390.8	440.6	428.6	417.4	408.8	401.0	394.4	388.1	382.7	378.2	374.5	371.5	372.7	370.3
Miscellaneous manufacturing.....	630.8	593.1	618.4	611.0	604.5	601.1	600.4	597.4	595.1	590.9	587.7	585.8	582.3	580.7	577.4
<b>Nondurable goods.....</b>	4,955	4,618	4,817	4,759	4,715	4,676	4,656	4,628	4,606	4,588	4,577	4,571	4,558	4,552	4,541
Production workers.....	3,663	3,374	3,541	3,488	3,452	3,415	3,402	3,375	3,359	3,344	3,341	3,337	3,329	3,329	3,317
Food manufacturing.....	1,484.8	1,471.8	1,477.6	1,470.7	1,467.2	1,464.4	1,474.9	1,471.7	1,473.8	1,473.9	1,476.4	1,476.3	1,473.9	1,471.0	1,466.9
Beverages and tobacco products.....	199.0	190.4	195.8	194.2	191.3	191.6	190.9	190.5	190.0	189.4	189.8	189.7	189.8	189.2	188.7
Textile mills.....	151.0	125.1	136.8	133.6	130.0	128.2	127.3	126.1	124.5	122.5	122.3	121.8	121.1	121.7	122.3
Textile product mills.....	147.5	127.6	141.2	137.4	134.2	129.3	127.5	127.0	126.7	125.9	125.5	125.8	124.7	123.7	123.7
Apparel.....	198.4	168.3	183.5	178.9	176.3	173.8	169.9	170.2	165.8	166.7	165.4	163.7	163.4	162.7	164.5
Leather and allied products.....	33.6	30.9	32.6	32.4	31.9	31.7	31.7	31.5	30.8	31.3	30.6	30.2	29.6	29.8	29.9
Paper and paper products.....	445.8	410.2	433.4	427.3	422.5	418.3	415.1	410.5	409.1	407.2	405.7	405.4	402.1	401.0	397.8
Printing and related support activities.....	594.1	524.3	567.0	558.1	549.2	541.5	534.4	529.6	522.8	518.4	513.7	511.4	508.3	503.6	503.5
Petroleum and coal products.....	117.1	114.2	116.9	114.2	114.6	114.5	114.6	114.5	114.5	114.3	114.0	114.2	113.7	114.2	112.3
Chemicals.....	849.8	812.3	837.1	832.7	828.2	823.4	818.9	814.9	811.0	807.4	803.4	802.5	802.3	804.9	801.8
Plastics and rubber products.....	734.2	642.8	694.9	679.7	669.3	659.0	651.1	641.4	637.1	631.3	630.4	629.5	629.1	630.4	629.3
<b>SERVICE-PROVIDING.....</b>	115,646	113,059	114,542	114,206	113,820	113,480	113,228	113,137	112,886	112,698	112,674	112,630	112,612	112,674	112,670
<b>PRIVATE SERVICE-PROVIDING.....</b>	93,146	90,543	92,010	91,666	91,273	90,937	90,612	90,532	90,353	90,223	90,187	90,182	90,128	90,186	90,203
<b>Trade, transportation, and utilities.....</b>	26,385	25,263	25,843	25,735	25,605	25,479	25,371	25,308	25,258	25,174	25,146	25,090	25,031	24,999	24,962
<b>Wholesale trade.....</b>	5,963.7	5,693.4	5,850.7	5,819.3	5,773.7	5,741.3	5,710.8	5,695.7	5,680.3	5,666.8	5,661.0	5,654.1	5,647.3	5,636.7	5,618.5
Durable goods.....	3,060.7	2,855.1	2,978.6	2,959.6	2,926.2	2,899.4	2,875.5	2,861.8	2,848.1	2,836.8	2,828.3	2,821.2	2,813.4	2,800.1	2,786.2
Nondurable goods.....	2,053.0	1,996.7	2,025.1	2,013.9	2,006.6	2,002.5	1,997.7	1,996.6	1,994.0	1,992.2	1,991.6	1,990.5	1,988.7	1,992.8	1,987.4
Electronic markets and agents and brokers.....	850.1	841.6	847.0	845.8	840.9	839.4	837.6	837.3	838.2	837.8	841.1	842.4	845.2	843.8	844.9
<b>Retail trade.....</b>	15,356.3	14,774.2	15,037.9	14,991.5	14,934.3	14,872.4	14,839.7	14,811.6	14,791.5	14,747.0	14,726.1	14,686.4	14,646.7	14,633.2	14,623.0
Motor vehicles and parts dealers <sup>1</sup> .....	1,844.5	1,684.0	1,745.6	1,730.1	1,716.8	1,701.8	1,690.2	1,681.6	1,673.9	1,669.9	1,674.7	1,668.4	1,668.4	1,667.4	1,669.8
Automobile dealers.....	1,186.0	1,052.9	1,099.9	1,088.6	1,078.7	1,067.7	1,057.1	1,050.2	1,042.6	1,040.4	1,045.6	1,040.7	1,041.1	1,043.0	1,045.3
Furniture and home furnishings stores.....	542.8	488.5	514.2	508.3	499.7	497.7	492.4	486.3	484.7	483.9	479.6	480.0	481.6	483.6	482.9
Electronics and appliance stores.....	549.6	516.2	538.6	535.5	533.7	518.6	518.0	517.0	515.7	513.1	513.0	511.5	507.3	505.7	505.4

See notes at end of table.

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

[In thousands]

Industry	Annual average		2009												
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. <sup>P</sup>	Dec. <sup>P</sup>
Building material and garden supply stores.....	1,253.1	1,181.3	1,227.8	1,214.9	1,207.1	1,193.5	1,189.3	1,186.3	1,181.1	1,175.3	1,169.7	1,167.8	1,164.8	1,164.6	1,168.1
Food and beverage stores.....	2,858.4	2,819.8	2,835.1	2,835.3	2,826.0	2,827.6	2,828.9	2,828.0	2,828.8	2,823.5	2,821.4	2,813.4	2,809.9	2,801.9	2,798.1
Health and personal care stores.....	1,002.4	983.0	991.2	985.7	986.9	985.0	984.2	984.7	984.3	984.1	982.2	976.5	978.7	976.9	980.6
Gasoline stations.....	843.4	830.4	834.4	833.0	832.1	830.4	831.1	829.0	829.9	830.3	834.4	830.1	830.5	825.6	826.1
Clothing and clothing accessories stores.....	1,484.2	1,424.2	1,448.5	1,445.0	1,443.8	1,433.4	1,432.7	1,426.8	1,420.1	1,414.4	1,410.9	1,411.3	1,416.2	1,421.4	1,421.1
Sporting goods, hobby, book, and music stores.....	646.7	602.6	624.3	620.8	613.6	610.0	608.8	607.0	605.1	605.4	601.8	604.5	589.7	586.6	586.1
General merchandise stores <sup>1</sup> .....	3,047.1	3,026.3	3,029.2	3,040.7	3,040.7	3,045.5	3,041.2	3,041.8	3,045.1	3,032.8	3,025.7	3,019.1	2,996.1	2,999.5	2,984.7
Department stores.....	1,557.0	1,524.1	1,521.2	1,529.1	1,532.6	1,530.9	1,524.0	1,526.0	1,528.6	1,523.3	1,524.2	1,524.4	1,510.2	1,515.9	1,510.3
Miscellaneous store retailers.....	847.8	802.0	825.0	819.5	815.1	810.4	805.3	805.8	804.8	797.6	797.5	790.9	791.2	790.4	788.0
Nonstore retailers.....	436.3	416.1	424.0	422.7	418.8	418.5	417.6	417.3	418.0	416.7	415.2	412.9	412.3	409.6	412.1
<b>Transportation and warehousing.....</b>	<b>4,505.0</b>	<b>4,227.9</b>	<b>4,389.9</b>	<b>4,354.4</b>	<b>4,327.0</b>	<b>4,295.5</b>	<b>4,251.7</b>	<b>4,233.5</b>	<b>4,218.4</b>	<b>4,193.9</b>	<b>4,192.3</b>	<b>4,182.2</b>	<b>4,168.5</b>	<b>4,161.7</b>	<b>4,153.7</b>
Air transportation.....	492.6	465.8	477.8	476.8	474.8	474.0	466.8	466.7	463.9	462.9	463.5	461.7	462.0	459.5	457.2
Rail transportation.....	229.5	214.8	226.8	227.1	224.1	220.7	217.9	214.6	212.2	212.2	213.0	211.5	209.9	208.0	208.7
Water transportation.....	65.2	57.6	60.3	59.7	60.9	59.6	58.1	57.2	56.5	55.7	56.3	56.5	56.7	56.9	57.7
Truck transportation.....	1,391.1	1,275.6	1,340.8	1,323.3	1,313.9	1,300.3	1,283.2	1,277.4	1,269.5	1,264.6	1,261.2	1,261.7	1,253.5	1,249.9	1,246.6
Transit and ground passenger transportation.....	418.1	404.7	410.1	408.1	406.4	406.2	401.8	405.4	413.0	407.0	405.4	400.5	400.5	402.6	400.7
Pipeline transportation.....	42.0	42.8	43.3	43.1	43.1	43.0	43.0	42.5	42.3	41.8	42.4	43.2	43.3	43.0	42.7
Scenic and sightseeing transportation.....	28.0	27.3	27.2	26.9	27.0	27.0	27.2	28.5	27.7	28.7	28.1	28.1	26.7	26.1	25.9
Support activities for transportation.....	589.9	543.0	579.5	569.3	561.0	554.6	550.3	545.6	537.8	532.5	533.0	534.6	532.7	533.7	532.4
Couriers and messengers.....	575.9	552.4	564.6	563.2	563.7	558.5	556.0	550.5	551.5	547.8	549.0	545.5	547.0	545.6	544.5
Warehousing and storage.....	672.8	644.0	659.5	656.9	652.1	651.6	647.4	645.1	644.0	640.7	640.4	638.9	636.2	636.4	637.3
Utilities.....	559.5	568.0	564.6	569.3	570.0	570.1	568.5	567.5	567.8	566.1	566.5	567.5	568.1	567.4	566.5
<b>Information.....</b>	<b>2,997.7</b>	<b>2,856.6</b>	<b>2,940.0</b>	<b>2,924.0</b>	<b>2,918.0</b>	<b>2,905.0</b>	<b>2,884.0</b>	<b>2,858.0</b>	<b>2,845.0</b>	<b>2,834.0</b>	<b>2,829.0</b>	<b>2,828.0</b>	<b>2,826.0</b>	<b>2,812.0</b>	<b>2,806.0</b>
Publishing industries, except Internet.....	882.6	803.4	857.8	846.3	836.3	827.8	820.1	808.6	801.8	795.6	788.5	787.3	781.0	777.3	773.6
Motion picture and sound recording industries.....	381.6	385.6	377.2	376.7	389.8	393.7	389.5	381.3	379.3	380.3	384.3	385.0	389.3	385.6	388.3
Broadcasting, except Internet.....	315.9	293.4	308.1	306.5	302.5	299.0	296.3	294.2	291.9	290.2	288.7	289.6	288.3	290.3	287.6
Internet publishing and broadcasting.....															
Telecommunications.....	1,021.4	983.4	1,004.0	1,001.6	999.5	996.7	989.3	986.4	981.6	978.2	976.7	975.0	976.0	969.4	965.9
ISPs, search portals, and data processing.....	261.6	254.9	256.4	257.0	254.6	253.9	255.5	253.8	254.4	254.8	256.9	255.8	254.7	253.5	254.2
Other information services.....	133.6	135.2	136.5	135.7	134.8	134.1	133.7	133.2	135.5	135.3	134.3	135.1	136.6	136.0	135.9
<b>Financial activities.....</b>	<b>8,146.0</b>	<b>7,773.0</b>	<b>8,010.0</b>	<b>7,954.0</b>	<b>7,898.0</b>	<b>7,857.0</b>	<b>7,811.0</b>	<b>7,784.0</b>	<b>7,751.0</b>	<b>7,737.0</b>	<b>7,714.0</b>	<b>7,703.0</b>	<b>7,697.0</b>	<b>7,691.0</b>	<b>7,695.0</b>
Finance and insurance.....	6,015.2	5,771.6	5,924.0	5,890.4	5,853.9	5,829.5	5,799.6	5,781.6	5,760.5	5,748.0	5,729.8	5,720.9	5,718.7	5,714.6	5,724.5
Monetary authorities—central bank.....	22.2	20.5	21.3	21.0	20.9	20.8	20.5	20.3	20.3	20.2	20.3	20.3	20.6	20.4	20.4
Credit intermediation and related activities <sup>1</sup> .....	2,735.8	2,611.6	2,680.8	2,665.3	2,648.8	2,635.4	2,619.8	2,613.5	2,604.0	2,602.1	2,594.4	2,589.1	2,589.1	2,589.8	2,593.6
Depository credit intermediation <sup>1</sup> .....	1,819.5	1,775.4	1,804.9	1,798.1	1,790.9	1,783.4	1,778.0	1,774.4	1,772.7	1,770.0	1,767.4	1,766.1	1,765.7	1,768.6	1,769.2
Commercial banking.....	1,359.9	1,327.6	1,351.8	1,346.6	1,340.5	1,334.2	1,329.4	1,327.9	1,324.2	1,323.5	1,320.8	1,319.7	1,320.0	1,322.8	1,323.6
Securities, commodity contracts, investments.....	858.1	791.3	839.9	826.5	814.9	805.8	797.0	791.7	786.4	782.3	780.5	777.8	778.6	775.7	779.5
Insurance carriers and related activities.....	2,308.8	2,260.8	2,292.0	2,287.4	2,281.1	2,279.4	2,274.3	2,268.3	2,261.9	2,256.5	2,247.6	2,247.2	2,244.0	2,242.6	2,245.3
Funds, trusts, and other financial vehicles.....	90.3	87.4	90.0	90.2	88.2	88.1	88.0	87.8	87.9	86.9	87.0	86.5	86.4	86.1	85.7
Real estate and rental and leasing.....	2,130.2	2,001.1	2,085.8	2,063.2	2,043.8	2,027.0	2,011.7	2,002.7	1,990.6	1,988.6	1,984.3	1,982.3	1,978.3	1,976.5	1,970.4
Real estate.....	1,481.1	1,407.9	1,458.2	1,444.9	1,432.4	1,421.9	1,411.9	1,405.1	1,396.3	1,396.4	1,394.9	1,399.0	1,396.9	1,400.6	1,395.2
Rental and leasing services.....	620.9	565.4	599.3	589.9	583.2	576.6	571.5	569.2	566.5	564.6	562.1	555.9	553.9	548.5	547.8
Lessors of nonfinancial intangible assets.....	28.2	27.9	28.3	28.4	28.2	28.5	28.3	28.4	27.8	27.6	27.3	27.4	27.5	27.4	27.4
<b>Professional and business services.....</b>	<b>17,778.0</b>	<b>16,787.0</b>	<b>17,356.0</b>	<b>17,205.0</b>	<b>17,029.0</b>	<b>16,910.0</b>	<b>16,783.0</b>	<b>16,756.0</b>	<b>16,655.0</b>	<b>16,624.0</b>	<b>16,618.0</b>	<b>16,642.0</b>	<b>16,675.0</b>	<b>16,764.0</b>	<b>16,814.0</b>
Professional and technical services <sup>1</sup> .....	7,829.7	7,640.1	7,797.2	7,765.5	7,729.2	7,697.9	7,670.7	7,652.4	7,615.6	7,598.9	7,587.8	7,588.5	7,588.4	7,596.5	7,605.3
Legal services.....	1,163.7	1,131.7	1,156.8	1,154.1	1,148.7	1,144.9	1,139.4	1,136.9	1,131.7	1,128.2	1,127.2	1,124.8	1,118.7	1,116.2	1,114.1
Accounting and bookkeeping services.....	950.1	932.5	933.7	927.5	924.4	929.5	929.3	938.0	936.8	934.8	938.0	932.0	935.6	929.1	926.5
Architectural and engineering services.....	1,444.8	1,346.0	1,419.4	1,411.1	1,394.2	1,377.9	1,364.1	1,350.3	1,335.9	1,324.5	1,320.9	1,322.2	1,318.8	1,320.2	1,324.2
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		2008		2009										
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. <sup>P</sup>	Dec. <sup>P</sup>
Computer systems design and related services.....	1,450.3	1,464.7	1,466.8	1,462.4	1,463.7	1,459.2	1,460.4	1,457.0	1,456.0	1,462.6	1,461.3	1,465.6	1,471.8	1,473.7	1,477.1
Management and technical consulting services.....	1,008.9	1,020.1	1,020.5	1,025.7	1,021.6	1,016.0	1,016.7	1,017.9	1,015.7	1,014.9	1,015.3	1,016.6	1,024.4	1,030.4	1,033.9
Management of companies and enterprises.....	1,894.6	1,829.3	1,872.1	1,871.7	1,862.1	1,852.6	1,840.2	1,829.9	1,823.8	1,819.7	1,816.4	1,810.8	1,807.5	1,806.3	1,804.0
Administrative and waste services.....	8,053.7	7,317.8	7,686.3	7,567.5	7,437.8	7,359.4	7,272.3	7,274.0	7,215.2	7,205.8	7,214.1	7,242.9	7,279.3	7,361.4	7,404.3
Administrative and support services <sup>1</sup> .....	7,693.5	6,955.0	7,324.4	7,203.1	7,076.5	6,999.2	6,911.7	6,912.7	6,854.3	6,843.7	6,851.6	6,877.8	6,914.9	6,996.9	7,039.3
Employment services <sup>1</sup> .....	3,144.4	2,547.9	2,829.5	2,720.5	2,638.7	2,567.0	2,506.4	2,501.9	2,470.3	2,459.5	2,465.6	2,486.9	2,529.5	2,594.6	2,650.3
Temporary help services.....	2,342.6	1,818.9	2,055.6	1,965.7	1,892.7	1,835.4	1,781.5	1,780.6	1,750.9	1,745.2	1,748.4	1,765.6	1,809.9	1,865.1	1,911.6
Business support services.....	823.2	791.7	816.0	817.6	805.0	799.1	792.9	790.5	783.8	783.9	784.5	787.0	785.6	789.4	784.9
Services to buildings and dwellings.....	1,847.0	1,777.2	1,818.1	1,812.5	1,796.8	1,791.5	1,778.7	1,786.1	1,771.2	1,769.8	1,765.3	1,764.8	1,763.0	1,766.5	1,763.3
Waste management and remediation services.....	360.2	362.7	361.9	364.4	361.3	360.2	360.6	361.3	360.9	362.1	362.5	365.1	364.4	364.5	365.0
<b>Educational and health services.....</b>	<b>18,855</b>	<b>19,272</b>	<b>19,080</b>	<b>19,119</b>	<b>19,138</b>	<b>19,158</b>	<b>19,175</b>	<b>19,215</b>	<b>19,248</b>	<b>19,262</b>	<b>19,312</b>	<b>19,348</b>	<b>19,384</b>	<b>19,421</b>	<b>19,456</b>
Educational services.....	3,036.6	3,082.8	3,063.1	3,088.4	3,083.1	3,077.9	3,077.4	3,077.6	3,082.0	3,072.2	3,077.7	3,074.3	3,084.6	3,095.1	3,105.9
Health care and social assistance.....	15,818.5	16,189.1	16,017.0	16,030.3	16,054.7	16,080.1	16,097.8	16,137.7	16,166.1	16,190.2	16,233.8	16,273.2	16,299.6	16,325.5	16,350.2
Ambulatory health care services <sup>1</sup> .....	5,660.7	5,836.3	5,742.6	5,753.3	5,770.1	5,779.8	5,794.1	5,812.9	5,830.6	5,842.0	5,855.8	5,873.4	5,885.2	5,899.0	5,921.8
Offices of physicians.....	2,265.7	2,324.8	2,294.5	2,300.4	2,304.4	2,308.0	2,310.5	2,314.6	2,321.9	2,329.8	2,335.3	2,339.0	2,339.1	2,340.3	2,349.2
Outpatient care centers.....	532.5	542.3	536.7	538.0	538.5	537.7	538.7	539.3	543.5	542.0	543.8	543.6	548.0	547.1	549.6
Home health care services.....	958.0	1,018.5	980.7	981.4	991.0	996.7	1,004.5	1,013.3	1,016.7	1,018.2	1,022.6	1,030.7	1,038.8	1,046.9	1,054.9
Hospitals.....	4,641.1	4,723.1	4,703.7	4,707.5	4,711.3	4,715.1	4,716.7	4,719.1	4,718.9	4,722.4	4,723.9	4,729.6	4,735.8	4,739.9	4,741.3
Nursing and residential care facilities <sup>1</sup> .....	3,008.1	3,059.7	3,029.6	3,029.4	3,033.6	3,041.0	3,042.8	3,049.1	3,056.3	3,064.7	3,073.6	3,076.1	3,081.3	3,082.5	3,079.8
Nursing care facilities.....	1,613.7	1,629.5	1,617.3	1,616.6	1,617.9	1,621.8	1,624.5	1,626.8	1,628.9	1,631.4	1,634.9	1,636.5	1,637.8	1,636.1	1,636.2
Social assistance <sup>1</sup> .....	2,508.7	2,570.1	2,541.1	2,540.1	2,539.7	2,544.2	2,544.2	2,556.6	2,560.3	2,561.1	2,580.5	2,594.1	2,597.3	2,604.1	2,607.3
Child day care services.....	859.2	856.8	864.3	862.7	860.4	858.2	853.9	860.3	854.3	854.9	856.3	859.4	856.4	857.0	856.2
<b>Leisure and hospitality.....</b>	<b>13,459</b>	<b>13,180</b>	<b>13,304</b>	<b>13,268</b>	<b>13,236</b>	<b>13,202</b>	<b>13,168</b>	<b>13,195</b>	<b>13,176</b>	<b>13,177</b>	<b>13,163</b>	<b>13,176</b>	<b>13,134</b>	<b>13,121</b>	<b>13,096</b>
Arts, entertainment, and recreation.....	1,969.3	1,910.2	1,947.1	1,943.8	1,936.2	1,928.7	1,900.6	1,901.8	1,885.5	1,897.8	1,893.2	1,922.8	1,900.8	1,900.0	1,890.8
Performing arts and spectator sports.....	406.3	397.4	401.4	405.7	398.6	400.5	392.9	396.8	393.8	400.0	395.2	399.1	399.1	394.7	392.0
Museums, historical sites, zoos, and parks.....	131.8	131.0	130.8	130.3	130.9	130.6	130.5	130.9	130.8	130.5	131.0	131.4	131.2	130.7	131.2
Amusements, gambling, and recreation.....	1,431.2	1,381.8	1,414.9	1,407.8	1,406.7	1,397.6	1,377.2	1,374.1	1,360.9	1,367.3	1,367.0	1,392.3	1,370.5	1,374.6	1,367.6
Accommodations and food services.....	11,489.3	11,269.7	11,356.5	11,323.7	11,299.7	11,273.2	11,267.0	11,293.6	11,290.0	11,278.8	11,269.5	11,253.6	11,232.9	11,221.4	11,204.8
Accommodations.....	1,857.3	1,723.0	1,794.3	1,768.4	1,754.7	1,732.7	1,723.6	1,728.7	1,721.0	1,715.5	1,714.4	1,709.8	1,703.2	1,698.3	1,696.9
Food services and drinking places.....	9,632.0	9,546.6	9,562.2	9,555.3	9,545.0	9,540.5	9,543.4	9,564.9	9,569.0	9,563.3	9,555.1	9,543.8	9,529.7	9,523.1	9,507.9
<b>Other services.....</b>	<b>5,528</b>	<b>5,412</b>	<b>5,477</b>	<b>5,461</b>	<b>5,449</b>	<b>5,426</b>	<b>5,420</b>	<b>5,416</b>	<b>5,420</b>	<b>5,415</b>	<b>5,405</b>	<b>5,395</b>	<b>5,381</b>	<b>5,378</b>	<b>5,374</b>
Repair and maintenance.....	1,228.2	1,160.7	1,189.9	1,184.7	1,177.3	1,166.3	1,163.7	1,158.4	1,157.8	1,155.1	1,154.3	1,150.6	1,150.7	1,153.9	1,154.4
Personal and laundry services	1,326.6	1,295.5	1,320.9	1,313.6	1,312.5	1,302.4	1,297.3	1,293.3	1,298.4	1,296.1	1,293.4	1,289.6	1,284.5	1,283.5	1,280.4
Membership associations and organizations.....	2,973.3	2,955.7	2,965.7	2,963.1	2,958.7	2,956.8	2,958.6	2,964.3	2,963.9	2,963.4	2,956.8	2,955.1	2,945.6	2,940.3	2,939.3
<b>Government.....</b>	<b>22,500</b>	<b>22,516</b>	<b>22,532</b>	<b>22,540</b>	<b>22,547</b>	<b>22,543</b>	<b>22,616</b>	<b>22,605</b>	<b>22,533</b>	<b>22,475</b>	<b>22,487</b>	<b>22,448</b>	<b>22,484</b>	<b>22,488</b>	<b>22,467</b>
Federal.....	2,764	2,830	2,778	2,793	2,796	2,808	2,876	2,860	2,817	2,826	2,825	2,827	2,844	2,839	2,830
Federal, except U.S. Postal Service.....	2,016.8	2,126.3	2,057.3	2,065.8	2,071.0	2,086.0	2,154.6	2,150.2	2,111.1	2,120.9	2,129.3	2,137.0	2,161.0	2,163.7	2,167.0
U.S. Postal Service.....	747.5	703.4	720.9	726.9	724.9	721.7	721.0	709.5	705.9	705.4	695.8	689.5	683.3	675.7	663.1
State.....	5,178	5,182	5,196	5,192	5,192	5,186	5,189	5,189	5,174	5,149	5,172	5,173	5,179	5,180	5,177
Education.....	2,359.0	2,384.1	2,381.3	2,380.2	2,382.3	2,379.9	2,385.5	2,386.2	2,377.9	2,357.2	2,377.3	2,375.8	2,389.3	2,395.5	2,393.6
Other State government.....	2,818.9	2,798.0	2,814.8	2,811.6	2,809.4	2,805.9	2,803.5	2,802.5	2,796.3	2,791.4	2,794.3	2,796.7	2,789.9	2,784.6	2,783.0
Local.....	14,557	14,504	14,558	14,555	14,559	14,549	14,551	14,556	14,542	14,500	14,490	14,448	14,461	14,469	14,460
Education.....	8,075.6	8,039.4	8,060.5	8,070.7	8,076.7	8,078.7	8,081.4	8,078.0	8,070.2	8,015.6	8,007.8	7,988.6	8,020.0	8,034.7	8,033.5
Other local government.....	6,481.8	6,464.6	6,497.7	6,484.7	6,482.5	6,469.8	6,469.2	6,478.3	6,471.3	6,484.6	6,481.7	6,459.1	6,441.4	6,434.1	6,426.0

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

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

p = preliminary.

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

Industry	Annual average		2008	2009											
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. <sup>P</sup>	Dec. <sup>P</sup>
<b>TOTAL PRIVATE</b> .....	33.6	33.1	33.3	33.3	33.3	33.1	33.1	33.1	33.0	33.1	33.1	33.1	33.0	33.2	33.2
<b>GOODS-PRODUCING</b> .....	40.2	39.2	39.4	39.3	39.2	38.9	39.0	39.0	39.0	39.3	39.4	39.3	39.1	39.6	39.6
<b>Natural resources and mining</b> .....	45.1	43.3	44.3	44.2	43.9	43.4	43.0	43.3	43.3	42.9	43.3	43.2	42.8	43.2	43.5
<b>Construction</b> .....	38.5	37.6	38.0	37.9	38.0	37.7	37.5	37.6	37.6	37.8	37.9	37.5	36.9	37.7	37.7
<b>Manufacturing</b> .....	40.8	39.8	39.9	39.8	39.5	39.4	39.6	39.4	39.5	39.9	39.9	40.0	40.1	40.4	40.4
Overtime hours.....	3.7	2.9	2.9	2.9	2.7	2.6	2.7	2.8	2.8	2.9	3.0	3.0	3.2	3.4	3.4
Durable goods.....	41.1	39.8	40.0	39.8	39.6	39.3	39.5	39.4	39.4	39.9	39.9	40.1	40.2	40.5	40.5
Overtime hours.....	3.7	2.7	2.8	2.7	2.5	2.4	2.5	2.6	2.6	2.7	2.8	2.8	3.0	3.2	3.3
Wood products.....	38.6	37.5	36.8	36.9	37.1	36.9	37.0	36.9	37.4	37.7	37.7	37.8	37.8	38.1	38.4
Nonmetallic mineral products.....	42.1	40.8	40.9	40.2	40.0	39.9	40.2	40.5	40.8	41.5	41.3	41.1	40.8	41.9	40.1
Primary metals.....	42.2	40.7	40.5	40.4	40.1	40.1	40.0	40.0	39.7	40.1	40.7	40.9	41.4	42.8	43.1
Fabricated metal products.....	41.3	39.4	40.3	39.7	39.5	39.0	39.2	39.2	39.3	39.4	39.5	39.4	39.6	39.6	39.9
Machinery.....	42.3	40.1	41.1	40.9	40.6	40.1	40.1	39.9	39.8	39.9	39.9	39.9	40.2	40.5	40.7
Computer and electronic products.....	41.0	40.4	40.4	40.7	40.5	39.9	40.2	40.0	40.0	40.2	40.5	40.5	40.6	40.8	40.8
Electrical equipment and appliances.....	40.9	39.3	39.7	39.4	38.9	38.8	39.6	39.3	38.8	38.9	39.1	39.4	39.5	40.0	39.7
Transportation equipment.....	42.0	41.1	40.9	40.4	40.1	40.0	40.6	40.0	40.4	41.9	41.6	42.0	42.0	42.2	42.4
Furniture and related products.....	38.1	37.8	37.3	37.7	37.4	37.7	37.6	37.8	37.8	37.9	37.5	38.0	38.3	38.5	38.6
Miscellaneous manufacturing.....	38.9	38.4	38.3	38.4	38.2	38.2	38.3	38.0	37.9	38.3	38.6	38.6	38.6	39.0	38.9
Nondurable goods.....	40.4	39.7	39.7	39.7	39.5	39.4	39.6	39.6	39.6	39.8	39.9	39.9	40.0	40.1	40.2
Overtime hours.....	3.7	3.2	3.1	3.2	3.0	3.0	3.1	3.2	3.2	3.3	3.3	3.3	3.5	3.6	3.6
Food manufacturing.....	40.5	40.0	39.8	40.1	39.9	40.1	40.1	40.0	39.9	39.6	40.1	39.9	40.0	40.2	40.2
Beverage and tobacco products.....	38.8	36.0	36.7	37.0	37.0	36.2	35.8	36.5	35.3	35.0	35.4	35.9	36.2	36.1	36.3
Textile mills.....	38.7	37.7	37.0	37.1	36.4	36.3	36.9	36.8	37.8	37.6	37.9	37.9	38.9	39.7	39.3
Textile product mills.....	38.6	37.8	37.1	37.0	37.1	37.0	37.5	38.3	38.0	38.4	38.1	38.3	38.1	37.8	38.1
Apparel.....	36.4	36.0	36.0	36.0	35.6	36.1	36.1	36.1	35.6	36.2	35.6	36.0	36.1	36.3	36.1
Leather and allied products.....	37.5	33.5	34.7	34.0	33.3	32.8	32.4	32.0	32.0	33.3	33.7	33.2	34.8	35.8	35.1
Paper and paper products.....	42.9	41.8	41.9	41.6	41.5	41.1	41.4	41.2	41.8	42.2	42.0	42.4	42.1	42.2	41.9
Printing and related support activities.....	38.3	38.0	38.0	37.7	37.3	37.5	37.7	37.6	38.1	38.5	38.7	38.4	38.2	38.3	38.3
Petroleum and coal products.....	44.6	43.5	45.3	45.1	43.8	44.3	43.8	43.4	43.4	43.2	44.1	43.0	42.1	42.7	43.2
Chemicals.....	41.5	41.3	41.1	41.1	41.1	40.9	41.0	41.1	41.2	41.6	41.4	41.4	41.7	41.7	41.9
Plastics and rubber products.....	41.0	40.2	40.0	39.9	39.6	39.4	39.8	39.8	39.8	40.4	40.3	40.6	40.7	40.9	41.0
<b>PRIVATE SERVICE-PROVIDING</b> .....	32.3	32.1	32.2	32.2	32.1	32.1	32.0	32.0	31.9	32.0	32.0	32.0	32.0	32.1	32.1
<b>Trade, transportation, and utilities</b> .....	33.2	32.9	32.9	32.9	32.8	32.7	32.8	32.9	32.8	32.8	32.8	32.8	32.9	32.9	32.9
Wholesale trade.....	38.2	37.6	37.8	38.1	37.9	37.8	37.8	37.6	37.4	37.5	37.4	37.5	37.6	37.6	37.6
Retail trade.....	30.0	29.8	29.7	29.7	29.8	29.7	29.8	29.9	29.8	29.8	29.8	29.8	29.9	29.9	29.9
Transportation and warehousing.....	36.4	36.1	36.2	36.0	35.7	35.7	35.8	36.0	35.8	36.3	36.1	36.4	36.3	36.4	36.6
Utilities.....	42.7	42.1	42.9	42.6	43.2	42.4	42.3	42.1	41.9	41.9	41.9	41.5	41.7	41.9	41.7
<b>Information</b> .....	36.7	36.6	37.0	37.2	36.9	36.7	36.4	36.5	36.4	36.4	36.4	36.4	36.3	36.7	36.5
<b>Financial activities</b> .....	35.8	36.1	35.9	36.2	36.2	36.1	36.0	36.0	35.9	35.9	36.1	35.9	36.0	36.1	35.9
<b>Professional and business services</b> .....	34.8	34.7	34.8	34.9	34.8	34.7	34.7	34.7	34.6	34.6	34.7	34.7	34.7	34.9	34.8
<b>Education and health services</b> .....	32.5	32.3	32.4	32.4	32.3	32.4	32.3	32.3	32.2	32.2	32.2	32.2	32.2	32.2	32.3
<b>Leisure and hospitality</b> .....	25.2	24.8	25.0	24.8	25.0	24.8	24.8	24.7	24.7	24.7	24.6	24.8	24.6	24.8	24.8
<b>Other services</b> .....	30.8	30.5	30.6	30.7	30.6	30.5	30.5	30.5	30.3	30.4	30.5	30.5	30.5	30.5	30.5

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

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

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

Industry	Annual average		2009												
	2008	2009	2008	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. <sup>P</sup>	Dec. <sup>P</sup>
<b>TOTAL PRIVATE</b>															
Current dollars.....	\$18.08	\$18.60	\$18.40	\$18.43	\$18.46	\$18.50	\$18.50	\$18.53	\$18.54	\$18.59	\$18.66	\$18.68	\$18.74	\$18.77	\$18.80
Constant (1982) dollars.....	8.30	8.60	8.65	8.64	8.61	8.64	8.65	8.65	8.57	8.59	8.58	8.57	8.57	8.54	8.54
<b>GOODS-PRODUCING.....</b>	19.33	19.89	19.69	19.72	19.78	19.85	19.82	19.84	19.85	19.92	19.92	19.92	20.00	20.04	20.03
<b>Natural resources and mining.....</b>	22.50	23.22	23.23	23.14	23.14	23.33	23.38	23.26	23.28	23.23	23.21	23.14	23.33	23.18	23.27
<b>Construction.....</b>	21.87	22.61	22.41	22.43	22.42	22.59	22.55	22.59	22.58	22.60	22.63	22.50	22.84	22.80	22.77
<b>Manufacturing.....</b>	17.74	18.21	17.96	17.99	18.07	18.10	18.11	18.11	18.13	18.27	18.27	18.36	18.35	18.41	18.40
Excluding overtime.....	16.97	17.57	17.33	17.36	17.47	17.52	17.51	17.49	17.51	17.63	17.61	17.70	17.65	17.67	17.66
Durable goods.....	18.70	19.32	18.94	18.99	19.09	19.17	19.18	19.23	19.22	19.44	19.41	19.49	19.52	19.59	19.59
Nondurable goods.....	16.15	16.55	16.39	16.43	16.49	16.46	16.49	16.45	16.54	16.54	16.60	16.70	16.63	16.68	16.66
<b>PRIVATE SERVICE-PRIVATE SERVICE-PROVIDING.....</b>	17.77	18.32	18.10	18.14	18.17	18.20	18.21	18.24	18.25	18.30	18.39	18.41	18.47	18.50	18.54
<b>Trade, transportation, and utilities.....</b>	16.16	16.48	16.31	16.36	16.38	16.38	16.38	16.42	16.38	16.41	16.54	16.53	16.58	16.63	16.69
Wholesale trade.....	20.14	20.89	20.31	20.41	20.52	20.59	20.70	20.87	20.79	20.86	20.99	21.05	21.14	21.29	21.45
Retail trade.....	12.87	13.03	12.94	12.97	12.96	12.97	12.96	12.97	12.96	12.98	13.10	13.09	13.08	13.11	13.15
Transportation and warehousing.....	18.41	18.66	18.66	18.72	18.67	18.68	18.62	18.63	18.54	18.58	18.67	18.61	18.76	18.73	18.75
Utilities.....	28.84	29.62	29.16	29.22	29.67	29.31	29.29	29.45	29.44	29.48	29.79	29.71	29.79	30.02	30.12
<b>Information.....</b>	24.77	25.45	24.91	24.98	25.09	25.31	25.28	25.41	25.45	25.42	25.61	25.52	25.66	25.81	25.85
<b>Financial activities.....</b>	20.27	20.79	20.53	20.53	20.55	20.62	20.64	20.75	20.78	20.75	20.85	20.90	20.98	21.05	21.14
<b>Professional and business services.....</b>	21.19	22.37	21.97	22.04	22.17	22.26	22.26	22.26	22.32	22.42	22.48	22.57	22.54	22.49	22.55
<b>Education and health services.....</b>	18.88	19.42	19.20	19.18	19.24	19.24	19.33	19.34	19.39	19.45	19.49	19.52	19.59	19.59	19.61
<b>Leisure and hospitality.....</b>	10.84	11.09	10.94	10.97	10.97	10.98	10.97	10.99	11.05	11.07	11.12	11.21	11.20	11.26	11.25
<b>Other services.....</b>	16.08	16.34	16.29	16.30	16.25	16.23	16.22	16.24	16.24	16.29	16.37	16.41	16.46	16.48	16.53

<sup>1</sup> Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries. NOTE: See "Notes on the data" for a description of the most recent benchmark revision. p = preliminary.

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

Industry	Annual average		2009												
	2008	2009	2008	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. <sup>P</sup>	Dec. <sup>P</sup>
<b>TOTAL PRIVATE</b> .....	\$18.08	\$18.60	\$18.40	\$18.49	\$18.57	\$18.57	\$18.52	\$18.47	\$18.42	\$18.49	\$18.60	\$18.70	\$18.73	\$18.85	\$18.82
Seasonally adjusted.....	-	-	18.40	18.43	18.46	18.50	18.50	18.53	18.54	18.59	18.66	18.68	18.74	18.77	18.80
<b>GOODS-PRODUCING</b> .....	19.33	19.89	19.75	19.64	19.64	19.74	19.78	19.83	19.83	19.97	20.00	20.02	20.07	20.09	20.08
<b>Natural resources and mining</b> .....	22.50	23.22	23.53	23.41	23.19	23.40	23.40	23.10	22.94	23.08	23.07	23.18	23.21	23.12	23.52
<b>Construction</b> .....	21.87	22.61	22.52	22.32	22.25	22.45	22.44	22.54	22.47	22.68	22.73	22.69	23.01	22.87	22.87
<b>Manufacturing</b> .....	17.74	18.21	18.06	18.03	18.07	18.09	18.13	18.09	18.12	18.18	18.23	18.41	18.30	18.43	18.49
Durable goods.....	18.70	19.32	19.06	18.99	19.09	19.17	19.20	19.20	19.22	19.33	19.39	19.56	19.47	19.61	19.70
Wood products .....	14.20	14.95	14.66	14.69	14.77	14.67	14.72	14.91	14.84	15.03	15.11	15.10	15.10	15.26	15.17
Nonmetallic mineral products .....	16.90	17.29	16.73	16.82	17.03	17.19	17.37	17.25	17.39	17.44	17.45	17.48	17.35	17.40	17.27
Primary metals .....	20.18	20.11	20.05	19.80	19.75	19.69	19.98	19.80	19.90	20.18	20.24	20.51	20.36	20.61	20.52
Fabricated metal products .....	16.99	17.49	17.36	17.24	17.30	17.29	17.41	17.38	17.43	17.47	17.50	17.64	17.60	17.74	17.89
Machinery .....	17.97	18.40	18.15	18.16	18.17	18.26	18.20	18.36	18.25	18.37	18.37	18.63	18.56	18.75	18.87
Computer and electronic products .....	21.03	21.83	21.44	21.46	21.42	21.71	21.73	21.70	21.67	21.85	22.07	21.99	22.04	22.24	22.18
Electrical equipment and appliances .....	15.78	16.27	15.88	15.81	15.93	15.95	15.99	16.15	16.23	16.39	16.58	16.61	16.48	16.60	16.55
Transportation equipment .....	23.83	24.87	24.58	24.66	24.69	24.80	24.76	24.85	24.95	25.01	24.83	25.08	24.87	24.91	25.01
Furniture and related products .....	14.54	15.06	14.92	14.95	14.85	15.02	15.00	15.02	15.11	15.22	15.13	15.30	15.00	14.97	15.19
Miscellaneous manufacturing .....	15.19	16.17	15.60	15.66	15.97	16.02	16.07	16.18	16.08	16.18	16.18	16.19	16.21	16.63	16.63
Nondurable goods.....	16.15	16.55	16.43	16.51	16.48	16.43	16.51	16.43	16.50	16.51	16.53	16.73	16.60	16.69	16.70
Food manufacturing .....	14.00	14.39	14.26	14.34	14.30	14.24	14.27	14.26	14.34	14.34	14.43	14.65	14.51	14.48	14.50
Beverages and tobacco products .....	19.35	20.36	19.95	20.07	20.25	20.40	20.25	20.38	20.20	20.15	20.27	20.29	20.60	20.84	20.60
Textile mills .....	13.57	13.63	13.80	13.90	13.76	13.88	13.79	13.63	13.62	13.49	13.77	13.77	13.60	13.18	13.22
Textile product mills .....	11.73	11.45	11.72	11.59	11.53	11.34	11.34	11.34	11.56	11.18	11.34	11.29	11.41	11.63	11.78
Apparel .....	11.40	11.36	11.38	11.46	11.40	11.26	11.44	11.28	11.38	11.38	11.30	11.52	11.15	11.30	11.51
Leather and allied products .....	12.96	13.87	13.47	14.10	14.19	14.21	14.34	13.85	14.06	13.69	13.59	13.46	13.83	13.72	13.41
Paper and paper products .....	18.88	19.26	19.11	19.27	18.99	18.90	19.29	19.09	19.29	19.45	19.09	19.50	19.18	19.48	19.55
Printing and related support activities.....	16.75	16.74	17.01	16.79	16.79	16.69	16.76	16.61	16.56	16.54	16.76	16.87	16.79	16.86	16.89
Petroleum and coal products .....	27.46	29.80	28.17	29.13	29.57	29.80	29.26	29.18	29.42	29.69	29.60	29.92	30.57	30.77	30.73
Chemicals .....	19.49	20.29	19.72	19.89	19.96	19.93	20.02	20.16	20.18	20.35	20.37	20.58	20.57	20.77	20.69
Plastics and rubber products .....	15.85	16.05	16.24	16.24	16.22	16.20	16.19	16.09	16.06	15.83	15.90	16.06	15.79	15.96	16.07
<b>PRIVATE SERVICE-PROVIDING</b> .....	17.77	18.32	18.09	18.23	18.33	18.31	18.24	18.18	18.11	18.16	18.29	18.41	18.44	18.58	18.55
<b>Trade, transportation, and utilities</b> .....	16.16	16.48	16.14	16.37	16.47	16.45	16.42	16.40	16.35	16.39	16.55	16.59	16.56	16.62	16.54
Wholesale trade .....	20.14	20.89	20.36	20.44	20.65	20.64	20.69	20.78	20.66	20.83	21.02	21.03	21.08	21.40	21.50
Retail trade .....	12.87	13.03	12.74	12.96	12.99	13.02	13.01	12.99	12.96	12.99	13.12	13.22	13.07	13.04	12.98
Transportation and warehousing .....	18.41	18.66	18.62	18.68	18.73	18.64	18.58	18.54	18.54	18.64	18.73	18.62	18.74	18.78	18.73
Utilities .....	28.84	29.62	29.28	29.27	29.70	29.42	29.50	29.50	29.27	29.33	29.51	29.76	29.83	30.06	30.32
<b>Information</b> .....	24.77	25.45	24.86	25.03	25.12	25.40	25.24	25.41	25.26	25.30	25.68	25.62	25.74	25.88	25.75
<b>Financial activities</b> .....	20.27	20.79	20.50	20.48	20.68	20.67	20.65	20.72	20.66	20.65	20.87	20.89	20.96	21.18	21.12
<b>Professional and business services</b> .....	21.19	22.37	22.01	22.16	22.52	22.52	22.28	22.15	22.11	22.25	22.41	22.43	22.37	22.67	22.61
<b>Education and health services</b> .....	18.88	19.42	19.23	19.26	19.26	19.23	19.33	19.29	19.32	19.47	19.43	19.58	19.59	19.58	19.64
<b>Leisure and hospitality</b> .....	10.84	11.09	11.05	11.03	11.06	11.00	10.99	10.99	10.97	10.96	11.02	11.21	11.22	11.31	11.37
<b>Other services</b> .....	16.08	16.34	16.27	16.34	16.34	16.33	16.27	16.29	16.16	16.17	16.31	16.44	16.44	16.48	16.57

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



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

Industry	Annual average		2008		2009										
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. <sup>P</sup>	Dec. <sup>P</sup>
<b>TOTAL PRIVATE</b> .....	\$607.95	\$617.11	\$610.88	\$607.99	\$616.19	\$615.66	\$608.44	\$610.50	\$610.70	\$614.53	\$625.97	\$618.09	\$620.96	\$632.48	\$623.94
Seasonally adjusted.....	-	-	612.39	613.72	613.20	613.01	613.34	614.01	612.81	616.32	618.64	619.30	619.74	624.16	625.49
<b>GOODS-PRODUCING</b> .....	776.66	779.79	778.54	762.42	758.49	764.33	759.94	773.76	781.70	789.21	798.40	781.56	791.15	800.39	798.79
<b>Natural resources and mining</b> .....	1,014.69	1,007.92	1,043.27	1,023.89	1,010.07	1,006.01	998.97	993.14	1,002.36	990.82	1,020.03	1,002.51	1,003.80	1,014.57	1,028.38
<b>CONSTRUCTION</b> .....	842.61	852.48	841.12	829.19	824.73	836.63	831.76	858.42	860.26	882.31	888.81	832.28	860.51	871.72	850.18
<b>Manufacturing</b> .....	724.46	725.87	728.22	712.98	709.52	710.30	706.42	712.12	720.56	721.12	734.05	737.20	740.53	750.31	758.71
Durable goods.....	767.95	771.03	773.15	751.29	751.42	753.03	748.44	756.13	764.23	766.66	781.09	784.00	790.16	800.00	812.37
Wood products.....	547.53	558.93	537.66	524.08	531.36	530.33	533.61	552.42	572.44	576.77	582.47	574.55	573.42	581.39	579.11
Nonmetallic mineral products.....	711.11	706.36	677.16	655.59	656.59	673.46	696.14	699.94	721.27	742.09	744.26	735.07	721.34	741.63	689.07
Primary metals.....	851.29	816.76	818.86	798.75	786.85	794.72	784.39	789.23	797.60	803.13	833.51	835.14	843.35	868.41	876.25
Fabricated metal products.....	701.57	689.35	706.55	681.38	678.16	671.24	668.93	678.60	685.79	683.47	695.54	691.88	704.40	709.93	727.31
Machinery.....	759.94	737.70	754.62	740.93	735.48	730.00	720.72	726.66	724.13	723.38	727.06	731.77	749.42	766.70	780.00
Computer and electronic products.....	861.58	883.04	883.74	867.39	863.63	864.85	860.90	864.06	873.30	870.03	889.82	886.60	897.44	931.84	932.26
Electrical equipment and appliances.....	645.60	639.46	646.32	621.33	613.31	615.67	615.62	633.08	631.35	631.02	646.62	652.77	657.55	668.62	695.55
Transportation equipment.....	1,000.67	1,026.64	1,025.02	997.02	993.68	995.60	991.52	995.11	1,019.54	1,024.08	1,046.64	1,062.60	1,059.15	1,054.85	1,086.20
Furniture and related products.....	553.93	566.41	563.60	558.76	547.60	562.50	550.90	565.50	576.44	579.12	576.07	571.47	570.74	564.75	577.15
Miscellaneous manufacturing.....	591.95	620.78	600.99	601.73	604.42	614.33	611.42	615.98	613.41	619.22	635.04	624.09	628.10	642.67	640.59
Nondurable goods.....	652.22	658.33	657.20	650.49	644.76	644.45	640.98	648.13	657.50	655.84	661.60	669.60	668.98	676.80	681.39
Food manufacturing.....	566.91	576.10	572.23	569.70	562.38	562.88	555.88	570.80	574.00	569.70	581.93	587.87	587.66	592.64	595.34
Beverages and tobacco products.....	750.25	731.41	726.18	728.54	741.15	730.32	706.73	754.06	719.12	705.25	725.67	734.50	741.60	744.77	745.00
Textile mills.....	525.00	517.22	514.74	510.50	493.98	502.46	496.44	497.86	520.67	507.60	525.02	521.88	533.90	555.70	542.30
Textile product mills.....	453.10	432.79	441.84	423.04	426.24	420.71	417.31	432.44	448.53	429.31	435.46	434.67	433.58	436.54	457.47
Apparel.....	415.14	408.89	410.46	407.98	403.56	407.25	409.55	408.34	407.40	414.23	403.41	405.86	403.63	416.55	420.06
Leather and allied products.....	486.58	466.61	476.84	470.94	465.43	470.35	457.45	445.97	451.33	451.77	462.06	438.80	495.11	497.30	497.51
Paper and paper products.....	809.57	806.00	814.94	799.02	781.72	770.45	794.05	782.01	807.58	818.16	801.13	835.88	814.50	831.60	838.45
Printing and related support activities.....	642.50	635.75	654.89	627.95	622.91	627.54	625.15	617.89	625.97	628.52	646.94	649.50	649.77	653.26	657.27
Petroleum and coal products.....	1,222.07	1,285.46	1,251.03	1,301.20	1,278.90	1,282.55	1,249.58	1,246.57	1,280.27	1,300.07	1,299.92	1,289.85	1,302.02	1,291.74	1,301.03
Chemicals.....	809.29	841.47	815.26	812.33	821.18	816.36	818.04	821.73	836.69	845.77	847.02	857.38	859.02	873.86	890.88
Plastics and rubber products.....	648.98	643.61	657.72	647.98	638.67	636.66	633.03	635.56	643.61	632.80	643.95	653.24	646.98	653.78	657.83
<b>PRIVATE SERVICE-PROVIDING</b> .....	574.35	588.07	580.37	579.40	592.06	589.04	581.30	580.90	578.67	583.90	595.40	588.24	589.51	603.61	594.88
<b>Trade, transportation, and utilities</b> .....	536.06	542.47	531.01	530.39	540.22	538.90	536.27	538.58	536.94	543.50	552.11	548.46	545.81	550.45	548.14
Wholesale trade.....	769.62	784.72	766.82	769.83	786.00	781.50	775.13	778.13	776.06	776.21	795.90	779.47	787.27	809.63	802.13
Retail trade.....	386.21	388.72	380.63	378.14	383.91	383.50	384.50	387.80	386.91	392.99	396.93	397.32	390.20	390.20	392.30
Transportation and warehousing.....	670.37	677.72	679.63	663.14	665.27	670.80	661.17	665.36	667.23	682.44	695.15	685.11	685.71	698.10	694.36
Utilities.....	1,230.69	1,243.79	1,255.68	1,242.70	1,284.71	1,239.84	1,248.68	1,239.85	1,224.74	1,221.39	1,234.79	1,238.91	1,245.22	1,258.74	1,246.14
<b>Information</b> .....	908.99	931.81	918.07	921.84	933.07	938.37	915.50	918.75	916.22	925.28	952.01	936.23	938.03	958.27	929.29
<b>Financial activities</b> .....	727.07	751.04	732.92	736.67	764.57	756.28	740.70	741.13	739.35	738.63	767.76	747.56	750.06	777.67	752.56
<b>Professional and business services</b> .....	737.70	775.78	760.51	760.93	784.20	784.55	765.40	765.01	766.18	766.59	789.66	768.32	774.85	800.96	782.65
<b>Education and health services</b> .....	613.73	628.59	620.16	621.45	623.05	625.64	623.06	621.78	622.42	631.14	631.48	632.73	631.41	640.90	637.56
<b>Leisure and hospitality</b> .....	273.39	275.78	271.22	265.20	277.00	273.30	270.85	272.80	274.75	277.79	283.73	277.38	275.38	282.37	278.16
<b>Other services</b> .....	495.57	506.31	496.54	498.98	502.25	506.61	503.12	503.73	500.08	501.73	512.63	508.29	510.27	515.76	512.54

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

NOTE: See "Notes on the data" for a description of the most recent benchmark revision. Dash indicates data not available. p = preliminary.

**17. Diffusion indexes of employment change, seasonally adjusted**

[In percent]

Timespan and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Private nonfarm payrolls, 278 industries</b>												
Over 1-month span:												
2005.....	52.4	62.5	56.7	59.1	56.3	56.5	59.5	61.2	52.4	54.6	61.7	56.1
2006.....	65.1	66.9	66.0	61.0	49.6	53.0	56.5	54.3	52.0	52.4	55.8	58.2
2007.....	58.4	59.1	55.4	51.5	56.7	49.1	49.1	43.1	52.4	52.2	53.7	50.6
2008.....	48.9	48.9	51.1	44.1	38.8	33.3	35.1	32.3	27.3	30.7	22.3	18.2
2009.....	19.7	17.1	16.5	20.6	27.3	23.0	26.4	32.9	32.9	31.0	46.8	41.3
Over 3-month span:												
2005.....	51.5	57.4	59.9	62.1	58.4	62.1	61.9	64.5	59.7	54.1	55.4	60.8
2006.....	67.7	67.8	69.0	69.5	62.5	60.6	55.0	57.4	52.6	49.3	54.8	58.0
2007.....	60.2	59.7	62.8	58.7	57.1	52.2	53.7	45.5	49.6	49.1	53.5	54.6
2008.....	56.3	48.1	48.5	46.3	39.6	33.1	31.6	29.0	27.1	26.8	20.8	18.8
2009.....	17.7	12.3	12.6	10.8	14.9	20.8	21.6	21.7	28.4	27.3	33.8	35.5
Over 6-month span:												
2005.....	54.6	57.6	58.4	59.3	58.9	60.8	64.7	63.2	62.5	58.2	62.1	62.6
2006.....	64.1	65.1	66.7	67.3	66.9	69.1	62.5	60.8	58.2	57.2	58.2	55.2
2007.....	58.6	57.1	62.5	61.9	59.5	59.1	56.7	54.8	56.3	51.5	53.5	51.3
2008.....	49.1	50.6	51.7	49.6	43.9	39.2	36.1	31.6	28.1	26.4	23.0	21.4
2009.....	17.5	13.2	12.1	11.9	12.5	13.4	13.2	15.8	20.4	20.4	21.0	26.2
Over 12-month span:												
2005.....	61.3	61.3	60.4	59.7	58.7	60.8	61.7	63.4	61.2	59.7	59.9	62.3
2006.....	67.7	66.0	66.4	63.4	65.6	67.3	64.9	64.5	66.7	65.8	65.1	66.0
2007.....	63.4	59.5	61.2	59.7	59.3	58.4	57.2	57.4	59.9	59.3	58.6	60.0
2008.....	54.8	56.5	53.0	47.4	48.1	44.2	41.1	39.8	36.4	33.1	29.0	26.8
2009.....	24.9	17.7	15.4	15.1	15.1	13.8	12.6	11.5	14.1	13.0	13.4	13.2
<b>Manufacturing payrolls, 84 industries</b>												
Over 1-month span:												
2005.....	36.6	50.0	43.9	42.7	44.5	32.3	41.5	40.9	42.1	47.0	40.2	47.0
2006.....	59.1	56.1	55.5	50.0	39.6	51.8	48.8	40.9	34.1	39.0	36.0	41.5
2007.....	55.5	45.7	31.7	28.7	42.7	36.0	40.2	22.6	32.3	37.2	51.8	42.1
2008.....	40.9	39.6	45.1	37.2	42.7	23.2	21.3	21.3	16.5	20.1	12.8	4.9
2009.....	4.9	10.4	9.1	16.5	11.0	11.0	19.5	26.2	20.1	18.9	45.7	40.2
Over 3-month span:												
2006.....	35.4	41.5	41.5	45.7	36.0	38.4	36.0	37.8	41.5	40.2	36.0	45.1
2007.....	54.9	58.5	54.9	54.3	48.8	53.7	43.9	41.5	33.5	28.0	29.3	27.4
2008.....	39.6	40.2	45.7	32.3	31.7	34.1	31.7	25.0	24.4	25.0	32.9	39.0
2009.....	48.2	36.6	35.4	38.4	39.6	30.5	20.1	9.8	14.0	17.1	13.4	6.1
2010.....	4.9	2.4	2.4	7.3	8.5	11.0	7.3	10.4	17.7	17.7	21.3	31.1
Over 6-month span:												
2005.....	33.5	39.6	39.0	37.8	36.0	34.8	43.9	36.0	36.6	36.0	36.0	40.9
2006.....	43.3	47.6	48.2	51.2	53.0	52.4	47.0	48.8	43.9	39.6	34.1	29.9
2007.....	34.8	31.7	32.3	32.9	35.4	39.0	34.1	27.4	28.7	24.4	30.5	25.6
2008.....	27.4	29.9	42.1	38.4	38.4	31.7	26.2	20.1	13.4	12.2	13.4	12.2
2009.....	7.3	4.9	2.4	6.1	2.4	6.1	7.3	6.1	7.3	8.5	8.5	15.2
Over 12-month span:												
2005.....	45.7	44.5	42.7	41.5	37.2	36.0	32.9	34.8	33.5	34.1	34.1	38.4
2006.....	44.5	41.5	41.5	40.2	40.2	45.7	42.7	43.3	47.6	48.8	46.3	43.9
2007.....	40.2	37.2	37.8	31.1	29.3	29.9	31.1	29.3	33.5	29.3	34.8	36.0
2008.....	28.0	29.3	26.2	25.6	31.1	26.8	23.2	19.5	24.4	20.1	16.5	14.6
2009.....	7.9	3.7	4.9	6.7	3.7	4.9	6.1	4.9	5.5	4.9	4.9	4.9

NOTE: Figures are the percent of industries with employment increasing plus one-half of the industries with unchanged employment, where 50 percent indicates an equal balance between industries with increasing and decreasing employment.

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

Data for the two most recent months are preliminary.

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

Industry and region	Levels <sup>1</sup> (in thousands)							Percent						
	2009							2009						
	June	July	Aug.	Sept.	Oct.	Nov.	Dec. <sup>P</sup>	June	July	Aug.	Sept.	Oct.	Nov.	Dec. <sup>P</sup>
Total <sup>2</sup> .....	2,513	2,408	2,423	2,586	2,571	2,434	2,497	1.9	1.8	1.8	1.9	1.9	1.8	1.9
<b>Industry</b>														
Total private <sup>2</sup> .....	2,163	2,090	2,128	2,298	2,206	2,088	2,151	1.9	1.9	1.9	2.1	2.0	1.9	1.9
Construction.....	56	47	65	70	69	75	53	0.9	0.8	1.1	1.2	1.1	1.2	0.9
Manufacturing.....	113	110	122	132	139	154	175	0.9	0.9	1.0	1.1	1.2	1.3	1.5
Trade, transportation, and utilities.....	469	393	422	407	373	329	361	1.8	1.5	1.6	1.6	1.5	1.3	1.4
Professional and business services.....	445	431	438	501	480	431	415	2.6	2.5	2.6	2.9	2.8	2.5	2.4
Education and health services.....	531	553	520	546	524	543	550	2.7	2.8	2.6	2.7	2.6	2.7	2.7
Leisure and hospitality.....	276	256	238	311	258	229	234	2.1	1.9	1.8	2.3	1.9	1.7	1.8
Government.....	322	314	300	296	376	341	343	1.4	1.4	1.3	1.3	1.6	1.5	1.5
<b>Region<sup>3</sup></b>														
Northeast.....	609	508	513	539	503	493	522	2.4	2.0	2.0	2.1	2.0	2.0	2.1
South.....	882	870	911	930	897	838	914	1.8	1.8	1.9	1.9	1.9	1.7	1.9
Midwest.....	496	509	476	556	550	542	452	1.6	1.7	1.6	1.8	1.8	1.8	1.5
West.....	561	517	533	575	609	571	613	1.9	1.7	1.8	1.9	2.0	1.9	2.0

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

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

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

West Virginia; **Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming. NOTE: The job openings level is the number of job openings on the last business day of the month; the job openings rate is the number of job openings on the last business day of the month as a percent of total employment plus job openings.

<sup>P</sup> = preliminary.

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

Industry and region	Levels <sup>1</sup> (in thousands)							Percent						
	2009							2009						
	June	July	Aug.	Sept.	Oct.	Nov.	Dec. <sup>P</sup>	June	July	Aug.	Sept.	Oct.	Nov.	Dec. <sup>P</sup>
Total <sup>2</sup> .....	3,919	4,228	4,040	4,061	4,045	4,125	4,073	3.0	3.2	3.1	3.1	3.1	3.1	3.1
<b>Industry</b>														
Total private <sup>2</sup> .....	3,654	3,930	3,779	3,800	3,730	3,852	3,816	3.3	3.6	3.5	3.5	3.4	3.6	3.5
Construction.....	277	355	297	349	332	324	358	4.5	5.8	4.9	5.8	5.6	5.4	6.1
Manufacturing.....	225	272	243	270	245	252	237	1.9	2.3	2.1	2.3	2.1	2.2	2.0
Trade, transportation, and utilities.....	744	819	818	842	768	839	871	2.9	3.3	3.3	3.4	3.1	3.4	3.5
Professional and business services.....	644	686	715	724	735	808	661	3.9	4.1	4.3	4.4	4.4	4.8	3.9
Education and health services.....	530	522	538	526	522	517	524	2.8	2.7	2.8	2.7	2.7	2.7	2.7
Leisure and hospitality.....	695	716	695	656	677	703	684	5.3	5.4	5.3	5.0	5.2	5.4	5.2
Government.....	262	282	261	266	304	278	262	1.2	1.3	1.2	1.2	1.4	1.2	1.2
<b>Region<sup>3</sup></b>														
Northeast.....	735	714	720	693	769	754	748	3.0	2.9	2.9	2.8	3.1	3.1	3.0
South.....	1,428	1,544	1,493	1,502	1,403	1,546	1,516	3.0	3.3	3.2	3.2	3.0	3.3	3.2
Midwest.....	839	885	947	911	915	902	900	2.8	3.0	3.2	3.1	3.1	3.0	3.0
West.....	917	1,042	884	939	929	935	903	3.1	3.5	3.0	3.2	3.2	3.2	3.1

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

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

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

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

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

<sup>P</sup> = preliminary.

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

Industry and region	Levels <sup>1</sup> (in thousands)							Percent							
	2009							2009							
	June	July	Aug.	Sept.	Oct.	Nov.	Dec. <sup>P</sup>	June	July	Aug.	Sept.	Oct.	Nov.	Dec. <sup>P</sup>	
Total <sup>2</sup> .....	4,306	4,430	4,284	4,325	4,223	4,274	4,238	3.3	3.4	3.3	3.3	3.2	3.3	3.2	
<b>Industry</b>															
Total private <sup>2</sup> .....	3,939	4,147	3,976	4,038	3,944	3,993	3,944	3.6	3.8	3.7	3.7	3.6	3.7	3.6	
Construction.....	355	444	342	421	384	361	436	5.7	7.2	5.6	7.0	6.4	6.1	7.4	
Manufacturing.....	352	329	313	314	300	299	298	3.0	2.8	2.7	2.7	2.6	2.6	2.6	
Trade, transportation, and utilities.....	816	874	850	870	840	863	917	3.2	3.5	3.4	3.5	3.4	3.5	3.7	
Professional and business services.....	698	738	728	740	725	763	620	4.2	4.4	4.4	4.5	4.3	4.5	3.7	
Education and health services.....	489	500	509	502	470	488	510	2.5	2.6	2.6	2.6	2.4	2.5	2.6	
Leisure and hospitality.....	696	713	704	697	723	752	704	5.3	5.4	5.3	5.3	5.5	5.7	5.4	
Government.....	340	298	293	279	275	280	297	1.5	1.3	1.3	1.2	1.2	1.2	1.3	
<b>Region<sup>3</sup></b>															
Northeast.....	799	716	759	744	739	820	763	3.2	2.9	3.1	3.0	3.0	3.3	3.1	
South.....	1,535	1,602	1,490	1,521	1,561	1,644	1,493	3.2	3.4	3.1	3.2	3.3	3.5	3.2	
Midwest.....	958	958	951	985	920	868	940	3.2	3.2	3.2	3.3	3.1	2.9	3.2	
West.....	1,053	1,181	1,086	1,036	963	985	1,021	3.6	4.0	3.7	3.5	3.3	3.4	3.5	

<sup>1</sup> Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.  
<sup>2</sup> Includes natural resources and mining, information, financial activities, and other services, not shown separately.  
<sup>3</sup> **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia;

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

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

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

Industry and region	Levels <sup>1</sup> (in thousands)							Percent							
	2009							2009							
	June	July	Aug.	Sept.	Oct.	Nov.	Dec. <sup>P</sup>	June	July	Aug.	Sept.	Oct.	Nov.	Dec. <sup>P</sup>	
Total <sup>2</sup> .....	1,787	1,778	1,779	1,804	1,771	1,919	1,764	1.4	1.4	1.4	1.4	1.4	1.5	1.3	
<b>Industry</b>															
Total private <sup>2</sup> .....	1,680	1,673	1,680	1,713	1,663	1,817	1,653	1.5	1.5	1.5	1.6	1.5	1.7	1.5	
Construction.....	70	68	67	90	68	77	78	1.1	1.1	1.1	1.5	1.1	1.3	1.3	
Manufacturing.....	93	82	85	94	78	77	76	.8	.7	.7	.8	.7	.7	.7	
Trade, transportation, and utilities.....	391	415	407	445	389	451	397	1.5	1.6	1.6	1.8	1.6	1.8	1.6	
Professional and business services.....	257	265	269	276	283	294	253	1.5	1.6	1.6	1.7	1.7	1.8	1.5	
Education and health services.....	264	235	249	269	268	262	282	1.4	1.2	1.3	1.4	1.4	1.3	1.4	
Leisure and hospitality.....	429	411	413	351	363	413	370	3.3	3.1	3.1	2.7	2.8	3.1	2.8	
Government.....	111	107	106	98	103	108	111	.5	.5	.5	.4	.5	.5	.5	
<b>Region<sup>3</sup></b>															
Northeast.....	279	234	270	297	291	273	274	1.1	1.0	1.1	1.2	1.2	1.1	1.1	
South.....	693	724	687	701	682	814	720	1.5	1.5	1.5	1.5	1.4	1.7	1.5	
Midwest.....	403	435	374	405	386	406	383	1.3	1.5	1.3	1.4	1.3	1.4	1.3	
West.....	434	404	460	414	386	438	383	1.5	1.4	1.6	1.4	1.3	1.5	1.3	

<sup>1</sup> Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.  
<sup>2</sup> Includes natural resources and mining, information, financial activities, and other services, not shown separately.  
<sup>3</sup> **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia;

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

NOTE: The 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, first quarter 2009.

County by NAICS supersector	Establishments, first quarter 2009 (thousands)	Employment		Average weekly wage <sup>1</sup>	
		March 2009 (thousands)	Percent change, March 2008-09 <sup>2</sup>	First quarter 2009	Percent change, first quarter 2008-09 <sup>2</sup>
United States <sup>3</sup> .....	9,113.9	128,992.2	-4.2	\$882	-2.5
Private industry .....	8,819.8	106,866.1	-5.1	882	-3.3
Natural resources and mining .....	126.3	1,670.1	-3.8	993	-2.3
Construction .....	860.9	5,937.8	-15.4	906	.9
Manufacturing .....	356.4	12,096.6	-10.6	1,062	-1.3
Trade, transportation, and utilities .....	1,912.2	24,597.3	-5.5	733	-1.6
Information .....	148.0	2,858.8	-5.0	1,439	-2.0
Financial activities .....	853.1	7,651.3	-4.4	1,596	-15.9
Professional and business services .....	1,533.8	16,534.8	-6.4	1,129	-2
Education and health services .....	861.3	18,245.7	2.2	776	1.2
Leisure and hospitality .....	739.1	12,715.3	-3.1	351	-2.2
Other services .....	1,234.6	4,357.1	-2.1	543	-5
Government .....	294.2	22,126.1	.5	884	1.6
Los Angeles, CA .....	431.2	3,996.3	-4.9	967	-2.4
Private industry .....	427.3	3,395.0	-5.7	945	-3.0
Natural resources and mining .....	.5	10.7	-6.2	1,479	-15.8
Construction .....	14.0	123.3	-17.4	973	.3
Manufacturing .....	14.4	401.4	-9.3	1,063	-1.8
Trade, transportation, and utilities .....	54.0	744.8	-7.2	776	-1.5
Information .....	8.9	197.3	-7.3	1,755	1.8
Financial activities .....	24.0	223.4	-6.8	1,577	-12.1
Professional and business services .....	43.3	541.8	-8.3	1,149	-2.1
Education and health services .....	28.6	499.8	1.1	865	2.4
Leisure and hospitality .....	27.5	384.1	-3.9	519	-2.4
Other services .....	202.9	258.5	3.0	424	-3.9
Government .....	3.9	601.3	-3	1,090	-2
Cook, IL .....	141.1	2,381.5	-4.4	1,084	-5.4
Private industry .....	139.8	2,069.2	-5.0	1,093	-6.3
Natural resources and mining .....	.1	.9	-3.7	792	-12.8
Construction .....	12.3	71.9	-14.4	1,317	.5
Manufacturing .....	6.9	206.7	-9.5	1,013	-4.1
Trade, transportation, and utilities .....	27.5	438.8	-6.5	797	-4.3
Information .....	2.6	53.5	( <sup>4</sup> )	1,644	-8.7
Financial activities .....	15.6	197.7	-5.0	2,397	-17.4
Professional and business services .....	29.1	398.3	-8.0	1,403	-6
Education and health services .....	14.1	385.9	3.1	839	1.0
Leisure and hospitality .....	11.9	216.4	-3.6	404	-2.9
Other services .....	14.7	94.8	-1.4	729	1.1
Government .....	1.4	312.3	.0	1,022	1.6
New York, NY .....	119.1	2,290.3	-3.6	2,149	-23.4
Private industry .....	118.8	1,837.8	-4.4	2,425	-24.9
Natural resources and mining .....	.0	.2	1.3	1,967	-16.9
Construction .....	2.4	34.0	-7.2	1,479	-6.4
Manufacturing .....	2.9	30.4	-15.3	1,365	-8.3
Trade, transportation, and utilities .....	21.7	230.7	-6.6	1,136	-5.4
Information .....	4.5	129.0	-4.7	2,449	-7.9
Financial activities .....	19.0	355.9	-6.2	6,379	-35.2
Professional and business services .....	25.4	463.7	-5.6	2,095	-10.2
Education and health services .....	8.8	293.9	.7	998	.8
Leisure and hospitality .....	11.9	208.9	-3.0	725	-5.0
Other services .....	18.2	86.9	-1.3	999	-9.0
Government .....	.3	452.6	.0	1,017	1.2
Harris, TX .....	97.9	2,028.4	-1.1	1,143	-2.6
Private industry .....	97.4	1,766.7	-1.5	1,175	-3.1
Natural resources and mining .....	1.5	82.8	( <sup>4</sup> )	3,483	-5.5
Construction .....	6.7	149.0	-6.5	1,051	.0
Manufacturing .....	4.6	182.5	-2.0	1,411	-7.0
Trade, transportation, and utilities .....	22.3	418.9	-1.5	1,029	-3.1
Information .....	1.4	31.3	-3.4	1,314	-3.2
Financial activities .....	10.5	116.2	-3.9	1,511	-12.7
Professional and business services .....	19.6	321.4	-4.5	1,321	2.1
Education and health services .....	10.4	224.3	3.9	851	1.3
Leisure and hospitality .....	7.7	179.8	1.2	374	-2.3
Other services .....	11.9	59.1	.3	628	-8
Government .....	.5	261.7	2.2	926	3.7
Maricopa, AZ .....	104.0	1,671.0	-7.4	854	-1.3
Private industry .....	103.3	1,444.9	-8.6	852	-1.3
Natural resources and mining .....	.5	8.5	-1.0	855	-14.2
Construction .....	10.8	100.5	-30.7	877	-9
Manufacturing .....	3.5	111.9	-11.2	1,227	-2.1
Trade, transportation, and utilities .....	23.2	344.5	-7.7	801	-7
Information .....	1.7	29.0	-5.0	1,166	.0
Financial activities .....	12.8	137.5	-4.9	1,145	-7.5
Professional and business services .....	23.0	270.4	-11.5	896	3.1
Education and health services .....	10.3	214.8	3.6	875	.0
Leisure and hospitality .....	7.5	178.1	-5.2	398	-1.7
Other services .....	7.3	47.8	-6.5	567	-1.2
Government .....	.7	226.1	.5	868	-1.3

22. Continued—Quarterly Census of Employment and Wages: 10 largest counties, first quarter 2009.

County by NAICS supersector	Establishments, first quarter 2009 (thousands)	Employment		Average weekly wage <sup>1</sup>	
		March 2009 (thousands)	Percent change, March 2008-09 <sup>2</sup>	First quarter 2009	Percent change, first quarter 2008-09 <sup>2</sup>
Dallas, TX .....	67.9	1,425.7	-3.3	\$1,085	-3.3
Private industry .....	67.3	1,257.6	-3.8	1,103	-3.9
Natural resources and mining .....	.6	8.3	( <sup>4</sup> )	3,066	-13.0
Construction .....	4.3	76.3	-9.8	942	-.8
Manufacturing .....	3.1	123.7	-8.2	1,267	-3.8
Trade, transportation, and utilities .....	15.0	287.9	( <sup>4</sup> )	964	-4.1
Information .....	1.7	46.7	-6.5	1,823	( <sup>4</sup> )
Financial activities .....	8.7	140.3	( <sup>4</sup> )	1,632	-13.3
Professional and business services .....	14.8	255.0	-6.4	1,219	-2.5
Education and health services .....	6.7	154.6	4.5	920	3.1
Leisure and hospitality .....	5.4	126.3	( <sup>4</sup> )	499	-1.4
Other services .....	6.7	37.7	-3.0	624	.8
Government .....	.5	168.0	.7	950	3.6
Orange, CA .....	102.3	1,399.5	-6.8	992	-2.7
Private industry .....	100.9	1,244.8	-7.4	967	-3.6
Natural resources and mining .....	.2	5.1	-16.0	561	-3.4
Construction .....	6.9	78.3	-18.1	1,072	-1.0
Manufacturing .....	5.3	159.9	-8.8	1,148	-3.1
Trade, transportation, and utilities .....	17.3	253.7	-8.5	916	-.1
Information .....	1.4	28.2	-4.8	1,567	.8
Financial activities .....	10.7	106.7	( <sup>4</sup> )	1,502	-12.0
Professional and business services .....	19.4	244.0	-10.4	1,121	-2.4
Education and health services .....	10.2	150.7	1.7	873	1.6
Leisure and hospitality .....	7.2	167.0	-4.7	382	-3.3
Other services .....	19.2	47.7	-3.0	513	-4.6
Government .....	1.4	154.7	-1.8	1,188	1.5
San Diego, CA .....	99.6	1,263.0	-4.7	934	-1.1
Private industry .....	98.3	1,035.8	-5.5	916	-1.9
Natural resources and mining .....	.7	9.7	-13.8	540	.7
Construction .....	7.0	64.1	-18.1	975	-.3
Manufacturing .....	3.1	99.3	( <sup>4</sup> )	1,309	.2
Trade, transportation, and utilities .....	14.4	197.1	-7.9	744	( <sup>4</sup> )
Information .....	1.3	37.8	-1.2	1,604	-16.1
Financial activities .....	9.4	71.4	-6.0	1,257	-5.6
Professional and business services .....	16.5	201.2	-6.9	1,208	2.7
Education and health services .....	8.3	142.2	3.2	851	1.7
Leisure and hospitality .....	7.0	152.2	-5.6	393	-6.9
Other services .....	27.6	57.4	.2	466	-2.1
Government .....	1.3	227.2	-.4	1,017	2.7
King, WA .....	75.4	1,135.9	-3.9	1,127	.2
Private industry .....	74.9	979.2	-4.6	1,136	-.5
Natural resources and mining .....	.4	2.8	-9.6	1,553	-1.2
Construction .....	6.4	57.1	-18.7	1,130	4.1
Manufacturing .....	2.4	104.2	-7.2	1,366	-5.5
Trade, transportation, and utilities .....	14.7	206.7	-5.7	967	1.5
Information .....	1.8	80.7	4.0	2,125	-.9
Financial activities .....	6.8	69.7	-6.7	1,579	-5.0
Professional and business services .....	13.6	176.9	-6.8	1,311	.2
Education and health services .....	6.6	130.4	5.1	857	2.4
Leisure and hospitality .....	6.1	105.0	-4.2	422	-5.8
Other services .....	16.3	45.8	.6	634	5.8
Government .....	.5	156.6	.8	1,074	6.0
Miami-Dade, FL .....	84.7	963.9	-6.1	858	-1.2
Private industry .....	84.4	813.6	-6.9	818	-1.8
Natural resources and mining .....	.5	10.0	-8.8	403	-12.6
Construction .....	6.1	37.7	-25.4	861	6.6
Manufacturing .....	2.6	38.4	-16.7	783	.3
Trade, transportation, and utilities .....	23.0	238.8	-6.0	765	-.6
Information .....	1.5	18.5	-7.1	1,308	-3.5
Financial activities .....	9.8	63.7	-9.0	1,353	-9.7
Professional and business services .....	17.7	124.5	-8.7	992	.1
Education and health services .....	9.4	144.1	1.8	801	1.0
Leisure and hospitality .....	5.9	102.0	-4.2	471	-1.5
Other services .....	7.5	35.3	-5.5	529	-.4
Government .....	.4	150.3	-1.7	1,074	.8

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

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

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

Virgin Islands.

<sup>4</sup> 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, first quarter 2009.

State	Establishments, first quarter 2009 (thousands)	Employment		Average weekly wage <sup>1</sup>	
		March 2009 (thousands)	Percent change, March 2008-09	First quarter 2009	Percent change, first quarter 2008-09
United States <sup>2</sup> .....	9,113.9	128,992.2	-4.2	\$882	-2.5
Alabama .....	119.2	1,844.6	-5.2	736	-.4
Alaska .....	21.3	303.5	.1	887	2.5
Arizona .....	164.6	2,459.7	-6.9	807	-1.3
Arkansas .....	86.4	1,144.5	-2.9	695	4.2
California .....	1,369.6	14,742.5	-5.0	994	-1.2
Colorado .....	176.6	2,211.0	-3.9	913	-.8
Connecticut .....	113.0	1,620.1	-3.8	1,189	-5.6
Delaware .....	29.3	399.9	-5.1	975	-.8
District of Columbia .....	33.3	679.2	-.1	1,461	-1.9
Florida .....	612.2	7,352.2	-7.0	771	-.8
Georgia .....	274.4	3,835.9	-5.4	831	-1.4
Hawaii .....	39.2	599.1	-4.9	775	.4
Idaho .....	56.7	603.4	-6.3	638	.3
Illinois .....	372.2	5,552.0	-4.2	951	-3.0
Indiana .....	161.3	2,701.1	-5.6	739	-2.4
Iowa .....	94.6	1,432.5	-2.5	709	-.1
Kansas .....	87.3	1,326.2	-2.6	719	-2.3
Kentucky .....	109.1	1,710.0	-4.6	712	-.3
Louisiana .....	124.2	1,867.4	-1.1	772	.8
Maine .....	51.0	563.1	-3.7	688	-1.9
Maryland .....	164.5	2,452.8	-3.1	964	.1
Massachusetts .....	213.0	3,102.8	-3.3	1,101	-3.7
Michigan .....	253.8	3,765.9	-7.2	825	-3.7
Minnesota .....	168.6	2,538.5	-4.0	882	-2.9
Mississippi .....	71.0	1,087.9	-4.5	633	-.2
Missouri .....	173.7	2,618.3	-3.4	771	.1
Montana .....	42.9	413.9	-4.2	628	.5
Nebraska .....	59.6	894.8	-2.0	699	1.7
Nevada .....	76.6	1,150.8	-9.1	810	-3.5
New Hampshire .....	48.8	601.2	-3.2	837	-3.0
New Jersey .....	271.3	3,775.1	-4.0	1,100	-2.8
New Mexico .....	54.9	794.1	-3.5	723	.7
New York .....	588.1	8,332.4	-2.6	1,207	-13.8
North Carolina .....	260.6	3,852.4	-5.2	766	-2.8
North Dakota .....	25.6	341.8	-.4	666	2.0
Ohio .....	293.6	4,937.1	-4.9	790	-1.0
Oklahoma .....	100.5	1,517.0	-2.0	709	-.3
Oregon .....	130.7	1,602.8	-6.3	772	-.6
Pennsylvania .....	342.4	5,449.4	-2.9	862	-.7
Rhode Island .....	35.5	441.8	-4.9	831	-2.4
South Carolina .....	115.3	1,779.4	-5.9	692	-.4
South Dakota .....	30.6	382.9	-1.7	630	-.3
Tennessee .....	142.7	2,586.1	-5.7	751	-1.3
Texas .....	564.9	10,237.9	-1.8	886	-1.9
Utah .....	85.3	1,162.2	-4.6	726	1.1
Vermont .....	24.8	291.7	-3.2	719	-2.0
Virginia .....	232.6	3,541.6	-3.0	920	.1
Washington .....	216.4	2,810.6	-3.8	906	.8
West Virginia .....	48.4	690.2	-1.4	704	4.0
Wisconsin .....	156.8	2,619.0	-4.3	747	-1.6
Wyoming .....	25.1	272.1	-2.0	778	-.1
Puerto Rico .....	53.4	967.1	-4.1	496	1.4
Virgin Islands .....	3.6	44.6	-4.3	685	-3.1

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

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

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

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

Year	Average establishments	Average annual employment	Total annual wages (in thousands)	Average annual wage per employee	Average weekly wage
<b>Total covered (UI and UCFE)</b>					
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
2007 .....	8,971,897	135,366,106	6,018,089,108	44,458	855
2008 .....	9,082,049	134,805,659	6,142,159,200	45,563	876
<b>UI covered</b>					
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
2007 .....	8,908,198	132,639,806	5,841,231,314	44,038	847
2008 .....	9,017,717	132,043,604	5,959,055,276	45,129	868
<b>Private industry covered</b>					
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
2007 .....	8,681,001	114,012,221	5,057,840,759	44,362	853
2008 .....	8,789,360	113,188,643	5,135,487,891	45,371	873
<b>State government covered</b>					
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
2007 .....	67,381	4,611,395	211,677,002	45,903	883
2008 .....	67,675	4,642,650	222,754,925	47,980	923
<b>Local government covered</b>					
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
2007 .....	159,816	14,016,190	571,713,553	40,790	784
2008 .....	160,683	14,212,311	600,812,461	42,274	813
<b>Federal government covered (UCFE)</b>					
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
2007 .....	63,699	2,726,300	176,857,794	64,871	1,248
2008 .....	64,332	2,762,055	183,103,924	66,293	1,275

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 2008**

Industry, establishments, and employment	Total	Size of establishments								
		Fewer than 5 workers <sup>1</sup>	5 to 9 workers	10 to 19 workers	20 to 49 workers	50 to 99 workers	100 to 249 workers	250 to 499 workers	500 to 999 workers	1,000 or more workers
<b>Total all industries<sup>2</sup></b>										
Establishments, first quarter .....	8,737,209	5,347,059	1,405,989	940,355	649,897	221,242	125,680	30,651	10,833	5,503
Employment, March .....	112,661,107	7,726,320	9,317,598	12,712,673	19,590,026	15,200,470	18,769,975	10,490,782	7,355,848	11,497,415
<b>Natural resources and mining</b>										
Establishments, first quarter .....	125,210	70,167	23,540	15,213	10,230	3,338	1,888	574	192	68
Employment, March .....	1,735,716	113,349	155,594	205,063	309,062	229,769	285,052	198,874	129,465	109,488
<b>Construction</b>										
Establishments, first quarter .....	884,900	596,761	135,351	80,118	49,933	14,548	6,455	1,305	337	92
Employment, March .....	7,015,698	820,427	887,949	1,076,415	1,494,411	990,273	953,252	438,169	221,521	133,281
<b>Manufacturing</b>										
Establishments, first quarter .....	360,128	138,761	61,564	53,932	52,329	25,129	18,998	6,052	2,298	1,065
Employment, March .....	13,530,440	239,464	413,129	741,464	1,631,131	1,758,241	2,909,766	2,072,004	1,554,107	2,211,134
<b>Trade, transportation, and utilities</b>										
Establishments, first quarter .....	1,918,453	1,025,889	381,783	253,919	158,449	53,773	34,906	7,571	1,654	509
Employment, March .....	26,025,160	1,686,285	2,543,460	3,411,060	4,758,401	3,726,557	5,155,843	2,600,592	1,090,853	1,052,109
<b>Information</b>										
Establishments, first quarter .....	144,342	82,456	21,073	16,279	13,502	5,634	3,580	1,093	490	235
Employment, March .....	3,007,840	113,866	140,161	222,141	415,963	388,105	542,466	380,246	334,589	470,303
<b>Financial activities</b>										
Establishments, first quarter .....	866,044	571,395	153,677	80,370	39,542	11,675	6,176	1,823	911	475
Employment, March .....	8,002,154	880,298	1,013,702	1,059,248	1,176,225	798,971	929,717	631,696	630,185	882,112
<b>Professional and business services</b>										
Establishments, first quarter .....	1,500,983	1,026,478	199,658	126,947	85,319	32,918	20,556	5,907	2,267	933
Employment, March .....	17,672,891	1,403,930	1,312,525	1,712,339	2,594,343	2,279,648	3,116,492	2,019,588	1,542,704	1,691,322
<b>Education and health services</b>										
Establishments, first quarter .....	838,101	403,555	181,824	119,131	77,795	28,219	19,577	4,258	1,933	1,809
Employment, March .....	17,855,618	715,158	1,208,328	1,604,008	2,344,710	1,961,088	2,946,642	1,449,126	1,343,470	4,283,088
<b>Leisure and hospitality</b>										
Establishments, first quarter .....	729,550	280,079	122,835	135,822	137,270	40,241	10,754	1,610	642	297
Employment, March .....	13,121,259	443,453	829,466	1,908,049	4,122,254	2,674,380	1,523,474	547,993	438,685	633,505
<b>Other services</b>										
Establishments, first quarter .....	1,157,207	946,782	118,658	57,400	25,255	5,738	2,787	458	109	20
Employment, March .....	4,450,274	1,128,799	775,868	757,235	736,119	391,483	406,934	152,494	70,269	31,073

<sup>1</sup> Includes establishments that reported no workers in March 2008.

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

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



**26. Average annual wages for 2007 and 2008 for all covered workers<sup>1</sup> by metropolitan area**

Metropolitan area <sup>2</sup>	Average annual wages <sup>3</sup>		
	2007	2008	Percent change, 2007-08
Metropolitan areas <sup>4</sup> .....	\$46,139	\$47,194	2.3
Abilene, TX .....	31,567	32,649	3.4
Aguadilla-Isabela-San Sebastian, PR .....	20,295	20,714	2.1
Akron, OH .....	39,499	40,376	2.2
Albany, GA .....	33,378	34,314	2.8
Albany-Schenectady-Troy, NY .....	42,191	43,912	4.1
Albuquerque, NM .....	38,191	39,342	3.0
Alexandria, LA .....	32,757	34,783	6.2
Allentown-Bethlehem-Easton, PA-NJ .....	41,784	42,500	1.7
Alltoona, PA .....	31,988	32,986	3.1
Amarillo, TX .....	35,574	38,215	7.4
Ames, IA .....	37,041	38,558	4.1
Anchorage, AK .....	45,237	46,935	3.8
Anderson, IN .....	32,850	31,326	-4.6
Anderson, SC .....	31,086	32,322	4.0
Ann Arbor, MI .....	49,427	48,987	-0.9
Anniston-Oxford, AL .....	34,593	36,227	4.7
Appleton, WI .....	36,575	37,522	2.6
Asheville, NC .....	33,406	34,070	2.0
Athens-Clarke County, GA .....	34,256	35,503	3.6
Atlanta-Sandy Springs-Marietta, GA .....	48,111	48,064	-0.1
Atlantic City, NJ .....	39,276	40,337	2.7
Auburn-Opelika, AL .....	31,554	32,651	3.5
Augusta-Richmond County, GA-SC .....	36,915	38,068	3.1
Austin-Round Rock, TX .....	46,458	47,355	1.9
Bakersfield, CA .....	38,254	39,476	3.2
Baltimore-Towson, MD .....	47,177	48,438	2.7
Bangor, ME .....	32,829	33,829	3.0
Barnstable Town, MA .....	37,691	38,839	3.0
Baton Rouge, LA .....	39,339	41,961	6.7
Battle Creek, MI .....	40,628	42,782	5.3
Bay City, MI .....	35,680	36,489	2.3
Beaumont-Port Arthur, TX .....	40,682	43,302	6.4
Bellingham, WA .....	34,239	35,864	4.7
Bend, OR .....	34,318	35,044	2.1
Billings, MT .....	35,372	36,155	2.2
Binghamton, NY .....	36,322	37,731	3.9
Birmingham-Hoover, AL .....	42,570	43,651	2.5
Bismarck, ND .....	34,118	35,389	3.7
Blacksburg-Christiansburg-Radford, VA .....	35,248	35,272	0.1
Bloomington, IN .....	32,028	33,220	3.7
Bloomington-Normal, IL .....	42,082	43,918	4.4
Boise City-Nampa, ID .....	37,553	37,315	-0.6
Boston-Cambridge-Quincy, MA-NH .....	59,817	61,128	2.2
Boulder, CO .....	52,745	53,455	1.3
Bowling Green, KY .....	33,308	34,861	4.7
Bremerton-Silverdale, WA .....	39,506	40,421	2.3
Bridgeport-Stamford-Norwalk, CT .....	79,973	80,018	0.1
Brownsville-Harlingen, TX .....	27,126	28,342	4.5
Brunswick, GA .....	32,705	34,458	5.4
Buffalo-Niagara Falls, NY .....	38,218	38,984	2.0
Burlington, NC .....	33,132	34,283	3.5
Burlington-South Burlington, VT .....	41,907	43,559	3.9
Canton-Massillon, OH .....	34,091	34,897	2.4
Cape Coral-Fort Myers, FL .....	37,658	37,866	0.6
Carson City, NV .....	42,030	43,858	4.3
Casper, WY .....	41,105	43,851	6.7
Cedar Rapids, IA .....	41,059	42,356	3.2
Champaign-Urbana, IL .....	35,788	37,408	4.5
Charleston, WV .....	38,687	40,442	4.5
Charleston-North Charleston, SC .....	36,954	38,035	2.9
Charlotte-Gastonia-Concord, NC-SC .....	46,975	47,332	0.8
Charlottesville, VA .....	40,819	41,777	2.3
Chattanooga, TN-GA .....	36,522	37,258	2.0
Cheyenne, WY .....	36,191	37,452	3.5
Chicago-Naperville-Joliet, IL-IN-WI .....	50,823	51,775	1.9
Chico, CA .....	33,207	34,310	3.3
Cincinnati-Middletown, OH-KY-IN .....	42,969	43,801	1.9
Clarksville, TN-KY .....	32,216	32,991	2.4
Cleveland, TN .....	34,666	35,010	1.0
Cleveland-Elyria-Mentor, OH .....	42,783	43,467	1.6
Coeur d'Alene, ID .....	31,035	31,353	1.0
College Station-Bryan, TX .....	32,630	33,967	4.1
Colorado Springs, CO .....	39,745	40,973	3.1
Columbia, MO .....	33,266	34,331	3.2
Columbia, SC .....	36,293	37,514	3.4
Columbus, GA-AL .....	34,511	35,067	1.6
Columbus, IN .....	41,078	42,610	3.7
Columbus, OH .....	42,655	43,533	2.1
Corpus Christi, TX .....	37,186	38,771	4.3
Corvallis, OR .....	41,981	42,343	0.9

See footnotes at end of table.

**26. Continued — Average annual wages for 2007 and 2008 for all covered workers<sup>1</sup> by metropolitan area**

Metropolitan area <sup>2</sup>	Average annual wages <sup>3</sup>		
	2007	2008	Percent change, 2007-08
Cumberland, MD-WV .....	\$31,373	\$32,583	3.9
Dallas-Fort Worth-Arlington, TX .....	49,627	50,331	1.4
Dalton, GA .....	34,433	34,403	-0.1
Danville, IL .....	34,086	35,602	4.4
Danville, VA .....	30,212	30,580	1.2
Davenport-Moline-Rock Island, IA-IL .....	39,385	40,425	2.6
Dayton, OH .....	40,223	40,824	1.5
Decatur, AL .....	35,931	36,855	2.6
Decatur, IL .....	41,039	42,012	2.4
Deltona-Daytona Beach-Ormond Beach, FL .....	32,196	32,938	2.3
Denver-Aurora, CO .....	50,180	51,270	2.2
Des Moines, IA .....	42,895	43,918	2.4
Detroit-Warren-Livonia, MI .....	49,019	50,081	2.2
Dothan, AL .....	32,367	32,965	1.8
Dover, DE .....	35,978	36,375	1.1
Dubuque, IA .....	34,240	35,656	4.1
Duluth, MN-WI .....	35,202	36,307	3.1
Durham, NC .....	52,420	53,700	2.4
Eau Claire, WI .....	32,792	33,549	2.3
El Centro, CA .....	32,419	33,239	2.5
Elizabethtown, KY .....	32,701	33,728	3.1
Elkhart-Goshen, IN .....	36,566	35,858	-1.9
Elmira, NY .....	34,879	36,984	6.0
El Paso, TX .....	31,354	31,837	1.5
Erie, PA .....	34,788	35,992	3.5
Eugene-Springfield, OR .....	34,329	35,380	3.1
Evansville, IN-KY .....	37,182	38,304	3.0
Fairbanks, AK .....	42,345	44,225	4.4
Fajardo, PR .....	22,075	22,984	4.1
Fargo, ND-MN .....	35,264	36,745	4.2
Farmington, NM .....	38,572	41,155	6.7
Fayetteville, NC .....	33,216	34,619	4.2
Fayetteville-Springdale-Rogers, AR-MO .....	37,325	39,025	4.6
Flagstaff, AZ .....	34,473	35,353	2.6
Flint, MI .....	39,310	39,206	-0.3
Florence, SC .....	34,305	34,841	1.6
Florence-Muscle Shoals, AL .....	30,699	32,088	4.5
Fond du Lac, WI .....	34,664	36,166	4.3
Fort Collins-Loveland, CO .....	39,335	40,154	2.1
Fort Smith, AR-OK .....	31,236	32,130	2.9
Fort Walton Beach-Crestview-Destin, FL .....	35,613	36,454	2.4
Fort Wayne, IN .....	36,542	36,806	0.7
Fresno, CA .....	35,111	36,038	2.6
Gadsden, AL .....	30,979	31,718	2.4
Gainesville, FL .....	36,243	37,262	2.9
Gainesville, GA .....	36,994	37,929	2.5
Glens Falls, NY .....	33,564	34,531	2.9
Goldsboro, NC .....	30,177	30,607	1.4
Grand Forks, ND-MN .....	30,745	32,207	4.8
Grand Junction, CO .....	36,221	39,246	8.4
Grand Rapids-Wyoming, MI .....	38,953	39,868	2.3
Great Falls, MT .....	31,009	31,962	3.1
Greeley, CO .....	37,066	38,700	4.4
Green Bay, WI .....	37,788	39,247	3.9
Greensboro-High Point, NC .....	37,213	37,919	1.9
Greenville, NC .....	33,703	34,672	2.9
Greenville, SC .....	36,536	37,592	2.9
Guayama, PR .....	26,094	27,189	4.2
Gulfport-Biloxi, MS .....	34,971	35,700	2.1
Hagerstown-Martinsburg, MD-WV .....	35,468	36,472	2.8
Hanford-Corcoran, CA .....	32,504	35,374	8.8
Harrisburg-Carlisle, PA .....	41,424	42,330	2.2
Harrisonburg, VA .....	32,718	34,197	4.5
Hartford-West Hartford-East Hartford, CT .....	54,188	54,446	0.5
Hattiesburg, MS .....	30,729	31,629	2.9
Hickory-Lenoir-Morganton, NC .....	32,364	32,810	1.4
Hinesville-Fort Stewart, GA .....	33,210	33,854	1.9
Holland-Grand Haven, MI .....	37,470	37,953	1.3
Honolulu, HI .....	40,748	42,090	3.3
Hot Springs, AR .....	28,448	29,042	2.1
Houma-Bayou Cane-Thibodaux, LA .....	41,604	44,345	6.6
Houston-Baytown-Sugar Land, TX .....	53,494	55,407	3.6
Huntington-Ashland, WV-KY-OH .....	33,973	35,717	5.1
Huntsville, AL .....	45,763	47,427	3.6
Idaho Falls, ID .....	29,878	30,485	2.0
Indianapolis, IN .....	42,227	43,128	2.1
Iowa City, IA .....	37,457	39,070	4.3
Ithaca, NY .....	39,387	41,689	5.8
Jackson, MI .....	38,267	38,672	1.1
Jackson, MS .....	35,771	36,730	2.7

See footnotes at end of table.

**26. Continued — Average annual wages for 2007 and 2008 for all covered workers<sup>1</sup> by metropolitan area**

Metropolitan area <sup>2</sup>	Average annual wages <sup>3</sup>		
	2007	2008	Percent change, 2007-08
Jackson, TN .....	\$35,059	\$35,975	2.6
Jacksonville, FL .....	41,437	41,524	0.2
Jacksonville, NC .....	27,005	27,893	3.3
Janesville, WI .....	36,790	36,906	0.3
Jefferson City, MO .....	32,903	33,766	2.6
Johnson City, TN .....	31,985	32,759	2.4
Johnstown, PA .....	31,384	32,464	3.4
Jonesboro, AR .....	30,378	31,532	3.8
Joplin, MO .....	31,068	32,156	3.5
Kalamazoo-Portage, MI .....	38,402	40,333	5.0
Kankakee-Bradley, IL .....	33,340	34,451	3.3
Kansas City, MO-KS .....	42,921	44,155	2.9
Kennewick-Richland-Pasco, WA .....	40,439	41,878	3.6
Killeen-Temple-Fort Hood, TX .....	32,915	34,299	4.2
Kingsport-Bristol-Bristol, TN-VA .....	36,399	37,260	2.4
Kingston, NY .....	35,018	35,883	2.5
Knoxville, TN .....	38,386	38,917	1.4
Kokomo, IN .....	47,269	44,117	-6.7
La Crosse, WI-MN .....	32,949	34,078	3.4
Lafayette, IN .....	36,419	37,832	3.9
Lafayette, LA .....	40,684	42,748	5.1
Lake Charles, LA .....	37,447	39,982	6.8
Lakeland, FL .....	34,394	35,195	2.3
Lancaster, PA .....	37,043	38,127	2.9
Lansing-East Lansing, MI .....	40,866	42,339	3.6
Laredo, TX .....	29,009	29,572	1.9
Las Cruces, NM .....	31,422	32,894	4.7
Las Vegas-Paradise, NV .....	42,336	43,120	1.9
Lawrence, KS .....	30,830	32,313	4.8
Lawton, OK .....	30,617	32,258	5.4
Lebanon, PA .....	32,876	33,900	3.1
Lewiston, ID-WA .....	31,961	32,783	2.6
Lewiston-Auburn, ME .....	33,118	34,396	3.9
Lexington-Fayette, KY .....	39,290	40,034	1.9
Lima, OH .....	35,177	35,381	0.6
Lincoln, NE .....	34,750	35,834	3.1
Little Rock-North Little Rock, AR .....	39,305	38,902	-1.0
Logan, UT-ID .....	27,810	29,392	5.7
Longview, TX .....	36,956	38,902	5.3
Longview, WA .....	37,101	37,806	1.9
Los Angeles-Long Beach-Santa Ana, CA .....	50,480	51,520	2.1
Louisville, KY-IN .....	40,125	40,596	1.2
Lubbock, TX .....	32,761	33,867	3.4
Lynchburg, VA .....	34,412	35,207	2.3
Macon, GA .....	34,243	34,823	1.7
Madera, CA .....	33,266	34,405	3.4
Madison, WI .....	41,201	42,623	3.5
Manchester-Nashua, NH .....	49,235	50,629	2.8
Mansfield, OH .....	33,109	33,946	2.5
Mayaguez, PR .....	21,326	22,394	5.0
McAllen-Edinburg-Pharr, TX .....	27,651	28,498	3.1
Medford, OR .....	32,877	33,402	1.6
Memphis, TN-MS-AR .....	42,339	43,124	1.9
Merced, CA .....	32,351	33,903	4.8
Miami-Fort Lauderdale-Miami Beach, FL .....	43,428	44,199	1.8
Michigan City-La Porte, IN .....	32,570	33,507	2.9
Midland, TX .....	45,574	50,116	10.0
Milwaukee-Waukesha-West Allis, WI .....	43,261	44,462	2.8
Minneapolis-St. Paul-Bloomington, MN-WI .....	49,542	51,044	3.0
Missoula, MT .....	32,233	33,414	3.7
Mobile, AL .....	36,890	38,180	3.5
Modesto, CA .....	36,739	37,867	3.1
Monroe, LA .....	31,992	32,796	2.5
Monroe, MI .....	41,636	41,849	0.5
Montgomery, AL .....	36,223	37,552	3.7
Morgantown, WV .....	35,241	37,082	5.2
Morristown, TN .....	32,806	32,858	0.2
Mount Vernon-Anacortes, WA .....	34,620	36,230	4.7
Muncie, IN .....	31,326	32,420	3.5
Muskegon-Norton Shores, MI .....	34,982	36,033	3.0
Myrtle Beach-Conway-North Myrtle Beach, SC .....	28,576	28,450	-0.4
Napa, CA .....	44,171	45,061	2.0
Naples-Marco Island, FL .....	41,300	40,178	-2.7
Nashville-Davidson--Murfreesboro, TN .....	42,728	43,964	2.9
New Haven-Milford, CT .....	47,039	48,239	2.6
New Orleans-Metairie-Kenner, LA .....	43,255	45,108	4.3
New York-Northern New Jersey-Long Island, NY-NJ-PA .....	65,685	66,548	1.3
Niles-Benton Harbor, MI .....	38,140	38,814	1.8
Norwich-New London, CT .....	45,463	46,727	2.8
Ocala, FL .....	31,623	32,579	3.0

See footnotes at end of table.

**26. Continued — Average annual wages for 2007 and 2008 for all covered workers<sup>1</sup> by metropolitan area**

Metropolitan area <sup>2</sup>	Average annual wages <sup>3</sup>		
	2007	2008	Percent change, 2007-08
Ocean City, NJ .....	\$32,452	\$33,529	3.3
Odessa, TX .....	41,758	44,316	6.1
Ogden-Clearfield, UT .....	34,067	34,778	2.1
Oklahoma City, OK .....	37,192	39,363	5.8
Olympia, WA .....	39,678	40,714	2.6
Omaha-Council Bluffs, NE-IA .....	39,273	40,097	2.1
Orlando, FL .....	38,633	39,322	1.8
Oshkosh-Neenah, WI .....	41,014	41,781	1.9
Owensboro, KY .....	33,593	34,956	4.1
Oxnard-Thousand Oaks-Ventura, CA .....	47,669	46,490	-2.5
Palm Bay-Melbourne-Titusville, FL .....	40,975	42,089	2.7
Panama City-Lynn Haven, FL .....	33,950	34,361	1.2
Parkersburg-Marietta, WV-OH .....	33,547	35,102	4.6
Pascagoula, MS .....	39,131	42,734	9.2
Pensacola-Ferry Pass-Brent, FL .....	34,165	34,829	1.9
Peoria, IL .....	43,470	44,562	2.5
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD .....	50,611	51,814	2.4
Phoenix-Mesa-Scottsdale, AZ .....	43,697	44,482	1.8
Pine Bluff, AR .....	33,094	34,106	3.1
Pittsburgh, PA .....	42,910	44,124	2.8
Pittsfield, MA .....	38,075	38,957	2.3
Pocatello, ID .....	29,268	30,608	4.6
Ponce, PR .....	21,019	21,818	3.8
Portland-South Portland-Biddeford, ME .....	38,497	39,711	3.2
Portland-Vancouver-Beaverton, OR-WA .....	44,335	45,326	2.2
Port St. Lucie-Fort Pierce, FL .....	36,375	36,174	-0.6
Poughkeepsie-Newburgh-Middletown, NY .....	40,793	42,148	3.3
Prescott, AZ .....	32,048	33,004	3.0
Providence-New Bedford-Fall River, RI-MA .....	40,674	42,141	3.6
Provo-Orem, UT .....	34,141	35,516	4.0
Pueblo, CO .....	32,552	34,055	4.6
Punta Gorda, FL .....	32,833	32,927	0.3
Racine, WI .....	40,746	41,232	1.2
Raleigh-Cary, NC .....	42,801	43,912	2.6
Rapid City, SD .....	31,119	32,227	3.6
Reading, PA .....	39,945	40,691	1.9
Redding, CA .....	34,953	35,655	2.0
Reno-Sparks, NV .....	41,365	42,167	1.9
Richmond, VA .....	44,530	45,244	1.6
Riverside-San Bernardino-Ontario, CA .....	37,846	38,617	2.0
Roanoke, VA .....	35,419	36,475	3.0
Rochester, MN .....	44,786	46,196	3.1
Rochester, NY .....	40,752	41,728	2.4
Rockford, IL .....	38,304	39,210	2.4
Rocky Mount, NC .....	32,527	33,110	1.8
Rome, GA .....	33,041	35,229	6.6
Sacramento-Arden-Arcade-Roseville, CA .....	46,385	47,924	3.3
Saginaw-Saginaw Township North, MI .....	37,507	37,549	0.1
St. Cloud, MN .....	33,996	35,069	3.2
St. George, UT .....	29,052	29,291	0.8
St. Joseph, MO-KS .....	31,828	32,651	2.6
St. Louis, MO-IL .....	42,873	45,419	5.9
Salem, OR .....	33,986	34,891	2.7
Salinas, CA .....	39,419	40,235	2.1
Salisbury, MD .....	34,833	35,901	3.1
Salt Lake City, UT .....	40,935	41,628	1.7
San Angelo, TX .....	30,920	32,852	6.2
San Antonio, TX .....	38,274	38,876	1.6
San Diego-Carlsbad-San Marcos, CA .....	47,657	49,079	3.0
Sandusky, OH .....	33,471	33,760	0.9
San Francisco-Oakland-Fremont, CA .....	64,559	65,100	0.8
San German-Cabo Rojo, PR .....	19,777	19,875	0.5
San Jose-Sunnyvale-Santa Clara, CA .....	82,038	80,063	-2.4
San Juan-Caguas-Guaynabo, PR .....	25,939	26,839	3.5
San Luis Obispo-Paso Robles, CA .....	36,740	38,134	3.8
Santa Barbara-Santa Maria-Goleta, CA .....	41,967	42,617	1.5
Santa Cruz-Watsonville, CA .....	41,540	41,471	-0.2
Santa Fe, NM .....	37,395	38,646	3.3
Santa Rosa-Petaluma, CA .....	42,824	43,757	2.2
Sarasota-Bradenton-Venice, FL .....	36,424	36,781	1.0
Savannah, GA .....	36,695	37,846	3.1
Scranton-Wilkes-Barre, PA .....	34,205	34,902	2.0
Seattle-Tacoma-Bellevue, WA .....	51,924	53,667	3.4
Sheboygan, WI .....	37,049	37,834	2.1
Sherman-Denison, TX .....	35,672	36,081	1.1
Shreveport-Bossier City, LA .....	34,892	36,308	4.1
Sioux City, IA-NE-SD .....	33,025	34,326	3.9
Sioux Falls, SD .....	36,056	36,982	2.6
South Bend-Mishawaka, IN-MI .....	36,266	37,654	3.8
Spartanburg, SC .....	37,967	39,313	3.5

See footnotes at end of table.

**26. Continued — Average annual wages for 2007 and 2008 for all covered workers<sup>1</sup> by metropolitan area**

Metropolitan area <sup>2</sup>	Average annual wages <sup>3</sup>		
	2007	2008	Percent change, 2007-08
Spokane, WA .....	\$35,539	\$36,792	3.5
Springfield, IL .....	42,420	44,416	4.7
Springfield, MA .....	39,487	40,969	3.8
Springfield, MO .....	31,868	32,971	3.5
Springfield, OH .....	32,017	33,158	3.6
State College, PA .....	36,797	38,050	3.4
Stockton, CA .....	37,906	39,075	3.1
Sumter, SC .....	30,267	30,842	1.9
Syracuse, NY .....	39,620	40,554	2.4
Tallahassee, FL .....	36,543	37,433	2.4
Tampa-St. Petersburg-Clearwater, FL .....	39,215	40,521	3.3
Terre Haute, IN .....	32,349	33,562	3.7
Texarkana, TX-Texarkana, AR .....	34,079	35,002	2.7
Toledo, OH .....	38,538	39,686	3.0
Topeka, KS .....	36,109	36,714	1.7
Trenton-Ewing, NJ .....	56,645	60,135	6.2
Tucson, AZ .....	38,524	39,973	3.8
Tulsa, OK .....	38,942	40,205	3.2
Tuscaloosa, AL .....	36,737	37,949	3.3
Tyler, TX .....	37,184	38,817	4.4
Utica-Rome, NY .....	33,916	34,936	3.0
Valdosta, GA .....	27,842	29,288	5.2
Vallejo-Fairfield, CA .....	42,932	45,264	5.4
Vero Beach, FL .....	35,901	36,557	1.8
Victoria, TX .....	38,317	39,888	4.1
Vineland-Millville-Bridgeton, NJ .....	39,408	40,709	3.3
Virginia Beach-Norfolk-Newport News, VA-NC .....	37,734	38,696	2.5
Visalia-Porterville, CA .....	30,968	32,018	3.4
Waco, TX .....	34,679	35,698	2.9
Warner Robins, GA .....	39,220	40,457	3.2
Washington-Arlington-Alexandria, DC-VA-MD-WV .....	60,711	62,653	3.2
Waterloo-Cedar Falls, IA .....	35,899	37,363	4.1
Wausau, WI .....	35,710	36,477	2.1
Weirton-Steubenville, WV-OH .....	32,893	35,356	7.5
Wenatchee, WA .....	29,475	30,750	4.3
Wheeling, WV-OH .....	31,169	32,915	5.6
Wichita, KS .....	39,662	40,423	1.9
Wichita Falls, TX .....	32,320	34,185	5.8
Williamsport, PA .....	32,506	33,340	2.6
Wilmington, NC .....	34,239	35,278	3.0
Winchester, VA-WV .....	36,016	37,035	2.8
Winston-Salem, NC .....	38,921	39,770	2.2
Worcester, MA .....	44,652	45,955	2.9
Yakima, WA .....	29,743	30,821	3.6
Yauco, PR .....	19,380	19,821	2.3
York-Hanover, PA .....	38,469	39,379	2.4
Youngstown-Warren-Boardman, OH-PA .....	34,698	34,403	-0.9
Yuba City, CA .....	35,058	36,538	4.2
Yuma, AZ .....	30,147	31,351	4.0

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

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

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

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



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

[Numbers in thousands]

Employment status	1999 <sup>1</sup>	2000 <sup>1</sup>	2001 <sup>1</sup>	2002 <sup>1</sup>	2003	2004	2005	2006	2007	2008	2009
Civilian noninstitutional population.....	207,753	212,577	215,092	217,570	221,168	223,357	226,082	228,815	231,867	233,788	235,801
Civilian labor force.....	139,368	142,583	143,734	144,863	146,510	147,401	149,320	151,428	153,124	154,287	154,142
Labor force participation rate.....	67.1	67.1	66.8	66.6	66.2	66.0	66.0	66.2	66.0	66.0	65.4
Employed.....	133,488	136,891	136,933	136,485	137,736	139,252	141,730	144,427	146,047	145,362	139,877
Employment-population ratio.....	64.3	64.4	63.7	62.7	62.3	62.3	62.7	63.1	63.0	62.2	59.3
Unemployed.....	5,880	5,692	6,801	8,378	8,774	8,149	7,591	7,001	7,078	8,924	14,265
Unemployment rate.....	4.2	4.0	4.7	5.8	6.0	5.5	5.1	4.6	4.6	5.8	9.3
Not in the labor force.....	68,385	69,994	71,359	72,707	74,658	75,956	76,762	77,387	78,743	79,501	81,659

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

## 28. Annual data: Employment levels by industry

[In thousands]

Industry	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total private employment.....	108,686	110,995	110,708	108,828	108,416	109,814	111,899	114,113	115,380	114,281	108,369
Total nonfarm employment.....	128,993	131,785	131,826	130,341	129,999	131,435	133,703	136,086	137,598	136,790	130,912
Goods-producing.....	24,465	24,649	23,873	22,557	21,816	21,882	22,190	22,531	22,233	21,334	18,620
Natural resources and mining.....	598	599	606	583	572	591	628	684	724	767	700
Construction.....	6,545	6,787	6,826	6,716	6,735	6,976	7,336	7,691	7,630	7,162	6,037
Manufacturing.....	17,322	17,263	16,441	15,259	14,510	14,315	14,226	14,155	13,879	13,406	11,883
Private service-providing.....	84,221	86,346	86,834	86,271	86,600	87,932	89,709	91,582	93,147	92,947	89,749
Trade, transportation, and utilities.....	25,771	26,225	25,983	25,497	25,287	25,533	25,959	26,276	26,630	26,293	24,947
Wholesale trade.....	5,893	5,933	5,773	5,652	5,608	5,663	5,764	5,905	6,015	5,943	5,625
Retail trade.....	14,970	15,280	15,239	15,025	14,917	15,058	15,280	15,353	15,520	15,283	14,528
Transportation and warehousing.....	4,300	4,410	4,372	4,224	4,185	4,249	4,361	4,470	4,541	4,508	4,234
Utilities.....	609	601	599	596	577	564	554	549	553	559	561
Information.....	3,419	3,630	3,629	3,395	3,188	3,118	3,061	3,038	3,032	2,984	2,807
Financial activities.....	7,648	7,687	7,808	7,847	7,977	8,031	8,153	8,328	8,301	8,145	7,758
Professional and business services.....	15,957	16,666	16,476	15,976	15,987	16,394	16,954	17,566	17,942	17,735	16,580
Education and health services.....	14,798	15,109	15,645	16,199	16,588	16,953	17,372	17,826	18,322	18,838	19,190
Leisure and hospitality.....	11,543	11,862	12,036	11,986	12,173	12,493	12,816	13,110	13,427	13,436	13,102
Other services.....	5,087	5,168	5,258	5,372	5,401	5,409	5,395	5,438	5,494	5,515	5,364
Government.....	20,307	20,790	21,118	21,513	21,583	21,621	21,804	21,974	22,218	22,509	22,544

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

Industry	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Private sector:</b>											
Average weekly hours.....	34.3	34.3	34.0	33.9	33.7	33.7	33.8	33.9	33.9	33.6	33.1
Average hourly earnings (in dollars).....	13.49	14.02	14.54	14.97	15.37	15.69	16.13	16.76	17.43	18.08	18.62
Average weekly earnings (in dollars).....	463.15	481.01	493.79	506.75	518.06	529.09	544.33	567.87	590.04	607.95	617.11
<b>Goods-producing:</b>											
Average weekly hours.....	40.8	40.7	39.9	39.9	39.8	40.0	40.1	40.5	40.6	40.2	39.2
Average hourly earnings (in dollars).....	14.71	15.27	15.78	16.33	16.80	17.19	17.60	18.02	18.67	19.33	19.90
Average weekly earnings (in dollars).....	599.99	621.86	630.01	651.61	669.13	688.13	705.31	730.16	757.34	776.66	779.79
<b>Natural resources and mining</b>											
Average weekly hours.....	44.2	44.4	44.6	43.2	43.6	44.5	45.6	45.6	45.9	45.1	43.3
Average hourly earnings (in dollars).....	16.33	16.55	17.00	17.19	17.56	18.07	18.72	19.90	20.97	22.50	23.29
Average weekly earnings (in dollars).....	721.74	734.92	757.92	741.97	765.94	803.82	853.71	907.95	962.64	1014.69	1007.92
<b>Construction:</b>											
Average weekly hours.....	39.0	39.2	38.7	38.4	38.4	38.3	38.6	39.0	39.0	38.5	37.6
Average hourly earnings (in dollars).....	16.80	17.48	18.00	18.52	18.95	19.23	19.46	20.02	20.95	21.87	22.67
Average weekly earnings (in dollars).....	655.11	685.78	695.89	711.82	726.83	735.55	750.22	781.21	816.66	842.61	852.48
<b>Manufacturing:</b>											
Average weekly hours.....	41.4	41.3	40.3	40.5	40.4	40.8	40.7	41.1	41.2	40.8	39.8
Average hourly earnings (in dollars).....	13.85	14.32	14.76	15.29	15.74	16.14	16.56	16.81	17.26	17.75	18.23
Average weekly earnings (in dollars).....	573.14	590.77	595.19	618.75	635.99	658.49	673.30	691.02	711.56	724.46	725.87
<b>Private service-providing:</b>											
Average weekly hours.....	32.7	32.7	32.5	32.5	32.3	32.3	32.4	32.5	32.4	32.3	32.1
Average hourly earnings (in dollars).....	13.09	13.62	14.18	14.59	14.99	15.29	15.74	16.42	17.11	17.77	18.35
Average weekly earnings (in dollars).....	427.98	445.74	461.08	473.80	484.68	494.22	509.58	532.78	554.89	574.35	588.07
<b>Trade, transportation, and utilities:</b>											
Average weekly hours.....	33.9	33.8	33.5	33.6	33.6	33.5	33.4	33.4	33.3	33.2	32.9
Average hourly earnings (in dollars).....	12.82	13.31	13.70	14.02	14.34	14.58	14.92	15.39	15.78	16.16	16.50
Average weekly earnings (in dollars).....	434.31	449.88	459.53	471.27	481.14	488.42	498.43	514.34	526.07	536.06	542.47
<b>Wholesale trade:</b>											
Average weekly hours.....	38.6	38.8	38.4	38.0	37.9	37.8	37.7	38.0	38.2	38.2	37.6
Average hourly earnings (in dollars).....	15.62	16.28	16.77	16.98	17.36	17.65	18.16	18.91	19.59	20.13	20.85
Average weekly earnings (in dollars).....	602.77	631.40	643.45	644.38	657.29	667.09	685.00	718.63	748.94	769.62	784.72
<b>Retail trade:</b>											
Average weekly hours.....	30.8	30.7	30.7	30.9	30.9	30.7	30.6	30.5	30.2	30.0	29.9
Average hourly earnings (in dollars).....	10.45	10.86	11.29	11.67	11.90	12.08	12.36	12.57	12.75	12.87	13.02
Average weekly earnings (in dollars).....	602.77	631.40	643.45	644.38	657.29	667.09	685.00	718.63	748.94	769.62	784.72
<b>Transportation and warehousing:</b>											
Average weekly hours.....	37.6	37.4	36.7	36.8	36.8	37.2	37.0	36.9	37.0	36.4	36.1
Average hourly earnings (in dollars).....	14.55	15.05	15.33	15.76	16.25	16.52	16.70	17.28	17.72	18.41	18.80
Average weekly earnings (in dollars).....	547.97	562.31	562.70	579.88	598.41	614.96	618.58	636.97	654.95	670.37	677.72
<b>Utilities:</b>											
Average weekly hours.....	42.0	42.0	41.4	40.9	41.1	40.9	41.1	41.4	42.4	42.7	42.1
Average hourly earnings (in dollars).....	22.03	22.75	23.58	23.96	24.77	25.61	26.68	27.40	27.88	28.83	29.56
Average weekly earnings (in dollars).....	924.59	955.66	977.18	979.09	1017.27	1048.44	1095.90	1135.34	1182.65	1230.69	1243.79
<b>Information:</b>											
Average weekly hours.....	36.7	36.8	36.9	36.5	36.2	36.3	36.5	36.6	36.5	36.7	36.6
Average hourly earnings (in dollars).....	18.40	19.07	19.80	20.20	21.01	21.40	22.06	23.23	23.96	24.78	25.45
Average weekly earnings (in dollars).....	675.47	700.86	730.88	737.77	760.45	777.25	805.08	850.42	874.65	908.99	931.81
<b>Financial activities:</b>											
Average weekly hours.....	35.8	35.9	35.8	35.6	35.5	35.5	35.9	35.7	35.9	35.8	36.1
Average hourly earnings (in dollars).....	14.47	14.98	15.59	16.17	17.14	17.52	17.95	18.80	19.64	20.28	20.83
Average weekly earnings (in dollars).....	517.57	537.37	557.92	575.54	609.08	622.87	644.99	672.21	705.13	727.07	751.04
<b>Professional and business services:</b>											
Average weekly hours.....	34.4	34.5	34.2	34.2	34.1	34.2	34.2	34.6	34.8	34.8	34.7
Average hourly earnings (in dollars).....	14.85	15.52	16.33	16.81	17.21	17.48	18.08	19.13	20.15	21.18	22.35
Average weekly earnings (in dollars).....	510.99	535.07	557.84	574.66	587.02	597.56	618.87	662.27	700.82	737.70	775.78
<b>Education and health services:</b>											
Average weekly hours.....	32.1	32.2	32.3	32.4	32.3	32.4	32.6	32.5	32.6	32.5	32.3
Average hourly earnings (in dollars).....	13.44	13.95	14.64	15.21	15.64	16.15	16.71	17.38	18.11	18.87	19.49
Average weekly earnings (in dollars).....	431.35	449.29	473.39	492.74	505.69	523.78	544.59	564.94	590.09	613.73	628.59
<b>Leisure and hospitality:</b>											
Average weekly hours.....	26.1	26.1	25.8	25.8	25.6	25.7	25.7	25.7	25.5	25.2	24.8
Average hourly earnings (in dollars).....	7.96	8.32	8.57	8.81	9.00	9.15	9.38	9.75	10.41	10.84	11.11
Average weekly earnings (in dollars).....	208.05	217.20	220.73	227.17	230.42	234.86	241.36	250.34	265.52	273.39	275.78
<b>Other services:</b>											
Average weekly hours.....	32.5	32.5	32.3	32.0	31.4	31.0	30.9	30.9	30.9	30.8	30.5
Average hourly earnings (in dollars).....	12.26	12.73	13.27	13.72	13.84	13.98	14.34	14.77	15.42	16.09	16.59
Average weekly earnings (in dollars).....	398.77	413.41	428.64	439.76	434.41	433.04	443.37	456.50	477.06	495.57	506.31

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

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

[December 2005 = 100]

Series	2007		2008				2009				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended	
	Dec. 2009											
<b>Civilian workers<sup>2</sup></b> .....	106.7	107.6	108.3	109.2	109.5	109.9	110.3	110.8	111.1	0.3	1.5	
Workers by occupational group												
Management, professional, and related.....	107.2	108.3	109.0	110.1	110.4	110.9	111.1	111.5	111.7	.2	1.2	
Management, business, and financial.....	106.6	108.2	108.9	109.7	109.8	110.0	110.1	110.2	110.4	.2	.5	
Professional and related.....	107.6	108.4	109.0	110.4	110.7	111.3	111.6	112.2	112.4	.2	1.5	
Sales and office.....	106.4	106.8	107.7	108.2	108.3	108.4	108.7	109.4	109.7	.3	1.3	
Sales and related.....	105.2	105.0	106.1	106.0	105.5	104.3	104.5	105.4	105.8	.4	.3	
Office and administrative support.....	107.1	108.0	108.6	109.5	110.0	110.8	111.3	111.8	112.1	.3	1.9	
Natural resources, construction, and maintenance.....	106.8	107.7	108.4	109.3	109.8	110.1	110.7	111.2	111.6	.4	1.6	
Construction and extraction.....	107.4	108.5	109.6	110.3	110.8	111.0	111.6	112.2	112.5	.3	1.5	
Installation, maintenance, and repair.....	106.2	106.7	107.0	108.0	108.6	109.1	109.5	110.0	110.4	.4	1.7	
Production, transportation, and material moving.....	104.7	105.6	106.2	106.9	107.2	108.0	108.5	109.1	109.3	.2	2.0	
Production.....	104.1	104.8	105.3	105.9	106.2	107.2	107.7	108.1	108.4	.3	2.1	
Transportation and material moving.....	105.6	106.6	107.3	108.1	108.4	108.9	109.5	110.2	110.4	.2	1.8	
Service occupations.....	107.7	108.4	109.1	110.2	110.6	111.5	111.9	112.6	113.0	.4	2.2	
Workers by industry												
Goods-producing.....	105.0	106.1	106.8	107.3	107.5	108.0	108.2	108.5	108.7	.2	1.1	
Manufacturing.....	103.8	104.7	105.1	105.6	105.9	106.5	106.7	106.8	107.0	.2	1.0	
Service-providing.....	107.0	107.8	108.5	109.5	109.8	110.3	110.6	111.3	111.5	.2	1.5	
Education and health services.....	107.9	108.6	109.2	110.8	111.1	111.7	112.2	113.2	113.4	.2	2.1	
Health care and social assistance.....	107.9	108.9	109.6	110.4	110.8	111.7	112.2	112.8	113.2	.4	2.2	
Hospitals.....	107.5	108.4	109.2	110.2	110.8	111.7	112.3	112.9	113.4	.4	2.3	
Nursing and residential care facilities.....	106.3	107.3	108.2	109.0	109.6	110.3	110.8	111.3	111.5	.2	1.7	
Education services.....	107.9	108.3	108.9	111.1	111.3	111.8	112.1	113.5	113.6	.1	2.1	
Elementary and secondary schools.....	107.9	108.2	108.8	111.1	111.4	111.9	112.1	113.9	114.0	.1	2.3	
Public administration <sup>3</sup> .....	109.1	109.7	110.1	111.6	112.0	113.0	113.8	114.5	115.1	.5	2.8	
<b>Private industry workers</b> .....	106.3	107.3	108.0	108.7	108.9	109.3	109.6	110.0	110.2	.2	1.2	
Workers by occupational group												
Management, professional, and related.....	106.8	108.1	108.9	109.6	109.9	110.4	110.5	110.6	110.7	.1	.7	
Management, business, and financial.....	106.3	108.0	108.7	109.3	109.5	109.6	109.7	109.7	109.9	.2	.4	
Professional and related.....	107.3	108.3	109.0	109.9	110.3	111.0	111.1	111.4	111.4	.0	1.0	
Sales and office.....	106.1	106.6	107.5	107.9	107.9	107.9	108.3	108.8	109.2	.4	1.2	
Sales and related.....	105.2	105.0	106.2	106.0	105.5	104.3	104.5	105.3	105.8	.5	.3	
Office and administrative support.....	106.7	107.8	108.5	109.2	109.6	110.5	110.9	111.3	111.6	.3	1.8	
Natural resources, construction, and maintenance.....	106.7	107.6	108.3	109.0	109.6	109.9	110.3	110.9	111.2	.3	1.5	
Construction and extraction.....	107.4	108.6	109.7	110.3	110.8	110.9	111.5	112.0	112.4	.4	1.4	
Installation, maintenance, and repair.....	105.8	106.3	106.6	107.4	108.1	108.6	108.9	109.4	109.8	.4	1.6	
Production, transportation, and material moving.....	104.5	105.5	106.0	106.6	106.9	107.7	108.1	108.6	108.9	.3	1.9	
Production.....	104.0	104.8	105.2	105.8	106.1	107.1	107.6	108.0	108.3	.3	2.1	
Transportation and material moving.....	105.3	106.4	107.2	107.7	107.9	108.4	108.9	109.6	109.7	.1	1.7	
Service occupations.....	107.0	107.8	108.7	109.4	109.8	110.7	110.9	111.7	111.8	.1	1.8	
Workers by industry and occupational group												
Goods-producing industries.....	105.0	106.1	106.8	107.2	107.5	107.9	108.2	108.4	108.6	.2	1.0	
Management, professional, and related.....	104.4	106.1	106.6	106.7	106.6	106.8	106.7	106.5	106.4	-.1	-.2	
Sales and office.....	104.8	105.1	106.3	106.7	107.1	107.3	107.4	107.5	107.8	.3	.7	
Natural resources, construction, and maintenance.....	107.0	108.1	109.0	109.8	110.4	110.4	110.9	111.3	111.7	.4	1.2	
Production, transportation, and material moving.....	104.0	104.8	105.3	105.8	106.2	107.0	107.5	107.8	108.0	.2	1.7	
Construction.....	107.6	108.9	110.1	110.6	110.9	110.9	111.2	111.5	111.7	.2	.7	
Manufacturing.....	103.8	104.7	105.1	105.6	105.9	106.5	106.7	106.8	107.0	.2	1.0	
Management, professional, and related.....	103.5	104.9	105.2	105.4	105.4	105.7	105.7	105.4	105.5	.1	.1	
Sales and office.....	104.3	105.0	106.1	106.7	107.0	107.3	107.1	107.2	107.5	.3	.5	
Natural resources, construction, and maintenance.....	103.9	104.6	104.5	105.3	106.0	106.6	107.1	107.4	107.7	.3	1.6	
Production, transportation, and material moving.....	103.8	104.5	105.0	105.5	105.8	106.7	107.2	107.5	107.8	.3	1.9	
Service-providing industries.....	106.7	107.7	108.5	109.1	109.4	109.8	110.1	110.5	110.8	.3	1.3	
Management, professional, and related.....	107.3	108.5	109.3	110.2	110.6	111.1	111.2	111.4	111.6	.2	.9	
Sales and office.....	106.3	106.8	107.7	108.0	108.0	108.0	108.4	109.0	109.4	.4	1.3	
Natural resources, construction, and maintenance.....	106.2	106.7	107.3	107.8	108.4	109.0	109.5	110.1	110.4	.3	1.8	
Production, transportation, and material moving.....	105.2	106.4	107.0	107.6	107.8	108.5	109.0	109.7	109.9	.2	1.9	
Service occupations.....	107.1	107.9	108.7	109.5	109.8	110.7	111.0	111.7	111.9	.2	1.9	
Trade, transportation, and utilities.....	105.5	106.1	107.3	107.6	107.5	107.8	108.1	108.6	108.8	.2	1.2	

See footnotes at end of table.

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

[December 2005 = 100]

Series	2007	2008				2009				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended
	Dec. 2009										
Wholesale trade.....	105.3	105.7	107.2	107.1	106.8	107.1	106.9	106.8	107.0	0.2	0.2
Retail trade.....	106.1	106.6	107.6	108.2	108.1	108.3	108.8	109.7	110.0	.3	1.8
Transportation and warehousing.....	104.5	105.6	106.4	106.8	106.9	107.4	107.9	108.3	108.2	-.1	1.2
Utilities.....	105.6	106.5	108.1	108.1	108.9	109.6	110.9	111.2	112.0	.7	2.8
Information.....	106.1	106.1	106.2	107.2	107.4	107.7	107.5	108.0	108.3	.3	.8
Financial activities.....	105.6	106.8	107.3	107.4	107.1	106.8	107.9	108.3	108.6	.3	1.4
Finance and insurance.....	106.1	107.0	107.7	107.6	107.2	106.9	108.1	108.6	108.8	.2	1.5
Real estate and rental and leasing.....	103.7	105.5	105.7	106.4	106.6	106.6	106.9	107.4	107.7	.3	1.0
Professional and business services.....	107.5	109.0	109.9	110.8	111.6	111.9	111.9	112.1	112.4	.3	.7
Education and health services.....	107.7	108.6	109.4	110.3	110.6	111.5	111.9	112.6	112.8	.2	2.0
Education services.....	107.5	108.1	109.1	111.4	111.3	111.9	112.0	113.2	113.2	.0	1.7
Health care and social assistance.....	107.8	108.8	109.4	110.1	110.5	111.5	111.9	112.5	112.8	.3	2.1
Hospitals.....	107.3	108.2	109.1	110.1	110.7	111.5	112.0	112.6	113.2	.5	2.3
Leisure and hospitality.....	108.1	109.0	109.3	110.6	111.4	112.2	112.0	112.7	112.7	.0	1.2
Accommodation and food services.....	108.6	109.5	110.0	111.4	112.1	113.0	112.6	113.4	113.5	.1	1.2
Other services, except public administration.....	107.6	108.7	109.4	109.9	109.9	110.8	110.8	111.8	111.5	-.3	1.5
<b>State and local government workers.....</b>	<b>108.4</b>	<b>108.9</b>	<b>109.4</b>	<b>111.3</b>	<b>111.6</b>	<b>112.3</b>	<b>112.9</b>	<b>114.0</b>	<b>114.3</b>	<b>.3</b>	<b>2.4</b>
Workers by occupational group											
Management, professional, and related.....	108.3	108.8	109.3	111.3	111.6	112.0	112.6	113.7	113.9	.2	2.1
Professional and related.....	108.2	108.6	109.1	111.1	111.4	111.9	112.4	113.7	114.0	.3	2.3
Sales and office.....	108.6	108.8	109.3	111.0	111.3	112.4	113.0	114.3	114.7	.3	3.1
Office and administrative support.....	108.9	109.3	109.8	111.4	111.8	112.8	113.3	114.7	115.0	.3	2.9
Service occupations.....	109.1	109.7	110.0	111.9	112.4	113.4	114.0	114.9	115.6	.6	2.8
Workers by industry											
Education and health services.....	108.2	108.6	109.1	111.2	111.5	111.9	112.4	113.7	114.0	.3	2.2
Education services.....	108.0	108.4	108.8	111.0	111.2	111.8	112.1	113.5	113.7	.2	2.2
Schools.....	108.0	108.4	108.8	111.0	111.2	111.8	112.1	113.5	113.7	.2	2.2
Elementary and secondary schools.....	108.0	108.3	108.8	111.1	111.4	112.0	112.2	114.0	114.1	.1	2.4
Health care and social assistance.....	109.3	110.1	111.1	112.7	113.2	113.3	114.8	115.3	115.8	.4	2.3
Hospitals.....	108.2	109.2	109.7	110.8	111.3	112.4	113.5	114.0	114.5	.4	2.9
Public administration <sup>3</sup> .....	109.1	109.7	110.1	111.6	112.0	113.0	113.8	114.5	115.1	.5	2.8

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

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

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

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

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

[December 2005 = 100]

Series	2007		2008			2009					Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended	
	Dec. 2009											
<b>Civilian workers<sup>1</sup></b>	106.7	107.6	108.4	109.3	109.6	110.0	110.4	110.9	111.2		0.3	1.5
Workers by occupational group												
Management, professional, and related	107.1	108.2	109.0	110.1	110.5	111.0	111.2	111.5	111.8		.3	1.2
Management, business, and financial	106.7	108.2	109.0	109.8	110.1	110.4	110.5	110.6	110.9		.3	.7
Professional and related	107.4	108.3	109.0	110.3	110.7	111.2	111.5	112.1	112.2		.1	1.4
Sales and office	106.2	106.7	107.7	108.1	108.1	108.1	108.6	109.2	109.7		.5	1.5
Sales and related	105.5	105.2	106.6	106.3	105.6	104.3	104.7	105.7	106.2		.5	.6
Office and administrative support	106.8	107.8	108.5	109.3	109.8	110.6	111.2	111.6	111.9		.3	1.9
Natural resources, construction, and maintenance	107.1	108.1	109.0	109.9	110.6	110.7	111.2	111.7	112.1		.4	1.4
Construction and extraction	107.7	109.0	109.9	110.7	111.3	111.4	111.8	112.3	112.7		.4	1.3
Installation, maintenance, and repair	106.4	107.0	107.8	108.8	109.6	110.0	110.5	111.1	111.5		.4	1.7
Production, transportation, and material moving	105.1	106.1	106.9	107.7	108.0	108.5	109.0	109.6	109.9		.3	1.8
Production	104.7	105.7	106.5	107.2	107.5	108.2	108.7	109.2	109.4		.2	1.8
Transportation and material moving	105.5	106.6	107.3	108.2	108.5	108.8	109.5	110.2	110.4		.2	1.8
Service occupations	107.3	108.0	108.7	109.9	110.3	111.2	111.6	112.4	112.7		.3	2.2
Workers by industry												
Goods-producing	106.0	107.1	108.0	108.6	109.0	109.2	109.5	109.8	110.1		.3	1.0
Manufacturing	104.9	105.9	106.7	107.4	107.7	108.1	108.4	108.6	108.9		.3	1.1
Service-providing	106.8	107.7	108.5	109.4	109.7	110.2	110.5	111.1	111.4		.3	1.5
Education and health services	107.4	108.0	108.7	110.2	110.5	111.0	111.4	112.3	112.6		.3	1.9
Health care and social assistance	107.9	108.9	109.6	110.4	110.9	111.7	112.2	112.8	113.2		.4	2.1
Hospitals	107.4	108.4	109.4	110.5	111.3	112.0	112.6	113.2	113.7		.4	2.2
Nursing and residential care facilities	106.4	107.4	108.1	109.1	109.7	110.3	110.9	111.4	111.7		.3	1.8
Education services	106.9	107.3	107.9	110.0	110.2	110.5	110.7	111.8	112.0		.2	1.6
Elementary and secondary schools	106.6	107.0	107.5	109.9	110.1	110.4	110.5	112.0	112.1		.1	1.8
Public administration <sup>2</sup>	107.4	108.2	108.6	109.9	110.4	111.3	112.3	112.8	113.3		.4	2.6
<b>Private industry workers</b>	106.6	107.6	108.4	109.1	109.4	109.8	110.1	110.6	110.9		.3	1.4
Workers by occupational group												
Management, professional, and related	107.2	108.5	109.3	110.1	110.5	111.1	111.1	111.3	111.5		.2	.9
Management, business, and financial	106.6	108.2	109.0	109.7	110.0	110.3	110.3	110.4	110.8		.4	.7
Professional and related	107.6	108.7	109.5	110.4	110.9	111.6	111.8	112.1	112.1		.0	1.1
Sales and office	106.2	106.7	107.7	108.0	108.0	107.9	108.3	109.0	109.4		.4	1.3
Sales and related	105.5	105.3	106.6	106.4	105.7	104.3	104.7	105.7	106.2		.5	.5
Office and administrative support	106.7	107.7	108.5	109.2	109.7	110.6	111.1	111.4	111.8		.4	1.9
Natural resources, construction, and maintenance	107.1	108.1	109.0	109.8	110.5	110.6	111.0	111.6	112.0		.4	1.4
Construction and extraction	107.8	109.2	110.1	110.8	111.5	111.4	111.7	112.3	112.7		.4	1.1
Installation, maintenance, and repair	106.1	106.8	107.6	108.5	109.3	109.7	110.2	110.7	111.2		.5	1.7
Production, transportation, and material moving	105.0	106.0	106.8	107.5	107.8	108.3	108.8	109.4	109.6		.2	1.7
Production	104.6	105.6	106.4	107.2	107.4	108.1	108.5	109.0	109.3		.3	1.8
Transportation and material moving	105.4	106.5	107.4	108.0	108.3	108.5	109.2	109.9	110.1		.2	1.7
Service occupations	107.1	107.9	108.8	109.7	110.1	111.0	111.2	112.1	112.3		.2	2.0
Workers by industry and occupational group												
Goods-producing industries	106.0	107.1	108.0	108.6	109.0	109.2	109.5	109.8	110.0		.2	.9
Management, professional, and related	106.0	107.7	108.4	108.7	108.8	109.3	109.3	109.4	109.4		.0	.6
Sales and office	105.5	105.8	107.2	107.6	107.9	108.1	108.3	108.4	108.8		.4	.8
Natural resources, construction, and maintenance	107.6	108.8	109.6	110.5	111.3	111.1	111.4	111.9	112.3		.4	.9
Production, transportation, and material moving	104.8	105.7	106.6	107.3	107.6	108.0	108.5	108.9	109.1		.2	1.4
Construction	107.8	109.0	110.0	110.6	111.1	111.2	111.4	111.7	111.9		.2	.7
Manufacturing	104.9	105.9	106.7	107.4	107.7	108.1	108.4	108.6	108.9		.3	1.1
Management, professional, and related	105.3	106.7	107.2	107.6	107.8	108.4	108.5	108.6	108.7		.1	.8
Sales and office	104.7	105.5	106.9	107.6	108.1	108.2	108.2	108.3	108.7		.4	.6
Natural resources, construction, and maintenance	105.9	106.8	107.1	108.1	109.0	108.8	109.2	109.7	109.9		.2	.8
Production, transportation, and material moving	104.5	105.4	106.3	107.1	107.3	107.7	108.2	108.6	108.9		.3	1.5
Service-providing industries	106.8	107.7	108.6	109.3	109.6	110.0	110.3	110.8	111.1		.3	1.4
Management, professional, and related	107.4	108.6	109.4	110.3	110.8	111.4	111.5	111.7	111.9		.2	1.0
Sales and office	106.3	106.8	107.7	108.0	108.0	107.9	108.3	109.0	109.5		.5	1.4
Natural resources, construction, and maintenance	106.3	106.9	108.0	108.6	109.3	109.9	110.5	111.2	111.6		.4	2.1
Production, transportation, and material moving	105.2	106.3	107.1	107.8	108.1	108.6	109.3	110.0	110.2		.2	1.9
Service occupations	107.2	108.0	108.8	109.7	110.1	111.0	111.3	112.2	112.3		.1	2.0
Trade, transportation, and utilities	105.5	105.9	107.2	107.5	107.4	107.8	108.2	108.7	108.9		.2	1.4



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

[December 2005 = 100]

Series	2007		2008				2009				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended	
	Dec. 2009											
Wholesale trade.....	105.2	105.2	107.2	106.8	106.4	106.8	106.5	106.2	106.4	0.2	0.0	
Retail trade.....	106.1	106.4	107.6	108.1	108.1	108.3	108.9	110.0	110.4	.4	2.1	
Transportation and warehousing.....	104.2	105.0	106.0	106.7	106.9	107.2	107.9	108.3	108.3	.0	1.3	
Utilities.....	106.8	108.0	109.3	109.3	109.6	111.0	112.0	112.2	113.3	1.0	3.4	
Information.....	105.3	105.3	106.3	107.3	107.5	107.8	108.1	108.7	109.1	.4	1.5	
Financial activities.....	105.9	107.2	107.7	107.7	107.2	106.8	107.9	108.5	108.9	.4	1.6	
Finance and insurance.....	106.6	107.9	108.4	108.2	107.6	107.1	108.5	109.0	109.4	.4	1.7	
Real estate and rental and leasing.....	103.1	104.5	104.7	105.3	105.7	105.6	105.8	106.3	106.8	.5	1.0	
Professional and business services.....	107.5	109.1	110.0	111.0	111.9	112.3	112.2	112.3	112.7	.4	.7	
Education and health services.....	107.7	108.6	109.2	110.2	110.6	111.4	111.8	112.5	112.8	.3	2.0	
Education services.....	107.4	107.9	108.6	110.8	110.8	111.1	111.2	112.2	112.6	.4	1.6	
Health care and social assistance.....	107.8	108.7	109.4	110.1	110.6	111.5	111.9	112.5	112.8	.3	2.0	
Hospitals.....	107.2	108.2	109.2	110.3	111.1	111.8	112.3	112.9	113.4	.4	2.1	
Leisure and hospitality.....	108.8	109.7	109.9	111.4	112.3	113.1	112.8	113.7	113.8	.1	1.3	
Accommodation and food services.....	109.0	110.0	110.4	111.9	112.8	113.7	113.2	114.2	114.3	.1	1.3	
Other services, except public administration.....	107.9	109.2	109.9	110.4	110.4	111.4	111.4	112.5	112.1	-.4	1.5	
<b>State and local government workers.....</b>	<b>107.1</b>	<b>107.7</b>	<b>108.2</b>	<b>110.1</b>	<b>110.4</b>	<b>110.9</b>	<b>111.5</b>	<b>112.4</b>	<b>112.6</b>	<b>.2</b>	<b>2.0</b>	
Workers by occupational group												
Management, professional, and related.....	107.0	107.6	108.2	110.1	110.4	110.7	111.2	112.1	112.3	.2	1.7	
Professional and related.....	107.0	107.5	108.1	110.1	110.3	110.6	111.1	112.1	112.3	.2	1.8	
Sales and office.....	107.0	107.4	107.9	109.3	109.7	110.5	111.2	112.1	112.4	.3	2.5	
Office and administrative support.....	107.3	107.8	108.3	109.7	110.1	111.0	111.6	112.6	112.9	.3	2.5	
Service occupations.....	107.7	108.3	108.6	110.4	110.9	112.0	112.7	113.3	113.8	.4	2.6	
Workers by industry												
Education and health services.....	107.1	107.5	108.1	110.2	110.5	110.7	111.1	112.1	112.3	.2	1.6	
Education services.....	106.8	107.2	107.7	109.9	110.1	110.4	110.7	111.7	111.9	.2	1.6	
Schools.....	106.8	107.2	107.7	109.9	110.1	110.4	110.7	111.7	111.9	.2	1.6	
Elementary and secondary schools.....	106.6	106.9	107.5	109.8	110.1	110.3	110.5	112.0	112.1	.1	1.8	
Health care and social assistance.....	109.2	110.1	111.0	112.8	113.4	113.1	114.8	115.2	115.6	.3	1.9	
Hospitals.....	108.6	109.8	110.3	111.4	112.1	112.8	114.0	114.4	114.9	.4	2.5	
Public administration <sup>2</sup> .....	107.4	108.2	108.6	109.9	110.4	111.3	112.3	112.8	113.3	.4	2.6	

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

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

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

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

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

[December 2005 = 100]

Series	2007	2008				2009				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended
	Dec. 2009										
<b>Civilian workers</b> .....	106.8	107.6	108.1	108.9	109.1	109.7	110.0	110.6	110.7	0.1	1.5
<b>Private industry workers</b> .....	105.6	106.5	107.0	107.5	107.7	108.2	108.4	108.7	108.8	.1	1.0
Workers by occupational group											
Management, professional, and related.....	106.0	107.3	107.9	108.5	108.5	108.8	108.8	108.9	108.8	-.1	.3
Sales and office.....	106.0	106.5	107.0	107.6	107.8	108.0	108.1	108.5	108.7	.2	.8
Natural resources, construction, and maintenance.....	105.9	106.5	107.0	107.5	107.7	108.2	108.8	109.3	109.5	.2	1.7
Production, transportation, and material moving.....	103.7	104.4	104.5	104.8	105.1	106.4	106.8	107.1	107.4	.3	2.2
Service occupations.....	106.7	107.6	108.5	108.7	108.8	109.7	110.0	110.4	110.5	.1	1.6
Workers by industry											
Goods-producing.....	103.2	104.0	104.4	104.6	104.7	105.4	105.7	105.7	105.8	.1	1.1
Manufacturing.....	101.7	102.3	102.2	102.3	102.5	103.5	103.6	103.4	103.6	.2	1.1
Service-providing.....	106.6	107.6	108.1	108.7	108.9	109.3	109.5	109.9	109.9	.0	.9
<b>State and local government workers</b> .....	111.0	111.4	111.8	113.9	114.2	115.2	115.8	117.5	117.9	.3	3.2

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	2007	2008				2009				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended
	Dec. 2009										
<b>COMPENSATION</b>											
<b>Workers by bargaining status<sup>1</sup></b>											
Union.....	105.1	105.9	106.7	107.4	108.0	109.1	109.8	110.5	111.1	0.5	2.9
Goods-producing.....	104.0	104.6	105.6	106.2	106.9	108.0	108.9	109.5	110.0	.5	2.9
Manufacturing.....	101.0	101.4	101.7	102.1	102.8	104.4	104.8	105.4	105.8	.4	2.9
Service-providing.....	106.0	107.0	107.5	108.3	108.8	109.9	110.6	111.3	111.9	.5	2.8
Nonunion.....	106.5	107.5	108.3	108.9	109.1	109.4	109.6	109.9	110.1	.2	.9
Goods-producing.....	105.4	106.5	107.1	107.6	107.7	107.9	108.0	108.0	108.2	.2	.5
Manufacturing.....	104.6	105.6	106.2	106.6	106.8	107.1	107.3	107.3	107.5	.2	.7
Service-providing.....	106.8	107.7	108.6	109.2	109.4	109.8	110.0	110.4	110.6	.2	1.1
<b>Workers by region<sup>1</sup></b>											
Northeast.....	106.8	107.4	108.1	108.7	109.5	109.8	110.2	110.7	111.0	.3	1.4
South.....	106.7	107.8	108.5	109.1	109.3	109.8	110.1	110.6	110.7	.1	1.3
Midwest.....	105.3	106.0	107.0	107.4	107.6	107.9	108.1	108.4	108.6	.2	.9
West.....	106.5	107.8	108.4	109.3	109.4	109.9	110.1	110.3	110.7	.4	1.2
<b>WAGES AND SALARIES</b>											
<b>Workers by bargaining status<sup>1</sup></b>											
Union.....	104.7	105.5	106.7	107.4	108.1	108.8	109.6	110.2	110.9	.6	2.6
Goods-producing.....	104.3	105.2	106.4	107.1	107.7	108.2	108.8	109.5	109.8	.3	1.9
Manufacturing.....	102.6	103.4	104.4	104.9	105.5	106.0	106.4	107.0	107.3	.3	1.7
Service-providing.....	104.9	105.8	106.9	107.7	108.3	109.2	110.1	110.8	111.6	.7	3.0
Nonunion.....	106.9	107.9	108.7	109.4	109.6	110.0	110.2	110.6	110.9	.3	1.2
Goods-producing.....	106.4	107.7	108.4	109.0	109.3	109.5	109.7	109.9	110.1	.2	.7
Manufacturing.....	105.5	106.6	107.3	108.0	108.2	108.6	108.9	109.1	109.3	.2	1.0
Service-providing.....	107.0	107.9	108.8	109.4	109.7	110.1	110.3	110.8	111.0	.2	1.2
<b>Workers by region<sup>1</sup></b>											
Northeast.....	106.6	107.5	108.2	108.7	109.6	109.9	110.3	110.8	111.1	.3	1.4
South.....	107.0	108.1	109.1	109.8	110.0	110.4	110.7	111.3	111.5	.2	1.4
Midwest.....	105.6	106.3	107.5	107.9	108.0	108.4	108.6	108.9	109.2	.3	1.1
West.....	107.0	108.3	108.9	109.9	110.1	110.5	110.8	111.2	111.6	.4	1.4

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

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

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

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

See footnotes at end of table.

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

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

See footnotes at end of table.



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

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

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

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

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

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

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

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

See footnotes at end of table.

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

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

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

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

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

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

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

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

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

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

Measure	Annual average		2008		2009										
	2008	2009	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. <sup>p</sup>
Number of stoppages:															
Beginning in period.....	15	-	0	0	0	0	0	0	0	1	1	1	0	0	2
In effect during period.....	16	-	1	0	0	0	0	0	0	1	2	1	1	0	2
Workers involved:															
Beginning in period (in thousands).....	72.2	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	1.5	1.9	0.0	0.0	6.6
In effect during period (in thousands).....	136.8	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	4.0	1.9	1.9	0.0	6.6
Days idle:															
Number (in thousands).....	1954.1	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	43.5	5.7	15.2	0.0	29.7
Percent of estimated working time <sup>1</sup> .....	0.01	-	0	0	0	0	0	0	0	0	0	0	0	0	0

<sup>1</sup> Agricultural and government employees are included in the total employed and total working time; private household, forestry, and fishery employees are excluded. An explanation of the measurement of idleness as a percentage of the total time

worked is found in "Total economy measures of strike idleness," *Monthly Labor Review*, October 1968, pp. 54-56.

NOTE: p = preliminary.

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

[1982-84 = 100, unless otherwise indicated]

Series	Annual average		2009												
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS</b>															
All items.....	215.303	214.537	210.228	211.143	212.193	212.709	213.240	213.856	215.693	215.351	215.834	215.969	216.177	216.330	215.949
All items (1967 = 100).....	644.951	642.658	629.751	632.491	635.637	637.182	638.771	640.616	646.121	645.096	646.544	646.948	647.570	648.028	646.887
Food and beverages.....	214.225	218.249	218.839	219.729	219.333	218.794	218.364	218.076	218.030	217.608	217.701	217.617	217.957	217.733	218.049
Food.....	214.106	217.955	218.805	219.675	219.205	218.600	218.162	217.826	217.740	217.257	217.350	217.218	217.526	217.265	217.637
Food at home.....	214.125	215.124	218.683	219.744	218.389	217.110	215.783	215.088	214.824	213.815	213.722	213.227	213.605	212.816	213.359
Cereals and bakery products.....	244.853	252.567	253.063	254.445	254.187	253.698	252.709	252.714	253.008	253.391	252.382	251.231	251.421	250.600	251.019
Meats, poultry, fish, and eggs.....	204.653	203.805	208.890	208.616	207.963	206.348	205.699	203.789	204.031	201.743	202.911	201.755	200.597	201.202	201.003
Dairy and related products <sup>1</sup> .....	210.396	197.013	210.838	209.632	204.537	199.687	197.124	196.055	194.197	193.118	192.381	193.353	195.360	193.914	194.792
Fruits and vegetables.....	278.932	272.945	281.706	282.601	278.721	274.759	274.297	274.006	272.608	270.940	267.309	267.609	269.467	269.832	273.189
Nonalcoholic beverages and beverage materials.....	160.045	163.034	162.750	164.882	164.213	165.656	162.889	162.803	162.571	162.069	162.953	162.911	162.885	161.358	161.216
Other foods at home.....	184.166	191.220	190.203	192.492	192.404	192.234	191.352	191.144	191.328	190.967	191.317	190.571	191.266	189.640	189.921
Sugar and sweets.....	186.577	196.933	193.312	197.429	196.676	197.137	197.301	196.403	197.009	195.126	195.430	196.998	196.747	198.227	198.712
Fats and oils.....	196.751	201.224	206.710	206.886	205.359	204.776	200.464	200.679	201.127	201.031	200.578	200.009	199.916	196.473	197.391
Other foods.....	198.103	205.497	203.902	206.343	206.621	206.367	205.734	205.587	205.654	205.544	206.064	204.728	205.814	203.671	203.832
Other miscellaneous foods <sup>1,2</sup> .....	119.924	122.393	123.791	124.012	122.580	122.402	122.883	122.838	122.224	121.990	121.892	122.099	122.112	121.263	122.422
Food away from home <sup>1</sup> .....	215.769	223.272	220.684	221.319	221.968	222.216	222.905	223.023	223.163	223.345	223.675	224.303	224.224	224.633	224.789
Other food away from home <sup>1,2</sup> .....	150.640	155.852	154.062	153.102	154.726	154.414	155.099	155.099	155.841	156.570	156.697	157.302	157.056	157.027	156.990
Alcoholic beverages.....	214.484	220.751	217.975	219.113	219.682	219.999	219.671	220.005	220.477	220.850	220.946	221.474	222.232	222.485	222.082
Housing.....	216.264	217.057	216.073	216.928	217.180	217.374	217.126	216.971	218.071	218.085	217.827	217.178	216.612	215.808	215.523
Shelter.....	246.666	249.354	247.085	248.292	248.878	249.597	249.855	249.779	250.243	250.310	250.248	249.501	249.474	248.211	247.863
Rent of primary residence.....	243.271	248.812	247.278	247.974	248.305	248.639	248.899	249.069	249.092	248.994	249.029	248.965	248.888	248.886	248.999
Lodging away from home.....	143.664	134.243	129.157	133.559	135.809	137.715	137.700	135.680	138.318	139.424	137.454	133.706	133.485	125.426	122.638
Owners' equivalent rent of primary residence <sup>3</sup> .....	252.426	256.610	254.875	255.500	255.779	256.321	256.622	256.875	256.981	256.872	257.155	256.865	256.890	256.731	256.727
Tenants' and household insurance <sup>2</sup> .....	118.843	121.487	120.019	120.402	120.683	120.737	120.675	120.728	121.083	121.298	121.830	122.170	122.184	122.243	123.812
Fuels and utilities.....	220.018	210.696	215.184	215.232	213.520	210.501	207.175	206.358	212.677	212.961	212.661	211.618	207.937	208.955	208.760
Fuels.....	200.808	188.113	194.335	194.149	192.168	188.736	184.903	183.783	190.647	190.534	189.735	188.509	184.146	185.165	184.886
Fuel oil and other fuels.....	334.405	239.778	256.209	247.163	242.264	230.837	228.107	225.164	232.638	230.192	237.521	236.616	243.936	260.250	262.649
Gas (piped) and electricity.....	202.212	193.563	199.487	199.791	197.886	194.752	190.686	189.619	196.754	196.767	195.475	194.176	188.963	189.166	188.724
Household furnishings and operations.....	127.800	128.701	128.535	128.761	129.170	129.669	129.654	129.644	129.623	129.267	128.304	128.201	127.740	127.265	127.119
Apparel.....	118.907	120.078	117.078	114.764	118.825	122.545	123.208	121.751	118.799	115.620	117.130	122.476	123.998	122.465	119.357
Men's and boys' apparel.....	113.032	113.628	110.767	110.797	115.202	117.748	117.195	117.146	112.849	109.744	110.835	112.933	114.818	113.636	110.633
Women's and girls' apparel.....	107.460	108.091	105.456	100.638	105.777	111.079	111.871	109.460	106.455	101.688	103.991	112.535	113.838	111.460	108.304
Infants' and toddlers' apparel <sup>1</sup> .....	113.762	114.489	112.568	112.321	113.544	115.548	117.084	114.142	113.915	111.022	113.673	116.309	117.300	116.312	112.695
Footwear.....	124.157	126.854	124.093	122.363	124.301	126.707	128.057	127.519	125.515	124.405	125.292	128.670	130.333	130.594	128.492
Transportation.....	195.549	179.252	164.628	166.738	169.542	169.647	171.987	175.997	183.735	182.798	184.386	183.932	185.362	188.587	188.318
Private transportation.....	191.039	174.762	159.411	161.788	164.871	165.023	167.516	171.757	179.649	178.330	179.987	179.466	180.896	184.099	183.766
New and used motor vehicles <sup>2</sup> .....	93.291	93.486	91.408	91.831	92.224	92.109	92.381	92.701	93.020	93.413	93.126	93.440	95.131	96.039	96.421
New vehicles.....	134.194	135.623	132.308	133.273	134.186	134.611	134.863	135.162	135.719	136.055	134.080	134.576	137.268	138.831	138.857
Used cars and trucks <sup>1</sup> .....	133.951	126.973	125.883	124.863	122.837	121.061	121.213	122.650	124.323	125.061	128.028	129.369	132.689	134.173	137.406
Motor fuel.....	279.652	201.978	149.132	156.604	167.395	168.404	177.272	193.609	225.021	217.860	225.089	220.690	219.015	228.050	224.730
Gasoline (all types).....	277.457	201.555	146.102	154.488	166.118	167.826	176.704	193.727	225.526	217.945	225.179	220.542	218.683	227.665	224.260
Motor vehicle parts and equipment.....	128.747	134.050	133.077	133.414	134.108	134.484	134.640	134.347	134.270	133.729	133.531	133.406	133.650	134.231	134.781
Motor vehicle maintenance and repair.....	233.859	243.337	239.356	241.076	241.689	242.118	242.649	242.488	242.683	243.031	243.494	244.493	245.393	245.511	245.417
Public transportation.....	250.549	236.348	237.638	234.394	231.529	230.735	229.827	228.878	232.540	238.932	238.997	239.855	241.060	244.226	245.203
Medical care.....	364.065	375.613	367.133	369.930	372.405	373.189	374.170	375.026	375.093	375.739	376.537	377.727	378.552	379.575	379.516
Medical care commodities.....	296.045	305.108	298.361	299.998	302.184	302.908	303.979	304.697	304.683	304.229	305.797	307.671	308.379	308.546	308.221
Medical care services.....	384.943	397.299	388.267	391.365	394.047	394.837	395.753	396.648	396.750	397.868	398.303	399.160	400.015	401.392	401.452
Professional services.....	310.968	319.372	313.886	315.603	316.992	317.460	317.661	319.333	319.652	320.076	320.252	320.756	321.381	321.473	321.827
Hospital and related services.....	533.953	567.879	543.585	551.305	558.373	560.995	564.785	564.112	564.406	568.315	570.150	572.991	575.540	581.603	581.968
Recreation <sup>2</sup> .....	113.254	114.272	113.674	113.822	114.461	114.625	114.261	114.264	114.643	114.619	114.755	114.629	114.157	113.820	113.212
Video and audio <sup>1,2</sup> .....	102.632	101.276	101.629	101.347	101.704	102.000	102.300	101.947	101.871	101.614	101.474	100.801	100.178	100.199	99.873
Education and communication <sup>2</sup> .....	123.631	127.393	125.921	126.151	126.190	126.187	126.273	126.467	126.519	126.914	128.128	129.035	129.128	128.845	128.883
Education <sup>2</sup> .....	181.277	190.857	186.916	187.175	187.256	187.298	187.416	187.853	188.179	189.184	193.161	195.595	195.849	195.649	195.672
Educational books and supplies.....	450.187	482.072	464.544	468.432	469.996	472.185	472.507	472.588	476.974	481.768	490.102	493.636	494.435	495.660	496.580
Tuition, other school fees, and child care.....	522.098	548.971	538.309	539.765	538.878	538.813	539.149	540.498	541.119	543.810	555.402	562.635	563.352	562.623	562.610
Communication <sup>1,2</sup> .....	84.185	84.954	84.737	84.928	84.945	84.922	84.985	85.049							



**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		2008		2009										
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Miscellaneous personal services.....	338.921	344.469	339.698	340.608	341.188	341.570	342.641	343.051	344.232	344.367	345.137	345.515	347.834	348.792	348.697
Commodity and service group:															
Commodities.....	174.764	169.698	163.582	164.360	165.891	166.645	167.816	169.060	171.593	170.483	171.081	171.559	172.252	173.061	172.572
Food and beverages.....	214.225	218.249	218.839	219.729	219.333	218.794	218.364	218.076	218.030	217.608	217.701	217.617	217.957	217.733	218.049
Commodities less food and beverages.....	153.034	144.395	135.720	136.427	138.702	139.962	141.753	143.587	147.099	145.742	146.528	147.222	148.037	149.245	148.441
Nondurables less food and beverages.....	196.192	178.959	161.681	162.938	167.560	170.200	173.855	177.480	184.581	181.755	184.366	185.544	185.759	187.776	185.689
Apparel.....	118.907	120.078	117.078	114.764	118.825	122.545	123.208	121.751	118.799	115.620	117.130	122.476	123.998	122.465	119.357
Non durables less food, beverages, and apparel.....	248.809	219.592	192.948	196.490	201.554	203.557	209.177	216.090	229.692	227.038	230.396	228.954	228.344	232.649	231.169
Durables.....	110.877	109.859	108.811	109.025	109.221	109.264	109.404	109.650	109.983	109.924	109.129	109.387	110.684	111.159	111.477
Services.....	255.498	259.154	256.731	257.780	258.328	258.597	258.466	258.433	259.544	259.992	260.355	260.136	259.844	259.323	259.055
Rent of shelter <sup>3</sup> .....	257.152	259.924	257.567	258.830	259.440	260.197	260.469	260.388	260.869	260.935	260.858	260.064	260.035	258.704	258.303
Transportation services.....	244.074	251.031	246.287	247.006	248.114	247.912	248.696	248.628	249.194	251.184	252.234	253.001	254.449	255.935	256.014
Other services.....	295.780	303.992	300.067	300.614	301.471	302.024	301.668	302.132	303.000	303.761	305.890	307.161	307.011	306.740	306.436
Special indexes:															
All items less food.....	215.528	214.008	208.855	209.777	211.076	211.775	212.464	213.236	215.389	215.069	215.617	215.795	215.986	216.207	215.703
All items less shelter.....	205.453	203.301	198.127	198.936	200.184	200.626	201.271	202.171	204.578	204.069	204.776	205.263	205.567	206.286	205.888
All items less medical care.....	207.777	206.555	202.442	203.281	204.645	204.766	205.275	205.876	207.764	207.388	207.855	207.949	208.131	208.250	207.860
Commodities less food.....	155.310	147.071	138.536	139.258	141.491	142.728	144.464	146.261	149.697	148.386	149.155	149.846	150.663	151.847	151.052
Nondurables less food.....	197.297	181.453	165.032	166.282	170.665	173.167	176.587	180.017	186.726	184.090	186.552	187.691	187.939	189.852	187.864
Nondurables less food and apparel.....	244.443	218.687	194.403	197.704	202.323	204.159	209.195	215.459	227.768	225.410	228.446	227.195	226.717	230.622	229.250
Nondurables.....	205.901	198.548	189.557	190.649	192.943	194.105	195.864	197.673	201.461	199.746	201.191	201.783	202.058	203.035	202.064
Services less rent of shelter <sup>3</sup> .....	273.000	278.064	275.370	276.227	276.739	276.407	275.752	275.777	277.777	278.747	279.697	280.194	279.545	280.014	279.896
Services less medical care services.....	244.987	248.122	246.090	247.013	247.439	247.675	247.490	247.406	248.557	248.963	249.316	249.043	248.692	248.075	247.793
Energy.....	236.666	193.126	171.158	174.622	178.741	177.454	179.704	186.909	205.408	201.938	204.971	202.243	199.198	204.026	202.301
All items less energy.....	214.751	218.433	215.930	216.586	217.325	218.033	218.388	218.323	218.440	218.421	218.642	219.076	219.624	219.291	219.048
All items less food and energy.....	215.572	219.235	216.100	216.719	217.685	218.639	219.143	219.128	219.283	219.350	219.596	220.137	220.731	220.384	220.025
Commodities less food and energy.....	140.246	142.041	139.228	139.111	140.270	141.662	142.489	142.360	141.990	141.463	141.310	142.729	143.857	143.871	143.383
Energy commodities.....	284.352	205.281	155.745	162.395	172.428	172.787	181.102	196.528	226.881	219.922	227.204	222.961	221.749	223.276	228.186
Services less energy.....	261.017	265.875	262.636	263.759	264.547	265.147	265.399	265.466	265.993	266.484	267.008	266.894	267.081	266.488	266.237
<b>CONSUMER PRICE INDEX FOR URBAN</b>															
<b>WAGE EARNERS AND CLERICAL WORKERS</b>															
All items.....	211.053	209.630	204.813	205.700	206.708	207.218	207.925	208.774	210.972	210.526	211.156	211.322	211.549	212.003	211.703
All items (1967 = 100).....	628.661	624.423	610.075	612.719	615.719	617.239	619.344	621.875	628.422	627.093	628.970	629.462	630.140	631.491	630.600
Food and beverages.....	213.546	217.480	218.269	219.123	218.645	218.119	217.653	217.308	217.258	216.805	216.957	216.734	217.123	216.853	217.186
Food.....	213.376	217.118	218.155	218.998	218.449	217.855	217.376	216.975	216.890	216.384	216.539	216.313	216.654	216.305	216.679
Food at home.....	213.017	213.908	217.498	218.485	217.111	215.922	214.654	213.876	213.657	212.628	212.623	212.010	212.396	211.488	212.041
Cereals and bakery products.....	245.472	253.214	253.759	255.055	254.775	254.395	253.556	253.430	253.701	253.969	252.932	251.754	252.049	251.376	251.570
Meats, poultry, fish, and eggs.....	204.255	203.394	208.639	208.161	207.656	206.094	205.527	203.409	203.503	201.261	202.483	201.087	200.210	200.709	200.623
Dairy and related products <sup>1</sup> .....	209.773	195.679	209.922	208.530	203.023	198.048	195.714	194.694	192.898	191.783	192.048	192.048	194.120	192.695	193.546
Fruits and vegetables.....	276.759	270.562	278.835	279.906	275.884	271.727	271.771	271.530	270.653	269.316	265.730	265.810	267.084	267.049	270.279
Nonalcoholic beverages and beverage materials.....	159.324	162.598	162.280	164.514	163.821	165.437	162.464	162.468	162.167	161.650	162.433	162.396	162.456	160.619	160.745
Other foods at home.....	183.637	190.519	189.527	191.782	191.620	191.594	190.650	190.401	190.657	190.235	190.704	189.892	190.630	188.868	189.197
Sugar and sweets.....	185.494	195.702	192.120	195.867	195.395	196.015	195.858	194.928	195.773	194.005	194.511	196.027	195.752	197.031	197.258
Fats and oils.....	197.512	202.003	207.439	207.400	206.185	205.693	201.474	201.470	202.004	201.666	201.199	200.621	200.759	197.400	198.165
Other foods.....	198.303	205.573	203.937	206.490	206.547	206.468	205.820	205.641	205.759	205.549	206.210	204.823	205.929	203.664	203.972
Other miscellaneous foods <sup>1,2</sup> .....	120.348	122.753	124.144	124.477	122.994	122.837	123.112	123.126	122.537	122.119	122.217	122.496	122.676	121.647	122.796
Food away from home <sup>1</sup> .....	215.613	223.383	220.847	221.497	222.101	222.336	222.957	223.082	223.186	223.408	223.789	224.102	224.382	224.815	224.940
Other food away from home <sup>1,2</sup> .....	149.731	155.607	153.646	153.397	154.520	154.054	154.414	154.409	155.091	156.904	156.769	157.132	156.909	156.853	156.830
Alcoholic beverages.....	214.579	221.325	218.445	219.458	220.029	220.500	220.243	220.729	221.179	221.517	221.618	221.454	222.555	223.445	223.168
Housing.....	211.839	213.144	212.452	213.078	213.192	213.213	212.885	212.881	214.034	214.029	213.824	213.391	212.734	212.327	212.142
Shelter.....	239.128	242.637	240.752	241.651	242.051	242.605	242.857	242.941	243.238	243.248	243.279	242.816	242.804	242.159	241.991
Rent of primary residence.....	242.196	247.401	246.026	246.696	246.991	247.285	247.517	247.710	247.691	247.573	247.601	247.500	247.422	247.361	247.465
Lodging away from home <sup>2</sup> .....	143.164	135.163	129.982	134.235	136.255	138.008	138.008	136.113	139.246	140.873	138.543	134.803	134.586	127.061	124.222
Owners' equivalent rent of primary residence <sup>3</sup> .....	228.758	232.499	230.926	231.503	231.746	232.235	232.503	232.739	232.837	232.723	232.977	232.731	232.761	232.635	232.603
Tenants' and household insurance <sup>1,2</sup> .....	119.136	121.935	120.360	120.715	120.960	121.099	121.084	121.160	121.529	121.765	122.254	122.644	122.761	122.830	124.415
Fuels and utilities.....	217.883	209.595	213.861	213.882	212.353	209.400	205.840	205.270	211.929	212.276	211.808	210.796	206.732	207.530	207.329
Fuels.....	197.537	186.229	192.050	191.852	190.110	186.809	182.795	181.977	189.108	189.082	188.125	186.967	182.227	182.994	182.701
Fuel oil and other fuels.....	331.784	243.003	260.185	251.976	246.781	236.237	232.068	229.019	235.869	233.018	239.435	238.006	246.153		

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

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		2009												
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
New vehicles.....	135.338	136.711	133.317	134.490	135.248	135.744	135.911	136.113	136.800	137.082	135.130	135.672	138.422	139.952	139.962
Used cars and trucks <sup>1</sup> .....	134.731	127.687	126.526	125.485	123.443	121.669	121.850	123.339	125.056	125.817	128.781	130.122	133.458	134.977	138.242
Motor fuel.....	280.817	202.695	149.650	157.265	168.028	169.060	177.982	194.339	225.876	218.560	225.797	221.241	219.733	228.871	225.584
Gasoline (all types).....	278.728	202.375	146.644	155.204	166.831	168.574	177.510	194.569	226.515	218.757	226.007	221.197	219.509	228.598	225.223
Motor vehicle parts and equipment.....	128.776	134.133	133.295	133.645	134.264	134.485	134.614	134.439	134.273	133.787	133.587	133.504	133.764	134.346	134.892
Motor vehicle maintenance and repair.....	236.353	245.795	241.855	243.594	244.219	244.650	245.180	245.036	245.129	245.421	245.871	246.850	247.811	247.972	247.812
Public transportation.....	247.865	234.661	235.199	232.422	229.404	229.034	228.525	227.522	230.926	236.963	237.029	238.225	239.729	242.698	243.453
Medical care.....	364.208	376.064	367.301	370.001	372.630	373.541	374.599	375.420	375.479	376.161	377.007	378.263	379.072	380.295	380.302
Medical care commodities.....	287.970	296.724	290.080	291.710	293.917	294.728	295.699	296.431	296.369	295.871	297.379	299.098	299.742	299.972	299.777
Medical care services.....	386.317	399.165	389.744	392.831	395.563	396.489	397.553	398.387	398.497	399.677	400.204	401.217	402.075	403.695	403.791
Professional services.....	313.446	322.127	316.435	318.110	319.663	320.231	320.407	322.043	322.346	322.759	322.964	323.577	324.284	324.382	324.763
Hospital and related services.....	530.193	565.029	540.101	547.655	554.390	557.167	561.516	560.906	561.337	565.448	570.697	573.069	580.048	580.567	
Recreation <sup>2</sup> .....	110.143	111.015	110.487	110.630	111.257	111.436	111.182	111.152	111.471	111.416	111.453	111.205	110.724	110.401	109.851
Video and audio <sup>1,2</sup> .....	102.654	101.602	101.810	101.488	101.857	102.153	102.516	102.214	102.193	101.982	101.867	101.228	100.639	100.681	100.400
Education and communication <sup>2</sup> .....	119.827	123.017	121.819	122.025	122.092	122.087	122.152	122.293	122.333	122.699	123.579	124.322	124.362	124.100	124.156
Education <sup>2</sup> .....	178.892	188.143	184.352	184.642	184.765	184.824	184.892	185.291	185.626	186.596	190.222	192.552	192.774	192.776	192.760
Educational books and supplies.....	452.880	485.025	467.179	471.061	473.012	474.880	474.950	475.213	480.024	485.218	493.615	496.691	497.534	498.627	499.478
Tuition, other school fees, and child care.....	504.163	529.316	519.500	519.987	520.159	520.146	520.348	521.550	522.076	524.523	534.825	541.688	542.284	542.174	542.036
Communication <sup>1,2</sup> .....	86.807	87.662	87.444	87.599	87.640	87.615	87.671	87.712	87.652	87.780	87.667	87.810	87.786	87.468	87.541
Information and information processing <sup>1,2</sup> .....	84.828	85.571	85.454	85.581	85.624	85.595	85.655	85.624	85.524	85.653	85.532	85.676	85.651	85.331	85.404
Telephone services <sup>1,2</sup> .....	100.502	102.341	101.720	101.876	101.890	101.977	102.048	102.231	102.153	102.587	102.613	102.896	102.818	102.413	102.585
Information and information processing other than telephone services <sup>1,4</sup> .....	10.567	10.178	10.406	10.418	10.442	10.378	10.385	10.271	10.238	10.113	10.012	9.975	9.995	9.969	9.935
Personal computers and peripheral equipment <sup>1,2</sup> .....	94.863	82.104	88.176	88.178	87.622	86.004	85.406	84.017	83.278	80.736	78.480	77.835	77.939	77.926	77.821
Other goods and services.....	357.906	391.628	362.986	364.333	365.522	380.208	394.902	394.061	395.052	398.448	398.228	400.245	401.390	403.178	403.970
Tobacco and smoking products.....	591.100	735.056	605.662	610.503	615.012	682.115	747.906	746.009	752.078	768.005	768.483	776.198	778.650	786.541	789.173
Personal care <sup>1</sup> .....	199.170	202.490	200.918	201.209	201.426	202.099	203.010	202.631	202.406	202.490	202.221	202.576	203.115	203.245	203.454
Personal care products <sup>1</sup> .....	159.410	162.557	161.295	162.683	162.543	162.516	163.911	163.119	162.165	162.767	162.415	162.312	162.242	161.784	162.231
Personal care services <sup>1</sup> .....	223.978	227.804	226.578	225.951	226.088	228.201	228.119	227.829	227.800	227.512	227.751	228.480	228.683	228.614	228.614
Miscellaneous personal services.....	340.533	346.500	342.530	343.022	343.443	344.021	345.016	345.326	346.411	346.525	347.402	347.658	349.283	350.046	349.851
Commodity and service group:															
Commodities.....	177.618	171.452	164.233	165.151	166.673	167.514	169.005	170.532	173.662	172.493	173.379	173.777	174.550	175.563	175.127
Food and beverages.....	213.546	217.480	218.269	219.123	218.645	218.119	217.653	217.308	217.258	216.805	216.957	216.734	217.123	216.853	217.186
Commodities less food and beverages.....	157.481	147.327	137.015	137.932	140.235	141.615	143.871	146.125	150.477	149.046	150.209	150.851	151.760	153.273	152.532
Nondurables less food and beverages.....	205.279	185.579	164.879	166.694	171.698	174.838	179.415	183.813	192.478	189.436	192.365	193.225	193.394	195.926	193.667
Apparel.....	118.735	119.847	117.006	114.969	118.766	122.162	122.709	121.364	118.547	115.516	117.095	122.176	123.642	122.228	118.984
Nondurables less food, beverages, and apparel.....	263.756	230.503	198.108	202.400	208.255	211.287	218.502	226.621	242.726	239.626	243.461	241.657	241.005	246.085	244.413
Durables.....	111.217	109.610	108.576	108.689	108.592	108.413	108.596	108.933	109.430	109.432	109.039	109.470	110.988	111.575	112.165
Services.....	250.272	254.267	252.176	253.033	253.456	253.591	253.403	253.482	254.624	255.003	255.342	255.244	254.847	254.662	254.519
Rent of shelter <sup>3</sup> .....	230.555	233.917	232.112	232.981	233.365	233.903	234.148	234.229	234.511	234.515	234.537	234.079	234.064	233.436	233.241
Transportation services.....	242.563	250.960	245.881	246.931	248.029	247.862	248.809	248.795	249.312	250.811	251.880	252.805	254.408	255.871	256.007
Other services.....	284.319	291.572	288.227	288.627	289.432	290.043	289.738	290.116	290.845	291.573	293.266	294.190	293.938	293.624	293.470
Special indexes:															
All items less food.....	210.452	208.128	202.292	203.186	204.465	205.167	206.081	207.148	209.744	209.308	210.021	210.255	210.462	211.055	210.639
All items less shelter.....	203.102	199.860	193.918	194.811	196.052	196.551	197.432	198.571	201.488	200.871	201.726	202.123	202.441	203.301	202.951
All items less medical care.....	204.626	202.810	198.153	198.978	199.928	200.421	201.112	201.955	204.200	203.723	204.341	204.472	204.680	205.106	204.800
Commodities less food.....	159.538	149.780	139.620	140.543	142.809	144.172	146.371	148.589	152.856	151.466	152.606	153.229	154.147	155.650	154.918
Nondurables less food.....	206.047	187.718	167.933	169.708	174.484	177.487	181.815	186.012	194.254	191.387	194.170	194.978	195.146	197.644	195.487
Nondurables less food and apparel.....	258.423	228.679	198.909	202.906	208.291	211.094	217.649	225.091	239.808	237.011	240.515	238.857	238.355	243.061	241.513
Nondurables.....	210.333	201.628	190.910	192.284	194.740	196.174	198.408	200.601	205.219	203.377	205.017	205.374	205.647	206.876	205.823
Services less rent of shelter <sup>3</sup> .....	241.567	245.814	243.646	244.376	244.791	244.413	243.718	243.784	245.833	246.622	247.308	247.664	246.851	247.237	247.174
Services less medical care services.....	240.275	243.796	242.079	242.819	243.128	243.223	242.980	243.022	244.196	244.531	244.854	244.707	244.258	243.991	243.838
Energy.....	237.414	192.594	168.726	172.463	177.033	175.947	178.485	186.321	205.662	201.967	205.144	202.287	199.223	204.196	202.398
All items less energy.....	208.719	212.652	210.168	210.707	211.279	211.989	212.472	212.462	212.552	212.505	212.823	213.363	213.998	213.895	213.780
All items less food and energy.....	208.147	212.126	208.925	209.404	210.203	211.178	211.857	211.926	212.051	212.097	212.449	213.144	213.840	213.787	213.572
Commodities less food and energy.....	141.084	143.099	139.731	139.614	140.554	142.077	143.237	143.170	142.943	142.526	142.634	144.148	145.439	145.595	145.253
Energy commodities.....	284.270	205.325	154.744	161.781	171.978	172.563	181.021	196.706	227.444	220.264	227.506	223.048	221.910	231.371	228.303
Services less energy.....	255.598	261.022	258.039	258.976	259.643	260.158	260.439	260.615	261.014	261.425	261.960	262.190	262.196	261.979	261.871

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

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

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

[1982-84 = 100, unless otherwise indicated]

	Pricing schedule <sup>1</sup>	All Urban Consumers						Urban Wage Earners					
		2009						2009					
		July	Aug.	Sept.	Oct.	Nov.	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.
U.S. city average.....	M	215.351	215.834	215.969	216.177	216.330	215.949	210.526	211.156	211.322	211.549	212.003	211.703
<b>Region and area size<sup>2</sup></b>													
Northeast urban.....	M	230.154	230.883	231.200	231.304	231.708	231.462	226.714	227.598	228.158	228.193	229.048	228.794
Size A—More than 1,500,000.....	M	232.416	233.314	233.695	233.415	233.785	233.475	227.550	228.472	229.067	228.720	229.541	229.180
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	136.417	136.598	136.691	137.348	137.646	137.597	136.626	137.109	137.400	137.959	138.527	138.522
Midwest urban <sup>4</sup> .....	M	204.814	205.632	205.601	205.706	206.247	205.613	199.824	200.723	200.658	200.781	201.553	200.999
Size A—More than 1,500,000.....	M	205.656	206.591	206.459	206.625	207.277	206.399	199.611	200.710	200.566	200.730	201.626	200.820
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	131.366	131.748	131.812	131.724	131.952	131.742	131.096	131.481	131.497	131.420	131.823	131.639
Size D—Nonmetropolitan (less than 50,000).....	M	200.908	201.823	201.918	202.499	203.047	202.738	198.455	199.404	199.416	200.053	200.748	200.471
South urban.....	M	208.819	209.000	208.912	209.292	209.738	209.476	205.415	205.867	205.726	206.121	206.859	206.716
Size A—More than 1,500,000.....	M	211.034	211.436	211.212	211.152	211.424	210.971	208.492	208.995	208.677	208.577	209.161	208.788
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	132.736	132.729	132.722	133.035	133.342	133.252	131.063	131.302	131.284	131.621	132.129	132.136
Size D—Nonmetropolitan (less than 50,000).....	M	210.491	210.899	210.911	212.423	213.372	213.159	210.341	211.088	210.922	212.368	213.396	213.184
West urban.....	M	219.484	219.884	220.294	220.447	219.728	219.307	213.541	213.988	214.490	214.718	214.228	213.919
Size A—More than 1,500,000.....	M	223.498	224.072	224.412	224.372	223.489	223.058	215.955	216.539	217.000	217.002	216.286	215.988
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	132.774	132.756	133.128	133.618	133.335	133.132	132.314	132.407	132.773	133.244	133.149	132.983
<b>Size classes:</b>													
A <sup>5</sup> .....	M	196.987	197.614	197.724	197.670	197.697	197.246	195.096	195.796	195.957	195.895	196.187	195.779
B/C <sup>3</sup> .....	M	132.975	133.069	133.165	133.489	133.663	133.535	132.069	132.341	132.450	132.764	133.139	133.072
D.....	M	207.784	208.369	208.503	209.139	209.567	209.192	205.504	206.271	206.341	207.120	207.739	207.417
<b>Selected local areas<sup>6</sup></b>													
Chicago—Gary—Kenosha, IL—IN—WI.....	M	210.906	211.441	211.345	211.708	212.206	211.185	203.554	204.246	204.278	204.511	205.136	204.196
Los Angeles—Riverside—Orange County, CA.....	M	224.010	224.507	225.226	225.264	224.317	223.643	216.128	216.628	217.302	217.474	216.618	216.233
New York, NY—Northern NJ—Long Island, NY—NJ—CT—PA.....	M	237.600	238.282	238.568	238.380	238.777	238.427	232.177	232.841	233.502	233.084	233.893	233.448
Boston—Brockton—Nashua, MA—NH—ME—CT.....	1	233.018	—	236.596	—	236.589	—	232.535	—	235.744	—	236.859	—
Cleveland—Akron, OH.....	1	200.558	—	201.836	—	201.471	—	191.494	—	192.800	—	192.871	—
Dallas—Ft Worth, TX.....	1	200.663	—	201.802	—	201.958	—	203.075	—	204.298	—	205.297	—
Washington—Baltimore, DC—MD—VA—WV <sup>7</sup> .....	1	140.810	—	140.945	—	140.718	—	140.434	—	140.701	—	140.608	—
Atlanta, GA.....	2	—	203.351	—	201.068	—	200.456	—	202.276	—	199.736	—	199.331
Detroit—Ann Arbor—Flint, MI.....	2	—	204.673	—	205.079	—	203.880	—	200.169	—	200.324	—	199.614
Houston—Galveston—Brazoria, TX.....	2	—	191.687	—	191.608	—	190.932	—	189.503	—	189.304	—	188.842
Miami—Ft. Lauderdale, FL.....	2	—	221.306	—	222.416	—	222.943	—	219.000	—	220.358	—	221.067
Philadelphia—Wilmington—Atlantic City, PA—NJ—DE—MD.....	2	—	226.039	—	224.787	—	224.800	—	225.481	—	224.573	—	224.732
San Francisco—Oakland—San Jose, CA.....	2	—	225.801	—	226.051	—	224.239	—	221.279	—	221.708	—	220.121
Seattle—Tacoma—Bremerton, WA.....	2	—	227.138	—	226.277	—	225.596	—	221.873	—	221.339	—	220.905

<sup>1</sup> Foods, fuels, and several other items priced every month in all areas; most other goods and services priced as indicated:

M—Every month.  
1—January, March, May, July, September, and November.  
2—February, April, June, August, October, and December.

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

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

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

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

<sup>6</sup> In addition, the following metropolitan areas are published semiannually and appear in tables 34 and 39 of the January and July issues of the *CPI Detailed*

*Report:* Anchorage, AK; Cincinnati, OH—KY—IN; Kansas City, MO—KS; Milwaukee—Racine, WI; Minneapolis—St. Paul, MN—WI; Pittsburgh, PA; Portland—Salem, OR—WA; St. Louis, MO—IL; San Diego, CA; Tampa—St. Petersburg—Clearwater, FL.

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

NOTE: Local area CPI indexes are byproducts of the national CPI program. Each local index has a smaller sample size and is, therefore, subject to substantially more sampling and other measurement error. As a result, local area indexes show greater volatility than the national index, although their long-term trends are similar. Therefore, the Bureau of Labor Statistics strongly urges users to consider adopting the national average CPI for use in their escalator clauses. Index applies to a month as a whole, not to any specific date. Dash indicates data not available.

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

[1982-84 = 100]

Series	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Consumer Price Index for All Urban Consumers:											
All items:											
Index.....	166.6	172.2	177.1	179.9	184.0	188.9	195.3	201.6	207.342	215.303	214.537
Percent change.....	2.2	3.4	2.8	1.6	2.3	2.7	3.4	3.2	2.8	3.8	-0.4
Food and beverages:											
Index.....	164.6	168.4	173.6	176.8	180.5	186.6	191.2	195.7	203.300	214.225	218.249
Percent change.....	2.2	2.3	3.1	1.8	2.1	3.3	2.5	2.4	3.9	5.4	1.9
Housing:											
Index.....	163.9	169.6	176.4	180.3	184.8	189.5	195.7	203.2	209.586	216.264	217.057
Percent change.....	2.2	3.5	4.0	2.2	2.5	2.5	3.3	3.8	3.1	3.2	0.4
Apparel:											
Index.....	131.3	129.6	127.3	124.0	120.9	120.4	119.5	119.5	118.998	118.907	120.078
Percent change.....	-1.3	-1.3	-1.8	-2.6	-2.5	-4	-7	.0	-0.4	-0.1	1.0
Transportation:											
Index.....	144.4	153.3	154.3	152.9	157.6	163.1	173.9	180.9	184.682	195.549	179.252
Percent change.....	2.0	6.2	0.7	-9	3.1	3.5	6.6	4.0	2.1	5.9	-8.3
Medical care:											
Index.....	250.6	260.8	272.8	285.6	297.1	310.1	323.2	336.2	351.054	364.065	375.613
Percent change.....	3.5	4.1	4.6	4.7	4.0	4.4	4.2	4.0	4.4	3.7	3.2
Other goods and services:											
Index.....	258.3	271.1	282.6	293.2	298.7	304.7	313.4	321.7	333.328	345.381	368.586
Percent change.....	8.7	5.0	4.2	3.8	1.9	2.0	2.9	2.6	3.6	3.6	6.7
Consumer Price Index for Urban Wage Earners and Clerical Workers:											
All items:											
Index.....	163.2	168.9	173.5	175.9	179.8	184.5	191.0	197.1	202.767	211.053	209.630
Percent change.....	2.2	3.5	2.7	1.4	2.2	5.1	1.1	3.2	2.9	4.1	-0.7

41. Producer Price Indexes, by stage of processing

[1982 = 100]

Grouping	Annual average		2008	2009											
	2008	2009	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept. <sup>P</sup>	Oct. <sup>P</sup>	Nov. <sup>P</sup>	Dec. <sup>P</sup>
<b>Finished goods.....</b>	177.1	172.6	168.8	170.4	169.9	169.1	170.3	171.1	174.3	172.4	174.2	173.2	174.1	176.2	176.2
Finished consumer goods.....	186.3	179.2	173.7	175.8	175.2	174.2	176.0	177.3	181.7	179.2	181.6	180.4	181.2	183.9	184.1
Finished consumer foods.....	178.3	175.5	177.7	177.7	175.0	173.8	175.9	174.0	176.1	173.5	173.9	173.9	175.9	176.8	179.7
Finished consumer goods excluding foods.....	189.1	179.6	171.5	174.4	174.5	173.5	175.2	177.5	182.7	180.2	183.3	181.6	182.0	185.3	184.6
Nondurable goods less food.....	210.5	194.3	182.1	186.5	186.6	185.2	187.7	191.2	198.7	195.7	200.1	198.1	197.6	202.2	201.4
Durable goods.....	141.2	144.3	144.4	144.3	144.3	144.1	144.4	144.2	144.7	143.3	143.8	142.9	145.0	145.6	144.9
Capital equipment.....	153.8	156.8	157.2	157.4	157.2	156.9	156.8	156.3	156.6	155.9	156.4	155.9	157.2	157.6	157.2
<b>Intermediate materials, supplies, and components.....</b>	188.3	172.6	171.6	171.4	169.7	168.0	168.6	170.2	172.7	172.3	174.8	174.7	174.8	176.3	176.7
Materials and components for manufacturing.....	177.2	162.8	163.7	162.7	161.0	159.5	158.9	160.1	160.9	161.6	163.8	164.9	165.1	166.4	167.4
Materials for food manufacturing.....	180.4	165.1	170.8	167.3	164.3	163.2	164.2	166.2	166.0	163.7	164.1	164.3	164.4	165.5	168.1
Materials for nondurable manufacturing...	214.3	191.9	185.0	186.8	186.6	182.3	182.6	187.4	190.1	192.0	196.6	197.1	196.4	200.8	202.7
Materials for durable manufacturing.....	203.3	169.0	178.6	172.8	168.2	165.8	163.2	162.1	162.7	164.5	168.9	173.2	174.8	175.0	176.4
Components for manufacturing.....	140.3	141.0	141.9	141.7	141.5	141.3	140.8	140.8	140.7	140.7	140.8	140.9	141.1	141.0	141.0
Materials and components for construction.....	205.4	202.9	207.9	207.0	204.8	204.2	203.2	202.8	202.0	201.9	201.5	202.0	201.9	201.4	202.2
Processed fuels and lubricants.....	206.2	162.3	151.2	153.4	150.7	146.5	151.4	156.5	167.0	164.1	172.2	169.0	169.3	173.8	172.1
Containers.....	191.8	195.8	198.1	200.8	199.5	198.4	197.6	196.1	195.4	194.3	193.5	193.7	193.8	193.1	193.0
Supplies.....	173.8	172.2	173.4	172.9	172.3	171.9	172.0	172.3	172.8	172.2	171.9	172.0	171.7	171.8	172.5
<b>Crude materials for further processing.....</b>	251.8	175.0	172.6	170.2	160.7	160.1	163.9	171.5	179.8	172.9	178.4	173.5	182.2	192.0	193.8
Foodstuffs and feedstuffs.....	163.4	134.4	135.5	136.1	133.3	131.0	136.5	140.5	141.0	133.2	130.2	127.6	131.6	133.7	138.6
Crude nonfood materials.....	313.9	197.1	191.6	186.5	171.5	172.6	174.6	184.7	199.8	194.5	207.5	201.0	213.2	229.6	228.3
<b>Special groupings:</b>															
Finished goods, excluding foods.....	176.6	171.2	166.1	168.0	168.0	167.2	168.3	169.7	173.1	171.3	173.4	172.2	172.9	175.2	174.6
Finished energy goods.....	178.7	147.2	130.6	136.4	136.3	133.2	137.2	142.9	154.4	149.6	156.1	152.8	152.0	158.4	156.8
Finished goods less energy.....	169.8	172.3	172.3	172.7	172.1	171.9	172.4	171.7	172.4	171.4	171.8	171.5	172.9	173.5	174.0
Finished consumer goods less energy.....	176.9	179.2	179.0	179.4	178.6	178.5	179.2	178.5	179.4	178.2	178.6	178.4	179.8	180.6	181.6
Finished goods less food and energy.....	167.2	171.5	170.8	171.3	171.3	171.4	171.4	171.1	171.4	170.8	171.2	170.8	172.0	172.6	172.4
Finished consumer goods less food and energy.....	176.4	181.6	180.1	180.7	181.0	181.4	181.5	181.3	181.7	181.1	181.5	181.2	182.3	183.1	183.0
Consumer nondurable goods less food and energy.....	206.8	214.3	211.0	212.4	212.9	214.0	213.8	213.7	213.9	214.4	214.5	214.9	214.9	215.9	216.4
Intermediate materials less foods and feeds.....	188.7	173.1	171.8	171.8	170.1	168.4	168.9	170.4	172.9	172.7	175.5	175.4	175.6	177.2	177.3
Intermediate foods and feeds.....	181.6	165.9	167.9	165.8	164.6	163.5	164.5	167.3	169.3	166.5	166.1	165.8	164.8	165.5	167.8
Intermediate energy goods.....	208.1	162.8	147.7	152.2	149.3	144.1	149.5	157.2	167.8	165.3	174.5	171.0	171.1	176.4	174.5
Intermediate goods less energy.....	180.9	172.8	175.3	174.0	172.7	171.9	171.2	171.3	171.8	171.9	172.7	173.5	173.6	174.1	175.0
Intermediate materials less foods and energy.....	180.9	173.4	175.9	174.6	173.4	172.6	171.8	171.6	171.9	172.3	173.3	174.2	174.5	174.9	175.7
Crude energy materials.....	309.4	176.3	181.1	173.0	152.1	153.3	155.0	164.2	181.2	173.0	184.1	173.5	188.5	211.4	205.2
Crude materials less energy.....	205.4	164.8	159.8	161.2	158.8	156.4	161.2	166.9	168.9	163.4	164.5	163.3	167.5	168.9	175.9
Crude nonfood materials less energy.....	324.4	248.6	221.3	225.2	224.9	222.9	224.4	234.9	242.6	247.1	263.6	267.9	272.3	270.4	284.2

<sup>P</sup> = preliminary.



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

[December 2003 = 100, unless otherwise indicated]

NAICS	Industry	2008	2009											
		Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept. <sup>P</sup>	Oct. <sup>P</sup>	Nov. <sup>P</sup>	Dec. <sup>P</sup>
	<b>Total mining industries (December 1984=100)</b> .....	174.8	173.4	159.0	159.1	160.5	166.0	180.2	173.0	182.8	177.2	191.8	209.4	207.4
211	Oil and gas extraction (December 1985=100) .....	184.1	180.3	154.1	154.1	157.0	168.6	192.2	179.9	194.8	186.6	208.5	236.2	233.5
212	Mining, except oil and gas.....	173.0	178.4	184.7	186.1	187.9	185.0	185.9	186.2	189.3	188.6	192.6	193.8	195.1
213	Mining support activities.....	114.7	112.8	111.5	109.4	105.6	101.3	100.0	101.2	100.4	98.7	98.4	99.8	99.1
	<b>Total manufacturing industries (December 1984=100)</b> .....	164.1	164.7	163.9	162.9	164.2	165.8	168.4	167.1	169.4	168.6	168.9	170.7	170.7
311	Food manufacturing (December 1984=100).....	171.1	170.1	168.7	167.6	168.6	170.5	171.4	169.7	169.7	169.5	168.8	168.9	170.8
312	Beverage and tobacco manufacturing.....	116.3	117.6	119.2	120.3	119.6	119.2	119.4	119.4	119.5	119.9	120.5	121.5	121.3
313	Textile mills.....	113.5	113.4	113.0	112.3	112.1	111.8	112.1	111.9	111.8	112.0	112.2	112.2	112.4
315	Apparel manufacturing.....	103.2	103.5	103.5	103.5	103.5	103.3	103.3	103.2	103.3	103.5	103.5	103.4	103.5
316	Leather and allied product manufacturing (December 1984=100).....	154.3	154.3	154.7	154.7	153.9	153.9	153.6	153.2	154.0	154.0	153.4	152.8	152.9
321	Wood products manufacturing.....	106.2	105.0	104.0	103.2	102.8	102.4	102.3	103.2	103.2	103.7	103.1	103.6	103.6
322	Paper manufacturing.....	127.0	126.7	126.0	125.5	124.5	123.1	122.5	121.8	121.7	121.7	121.5	121.9	121.5
323	Printing and related support activities.....	110.3	110.2	109.6	109.6	109.4	109.2	109.0	109.0	108.8	109.0	109.2	109.3	109.4
324	Petroleum and coal products manufacturing (December 1984=100).....	167.0	178.6	176.4	168.0	186.2	206.5	238.1	225.9	251.6	241.5	240.1	258.8	253.8
325	Chemical manufacturing (December 1984=100).....	229.7	226.7	225.1	224.6	223.6	222.8	222.4	224.1	224.0	225.1	225.1	225.6	227.7
326	Plastics and rubber products manufacturing (December 1984=100).....	165.0	163.4	161.6	161.2	160.9	160.6	160.3	160.3	160.4	161.3	161.5	161.3	161.6
331	Primary metal manufacturing (December 1984=100).....	185.6	177.6	173.3	169.5	164.7	162.8	163.8	165.4	172.5	177.8	180.5	179.7	181.8
332	Fabricated metal product manufacturing (December 1984=100).....	178.5	178.9	177.7	177.0	175.5	175.0	174.4	173.9	173.8	174.0	173.7	173.5	173.8
333	Machinery manufacturing.....	120.0	120.5	120.4	120.4	120.3	120.2	120.2	120.3	120.2	120.3	120.2	120.4	120.4
334	Computer and electronic products manufacturing.....	92.4	92.5	92.4	92.4	92.3	92.3	92.1	92.2	92.2	91.9	91.8	92.0	91.9
335	Electrical equipment, appliance, and components manufacturing.....	126.9	126.8	126.8	126.3	127.9	128.5	128.3	128.5	129.2	129.4	129.9	130.3	130.9
336	Transportation equipment manufacturing.....	110.1	110.0	109.9	109.4	109.3	108.9	109.5	108.5	109.1	108.5	110.3	110.7	110.2
337	Furniture and related product manufacturing (December 1984=100).....	175.7	176.1	177.0	176.8	176.7	176.9	176.8	177.0	176.2	176.6	177.3	176.8	176.7
339	Miscellaneous manufacturing.....	110.8	111.4	111.4	111.6	111.7	111.3	111.4	111.2	111.3	111.4	111.5	111.4	111.7
	<b>Retail trade</b>													
441	Motor vehicle and parts dealers.....	117.1	116.9	118.4	118.0	119.0	118.1	118.4	118.8	122.9	123.0	121.6	121.8	121.7
442	Furniture and home furnishings stores.....	120.6	120.8	121.0	120.8	121.4	123.0	122.6	121.5	120.5	121.6	121.5	121.9	121.4
443	Electronics and appliance stores.....	107.8	107.8	103.7	105.4	104.9	104.2	104.8	105.7	106.6	103.7	110.0	110.7	101.7
446	Health and personal care stores.....	136.4	136.0	136.0	136.3	138.7	138.1	137.2	138.6	137.1	139.0	138.5	141.1	138.9
447	Gasoline stations (June 2001=100).....	77.7	68.9	71.0	63.1	59.7	59.4	69.5	75.9	63.5	68.3	60.0	81.9	79.3
454	Nonstore retailers.....	155.2	150.9	153.9	156.1	148.0	142.2	143.6	152.4	145.5	147.6	145.2	146.7	148.3
	<b>Transportation and warehousing</b>													
481	Air transportation (December 1992=100).....	198.5	198.4	190.5	187.6	187.2	179.5	182.2	185.5	189.6	184.5	187.9	191.3	195.4
483	Water transportation.....	128.0	122.4	118.5	117.7	115.2	111.3	111.9	113.3	114.0	115.7	115.7	115.5	116.1
491	Postal service (June 1989=100).....	180.5	180.5	181.6	181.6	181.6	186.8	186.8	186.8	186.8	186.8	186.8	186.8	186.8
	<b>Utilities</b>													
221	Utilities.....	133.1	133.9	132.9	130.4	128.1	128.0	129.0	130.9	131.8	130.0	129.1	129.4	129.2
	<b>Health care and social assistance</b>													
6211	Office of physicians (December 1996=100).....	124.2	125.6	125.6	125.9	125.9	126.3	126.5	126.8	126.8	126.8	127.1	127.0	127.1
6215	Medical and diagnostic laboratories.....	107.8	108.3	108.7	108.9	108.8	108.6	108.4	108.4	108.4	108.4	108.4	108.4	108.4
6216	Home health care services (December 1996=100).....	127.4	127.2	127.6	127.7	127.7	127.7	127.5	127.9	128.2	128.4	128.1	128.9	129.0
622	Hospitals (December 1992=100).....	165.3	166.5	166.8	167.0	166.9	167.2	167.3	167.5	168.4	168.3	169.6	168.7	171.0
6231	Nursing care facilities.....	120.7	122.0	122.2	122.3	122.6	122.6	122.7	123.8	124.3	123.8	123.8	124.1	125.0
62321	Residential mental retardation facilities.....	119.2	120.3	120.3	120.5	121.4	122.3	122.4	122.3	122.8	125.4	125.4	125.6	125.8
	<b>Other services industries</b>													
511	Publishing industries, except Internet .....	110.7	111.9	111.9	111.6	111.7	111.7	111.8	111.4	111.7	111.1	111.2	109.7	109.8
515	Broadcasting, except Internet.....	109.3	107.9	108.1	107.5	105.5	107.4	106.4	102.5	102.1	103.6	101.7	103.4	103.9
517	Telecommunications.....	101.4	101.2	101.1	101.1	100.8	101.1	101.1	101.2	101.7	101.3	101.0	100.8	100.8
5182	Data processing and related services.....	101.3	101.0	100.9	100.9	100.9	101.0	101.0	101.0	100.9	100.9	100.9	100.9	100.5
523	Security, commodity contracts, and like activity.....	115.2	113.5	111.7	109.2	109.1	109.2	108.8	111.3	112.0	112.6	115.3	115.6	116.5
53112	Lessors or nonresidential buildings (except miniwarehouse).....	112.8	111.0	109.0	109.5	108.8	108.8	108.8	109.4	109.1	109.7	109.3	109.4	108.4
5312	Offices of real estate agents and brokers.....	102.8	101.6	101.6	101.6	101.9	102.1	102.2	102.0	102.0	102.0	102.0	102.0	102.0
5313	Real estate support activities.....	109.8	109.9	108.6	109.9	109.2	109.7	107.3	107.6	108.2	108.2	108.7	107.2	106.6
5321	Automotive equipment rental and leasing (June 2001=100).....	123.7	128.3	133.0	133.1	135.1	134.0	137.6	141.1	142.0	140.5	135.9	132.4	129.9
5411	Legal services (December 1996=100).....	163.2	164.8	165.5	166.0	166.2	166.3	166.3	166.4	166.5	166.6	166.5	166.7	166.9
541211	Offices of certified public accountants.....	115.7	115.3	115.2	115.3	115.3	115.3	114.3	114.5	114.6	115.1	113.7	115.3	113.5
5413	Architectural, engineering, and related services (December 1996=100).....	141.9	142.9	142.9	142.8	143.0	143.0	143.0	143.0	142.9	142.9	142.8	142.8	142.8
54181	Advertising agencies.....	106.3	105.6	105.4	105.3	105.3	105.4	105.4	105.4	104.9	104.7	104.9	104.9	104.6
5613	Employment services (December 1996=100).....	124.2	123.8	124.0	123.6	123.9	123.5	123.6	123.7	123.6	123.3	123.1	122.7	122.8
56151	Travel agencies.....	101.4	101.4	101.8	102.2	100.2	100.2	98.6	98.9	98.5	98.5	98.5	98.5	98.5
56172	Janitorial services.....	109.1	109.6	109.7	109.8	109.7	109.7	109.7	110.1	110.1	110.5	110.4	110.4	110.5
5621	Waste collection.....	111.3	112.2	113.3	114.9	115.0	115.6	114.9	116.3	116.7	117.0	116.1	117.9	117.9
721	Accommodation (December 1996=100).....	141.6	140.6	139.9	141.3	141.5	141.0	143.7	146.0	144.9	140.9	140.9	138.9	136.8

p = preliminary.

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

[1982 = 100]

Index	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Finished goods</b>											
Total.....	133.0	138.0	140.7	138.9	143.3	148.5	155.7	160.4	166.6	177.1	172.6
Foods.....	135.1	137.2	141.3	140.1	145.9	152.7	155.7	156.7	167.0	178.3	175.5
Energy.....	78.8	94.1	96.7	88.8	102.0	113.0	132.6	145.9	156.3	178.7	147.2
Other.....	146.1	148.0	150.0	150.2	150.5	152.7	156.4	158.7	161.7	167.2	171.5
<b>Intermediate materials, supplies, and components</b>											
Total.....	123.2	129.2	129.7	127.8	133.7	142.6	154.0	164.0	170.7	188.3	172.6
Foods.....	120.8	119.2	124.3	123.2	134.4	145.0	146.0	146.2	161.4	180.4	165.1
Energy.....	84.3	101.7	104.1	95.9	111.9	123.2	149.2	162.8	174.6	208.1	162.8
Other.....	133.1	136.6	136.4	135.8	138.5	146.5	154.6	163.8	168.4	180.9	173.4
<b>Crude materials for further processing</b>											
Total.....	98.2	120.6	121.0	108.1	135.3	159.0	182.2	184.8	207.1	251.8	175.0
Foods.....	98.7	100.2	106.1	99.5	113.5	127.0	122.7	119.3	146.7	163.4	134.4
Energy.....	78.5	122.1	122.3	102.0	147.2	174.6	234.0	226.9	232.8	309.4	176.3
Other.....	91.1	118.0	101.5	101.0	116.9	149.2	176.7	210.0	238.7	308.5	211.0

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

[2000 = 100]

Category	2008	2009											
	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>ALL COMMODITIES.....</b>	115.8	116.6	116.3	115.5	116.1	116.6	117.8	117.4	118.1	117.9	117.9	118.9	119.6
Foods, feeds, and beverages.....	155.1	165.4	162.1	156.7	162.8	167.3	174.8	164.9	164.5	158.2	156.5	162.0	165.0
Agricultural foods, feeds, and beverages.....	156.6	167.6	164.1	158.3	165.0	170.3	178.6	167.6	167.3	160.7	159.0	164.6	167.9
Nonagricultural (fish, beverages) food products.....	143.5	147.9	145.7	144.4	145.3	141.4	141.5	142.2	140.8	137.3	135.0	139.9	140.4
Industrial supplies and materials.....	139.6	139.0	137.9	136.5	136.9	137.7	140.4	140.6	143.6	143.9	144.9	147.5	150.1
Agricultural industrial supplies and materials.....	126.1	125.6	126.2	122.9	123.6	130.2	131.0	134.9	138.0	142.2	143.9	151.8	152.4
Fuels and lubricants.....	166.8	165.8	156.2	146.9	156.9	160.2	175.2	166.0	181.6	171.9	175.5	184.6	189.6
Nonagricultural supplies and materials, excluding fuel and building materials.....	138.8	138.2	138.2	138.2	137.1	137.3	138.5	139.8	141.1	142.7	143.3	144.8	147.4
Selected building materials.....	115.1	115.5	115.3	114.0	113.5	112.5	113.0	112.8	113.7	114.0	112.5	113.0	113.5
Capital goods.....	101.5	102.1	102.3	102.3	102.8	103.0	103.1	103.2	103.4	103.5	103.2	103.3	103.2
Electric and electrical generating equipment.....	109.0	107.3	106.7	106.8	106.8	107.0	107.2	107.0	107.3	107.4	107.9	108.9	109.5
Nonelectrical machinery.....	93.3	93.7	94.0	93.8	94.3	94.4	94.4	94.5	94.7	94.9	94.4	94.6	94.5
Automotive vehicles, parts, and engines.....	108.0	108.4	108.1	108.2	108.1	108.1	108.0	107.9	107.9	108.0	108.1	108.2	108.2
Consumer goods, excluding automotive.....	109.0	109.2	109.3	108.5	107.5	107.9	108.4	108.9	109.1	109.2	109.3	109.5	109.4
Nondurables, manufactured.....	107.2	108.8	109.0	107.1	107.2	107.8	108.5	108.7	109.0	109.4	109.3	109.8	110.0
Durables, manufactured.....	109.7	109.7	109.8	109.9	107.6	107.9	108.1	109.5	109.6	109.5	109.6	109.4	109.2
Agricultural commodities.....	150.8	159.7	157.0	151.6	157.2	162.8	169.7	161.3	161.6	156.9	155.8	161.8	164.6
Nonagricultural commodities.....	113.2	113.5	113.3	112.9	113.1	113.4	114.1	114.2	115.0	115.1	115.2	115.8	116.4

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

[2000 = 100]

Category	2008	2009											
	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>ALL COMMODITIES.....</b>	114.5	113.0	113.0	113.6	114.8	116.8	120.0	119.3	121.1	121.3	122.3	124.1	124.3
Foods, feeds, and beverages.....	142.3	142.3	137.8	137.0	138.9	139.2	139.8	138.2	140.0	140.6	141.2	142.6	143.7
Agricultural foods, feeds, and beverages.....	159.4	159.0	153.0	151.3	154.3	155.0	155.5	153.2	155.7	156.8	157.3	159.5	160.8
Nonagricultural (fish, beverages) food products.....	103.8	104.5	103.4	104.8	104.1	103.6	104.4	104.2	104.5	104.1	104.9	104.5	104.9
Industrial supplies and materials.....	150.4	143.7	144.9	149.3	154.3	163.0	177.3	174.4	182.4	183.0	187.2	195.0	195.8
Fuels and lubricants.....	153.9	146.6	150.5	162.3	174.4	191.5	222.1	216.3	231.4	228.5	235.3	250.2	248.7
Petroleum and petroleum products.....	150.8	143.8	151.6	168.5	185.5	206.1	241.5	235.8	253.7	252.2	258.3	272.3	268.4
Paper and paper base stocks.....	113.2	110.3	108.8	106.6	104.6	103.3	101.8	99.1	98.4	99.1	100.5	102.4	103.1
Materials associated with nondurable supplies and materials.....	148.5	138.8	137.1	136.7	135.3	139.2	137.5	132.3	133.3	134.8	137.7	139.4	141.0
Selected building materials.....	118.1	117.2	116.5	116.2	115.2	114.5	116.0	118.0	119.2	118.9	118.6	118.5	120.7
Unfinished metals associated with durable goods...	185.7	176.5	175.9	171.6	171.1	172.8	178.3	184.8	190.6	204.0	208.0	213.1	221.5
Nonmetals associated with durable goods.....	109.0	107.1	106.2	105.2	104.3	103.4	103.0	102.8	103.5	104.3	104.8	105.2	105.4
Capital goods.....	92.7	92.7	92.3	91.8	91.9	91.9	91.9	91.9	91.9	91.9	91.9	92.0	91.8
Electric and electrical generating equipment.....	111.4	111.1	110.3	109.4	109.1	109.8	110.0	110.2	110.3	110.3	110.8	111.1	111.3
Nonelectrical machinery.....	87.5	87.5	87.2	86.6	86.8	86.7	86.5	86.5	86.5	86.5	86.4	86.5	86.3
Automotive vehicles, parts, and engines.....	107.8	108.0	107.9	107.7	107.7	107.9	108.0	108.2	108.4	108.6	108.8	108.9	108.8
Consumer goods, excluding automotive.....	104.4	104.4	104.4	103.9	104.1	104.2	104.3	104.1	104.1	104.1	104.3	104.3	104.3
Nondurables, manufactured.....	108.2	108.9	108.9	108.4	108.3	108.1	108.1	107.8	107.8	107.8	107.8	107.9	107.8
Durables, manufactured.....	100.7	100.1	100.0	99.8	100.0	100.5	100.6	100.6	100.6	100.7	100.9	100.9	100.8
Nonmanufactured consumer goods.....	103.6	102.7	104.4	101.2	102.7	101.3	101.4	101.3	100.8	101.2	101.6	101.1	102.1

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

[2000 = 100, unless indicated otherwise]

Category	2007	2008				2009			
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
Import air freight.....	141.8	144.4	158.7	157.1	138.5	132.9	132.8	134.8	163.9
Export air freight.....	127.1	132.0	140.8	144.3	135.0	124.1	117.4	121.6	122.7
Import air passenger fares (Dec. 2006 = 100).....	135.3	131.3	171.6	161.3	157.3	134.9	147.3	137.9	152.3
Export air passenger fares (Dec. 2006 = 100).....	155.7	156.4	171.4	171.9	164.6	141.7	138.2	141.3	156.1

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

[1992 = 100]

Item	2006	2007				2008				2009			
	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
<b>Business</b>													
Output per hour of all persons.....	138.7	139.0	140.2	142.1	142.6	142.7	143.8	143.9	144.2	144.3	146.7	149.3	151.7
Compensation per hour.....	173.3	175.2	176.5	177.8	179.6	180.3	181.0	183.0	184.2	182.0	184.9	187.6	188.3
Real compensation per hour.....	122.5	122.7	122.4	122.6	122.1	121.2	120.4	119.9	123.3	122.6	124.1	124.8	124.2
Unit labor costs.....	124.9	126.0	125.9	125.1	125.9	126.3	125.9	127.2	127.7	126.1	126.1	125.6	124.2
Unit nonlabor payments.....	135.1	136.7	139.4	141.9	141.9	141.7	143.8	145.4	143.6	148.1	147.9	148.8	151.8
Implicit price deflator.....	128.7	130.0	130.9	131.4	131.9	132.1	132.5	134.0	133.6	134.3	134.2	134.3	134.4
<b>Nonfarm business</b>													
Output per hour of all persons.....	137.8	138.2	139.2	141.1	141.8	141.7	142.8	142.8	143.1	143.2	145.6	148.2	150.4
Compensation per hour.....	172.3	174.2	175.1	176.3	178.5	179.2	179.8	181.8	183.1	180.9	183.9	186.4	187.1
Real compensation per hour.....	121.8	122.1	121.4	121.5	121.3	120.5	119.6	119.1	122.6	121.9	123.5	124.1	123.5
Unit labor costs.....	125.0	126.0	125.8	125.0	125.9	126.4	125.9	127.3	128.0	126.3	126.3	125.8	124.4
Unit nonlabor payments.....	136.9	138.2	140.9	143.3	143.0	142.5	144.9	146.6	145.3	150.5	150.2	151.4	153.8
Implicit price deflator.....	129.3	130.5	131.4	131.7	132.2	132.3	132.9	134.4	134.3	135.2	135.1	135.2	135.2
<b>Nonfinancial corporations</b>													
Output per hour of all employees.....	143.6	143.5	144.5	144.1	145.9	145.0	147.4	148.6	148.0	145.3	148.2	150.5	-
Compensation per hour.....	162.5	164.2	165.2	166.2	168.3	168.6	169.7	171.8	173.7	171.6	173.5	175.8	-
Real compensation per hour.....	114.9	115.0	114.6	114.5	114.4	113.4	112.9	112.5	116.3	115.6	116.5	117.0	-
Total unit costs.....	115.3	116.8	117.2	118.6	118.7	119.8	118.9	119.4	121.8	123.8	122.7	121.6	-
Unit labor costs.....	113.2	114.4	114.4	115.3	115.3	116.3	115.1	115.6	117.3	118.1	117.1	116.8	-
Unit nonlabor costs.....	120.9	123.1	124.9	127.4	127.9	129.1	129.2	129.8	134.1	139.1	138.0	134.6	-
Unit profits.....	175.8	171.2	171.8	155.6	149.9	133.0	134.7	145.3	129.5	127.5	133.8	138.9	-
Unit nonlabor payments.....	135.9	136.2	137.7	135.1	133.9	130.2	130.7	134.0	132.8	135.9	136.8	135.8	-
Implicit price deflator.....	120.8	121.8	122.2	122.0	121.6	121.0	120.4	121.8	122.5	124.1	123.7	123.2	-
<b>Manufacturing</b>													
Output per hour of all persons.....	175.3	176.9	178.2	180.1	181.6	182.8	181.6	180.3	178.1	177.0	179.9	186.1	189.6
Compensation per hour.....	169.5	172.9	172.9	172.9	175.6	175.7	176.9	178.8	183.9	183.7	186.6	189.5	189.5
Real compensation per hour.....	119.9	121.1	119.9	119.2	119.4	118.1	117.6	117.1	123.1	123.7	125.3	126.1	125.0
Unit labor costs.....	96.7	97.7	97.0	96.0	96.7	96.1	97.4	99.2	103.2	103.8	103.7	101.9	99.9

NOTE: Dash indicates data not available.

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

[2000 = 100, unless otherwise indicated]

Item	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Private business</b>													
Productivity:													
Output per hour of all persons.....	90.0	91.7	94.3	97.2	100.0	102.8	107.1	111.2	114.5	116.6	117.6	119.5	122.7
Output per unit of capital services.....	105.3	105.3	103.8	102.3	100.0	96.0	94.7	95.5	97.2	98.1	98.4	97.7	95.6
Multifactor productivity.....	95.3	96.2	97.4	98.8	100.0	100.4	102.5	105.4	108.2	109.7	110.3	110.7	112.0
Output.....	82.8	87.2	91.5	96.2	100.0	100.5	102.0	105.2	109.7	113.6	117.1	119.5	120.4
Inputs:													
Labor input.....	90.8	94.4	96.5	98.8	100.0	98.2	96.2	95.8	96.9	98.8	101.2	102.3	100.3
Capital services.....	78.7	82.9	88.2	94.1	100.0	104.6	107.7	110.2	112.9	115.8	119.1	122.3	125.9
Combined units of labor and capital input.....	86.9	90.7	93.9	97.4	100.0	100.0	99.5	99.9	101.4	103.6	106.2	108.0	107.6
Capital per hour of all persons.....	85.5	87.1	90.9	95.0	100.0	107.0	113.1	116.5	117.8	118.9	119.6	122.3	128.3
<b>Private nonfarm business</b>													
Productivity:													
Output per hour of all persons.....	90.5	92.0	94.5	97.3	100.0	102.7	107.1	111.1	114.2	116.1	117.2	118.9	122.3
Output per unit of capital services.....	106.1	105.8	104.2	102.6	100.0	96.0	94.5	95.2	96.9	97.7	97.9	97.0	95.1
Multifactor productivity.....	95.8	96.5	97.7	99.0	100.0	100.4	102.5	105.2	108.0	109.3	109.9	110.1	111.4
Output.....	82.8	87.2	91.5	96.3	100.0	100.5	102.1	105.2	109.6	113.5	117.1	119.4	120.4
Inputs:													
Labor input.....	90.4	94.0	96.3	98.8	100.0	98.4	96.4	96.0	97.1	99.1	101.6	102.8	100.9
Capital services.....	78.1	82.4	87.8	93.9	100.0	104.7	107.9	110.5	113.1	116.1	119.6	123.1	126.7
Combined units of labor and capital input.....	86.5	90.4	93.7	97.3	100.0	100.2	99.6	100.0	101.5	103.8	106.6	108.4	108.1
Capital per hour of all persons.....	85.3	86.9	90.7	94.8	100.0	107.0	113.2	116.7	117.8	118.9	119.7	122.6	128.8
<b>Manufacturing [1996 = 100]</b>													
Productivity:													
Output per hour of all persons.....	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.....	98.0	100.6	100.7	100.4	100.0	93.5	92.3	93.2	95.4	98.9	100.2	—	—
Multifactor productivity.....	91.2	93.8	95.9	96.7	100.0	98.7	102.4	105.2	108.0	108.4	110.1	—	—
Output.....	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.....	100.4	102.2	101.9	101.3	100.0	93.5	86.8	82.6	82.2	81.3	81.8	—	—
Capital services.....	84.8	88.7	93.2	97.0	100.0	101.5	102.1	102.1	101.6	101.5	102.0	—	—
Energy.....	110.4	108.2	105.4	105.5	100.0	90.6	89.3	84.4	84.0	91.6	86.6	—	—
Nonenergy materials.....	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.....	88.5	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.....	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	1964	1974	1984	1994	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Business</b>													
Output per hour of all persons.....	57.0	72.5	85.5	101.4	120.7	126.2	131.0	134.9	137.1	138.5	141.0	143.6	147.9
Compensation per hour.....	16.2	31.8	68.9	103.8	140.9	145.3	152.3	157.6	163.8	170.1	177.3	182.1	185.7
Real compensation per hour.....	68.4	84.1	90.5	99.2	114.0	115.6	118.6	119.5	120.2	120.8	122.4	121.1	123.9
Unit labor costs.....	28.5	43.8	80.6	102.3	116.7	115.1	116.2	116.9	119.5	122.8	125.7	126.8	125.5
Unit nonlabor payments.....	27.2	39.7	80.4	106.1	111.0	116.1	118.7	125.8	131.9	135.9	140.0	143.6	149.2
Implicit price deflator.....	28.0	42.3	80.5	103.7	114.6	115.5	117.1	120.2	124.1	127.7	131.0	133.0	134.3
<b>Nonfarm business</b>													
Output per hour of all persons.....	59.8	74.5	86.4	101.6	120.2	125.7	130.3	134.0	136.2	137.5	140.1	142.6	146.8
Compensation per hour.....	16.6	31.9	69.2	103.8	140.1	144.5	151.4	156.6	162.8	169.0	176.0	181.0	184.6
Real compensation per hour.....	70.0	84.6	90.9	99.2	113.3	115.0	117.9	118.7	119.4	120.0	121.6	120.4	123.2
Unit labor costs.....	27.8	42.9	80.1	102.2	116.5	115.0	116.2	116.8	119.5	122.9	125.7	126.9	125.7
Unit nonlabor payments.....	27.1	37.9	79.5	106.6	112.6	118.1	120.1	126.7	133.6	138.0	141.4	144.8	151.5
Implicit price deflator.....	27.5	41.0	79.9	103.8	115.1	116.1	117.6	120.4	124.7	128.5	131.5	133.5	135.2
<b>Nonfinancial corporations</b>													
Output per hour of all employees.....	62.6	73.0	87.4	102.3	123.5	127.9	133.0	137.5	141.0	143.0	144.5	147.2	—
Compensation per hour.....	18.2	34.0	71.6	103.6	137.3	140.9	147.3	150.9	155.7	160.2	166.0	170.9	—
Real compensation per hour.....	76.9	90.0	94.0	99.0	111.0	112.2	114.7	114.4	114.2	113.8	114.6	113.7	—
Total unit costs.....	27.7	45.1	81.8	100.9	111.5	110.9	111.3	110.1	111.8	113.8	117.8	120.0	—
Unit labor costs.....	29.2	46.5	82.0	101.3	111.2	110.2	110.8	109.7	110.4	112.0	114.9	116.1	—
Unit nonlabor costs.....	23.9	41.3	81.4	99.6	112.3	112.9	112.7	111.3	115.4	118.9	125.8	130.5	—
Unit profits.....	58.6	47.5	106.4	134.0	84.0	96.6	107.3	142.7	161.1	179.9	162.1	135.7	—
Unit nonlabor payments.....	33.3	42.9	88.2	109.0	104.6	108.5	111.2	119.8	127.8	135.5	135.7	131.9	—
Implicit price deflator.....	30.6	45.3	84.1	103.9	109.0	109.6	110.9	113.1	116.3	119.9	121.9	121.4	—
<b>Manufacturing</b>													
Output per hour of all persons.....	—	—	—	106.2	141.2	151.0	160.4	164.0	171.9	173.7	179.2	180.7	183.1
Compensation per hour.....	—	—	—	104.8	137.5	145.1	156.7	157.9	163.2	166.4	173.6	178.7	187.3
Real compensation per hour.....	—	—	—	100.1	111.2	115.5	122.0	119.7	119.7	118.2	119.9	118.9	125.0
Unit labor costs.....	—	—	—	98.7	97.4	96.1	97.7	96.3	94.9	95.8	96.9	98.9	102.3
Unit nonlabor payments.....	—	—	—	102.8	102.1	101.2	103.3	111.3	122.5	128.0	—	—	—
Implicit price deflator.....	—	—	—	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

[2002=100]

NAICS	Industry	1987	1992	1997	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Mining</b>													
21	Mining.....	75.1	83.7	88.1	97.8	96.1	100.0	102.2	94.1	84.6	76.9	71.9	-
211	Oil and gas extraction.....	64.7	65.9	80.8	96.5	98.2	100.0	105.1	90.2	87.1	81.0	78.3	-
2111	Oil and gas extraction.....	64.7	65.9	80.8	96.5	98.2	100.0	105.1	90.2	87.1	81.0	78.3	-
212	Mining, except oil and gas.....	62.6	78.4	90.3	96.0	98.5	100.0	102.8	104.9	103.1	100.3	95.0	-
2121	Coal mining.....	51.7	67.2	89.5	103.7	102.3	100.0	101.5	101.5	96.5	89.3	90.4	-
2122	Metal ore mining.....	51.4	66.0	72.4	87.9	95.7	100.0	102.9	99.2	94.0	89.1	75.4	-
2123	Nonmetallic mineral mining and quarrying.....	85.0	93.1	96.5	92.8	95.9	100.0	104.5	110.4	114.3	115.8	106.0	-
213	Support activities for mining.....	76.7	87.6	96.6	97.5	106.7	100.0	131.7	164.5	140.1	142.1	151.5	-
2131	Support activities for mining.....	76.7	87.6	96.6	97.5	106.7	100.0	131.7	164.5	140.1	142.1	151.5	-
<b>Utilities</b>													
2211	Power generation and supply.....	63.7	72.4	97.2	103.9	103.4	100.0	102.1	104.4	111.1	112.1	110.1	-
2212	Natural gas distribution.....	58.7	66.0	86.6	98.1	95.3	100.0	98.9	102.5	105.8	103.2	103.7	-
<b>Manufacturing</b>													
311	Food.....	80.9	85.0	86.9	93.5	95.4	100.0	101.6	101.0	106.2	104.1	101.4	-
3111	Animal food.....	58.6	63.6	70.4	77.0	92.0	100.0	117.7	104.6	119.5	108.2	109.4	-
3112	Grain and oilseed milling.....	66.0	74.2	81.4	92.3	97.6	100.0	100.7	105.1	106.6	102.3	104.1	-
3113	Sugar and confectionery products.....	80.4	81.9	92.5	102.3	100.3	100.0	100.4	107.3	120.4	113.5	103.4	-
3114	Fruit and vegetable preserving and specialty.....	73.1	72.3	78.7	88.7	95.7	100.0	97.2	99.5	103.3	98.0	104.5	-
3115	Dairy products.....	77.4	89.1	94.6	89.6	92.1	100.0	104.2	102.0	101.9	100.7	99.4	-
3116	Animal slaughtering and processing.....	90.1	94.4	93.0	95.7	96.0	100.0	99.9	100.4	109.7	109.4	105.8	-
3117	Seafood product preparation and packaging.....	72.5	69.4	58.9	82.7	89.8	100.0	101.8	96.5	110.5	122.0	109.2	-
3118	Bakeries and tortilla manufacturing.....	85.5	86.2	87.5	96.6	98.4	100.0	97.9	100.1	104.3	103.8	101.3	-
3119	Other food products.....	86.8	86.9	89.1	100.4	94.2	100.0	105.0	106.1	102.6	102.6	94.7	-
312	Beverages and tobacco products.....	94.9	111.0	121.4	107.3	108.3	100.0	111.4	114.6	120.8	113.0	109.5	-
3121	Beverages.....	77.8	95.7	100.8	91.6	93.2	100.0	110.8	115.4	120.9	112.6	112.7	-
3122	Tobacco and tobacco products.....	107.2	116.0	149.3	143.0	146.6	100.0	116.7	121.5	136.5	138.1	137.3	-
313	Textile mills.....	59.8	66.6	81.3	86.3	89.4	100.0	111.1	113.0	122.9	122.2	124.1	-
3131	Fiber, yarn, and thread mills.....	50.0	60.2	75.2	75.6	82.5	100.0	112.1	116.7	108.8	105.5	115.7	-
3132	Fabric mills.....	56.0	67.2	82.5	90.2	91.4	100.0	114.0	115.3	133.0	140.7	141.5	-
3133	Textile and fabric finishing mills.....	76.5	69.9	83.6	87.2	91.0	100.0	104.1	104.5	113.3	102.4	98.5	-
314	Textile product mills.....	82.2	82.0	91.4	101.3	97.8	100.0	102.8	115.0	121.1	110.9	98.5	-
3141	Textile furnishings mills.....	86.1	87.4	94.4	100.5	98.0	100.0	105.6	115.1	118.8	107.7	99.9	-
3149	Other textile product mills.....	78.7	79.1	93.1	105.9	99.0	100.0	98.0	116.4	128.3	120.9	103.2	-
315	Apparel.....	73.1	77.8	100.3	116.9	117.2	100.0	106.7	94.2	94.4	86.0	60.4	-
3151	Apparel knitting mills.....	71.3	86.9	92.8	100.4	97.3	100.0	93.2	83.7	97.8	97.7	65.6	-
3152	Cut and sew apparel.....	70.4	73.1	99.6	119.2	119.7	100.0	109.7	96.4	91.9	82.4	58.2	-
3159	Accessories and other apparel.....	129.9	129.8	132.2	129.8	137.4	100.0	105.8	95.8	109.8	96.3	71.6	-
316	Leather and allied products.....	84.7	95.2	121.1	133.4	138.0	100.0	105.7	130.3	130.6	135.8	128.4	-
3161	Leather and hide tanning and finishing.....	138.4	131.6	153.7	136.7	140.1	100.0	103.1	135.7	142.2	127.8	166.5	-
3162	Footwear.....	78.5	86.0	102.5	122.2	131.5	100.0	107.7	112.6	118.6	126.7	101.6	-
3169	Other leather products.....	117.2	127.9	135.3	143.2	140.8	100.0	109.7	165.5	160.7	183.1	178.6	-
321	Wood products.....	83.1	86.8	87.5	90.2	91.7	100.0	101.6	102.2	107.6	110.9	111.2	-
3211	Sawmills and wood preservation.....	67.3	74.1	86.9	90.9	90.6	100.0	108.3	103.9	108.3	113.4	107.7	-
3212	Plywood and engineered wood products.....	90.3	103.4	90.4	89.6	95.1	100.0	96.7	92.3	99.6	105.5	109.4	-
3219	Other wood products.....	89.9	87.8	87.3	90.4	90.9	100.0	100.7	106.5	111.5	113.2	115.4	-
322	Paper and paper products.....	75.4	79.7	87.7	93.5	93.8	100.0	104.3	108.0	108.6	109.8	113.8	-
3221	Pulp, paper, and paperboard mills.....	61.7	66.4	75.4	88.0	90.4	100.0	106.0	110.3	110.2	110.8	114.0	-
3222	Converted paper products.....	84.4	89.2	94.8	96.0	95.3	100.0	104.0	107.5	108.7	110.3	115.4	-
323	Printing and related support activities.....	87.7	91.1	88.9	95.0	95.1	100.0	100.4	103.8	109.2	111.8	115.4	-
3231	Printing and related support activities.....	87.7	91.1	88.9	95.0	95.1	100.0	100.4	103.8	109.2	111.8	115.4	-
324	Petroleum and coal products.....	60.8	67.0	85.6	96.8	94.9	100.0	102.0	105.9	106.2	104.3	105.8	-
3241	Petroleum and coal products.....	60.8	67.0	85.6	96.8	94.9	100.0	102.0	105.9	106.2	104.3	105.8	-
325	Chemicals.....	75.0	75.9	87.3	92.9	92.0	100.0	101.2	105.3	109.4	109.1	116.7	-
3251	Basic chemicals.....	76.1	72.4	80.2	94.6	87.6	100.0	108.5	121.8	129.6	134.1	154.9	-
3252	Resin, rubber, and artificial fibers.....	62.9	65.4	81.2	89.0	86.3	100.0	97.7	97.3	103.4	105.5	108.6	-
3253	Agricultural chemicals.....	80.8	82.5	100.6	92.8	89.9	100.0	110.4	121.0	139.2	134.7	142.8	-
3254	Pharmaceuticals and medicines.....	89.6	89.9	102.7	98.2	102.2	100.0	102.8	103.7	107.3	107.6	105.1	-
3255	Paints, coatings, and adhesives.....	81.6	81.6	91.4	90.5	97.3	100.0	106.1	109.7	111.2	106.7	104.4	-
3256	Soap, cleaning compounds, and toiletries.....	67.8	68.5	80.0	82.3	84.6	100.0	92.7	102.6	109.7	111.3	134.3	-
3259	Other chemical products and preparations.....	62.3	70.7	82.6	98.1	90.9	100.0	98.6	96.2	96.0	91.5	105.7	-
326	Plastics and rubber products.....	67.3	73.8	82.7	91.1	92.8	100.0	103.8	105.9	108.7	108.6	108.1	-
3261	Plastics products.....	67.3	73.2	80.8	90.7	92.4	100.0	103.9	105.8	108.5	106.8	105.1	-
3262	Rubber products.....	71.3	79.3	93.2	94.8	95.5	100.0	103.5	106.4	109.4	114.2	119.5	-
327	Nonmetallic mineral products.....	83.6	86.4	95.1	98.6	95.6	100.0	107.1	105.3	111.6	110.7	111.5	-
3271	Clay products and refractories.....	90.6	92.7	102.7	108.5	99.1	100.0	109.5	116.0	122.0	122.2	115.2	-

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

[2002=100]

NAICS	Industry	1987	1992	1997	2000	2001	2002	2003	2004	2005	2006	2007	2008
3272	Glass and glass products.....	75.6	77.6	91.1	100.2	94.1	100.0	106.7	105.7	111.8	119.2	118.6	-
3273	Cement and concrete products.....	90.5	93.3	97.0	99.3	95.5	100.0	106.3	101.0	104.6	101.6	105.4	-
3274	Lime and gypsum products.....	89.3	90.3	101.2	99.8	103.1	100.0	109.3	107.2	121.9	119.3	113.9	-
3279	Other nonmetallic mineral products.....	79.4	85.6	94.9	90.3	95.2	100.0	105.7	106.8	118.5	112.8	109.7	-
331	Primary metals.....	70.4	76.7	86.9	88.0	87.6	100.0	103.4	116.7	119.8	119.7	129.3	-
3311	Iron and steel mills and ferroalloy production.....	51.9	59.9	80.1	84.6	83.6	100.0	106.1	136.5	134.2	138.1	142.3	-
3312	Steel products from purchased steel.....	81.9	92.5	102.9	99.1	101.3	100.0	91.8	82.6	77.7	70.0	68.6	-
3313	Alumina and aluminum production.....	72.7	76.9	80.3	77.5	77.2	100.0	101.8	110.4	125.3	123.1	132.0	-
3314	Other nonferrous metal production.....	90.8	93.3	93.7	96.2	93.4	100.0	109.6	110.3	106.1	95.2	115.7	-
3315	Foundries.....	69.4	73.7	85.5	88.7	91.2	100.0	100.4	106.8	111.4	114.1	115.3	-
332	Fabricated metal products.....	78.3	82.3	90.1	94.7	94.5	100.0	103.4	102.9	106.5	109.2	111.1	-
3321	Forging and stamping.....	68.8	74.2	80.4	97.8	97.3	100.0	107.3	113.8	118.5	121.4	128.4	-
3322	Cutlery and handtools.....	76.1	76.8	88.1	93.4	97.3	100.0	99.2	90.9	95.4	97.2	109.1	-
3323	Architectural and structural metals.....	83.5	87.3	94.0	95.6	95.5	100.0	103.7	99.2	104.3	107.6	107.2	-
3324	Boilers, tanks, and shipping containers.....	86.7	96.2	100.6	95.2	95.0	100.0	103.7	96.0	99.4	101.1	104.4	-
3325	Hardware.....	77.0	75.8	86.8	99.4	98.4	100.0	105.7	104.5	106.8	107.2	91.6	-
3326	Spring and wire products.....	65.4	72.2	79.6	89.7	89.0	100.0	106.0	104.3	110.9	110.5	108.4	-
3327	Machine shops and threaded products.....	65.2	73.4	87.2	94.9	95.3	100.0	100.5	101.7	101.0	102.1	104.5	-
3328	Coating, engraving, and heat treating metals.....	64.1	73.8	85.7	89.4	92.5	100.0	100.3	106.1	118.0	115.6	118.6	-
3329	Other fabricated metal products.....	85.5	84.9	93.9	93.9	90.6	100.0	104.5	104.8	106.6	111.1	111.8	-
333	Machinery.....	70.0	74.0	85.8	95.7	93.7	100.0	108.1	109.4	115.9	119.5	119.7	-
3331	Agriculture, construction, and mining machinery.....	69.1	74.7	96.1	96.1	95.3	100.0	112.3	120.8	124.0	125.1	120.9	-
3332	Industrial machinery.....	63.4	67.3	84.8	109.9	89.6	100.0	98.9	107.3	105.3	116.3	119.0	-
3333	Commercial and service industry machinery.....	88.9	102.5	102.1	102.9	97.1	100.0	107.5	109.6	118.4	127.4	114.6	-
3334	HVAC and commercial refrigeration equipment.....	70.6	76.8	84.1	90.8	93.3	100.0	109.6	112.1	116.1	113.0	108.8	-
3335	Metalworking machinery.....	75.8	79.8	89.6	96.2	94.2	100.0	103.9	102.9	110.9	111.7	117.3	-
3336	Turbine and power transmission equipment.....	61.5	61.9	76.6	88.1	97.3	100.0	110.3	96.4	100.6	96.4	96.1	-
3339	Other general purpose machinery.....	70.5	72.0	84.7	96.1	93.5	100.0	108.1	107.4	117.4	121.8	124.4	-
334	Computer and electronic products.....	15.1	23.0	53.0	96.2	96.3	100.0	114.2	127.9	134.9	146.2	157.9	-
3341	Computer and peripheral equipment.....	3.7	7.2	33.5	78.4	84.4	100.0	121.5	133.9	172.7	233.1	285.0	-
3342	Communications equipment.....	31.2	47.5	78.2	128.4	120.1	100.0	113.4	122.0	118.5	146.3	139.5	-
3343	Audio and video equipment.....	41.6	63.1	67.0	84.9	86.7	100.0	112.6	155.8	149.2	147.1	106.9	-
3344	Semiconductors and electronic components.....	6.4	11.3	37.8	87.5	87.1	100.0	121.0	133.8	140.7	137.7	159.2	-
3345	Electronic instruments.....	59.3	72.7	84.4	98.4	100.4	100.0	106.1	122.4	124.4	128.8	138.2	-
3346	Magnetic media manufacturing and reproduction.....	77.0	81.3	89.7	93.3	88.7	100.0	114.5	128.8	129.7	124.9	128.2	-
335	Electrical equipment and appliances.....	66.0	72.5	88.1	98.3	98.2	100.0	103.5	109.2	114.3	114.7	117.6	-
3351	Electric lighting equipment.....	80.6	83.4	88.6	90.2	94.3	100.0	98.5	108.1	112.7	121.6	122.7	-
3352	Household appliances.....	53.5	62.4	76.0	89.3	94.9	100.0	111.6	121.2	124.6	129.7	125.9	-
3353	Electrical equipment.....	67.3	77.5	98.1	97.5	98.9	100.0	102.1	110.7	117.9	119.7	126.3	-
3359	Other electrical equipment and components.....	68.7	71.8	87.3	104.7	99.0	100.0	102.0	101.8	106.3	101.5	105.9	-
336	Transportation equipment.....	65.5	70.5	78.7	85.7	89.2	100.0	109.0	108.3	113.8	114.8	122.1	-
3361	Motor vehicles.....	60.4	72.4	79.5	87.1	87.3	100.0	112.0	113.2	118.5	130.6	136.8	-
3362	Motor vehicle bodies and trailers.....	81.0	83.0	95.2	93.7	84.2	100.0	103.8	104.8	107.8	103.3	110.5	-
3363	Motor vehicle parts.....	60.3	63.1	76.9	86.1	88.1	100.0	104.8	105.5	109.8	108.4	111.9	-
3364	Aerospace products and parts.....	73.5	81.3	84.2	86.9	97.4	100.0	99.2	93.9	102.6	97.3	109.0	-
3365	Railroad rolling stock.....	38.0	55.9	68.5	81.1	86.3	100.0	94.1	87.2	88.4	95.2	94.4	-
3366	Ship and boat building.....	73.3	76.1	76.6	94.4	93.3	100.0	103.7	106.8	102.4	97.8	99.5	-
3369	Other transportation equipment.....	48.7	59.3	65.5	83.3	83.4	100.0	110.0	110.4	112.8	122.9	148.8	-
337	Furniture and related products.....	75.9	78.4	88.7	91.3	92.0	100.0	102.0	103.3	107.5	109.2	106.2	-
3371	Household and institutional furniture.....	77.3	81.4	89.3	92.7	94.7	100.0	101.1	100.8	105.9	109.7	105.7	-
3372	Office furniture and fixtures.....	74.0	74.0	86.3	86.9	84.7	100.0	106.3	110.4	112.4	107.2	104.3	-
3379	Other furniture related products.....	77.4	78.0	89.6	90.2	94.8	100.0	99.4	109.4	115.5	120.5	119.5	-
339	Miscellaneous manufacturing.....	64.5	71.1	79.3	92.6	94.0	100.0	106.9	106.4	114.8	118.4	114.4	-
3391	Medical equipment and supplies.....	57.7	68.5	76.6	90.3	93.8	100.0	107.6	108.6	116.2	117.8	113.7	-
3399	Other miscellaneous manufacturing.....	71.8	74.5	83.1	96.0	94.7	100.0	105.8	104.6	113.0	117.8	113.5	-
	<b>Wholesale trade</b>												
42	Wholesale trade.....	59.5	70.3	81.2	94.5	95.5	100.0	103.5	109.0	109.4	110.9	110.8	110.5
423	Durable goods.....	44.5	53.9	71.5	89.2	92.0	100.0	104.6	115.1	118.9	122.9	121.9	122.3
4231	Motor vehicles and parts.....	55.9	63.1	75.0	87.5	90.0	100.0	103.2	107.6	110.0	119.5	114.1	105.3
4232	Furniture and furnishings.....	69.5	82.4	86.3	97.0	95.5	100.0	106.9	112.2	109.6	113.0	105.2	88.4
4233	Lumber and construction supplies.....	88.0	89.1	80.7	86.9	94.1	100.0	107.4	112.4	113.0	108.9	103.4	102.2
4234	Commercial equipment.....	10.6	17.8	37.8	68.7	82.3	100.0	112.9	133.2	151.1	167.1	180.4	197.0
4235	Metals and minerals.....	105.6	112.3	103.9	97.5	98.0	100.0	101.2	110.4	107.5	103.0	95.1	87.1
4236	Electric goods.....	26.8	35.1	62.7	95.8	92.5	100.0	103.9	121.7	127.3	137.3	144.2	148.0
4237	Hardware and plumbing.....	80.2	91.9	97.6	101.1	98.0	100.0	101.3	104.5	101.0	101.4	96.5	89.5
4238	Machinery and supplies.....	74.0	80.5	99.8	105.2	102.6	100.0	103.1	112.0	117.0	119.8	115.5	123.0

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

[2002=100]

NAICS	Industry	1987	1992	1997	2000	2001	2002	2003	2004	2005	2006	2007	2008
4239	Miscellaneous durable goods.....	72.0	87.0	80.2	91.7	93.8	100.0	96.0	107.7	107.0	96.7	93.8	96.5
424	Nondurable goods.....	86.1	96.3	94.6	99.4	99.3	100.0	104.4	107.4	107.7	105.8	105.0	104.5
4241	Paper and paper products.....	73.5	82.8	85.9	86.6	89.7	100.0	102.7	112.2	121.5	117.2	124.4	113.8
4242	Druggists' goods.....	78.8	98.7	111.5	95.7	94.6	100.0	111.6	117.9	124.8	121.7	113.3	121.2
4243	Apparel and piece goods.....	70.3	78.3	81.5	88.7	93.9	100.0	102.6	106.7	114.8	115.0	113.5	118.8
4244	Grocery and related products.....	89.3	106.1	101.5	103.9	103.3	100.0	106.4	105.6	104.7	104.5	107.3	103.5
4245	Farm product raw materials.....	83.1	84.8	101.8	107.2	104.1	100.0	100.1	111.3	113.4	120.4	119.9	122.0
4246	Chemicals.....	101.5	118.1	112.3	98.7	95.8	100.0	103.5	102.4	97.5	93.0	92.6	93.4
4247	Petroleum.....	54.9	73.9	65.1	89.9	91.5	100.0	98.4	106.2	98.6	95.8	92.0	93.5
4248	Alcoholic beverages.....	92.9	97.5	93.6	101.5	99.6	100.0	101.1	96.6	97.4	100.7	100.8	96.6
4249	Miscellaneous nondurable goods.....	104.9	92.5	94.3	108.1	105.3	100.0	103.5	113.5	116.4	113.4	109.0	101.5
425	Electronic markets and agents and brokers.....	58.6	77.0	91.1	109.4	100.9	100.0	95.3	89.4	79.6	84.2	91.4	89.0
4251	Electronic markets and agents and brokers.....	58.6	77.0	91.1	109.4	100.9	100.0	95.3	89.4	79.6	84.2	91.4	89.0
	<b>Retail trade</b>												
44-45	Retail trade.....	63.1	67.9	79.6	92.5	95.6	100.0	104.8	109.8	112.5	116.8	120.0	117.9
441	Motor vehicle and parts dealers.....	65.4	73.4	83.4	95.3	96.7	100.0	103.6	106.2	105.6	107.5	109.0	99.3
4411	Automobile dealers.....	67.6	76.4	85.3	97.0	98.5	100.0	101.9	106.4	105.4	106.9	109.2	99.1
4412	Other motor vehicle dealers.....	55.4	63.5	74.8	86.2	93.2	100.0	100.1	107.2	100.8	106.9	108.3	110.1
4413	Auto parts, accessories, and tire stores.....	66.7	76.9	92.9	100.7	94.1	100.0	106.9	102.3	107.3	108.2	105.6	101.4
442	Furniture and home furnishings stores.....	58.1	66.8	77.4	89.7	94.7	100.0	104.1	113.5	116.4	121.1	128.1	128.5
4421	Furniture stores.....	61.8	72.8	79.9	89.5	95.6	100.0	102.9	111.2	113.7	119.8	123.2	121.6
4422	Home furnishings stores.....	53.0	59.0	74.1	89.7	93.5	100.0	105.7	116.3	119.5	123.0	133.9	136.5
443	Electronics and appliance stores.....	16.3	24.1	42.8	74.4	84.2	100.0	125.3	143.1	158.1	177.3	201.1	232.9
4431	Electronics and appliance stores.....	16.3	24.1	42.8	74.4	84.2	100.0	125.3	143.1	158.1	177.3	201.1	232.9
444	Building material and garden supply stores.....	62.8	67.5	82.8	93.7	96.7	100.0	105.2	111.3	111.4	113.9	116.8	117.8
4441	Building material and supplies dealers.....	64.0	68.3	82.5	94.9	96.2	100.0	105.0	110.4	111.3	113.5	114.5	112.1
4442	Lawn and garden equipment and supplies stores.....	56.5	63.5	84.6	87.2	100.1	100.0	106.3	118.4	111.8	116.7	136.1	164.4
445	Food and beverage stores.....	105.9	101.8	95.5	96.5	99.1	100.0	102.3	107.8	112.6	115.2	118.2	116.0
4451	Grocery stores.....	106.1	102.1	95.5	96.5	98.6	100.0	101.9	107.1	111.5	112.9	115.1	113.5
4452	Specialty food stores.....	131.5	106.1	95.0	93.6	102.8	100.0	106.5	114.3	118.8	131.2	140.1	128.7
4453	Beer, wine, and liquor stores.....	85.0	85.8	90.8	96.0	97.2	100.0	106.3	116.0	127.0	132.5	141.1	134.1
446	Health and personal care stores.....	68.4	73.1	81.3	91.3	94.5	100.0	105.3	109.2	108.8	113.0	112.1	112.5
4461	Health and personal care stores.....	68.4	73.1	81.3	91.3	94.5	100.0	105.3	109.2	108.8	113.0	112.1	112.5
447	Gasoline stations.....	67.1	70.2	79.9	86.1	90.2	100.0	95.8	97.7	99.4	98.9	101.4	100.8
4471	Gasoline stations.....	67.1	70.2	79.9	86.1	90.2	100.0	95.8	97.7	99.4	98.9	101.4	100.8
448	Clothing and clothing accessories stores.....	50.5	57.6	76.2	94.1	96.3	100.0	105.8	106.0	112.4	122.8	132.4	136.7
4481	Clothing stores.....	49.4	58.0	73.6	91.9	95.8	100.0	104.3	103.6	112.4	123.4	135.0	144.3
4482	Shoe stores.....	52.2	59.9	79.9	87.9	89.0	100.0	105.8	99.7	105.5	116.2	113.7	112.3
4483	Jewelry, luggage, and leather goods stores.....	54.4	53.2	84.3	110.0	104.4	100.0	111.9	121.6	117.0	124.2	134.2	122.0
451	Sporting goods, hobby, book, and music stores.....	58.7	67.7	78.4	94.9	99.6	100.0	103.1	118.4	128.2	133.3	131.2	135.4
4511	Sporting goods and musical instrument stores.....	53.8	63.4	73.5	95.1	98.9	100.0	103.7	122.0	132.0	140.1	137.0	141.7
4512	Book, periodical, and music stores.....	70.7	77.5	89.6	94.7	101.2	100.0	101.8	110.7	120.1	118.5	118.7	121.7
452	General merchandise stores.....	56.9	64.3	77.5	93.1	96.7	100.0	106.0	109.0	112.4	116.1	116.7	115.8
4521	Department stores.....	85.7	89.6	97.9	103.8	101.5	100.0	104.3	107.5	108.9	111.3	104.2	97.3
4529	Other general merchandise stores.....	30.5	38.9	55.8	82.4	92.2	100.0	105.8	107.1	110.7	113.9	120.3	123.2
453	Miscellaneous store retailers.....	54.7	61.9	84.0	95.8	94.6	100.0	105.9	109.8	116.7	128.4	133.8	136.8
4531	Florists.....	68.2	73.6	87.9	101.3	90.3	100.0	95.7	90.9	108.5	125.5	118.2	140.6
4532	Office supplies, stationery and gift stores.....	43.4	52.6	70.7	89.9	93.5	100.0	108.8	122.1	128.9	143.1	151.8	147.4
4533	Used merchandise stores.....	45.4	57.6	70.4	82.0	85.8	100.0	105.4	107.4	110.4	117.6	131.9	148.6
4539	Other miscellaneous store retailers.....	72.4	75.5	106.0	110.6	102.7	100.0	105.8	102.7	107.4	119.0	123.1	121.3
454	Nonstore retailers.....	27.9	33.5	54.9	83.6	89.9	100.0	107.4	118.4	121.3	140.4	152.4	154.8
4541	Electronic shopping and mail-order houses.....	18.5	23.6	47.0	75.3	84.4	100.0	114.5	128.3	136.4	160.6	176.6	170.5
4542	Vending machine operators.....	104.6	101.6	109.6	121.7	104.9	100.0	112.1	121.1	125.7	139.7	142.3	160.9
4543	Direct selling establishments.....	52.4	58.4	74.0	90.7	94.7	100.0	94.1	96.5	88.9	95.8	99.9	99.4
	<b>Transportation and warehousing</b>												
481	Air transportation.....	76.7	80.0	98.3	96.0	91.0	100.0	110.2	124.2	133.6	140.5	143.0	-
482111	Line-haul railroads.....	44.7	62.3	75.8	86.6	92.4	100.0	105.0	107.2	103.3	109.3	104.4	-
48412	General freight trucking, long-distance.....	80.1	91.4	93.5	95.3	96.4	100.0	103.5	103.4	105.9	105.9	107.8	-
48421	Used household and office goods moving.....	130.9	137.9	122.6	116.2	102.9	100.0	105.7	108.6	108.5	109.0	114.3	-
491	U.S. Postal service.....	85.4	89.4	93.9	99.1	99.8	100.0	101.3	103.4	104.5	104.5	105.3	-
4911	U.S. Postal service.....	85.4	89.4	93.9	99.1	99.8	100.0	101.3	103.4	104.5	104.5	105.3	-
492	Couriers and messengers.....	103.6	108.8	69.8	90.0	92.6	100.0	102.2	96.7	95.3	98.0	92.5	-
493	Warehousing and storage.....	-	62.4	81.9	89.5	94.4	100.0	102.2	100.3	101.1	97.8	94.5	-
4931	Warehousing and storage.....	-	62.4	81.9	89.5	94.4	100.0	102.2	100.3	101.1	97.8	94.5	-
49311	General warehousing and storage.....	-	44.9	73.5	85.1	92.8	100.0	102.1	96.2	97.0	95.6	91.3	-
49312	Refrigerated warehousing and storage.....	-	106.7	114.7	109.4	98.0	100.0	105.8	114.0	101.8	92.2	97.7	-

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

[2002=100]

NAICS	Industry	1987	1992	1997	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Information</b>													
511	Publishing industries, except internet.....	54.7	62.5	85.3	99.9	99.5	100.0	107.8	111.6	116.6	123.1	128.1	-
5111	Newspaper, book, and directory publishers.....	100.3	91.7	95.6	102.9	101.0	100.0	104.7	101.9	103.1	107.2	109.1	-
5112	Software publishers.....	8.3	35.3	81.9	97.7	96.2	100.0	113.1	131.5	142.1	146.3	151.2	-
51213	Motion picture and video exhibition.....	90.9	104.2	100.2	106.7	101.8	100.0	100.6	103.8	102.5	107.5	110.8	-
515	Broadcasting, except internet.....	95.7	99.0	96.2	99.6	95.5	100.0	103.8	108.2	111.7	118.4	127.7	-
5151	Radio and television broadcasting.....	103.2	109.7	105.2	96.9	94.2	100.0	99.5	101.6	104.1	112.4	116.6	-
5152	Cable and other subscription programming.....	81.3	74.2	77.0	108.7	98.7	100.0	112.5	122.3	126.1	129.5	148.3	-
5171*	Wired telecommunications carriers.....	45.8	58.1	80.6	98.8	94.1	100.0	105.1	106.3	111.4	114.7	114.6	-
5172	Wireless telecommunications carriers.....	34.7	34.1	45.9	70.1	88.0	100.0	111.3	134.2	175.2	198.0	209.5	-
<b>Finance and insurance</b>													
52211	Commercial banking.....	68.8	78.5	93.6	98.0	95.8	100.0	104.5	110.2	111.6	114.8	115.8	-
<b>Real estate and rental and leasing</b>													
532111	Passenger car rental.....	80.9	91.4	87.3	98.0	97.0	100.0	105.7	103.2	95.8	97.2	113.6	-
53212	Truck, trailer, and RV rental and leasing.....	52.9	58.7	87.7	106.8	99.6	100.0	102.0	120.8	129.0	148.2	152.4	-
53223	Video tape and disc rental.....	59.1	78.5	76.7	103.5	102.3	100.0	113.9	118.5	110.6	135.2	171.1	-
<b>Professional and technical services</b>													
541213	Tax preparation services.....	74.4	78.5	89.8	90.6	84.8	100.0	98.7	89.7	93.1	92.7	105.4	-
54131	Architectural services.....	83.7	93.5	92.9	100.0	103.2	100.0	104.6	109.9	111.3	110.5	115.7	-
54133	Engineering services.....	89.8	96.8	99.5	101.5	99.6	100.0	100.0	107.3	111.8	112.5	109.5	-
54181	Advertising agencies.....	84.8	99.7	88.5	95.1	94.5	100.0	107.1	118.0	117.6	118.6	123.0	-
541921	Photography studios, portrait.....	100.5	98.7	102.4	111.6	104.7	100.0	106.7	95.4	95.9	101.2	107.0	-
<b>Administrative and waste services</b>													
561311	Employment placement agencies.....	-	-	85.6	76.9	85.2	100.0	98.7	102.5	99.3	106.0	113.7	-
56151	Travel agencies.....	70.0	72.4	78.4	93.6	90.3	100.0	115.4	131.0	140.5	143.8	149.4	-
56172	Janitorial services.....	71.1	87.2	94.7	95.7	96.7	100.0	112.5	110.4	114.3	110.0	115.9	-
<b>Health care and social assistance</b>													
6215	Medical and diagnostic laboratories.....	-	-	72.7	95.9	98.3	100.0	102.3	102.3	100.1	101.5	98.9	-
621511	Medical laboratories.....	-	-	81.2	103.5	103.7	100.0	104.5	106.2	102.2	103.4	105.6	-
621512	Diagnostic imaging centers.....	-	-	61.2	85.7	90.8	100.0	98.0	94.0	94.4	96.0	85.1	-
<b>Arts, entertainment, and recreation</b>													
71311	Amusement and theme parks.....	105.1	89.9	93.9	99.5	87.3	100.0	106.3	95.2	103.2	91.7	96.9	-
71395	Bowling centers.....	110.0	108.5	103.8	96.9	97.9	100.0	106.3	112.0	110.5	106.4	127.4	-
<b>Accommodation and food services</b>													
72	Accommodation and food services.....	88.1	93.2	94.6	100.1	99.1	100.0	101.5	103.2	102.8	102.9	102.1	-
721	Accommodation.....	76.7	81.0	89.3	98.5	96.4	100.0	101.0	106.4	102.1	99.0	97.3	-
7211	Traveler accommodation.....	75.6	80.4	89.2	99.2	96.6	100.0	100.9	106.5	102.5	98.9	97.1	-
722	Food services and drinking places.....	91.9	96.9	95.8	99.1	99.4	100.0	101.8	102.5	103.3	104.5	104.1	103.3
7221	Full-service restaurants.....	88.3	93.5	95.8	98.7	99.2	100.0	99.9	100.4	100.8	101.1	99.7	100.2
7222	Limited-service eating places.....	94.0	100.2	97.4	99.4	99.8	100.0	102.6	104.1	104.6	106.3	106.4	103.1
7223	Special food services.....	78.2	87.7	87.0	100.1	100.3	100.0	102.3	102.7	103.7	102.6	104.0	106.0
7224	Drinking places, alcoholic beverages.....	132.8	115.8	97.2	97.8	94.8	100.0	115.3	109.1	117.2	130.4	133.7	139.2
<b>Other services</b>													
8111	Automotive repair and maintenance.....	82.8	86.9	96.4	105.5	105.0	100.0	100.4	107.9	108.1	107.4	106.4	-
81142	Reupholstery and furniture repair.....	103.3	105.3	98.0	103.4	102.9	100.0	95.3	97.8	99.4	98.0	103.7	-
81211	Hair, nail, and skin care services.....	75.7	78.4	90.6	98.0	103.8	100.0	108.4	113.3	117.7	117.6	121.9	-
81221	Funeral homes and funeral services.....	109.7	112.2	105.8	100.3	97.1	100.0	101.2	98.3	98.4	105.2	102.6	-
8123	Drycleaning and laundry services.....	86.3	85.1	88.9	95.7	98.6	100.0	92.3	98.4	107.6	106.5	101.9	-
81292	Photofinishing.....	95.3	111.2	99.5	73.4	80.8	100.0	99.9	101.5	111.8	110.7	109.6	-

NOTE: Indexes for Wired telecommunications carriers are on a NAICS 2002 basis. Dash indicates data are not available.

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

[Percent]

Country	2007	2008	2007				2008				2009	
			I	II	III	IV	I	II	III	IV	I	II
United States.....	4.6	5.8	4.5	4.5	4.7	4.8	4.9	5.4	6.0	6.9	8.1	9.2
Canada.....	5.3	5.3	5.4	5.2	5.2	5.2	5.2	5.3	5.3	5.6	6.7	7.5
Australia.....	4.4	4.2	4.5	4.3	4.3	4.4	4.0	4.2	4.2	4.5	5.3	5.7
Japan.....	3.9	4.0	4.0	3.8	3.8	3.9	3.9	4.1	4.1	4.1	4.5	5.3
France.....	8.1	7.5	8.6	8.2	8.1	7.7	7.2	7.4	7.5	8.0	8.7	9.3
Germany.....	8.7	7.5	9.2	8.8	8.6	8.2	7.8	7.6	7.4	7.4	7.7	8.0
Italy.....	6.2	6.8	6.2	6.1	6.3	6.4	6.6	6.8	6.9	7.1	7.3	7.4
Netherlands.....	3.2	2.8	3.6	3.2	3.0	3.0	2.9	2.8	2.6	2.8	3.1	3.3
Sweden.....	6.2	6.2	6.3	6.1	5.8	5.8	5.7	5.8	5.9	6.5	7.4	8.2
United Kingdom.....	5.4	5.7	5.5	5.4	5.3	5.2	5.3	5.4	5.9	6.3	7.0	7.8

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. For further qualifications and historical annual data, see the BLS report *International Comparisons of Annual Labor Force Statistics, Adjusted to U.S. Concepts, 10 Countries* (on the internet at <http://www.bls.gov/lic/flscompareff.htm>).

For monthly unemployment rates, as well as the quarterly and annual rates published in this table, see the BLS report *International Unemployment Rates and Employment Indexes, Seasonally Adjusted* (on the internet at [http://www.bls.gov/lic/intl\\_unemployment\\_rates\\_monthly.htm](http://www.bls.gov/lic/intl_unemployment_rates_monthly.htm)). Unemployment rates may differ between the two reports mentioned, because the former is updated annually, whereas the latter is updated monthly and reflects the most recent revisions in source data.



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

[Numbers in thousands]

Employment status and country	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Civilian labor force</b>											
United States.....	137,673	139,368	142,583	143,734	144,863	146,510	147,401	149,320	151,428	153,124	154,287
Canada.....	15,135	15,403	15,637	15,891	16,366	16,733	16,955	17,108	17,351	17,696	17,987
Australia.....	9,339	9,414	9,590	9,746	9,901	10,085	10,213	10,529	10,771	11,021	11,254
Japan.....	67,240	67,090	66,990	66,860	66,240	66,010	65,770	65,850	65,960	66,080	65,900
France.....	25,277	25,705	25,951	26,217	26,448	26,624	26,758	26,926	27,169	27,305	27,541
Germany.....	39,752	39,375	39,302	39,459	39,413	39,276	39,711	40,760	41,250	41,416	41,623
Italy.....	23,004	23,176	23,361	23,524	23,728	24,020	24,084	24,179	24,395	24,459	24,829
Netherlands.....	7,744	7,881	8,052	8,199	8,345	8,379	8,439	8,459	8,541	8,686	8,780
Sweden.....	4,403	4,429	4,490	4,530	4,545	4,565	4,579	4,700	4,752	4,827	4,887
United Kingdom.....	28,474	28,786	28,962	29,092	29,343	29,565	29,802	30,137	30,598	30,778	31,125
<b>Participation rate<sup>1</sup></b>											
United States.....	67.1	67.1	67.1	66.8	66.6	66.2	66.0	66.0	66.2	66.0	66.0
Canada.....	65.4	65.9	66.0	66.1	67.1	67.7	67.7	67.4	67.4	67.7	67.9
Australia.....	64.3	64.0	64.4	64.4	64.3	64.6	64.6	65.4	65.8	66.2	66.6
Japan.....	62.8	62.4	62.0	61.6	60.8	60.3	60.0	60.0	60.0	60.0	59.8
France.....	55.6	56.2	56.3	56.4	56.4	56.3	56.2	56.1	56.3	56.2	56.3
Germany.....	57.7	56.9	56.7	56.7	56.4	56.0	56.4	57.6	58.2	58.4	58.6
Italy.....	47.7	47.9	48.1	48.3	48.5	49.1	49.1	48.9	48.9	48.6	49.0
Netherlands.....	61.8	62.5	63.4	64.0	64.7	64.6	64.8	64.7	65.1	65.9	66.3
Sweden.....	62.8	62.7	63.7	63.7	63.9	63.9	63.6	64.9	65.0	65.4	65.2
United Kingdom.....	62.4	62.8	62.8	62.7	62.9	62.9	63.0	63.1	63.5	63.4	63.6
<b>Employed</b>											
United States.....	131,463	133,488	136,891	136,933	136,485	137,736	139,252	141,730	144,427	146,047	145,362
Canada.....	13,973	14,331	14,681	14,866	15,223	15,586	15,861	16,080	16,393	16,767	17,025
Australia.....	8,618	8,762	8,989	9,088	9,271	9,485	9,662	9,998	10,255	10,539	10,777
Japan.....	64,450	63,920	63,790	63,460	62,650	62,510	62,640	62,910	63,210	63,510	63,250
France.....	22,597	23,080	23,689	24,146	24,316	24,325	24,346	24,497	24,737	25,088	25,474
Germany.....	36,059	36,042	36,236	36,350	36,018	35,615	35,604	36,185	36,978	37,815	38,480
Italy.....	20,370	20,617	20,973	21,359	21,666	21,972	22,124	22,290	22,721	22,953	23,137
Netherlands.....	7,408	7,605	7,813	8,014	8,114	8,069	8,052	8,056	8,205	8,408	8,537
Sweden.....	4,036	4,116	4,230	4,303	4,311	4,301	4,279	4,334	4,416	4,530	4,582
United Kingdom.....	26,684	27,058	27,375	27,604	27,815	28,077	28,380	28,674	28,928	29,127	29,343
<b>Employment-population ratio<sup>2</sup></b>											
United States.....	64.1	64.3	64.4	63.7	62.7	62.3	62.3	62.7	63.1	63.0	62.2
Canada.....	60.4	61.3	62.0	61.9	62.4	63.1	63.3	63.4	63.6	64.2	64.2
Australia.....	59.3	59.6	60.3	60.0	60.2	60.8	61.1	62.1	62.6	63.3	63.8
Japan.....	60.2	59.4	59.0	58.4	57.5	57.1	57.1	57.3	57.5	57.6	57.4
France.....	49.7	50.4	51.4	51.9	51.8	51.5	51.1	51.1	51.2	51.6	52.1
Germany.....	52.3	52.1	52.2	52.2	51.5	50.8	50.6	51.2	52.2	53.3	54.2
Italy.....	42.2	42.6	43.2	43.8	44.3	44.9	45.1	44.9	45.5	45.6	45.6
Netherlands.....	59.1	60.3	61.5	62.6	62.9	62.2	61.8	61.6	62.5	63.7	64.5
Sweden.....	57.6	58.3	60.1	60.5	60.6	60.2	59.5	59.9	60.4	61.3	61.1
United Kingdom.....	58.5	59.0	59.4	59.5	59.6	59.8	60.0	60.0	60.1	60.0	59.9
<b>Unemployed</b>											
United States.....	6,210	5,880	5,692	6,801	8,378	8,774	8,149	7,591	7,001	7,078	8,924
Canada.....	1,162	1,072	956	1,026	1,143	1,147	1,093	1,028	958	929	962
Australia.....	721	652	602	658	630	599	551	531	516	482	477
Japan.....	2,790	3,170	3,200	3,400	3,590	3,500	3,130	2,940	2,750	2,570	2,650
France.....	2,680	2,625	2,262	2,071	2,132	2,299	2,412	2,429	2,432	2,217	2,067
Germany.....	3,693	3,333	3,065	3,110	3,396	3,661	4,107	4,575	4,272	3,601	3,140
Italy.....	2,634	2,559	2,388	2,164	2,062	2,048	1,960	1,889	1,673	1,506	1,692
Netherlands.....	337	277	239	186	231	310	387	402	336	278	243
Sweden.....	368	313	260	227	234	264	300	367	336	298	305
United Kingdom.....	1,791	1,728	1,587	1,489	1,528	1,488	1,423	1,463	1,670	1,652	1,783
<b>Unemployment rate<sup>3</sup></b>											
United States.....	4.5	4.2	4.0	4.7	5.8	6.0	5.5	5.1	4.6	4.6	5.8
Canada.....	7.7	7.0	6.1	6.5	7.0	6.9	6.4	6.0	5.5	5.3	5.3
Australia.....	7.7	6.9	6.3	6.8	6.4	5.9	5.4	5.0	4.8	4.4	4.2
Japan.....	4.1	4.7	4.8	5.1	5.4	5.3	4.8	4.5	4.2	3.9	4.0
France.....	10.6	10.2	8.7	7.9	8.1	8.6	9.0	9.0	9.0	8.1	7.5
Germany.....	9.3	8.5	7.8	7.9	8.6	9.3	10.3	11.2	10.4	8.7	7.5
Italy.....	11.5	11.0	10.2	9.2	8.7	8.5	8.1	7.8	6.9	6.2	6.8
Netherlands.....	4.4	3.5	3.0	2.3	2.8	3.7	4.6	4.8	3.9	3.2	2.8
Sweden.....	8.4	7.1	5.8	5.0	5.1	5.8	6.6	7.8	7.1	6.2	6.2
United Kingdom.....	6.3	6.0	5.5	5.1	5.2	5.0	4.8	4.9	5.5	5.4	5.7

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

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

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

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

report *International Comparisons of Annual Labor Force Statistics, Adjusted to U.S. Concepts, 10 Countries* (on the internet at <http://www.bls.gov/iic/fliscomparelf.htm>). Unemployment rates may differ from those in the BLS report *International Unemployment Rates and Employment Indexes, Seasonally Adjusted* (on the internet at [http://www.bls.gov/iic/intl\\_unemployment\\_rates\\_monthly.htm](http://www.bls.gov/iic/intl_unemployment_rates_monthly.htm)), because the former is updated annually, whereas the latter is updated monthly and reflects the most recent revisions in source data.

## 53. Annual indexes of manufacturing productivity and related measures, 17 economies

[2002 = 100]

Measure and economy	1980	1990	1994	1995	1996	1997	1998	1999	2000	2001	2003	2004	2005	2006	2007
<b>Output per hour</b>															
United States.....	41.6	56.9	65.8	68.3	71.0	74.0	79.1	83.1	89.5	90.4	106.4	112.9	115.1	120.5	126.2
Canada.....	55.2	70.7	82.4	83.3	83.0	86.7	90.9	94.8	100.5	98.4	100.4	101.6	105.0	107.3	110.2
Australia.....	59.0	74.1	80.0	79.0	81.3	83.0	87.0	88.3	93.6	95.9	101.8	103.1	103.8	104.8	106.8
Japan.....	47.9	70.9	78.2	83.4	87.2	90.3	91.2	93.6	98.5	96.5	106.8	114.3	121.7	122.9	127.2
Korea, Rep. of.....	—	34.6	49.4	54.3	59.7	67.3	75.0	83.5	90.6	90.1	106.8	117.8	130.8	146.8	157.9
Singapore.....	—	51.0	66.9	71.3	74.7	77.1	83.1	91.5	97.7	91.8	103.7	110.0	112.0	114.7	110.3
Taiwan.....	29.3	53.6	62.8	67.4	72.5	75.5	79.1	84.0	88.3	92.2	102.6	107.1	114.8	122.5	133.5
Belgium.....	49.9	73.9	82.3	86.0	87.3	92.7	93.9	93.3	96.8	97.0	102.9	108.1	111.0	115.1	120.2
Denmark.....	66.1	79.3	90.8	90.8	87.8	94.8	94.3	95.8	99.2	99.4	104.2	110.2	113.7	119.0	119.4
France.....	42.9	63.6	72.4	75.2	75.5	79.9	84.1	87.8	94.0	95.9	104.5	107.3	112.3	114.9	116.3
Germany.....	54.5	69.8	79.3	80.6	82.9	87.7	88.1	90.2	96.5	99.0	103.6	107.5	113.5	123.1	129.3
Italy.....	56.8	78.1	89.8	94.2	94.6	96.5	95.2	95.9	100.9	101.2	97.9	99.3	100.8	102.6	103.1
Netherlands.....	48.0	68.3	79.0	82.1	83.9	84.1	86.6	90.1	96.6	97.1	102.1	109.0	113.9	118.2	121.4
Norway.....	70.1	87.8	89.2	88.1	90.8	91.0	88.7	91.7	94.6	97.2	108.7	115.1	119.1	116.7	116.4
Spain.....	57.9	80.0	90.2	93.3	92.2	93.1	94.7	96.4	97.4	99.6	102.5	104.4	106.4	108.5	111.1
Sweden.....	41.3	50.9	62.7	66.6	68.8	75.1	79.6	86.9	92.8	90.1	119.7	119.7	127.1	139.0	139.7
United Kingdom.....	46.3	72.8	83.5	82.1	81.4	82.9	83.7	87.8	93.7	97.0	104.2	110.8	115.5	119.8	123.8
<b>Output</b>															
United States.....	49.6	66.2	75.7	79.1	82.1	87.1	92.9	96.9	103.0	97.3	101.1	106.8	107.7	113.6	116.9
Canada.....	55.2	68.7	73.1	76.5	77.5	82.3	86.5	93.7	103.2	99.2	99.4	101.4	103.0	102.6	101.6
Australia.....	70.3	81.5	85.4	84.9	87.6	89.6	92.1	91.9	96.3	95.4	101.7	101.8	101.4	100.5	103.7
Japan.....	61.9	98.9	97.5	101.7	105.6	108.2	102.5	102.1	107.4	101.6	105.3	111.4	117.2	121.3	125.7
Korea, Rep. of.....	13.4	41.3	54.9	61.3	65.3	68.4	63.0	76.8	89.8	92.0	105.4	115.9	123.1	133.0	142.5
Singapore.....	—	51.2	68.5	75.4	77.4	80.8	80.2	90.6	104.4	92.2	102.9	117.2	128.3	143.6	152.2
Taiwan.....	30.2	60.5	71.1	75.0	78.9	83.5	86.1	92.4	99.2	91.8	105.3	115.6	123.6	132.5	146.3
Belgium.....	67.5	87.2	87.5	89.9	90.2	94.5	96.1	96.4	100.7	100.8	98.6	102.2	102.0	104.9	107.6
Denmark.....	77.3	85.5	90.3	94.7	90.3	97.7	98.5	99.4	102.9	103.0	97.2	98.8	99.3	103.4	107.2
France.....	69.5	81.5	80.9	83.8	83.6	87.5	91.7	94.8	99.1	100.1	101.9	102.8	105.2	104.9	105.7
Germany.....	81.3	94.5	90.9	90.1	88.2	92.0	93.1	94.0	100.4	102.1	100.7	104.3	107.8	115.6	122.7
Italy.....	71.1	88.2	91.4	95.7	95.2	96.6	97.5	97.3	101.4	101.1	97.3	98.0	97.8	101.1	103.1
Netherlands.....	59.3	77.0	82.0	85.1	86.3	87.5	90.5	93.8	100.1	99.9	98.9	102.3	104.3	107.9	111.3
Norway.....	95.1	91.4	94.1	94.6	98.4	102.7	101.9	101.8	101.3	100.5	103.3	109.2	114.1	117.5	123.6
Spain.....	58.8	73.7	73.2	76.0	77.9	82.9	87.9	92.9	97.0	100.1	101.2	101.9	103.1	105.0	106.0
Sweden.....	46.8	56.1	59.7	67.5	69.7	75.1	81.3	89.0	96.3	94.1	104.9	114.5	119.8	129.2	132.2
United Kingdom.....	78.5	94.9	95.6	97.1	97.9	99.6	100.3	101.3	103.6	102.2	99.7	101.9	101.7	103.4	104.0
<b>Total hours</b>															
United States.....	119.4	116.5	115.1	115.9	115.7	117.7	117.4	116.6	115.1	107.6	95.1	94.6	93.6	94.3	92.6
Canada.....	100.0	97.2	88.8	91.8	93.4	94.9	95.2	98.9	102.7	100.8	99.0	99.8	98.1	95.6	92.2
Australia.....	119.1	110.0	106.7	107.4	107.7	108.0	105.9	104.1	102.9	99.5	99.9	98.7	97.7	95.9	97.1
Japan.....	129.3	139.6	124.7	122.0	121.0	119.9	112.5	109.1	109.0	105.3	98.6	97.5	96.3	98.6	98.8
Korea, Rep. of.....	—	119.2	111.1	113.0	109.3	101.7	84.0	92.0	99.1	102.0	98.7	98.3	94.1	90.6	90.2
Singapore.....	—	100.5	102.4	105.7	103.7	104.8	96.5	99.0	106.8	100.5	99.3	106.5	114.6	125.2	137.9
Taiwan.....	102.9	113.0	113.3	111.2	108.9	110.6	108.8	110.1	112.4	99.6	102.7	107.9	107.7	108.2	109.6
Belgium.....	135.3	117.9	106.3	104.5	103.4	101.9	102.3	103.4	104.0	104.0	95.8	94.5	91.9	91.1	89.5
Denmark.....	117.0	107.8	99.5	104.3	102.9	103.1	104.5	103.7	103.7	103.7	93.3	89.6	87.3	86.9	89.8
France.....	161.9	128.2	111.8	111.3	110.7	109.4	109.0	108.0	105.4	104.4	97.5	95.8	93.7	91.3	90.8
Germany.....	149.3	135.3	114.5	111.7	106.4	104.9	105.8	104.2	104.0	103.1	97.3	97.1	95.0	93.9	94.9
Italy.....	125.1	113.0	101.8	101.6	100.7	100.1	102.5	101.5	100.5	99.9	99.4	98.7	97.0	98.6	100.0
Netherlands.....	123.6	112.7	103.9	103.7	102.9	104.0	104.5	104.1	103.6	103.0	96.8	93.9	91.6	91.3	91.7
Norway.....	135.6	104.1	105.5	107.3	108.4	112.8	115.0	111.0	107.1	103.4	95.1	94.9	95.8	100.7	106.2
Spain.....	101.6	92.1	81.1	81.4	84.5	89.0	92.8	96.4	99.7	100.5	98.8	97.6	96.8	96.8	95.4
Sweden.....	113.2	110.2	95.1	101.3	101.3	100.1	102.2	102.4	103.8	104.3	97.0	95.7	94.2	93.0	94.6
United Kingdom.....	169.8	130.4	114.5	118.2	120.3	120.1	119.8	115.4	110.6	105.4	95.7	92.0	88.1	86.3	84.0
<b>Hourly compensation</b> (national currency basis)															
United States.....	38.2	62.1	72.2	73.4	74.6	76.5	81.2	84.8	91.3	94.8	108.0	108.9	112.5	114.7	119.6
Canada.....	36.3	68.3	79.8	81.7	82.9	84.9	89.3	91.2	94.2	96.8	104.0	107.7	112.4	115.8	119.9
Australia.....	—	61.7	69.8	74.1	77.5	79.6	82.9	86.2	90.0	95.7	103.9	109.4	116.3	124.2	130.7
Japan.....	50.4	77.4	89.4	92.4	93.2	96.4	98.8	98.6	98.0	99.3	97.8	98.8	99.6	98.5	98.3
Korea, Rep. of.....	—	23.7	46.5	56.4	65.7	71.4	77.7	78.2	85.2	89.0	105.5	120.6	139.7	153.9	163.8
Singapore.....	—	56.2	77.5	81.0	87.0	90.9	96.1	87.9	90.2	97.3	100.6	97.9	96.8	95.0	94.3
Taiwan.....	20.4	58.6	76.4	82.7	88.2	90.8	94.2	95.9	97.6	103.7	101.0	102.1	105.7	108.9	112.4
Belgium.....	40.2	69.0	80.9	83.2	84.7	87.9	89.2	90.4	92.0	95.9	103.4	106.2	109.4	113.3	119.3
Denmark.....	32.6	68.6	77.7	79.3	82.5	85.4	87.6	89.8	91.6	95.9	106.8	110.9	117.2	122.9	126.1
France.....	28.2	64.2	77.6	79.9	81.4	83.8	84.4	87.1	91.8	94.2	102.3	105.5	109.4	113.7	116.8
Germany.....	35.8	59.7	77.1	81.2	85.1	86.7	88.0	90.0	94.7	97.6	102.2	102.8	104.1	108.4	110.3
Italy.....	19.6	61.3	78.0	82.5	87.0	91.1	89.4	91.7	94.1	97.2	103.8	107.4	110.8	113.0	115.5
Netherlands.....	41.1	61.9	75.0	77.0	78.4	80.5	83.9	86.7	90.9	94.8	104.0	108.4	110.0	113.1	116.7
Norway.....	24.7	58.5	66.2	69.2	72.1	75.3	79.7	84.2	89.0	94.4	104.1	107.5	112.6	119.5	125.2
Spain.....	20.7	59.0	83.8	87.4	89.5	91.6	92.3	92.1	93.5	97.2	105.0	108.7	113.9	118.9	124.8

53. Continued— Annual indexes of manufacturing productivity and related measures, 17 economies

Measure and economy	1980	1990	1994	1995	1996	1997	1998	1999	2000	2001	2003	2004	2005	2006	2007	2008
<b>Unit labor costs</b>																
(national currency basis)																
United States.....	92.0	109.3	109.8	107.5	105.2	103.4	102.6	102.0	102.1	104.8	101.5	96.4	97.7	95.1	94.8	96.4
Canada.....	65.8	96.7	96.8	98.0	100.0	97.9	98.3	96.2	93.7	98.4	103.6	106.1	107.0	108.0	108.9	114.1
Australia.....	—	83.2	87.2	93.7	95.3	96.0	95.3	97.6	96.2	99.8	102.1	106.0	112.1	118.5	122.3	126.7
Japan.....	105.4	109.2	114.3	110.8	106.9	106.8	108.3	105.4	99.5	102.9	91.6	86.4	81.8	80.1	77.3	78.8
Korea, Rep. of.....	37.0	68.5	94.1	104.0	110.0	106.1	103.6	93.7	94.1	98.8	98.8	102.3	106.8	104.8	103.7	104.5
Singapore.....	—	110.3	115.9	113.6	116.5	117.9	115.7	96.0	92.3	106.0	97.1	88.9	86.5	82.8	85.5	91.9
Taiwan.....	69.5	109.3	121.6	122.7	121.6	120.4	119.1	114.2	110.5	112.4	98.5	95.3	92.0	88.9	84.2	85.7
Belgium.....	80.6	93.3	98.2	96.7	97.1	94.8	95.0	97.0	95.1	98.9	100.5	98.2	98.6	98.5	99.3	101.7
Denmark.....	49.4	86.4	85.6	87.3	94.0	90.0	92.9	93.7	92.3	96.5	102.5	100.6	103.0	103.3	105.6	114.4
France.....	65.6	101.0	107.1	106.1	107.8	104.8	100.4	99.3	97.6	98.3	97.9	98.3	97.4	98.9	100.4	104.3
Germany.....	65.7	85.5	97.2	100.8	102.7	98.9	99.9	99.7	98.1	98.6	98.7	95.7	91.7	88.0	85.3	87.5
Italy.....	34.5	78.6	86.8	87.7	92.0	94.4	94.0	95.6	93.2	96.1	106.0	108.1	110.0	110.2	112.1	119.0
Netherlands.....	85.6	90.5	95.0	93.8	93.5	95.7	96.9	96.2	94.1	97.7	101.8	99.5	96.6	95.7	96.2	100.7
Norway.....	35.3	66.6	74.2	78.5	79.4	82.7	89.9	91.8	94.1	97.0	95.8	93.4	94.5	102.4	107.5	112.8
Spain.....	35.7	73.7	92.8	93.6	97.0	98.4	97.4	95.6	96.0	97.6	102.5	104.1	107.0	109.5	112.3	118.8
Sweden.....	61.6	117.7	108.4	107.6	112.3	108.4	106.3	100.4	97.6	105.3	96.7	89.7	87.3	82.2	85.6	91.6
United Kingdom.....	52.9	83.3	84.9	87.9	88.3	90.5	96.4	97.3	96.7	97.6	100.7	98.9	100.4	101.6	101.5	103.7
<b>Unit labor costs</b>																
(U.S. dollar basis)																
United States.....	92.0	109.3	109.8	107.5	105.2	103.4	102.6	102.0	102.1	104.8	101.5	96.4	97.7	95.1	94.8	96.4
Canada.....	88.4	130.1	111.3	112.1	115.1	111.1	104.0	101.7	99.1	99.8	116.1	128.0	138.7	149.5	159.3	168.1
Australia.....	—	119.5	117.3	127.7	137.2	131.3	110.2	115.9	102.9	94.9	122.5	143.6	157.2	164.2	188.8	199.0
Japan.....	58.2	94.3	140.1	147.7	123.0	110.4	103.6	116.1	115.6	106.0	98.9	100.1	93.0	86.3	82.2	95.5
Korea, Rep. of.....	76.2	120.5	145.7	168.2	170.9	139.9	92.5	98.4	104.0	95.6	103.6	111.7	130.4	137.3	139.6	119.0
Singapore.....	—	109.0	135.9	143.5	147.9	142.1	123.9	101.5	95.9	105.9	99.7	94.2	93.1	93.4	101.6	116.4
Taiwan.....	66.6	140.3	158.7	159.9	152.9	144.5	122.6	122.1	122.1	114.8	98.9	98.6	98.9	94.4	88.5	93.9
Belgium.....	117.6	119.2	125.4	140.1	133.8	112.9	111.6	109.3	92.8	93.7	120.3	129.2	129.8	130.8	144.0	158.4
Denmark.....	69.1	110.1	106.2	123.0	127.8	107.4	109.3	105.8	89.9	91.4	122.9	132.5	135.5	137.1	153.1	177.3
France.....	107.8	128.7	134.1	147.7	146.2	124.5	118.0	111.9	95.3	93.1	117.2	129.4	128.3	131.5	145.6	162.4
Germany.....	74.7	109.4	124.0	145.6	141.2	117.9	117.4	112.4	95.8	93.3	118.2	125.9	120.8	117.0	123.7	136.3
Italy.....	82.6	134.3	110.4	110.2	122.1	113.5	110.8	107.7	91.0	91.0	126.9	142.2	144.8	146.5	162.5	185.4
Netherlands.....	100.4	115.9	121.7	136.3	129.3	114.2	113.8	108.4	91.9	92.5	121.9	130.8	127.2	127.2	139.5	156.8
Norway.....	57.0	85.0	83.9	98.9	98.1	93.2	95.0	93.9	85.2	86.1	108.0	110.6	117.2	127.6	146.6	159.8
Spain.....	87.6	127.3	122.1	132.2	134.8	118.1	114.8	107.7	93.8	92.4	122.7	136.9	140.9	145.6	162.9	185.1
Sweden.....	141.5	193.1	136.7	146.5	162.8	137.9	130.0	117.9	103.5	99.0	116.3	118.7	113.7	108.4	123.3	135.2
United Kingdom.....	81.9	98.9	86.5	92.3	91.8	98.6	106.4	104.7	97.6	93.5	109.5	120.6	121.6	124.6	135.2	128.0

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

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

Industry and type of case <sup>2</sup>	Incidence rates per 100 full-time workers <sup>3</sup>												
	1989 <sup>1</sup>	1990	1991	1992	1993 <sup>4</sup>	1994 <sup>4</sup>	1995 <sup>4</sup>	1996 <sup>4</sup>	1997 <sup>4</sup>	1998 <sup>4</sup>	1999 <sup>4</sup>	2000 <sup>4</sup>	2001 <sup>4</sup>
<b>PRIVATE SECTOR <sup>5</sup></b>													
Total cases .....	8.6	8.8	8.4	8.9	8.5	8.4	8.1	7.4	7.1	6.7	6.3	6.1	5.7
Lost workday cases.....	4.0	4.1	3.9	3.9	3.8	3.8	3.6	3.4	3.3	3.1	3.0	3.0	2.8
Lost workdays.....	78.7	84.0	86.5	93.8	-	-	-	-	-	-	-	-	-
<b>Agriculture, forestry, and fishing <sup>5</sup></b>													
Total cases .....	10.9	11.6	10.8	11.6	11.2	10.0	9.7	8.7	8.4	7.9	7.3	7.1	7.3
Lost workday cases.....	5.7	5.9	5.4	5.4	5.0	4.7	4.3	3.9	4.1	3.9	3.4	3.6	3.6
Lost workdays.....	100.9	112.2	108.3	126.9	-	-	-	-	-	-	-	-	-
<b>Mining</b>													
Total cases .....	8.5	8.3	7.4	7.3	6.8	6.3	6.2	5.4	5.9	4.9	4.4	4.7	4.0
Lost workday cases.....	4.8	5.0	4.5	4.1	3.9	3.9	3.9	3.2	3.7	2.9	2.7	3.0	2.4
Lost workdays.....	137.2	119.5	129.6	204.7	-	-	-	-	-	-	-	-	-
<b>Construction</b>													
Total cases .....	14.3	14.2	13.0	13.1	12.2	11.8	10.6	9.9	9.5	8.8	8.6	8.3	7.9
Lost workday cases.....	6.8	6.7	6.1	5.8	5.5	5.5	4.9	4.5	4.4	4.0	4.2	4.1	4.0
Lost workdays.....	143.3	147.9	148.1	161.9	-	-	-	-	-	-	-	-	-
<b>General building contractors:</b>													
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	-	-	-	-	-	-	-	-	-
<b>Heavy construction, except building:</b>													
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	-	-	-	-	-	-	-	-	-
<b>Special trades contractors:</b>													
Total cases .....	14.6	14.7	13.5	13.8	12.8	12.5	11.1	10.4	10.0	9.1	8.9	8.6	8.2
Lost workday cases.....	6.9	6.9	6.3	6.1	5.8	5.8	5.0	4.8	4.7	4.1	4.4	4.3	4.1
Lost workdays.....	144.9	153.1	151.3	168.3	-	-	-	-	-	-	-	-	-
<b>Manufacturing</b>													
Total cases .....	13.1	13.2	12.7	12.5	12.1	12.2	11.6	10.6	10.3	9.7	9.2	9.0	8.1
Lost workday cases.....	5.8	5.8	5.6	5.4	5.3	5.5	5.3	4.9	4.8	4.7	4.6	4.5	4.1
Lost workdays.....	113.0	120.7	121.5	124.6	-	-	-	-	-	-	-	-	-
<b>Durable goods:</b>													
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	-	-	-	-	-	-	-	-	-
<b>Lumber and wood products:</b>													
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	-	-	-	-	-	-	-	-	-
<b>Furniture and fixtures:</b>													
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	-	-	-	-	-	-	-	-	-
<b>Stone, clay, and glass products:</b>													
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	-	-	-	-	-	-	-	-	-
<b>Primary metal industries:</b>													
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
<b>Fabricated metal products:</b>													
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	-	-	-	-	-	-	-	-	-
<b>Industrial machinery and equipment:</b>													
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	-	-	-	-	-	-	-	-	-
<b>Electronic and other electrical equipment:</b>													
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	-	-	-	-	-	-	-	-	-
<b>Transportation equipment:</b>													
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	-	-	-	-	-	-	-	-	-
<b>Instruments and related products:</b>													
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	-	-	-	-	-	-	-	-	-
<b>Miscellaneous manufacturing industries:</b>													
Total cases .....	11.1	11.3	11.3	10.7	10.0	9.9	9.1	9.5	8.9	8.1	8.4	7.2	6.4
Lost workday cases.....	5.1	5.1	5.1	5.0	4.6	4.5	4.3	4.4	4.2	3.9	4.0	3.6	3.2
Lost workdays.....	97.6	113.1	104.0	108.2	-	-	-	-	-	-	-	-	-

See footnotes at end of table.

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

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

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

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

<sup>3</sup> The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as (N/EH) X 200,000, where:

N = number of injuries and illnesses or lost workdays;  
EH = total hours worked by all employees during the calendar year; and  
200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

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

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

NOTE: Dash indicates data not available.



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

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

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

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

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

NOTE: Totals for all years are revised and final. Totals for major categories may include subcategories not shown separately. Dashes indicate no data reported or data that do not meet publication criteria. N.e.c. means "not elsewhere classified."

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

## Profiles of Significant Collective Bargaining Disputes of 2010

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Bureau of Labor Statistics

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The U.S. Bureau of Labor Statistics (BLS) compiles data on work stoppages--strikes or lockouts--involving 1,000 or more workers and lasting at least one full shift. These data have been published uninterrupted since 1947, with monthly data available since 1993. This article presents the most recent labor statistics available on major work stoppages and discusses the collective bargaining issues surrounding three significant work stoppages that occurred in the United States in 2010.

### **Mid-America Regional Bargaining Association Bargaining With Laborers International Union Of North America District Council Of Chicago, The International Union Of Operating Engineers Local 150, And The Chicago Regional Council Of Carpenters; Location: Chicago Area, Illinois**

A nearly 3-week work stoppage that began on July 1, 2010, and ended on July 19, 2010, brought hundreds of construction projects to a standstill in the Chicago area. Fifteen-thousand members of the Laborers International Union of North America District Council of Chicago (LIUNA), the International Union of Operating Engineers Local 150 (IUOE), and the Chicago Regional Council of Carpenters walked off the job, accumulating 180,000 days of idleness over the course of the strike, making it the largest work stoppage in the United States in 2010 in terms of lost work days and the number of employees involved.<sup>1</sup>

Members of the laborers union and operating engineers had been working without a contract since May 31, 2010,<sup>2</sup> and wanted a 15.9-percent wage increase<sup>3</sup> over 3 years to offset the rising cost of health care. The Mid-America Regional Bargaining Association, which represents the construction companies, offered a 3.25-percent hike over 3 years.<sup>4</sup> "Union representatives said their only option was to hit the picket lines. They forced our hand, said Ed Maher, spokesman for the International Union of Operating Engineers Local 150 to the Chicago Tribune. We were simply not going to get jerked around when we were worried about maintaining health care for more than 23,000 members."<sup>5</sup>

The work stoppage came to an end the night of July 19, 2010, after 9 hours of bargaining.<sup>6</sup> Negotiations resulted in an agreement that gave union workers a 9.75-percent increase in wages and benefits over the next 3 years. "We went into negotiations looking to cover the cost to maintain health care. What we came out of negotiations with was an agreement that will allow us to do that," said Maher.

### **The Allina Health System/United Hospital, Childrens Hospitals And Clinics, Fairview Health Services, HealthEast Care System, Mercy Hospital, North Memorial Hospital, Park Nicollete Methodist Hospital, And Other Hospitals Bargaining With The Minnesota Nurses Association; Location: Minneapolis-St. Paul, Minnesota**

The National Nurses United (NNU) union was formed in late 2009, when the California Nurses Association/National Nurses Organizing Committee, United American Nurses, and Massachusetts Nurses Association merged.<sup>7</sup> NNU now claims 155,000 members--which makes it the largest nurses union in the country.<sup>8</sup> NNU has tapped into concerns of registered nurses worried about losing jobs at a time when hospitals and health care organizations are under enormous pressure to cut costs. NNU helped organize strikes or threatened them at hospitals in California, Pennsylvania, Maine, Michigan, and Minnesota during 2010.<sup>9</sup> NNU's biggest work stoppage took place on June 10, 2010, in Minneapolis-St. Paul, when 12,000 nurses in the Minnesota Nurses Association, from 14 area hospitals, staged a 1-day work stoppage, accumulating 12,000 days of idleness.<sup>10</sup>

Key issues in the collective bargaining contract impasse included the hospitals' desire to cut contributions to the nurses pension fund by a third, and nurses' demand to improve patient-staffing ratios--a signature issue for the NNU.<sup>11</sup> Nurses have complained for two decades that there are not enough nurses in hospitals to provide high-quality care.<sup>12</sup> Studies show

a correlation between higher levels of nurse staffing and better patient outcomes, but there are no national standards for specific ratios. Only the State of California mandated nurse-patient ratios back in 2004.

Talks broke off June 4, 2010, after Federal mediators failed to broker a deal.<sup>13</sup> A longer strike in July was averted with a last-minute 3-year contract that preserved pension and health benefits but failed to meet the unions demands for strict nurse-patient ratios. Instead, the hospitals agreed to examine staffing in existing committee systems; the union is pushing for legislation to set ratios.<sup>14</sup> Additionally, the nurses agreed not to go out on strike over the term of the new 3-year contract. The new contract went into effect upon ratification and remains in place until May 31, 2013, with the nurses receiving a 3-percent pay raise over 3 years.<sup>15</sup>

**New York Shipping Association And The International Longshoremens Association; Location: New York City Area, New Jersey And New York**

Dockworkers shut down the Port of New York and New Jersey container facilities September 28 and 29, 2010, as thousands of longshore workers refused to cross informational picket lines set up by protesting Philadelphia-area dockworkers regarding the labor dispute at their home port of Camden, New Jersey.<sup>16</sup> The two-day Port of New York and New Jersey wildcat work stoppage involved an estimated 4,500 members of the International Longshoremens Association (ILA), accruing a total of 9,000 days of idleness.<sup>17</sup>

The picket lines were set up by a Philadelphia-based ILA local 1291, 200 of whose members stand to lose their jobs when Florida-based Fresh Del Monte Produce Inc. moves its business from the Port of Camden to a port in Gloucester City, New Jersey--a port that employs non-ILA workers at lower wages.<sup>18</sup> The ILA members protested the companys decision to take its business to the Gloucester City Marine Terminal, even though the union met Del Montes demand for \$5 million in wage cuts and other labor-cost savings.<sup>19</sup> Earlier in September, the ILA launched a boycott of Del Monte products, and later in that month the union asked AFL-CIO officials to initiate a nationwide boycott of the companys products by all AFL-CIO members.

The dockworkers agreed to return to work the evening of September 29, 2010, just as their employers were preparing to ask a Federal judge to order the ILA to pay \$1 million per day in penalties.<sup>20</sup> Port employers had argued that the longshore workers refusal to work was illegal because their collective bargaining agreement contained a no-strike clause. Indeed, a strike had not shut down the ports around New York City since 1977, said James Devine, the president and chief executive of Global Container Terminals USA, which operates container ports on Staten Island and in Bayonne, New Jersey. On the first day of the strike, it is estimated that ILA-represented dockworkers at the Port of New York and New Jersey idled 12 ships at a cost of \$50,000 each per day, said New York Shipping Association (NYSA) spokeswoman Beverly Fedorko, whose association manages the port.<sup>21</sup> Labor and industry officials said it was difficult to calculate the total cost of the work stoppage, although it is bound to be significant in terms of lost revenues and wages.

**Table 1. Major Work Stoppages of 2010**

Organizations involved, location, and sector	Industry code(1)	Beginning date	Ending date	Number of lost work days(2)	Number of workers(3)	Days idle(4)
<b>Temple University Hospital, Philadelphia, PA, Pennsylvania Association of Staff Nurses &amp; Allied Professionals (State Government)</b>	622110	3-31-10	4-28-10	21	1,500	31,500

Footnotes:

- (1) Industry codes are from the 2007 North American Industry Classification System (NAICS).
- (2) The duration of the strike, based on a 5-day work week (Monday through Friday) excluding Federal holidays.
- (3) The BLS rounds figures to the nearest 100. Companies and unions may have rounded the figures before providing BLS the data.
- (4) The days of idleness calculation shows the cumulative impact of lost workdays. It is computed by multiplying the number of workers idled during the period by the number of work days lost, based on a 5-day work week (Monday through Friday) excluding Federal holidays.

Organizations involved, location, and sector	Industry code(1)	Beginning date	Ending date	Number of lost work days(2)	Number of workers(3)	Days idle(4)
North Penn School District, Montgomery County, PA, North Penn Education Association (Local Government)	611110	4-19-10	4-26-10	6	1,100	6,600
Capistrano Unified School District, San Juan Capistrano area, CA, Capistrano Unified Educators Association (Local Government)	611110	4-22-10	4-26-10	3	1,800	5,400
Oakland Unified School District, Oakland, CA, Oakland Education Association (Local Government)	611110	4-29-10	4-29-10	1	2,500	2,500
The Boeing Company, Long Beach, CA, United Auto Workers Local 148 (Private Industry)	336411	5-11-10	6-4-10	18	1,700	30,600
Allina Health System/United Hospital, Children's Hospitals and Clinics, Fairview Health Services, HealthEast Care System, Mercy Hospital, North Memorial Hospital, Park Nicollete Methodist Hospital, Minneapolis-St. Paul, MN, Minnesota Nurses Association (Private Industry)	622110	6-10-10	6-10-10	1	12,000	12,000
Sheet Metal and Air Conditioning Contractors Association of Milwaukee, Milwaukee, WI, Sheet Metal Workers' International Association Local 18 (Private Industry)	238220	6-14-10	6-25-10	10	1,800	18,000
Mid-America Regional Bargaining Association, Chicago area, IL, Laborers International Union of North America District Council of Chicago, International Union of Operating Engineers, Chicago Regional Council of Carpenters (Private Industry)	237310	7-1-10	7-19-10	12	15,000	180,000
New York Shipping Association, New York City area, NJ, NY, International Longshoremen's Association (Private Industry)	488310	9-28-10	9-29-10	2	4,500	9,000
Hilton Hotels Hawaiian Village Beach Resort & Spa, Honolulu, HI, UNITE HERE Local 5 (Private Industry)	721110	10-14-10	10-18-10	3	1,500	4,500
HCA Corporation, Riverside Community Hospital and West Hills Hospital and Medical Center, Riverside and West Hills, CA, Service Employees International Union Local 121RN (Private Industry)	622110	12-23-10	12-28-10	2	1,100	2,200

Footnotes:

(1) Industry codes are from the 2007 North American Industry Classification System (NAICS).

(2) The duration of the strike, based on a 5-day work week (Monday through Friday) excluding Federal holidays.

(3) The BLS rounds figures to the nearest 100. Companies and unions may have rounded the figures before providing BLS the data.

(4) The days of idleness calculation shows the cumulative impact of lost workdays. It is computed by multiplying the number of workers idled during the period by the number of work days lost, based on a 5-day work week (Monday through Friday) excluding Federal holidays.

**Sources Of Information**

Data from the BLS [Work Stoppages Program](#) are obtained from public sources—for example, reports from the Federal Mediation and Conciliation Service (FMCS), State Labor offices, BLS [Current Employment Statistics \(CES\)](#) Strike Reports,<sup>22</sup> the Internet, and media sources. One or both parties involved in the work stoppage (employer or the union) are contacted to

verify the duration and number of workers idled in the stoppage. For current data tables and additional information, see the [Work Stoppages Program](http://www.bls.gov/wsp) page on the BLS Web site, on the Internet at <http://www.bls.gov/wsp>.

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## Notes

1 The *days of idleness* calculation shows the cumulative impact of lost workdays. It is computed by multiplying the number of workers idled during the period by the number of workdays lost, based on a 5-day work week (Monday through Friday), excluding Federal holidays. For more information, see the BLS [Work Stoppages Program](http://www.bls.gov/wsp/ws072010.htm) monthly report, July 2010, on the Internet at <http://www.bls.gov/wsp/ws072010.htm>.

2 Marni Pyke, "Strike could halt Ike work, other local projects," *Daily Herald*, June 29, 2010, on the Internet at <http://saxo.dailyherald.com/article/20100630/News/306309901/> (accessed February 15, 2011).

3 Duaa Eldeib and Jon Hilkevitch, "2nd unions OK expected in construction strike tentative deal," *Chicago Breaking News Center* (online), July 20, 2010, on the Internet at [chicagobreakingnews.com/2010/07/2nd-unions-ok-expected-in-construction-strike-tentative-deal.html?utm\\_source=feedburner&utm\\_medium=feed&utm\\_campaign=Feed%](http://chicagobreakingnews.com/2010/07/2nd-unions-ok-expected-in-construction-strike-tentative-deal.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%20-%20Chicago%20Breaking%20News) (accessed February 15, 2011).

4 Jenel Nels, "Striking Unions, Contractors Still at Odds," *NBC Chicago.Com*, July 7, 2010, on the Internet at <http://www.nbcchicago.com/news/business/Construction-Strike-Talks-Resume-97927854.html> (accessed February 15, 2011).

5 Nels, "Striking Unions, Contractors Still at Odds."

6 See Eldeib and Hilkevitch, "2nd unions OK expected in construction strike tentative deal."

7 See [National Nurses United](http://www.nationalnursesunited.org/pages/about) website, on the Internet at <http://www.nationalnursesunited.org/pages/about> (accessed February 15, 2011).

8 Lena H.Sun, "Growing National Nurses United union steps up strikes in aggressive new strategy," *The Washington Post*, November 20, 2010, available on the Internet at <http://www.washingtonpost.com/wp-dyn/content/article/2010/11/20/AR2010112003592.html> (accessed February 15, 2011).

9 Sun, "Growing National Nurses United union steps up strikes in aggressive new strategy."

10 For more information, see the BLS [Work Stoppages Program](http://www.bls.gov/wsp/ws062010.htm) monthly report, June 2010, on the Internet at <http://www.bls.gov/wsp/ws062010.htm>.

11 "Minneapolis-area nurses strike for a day," *United Press International.com*, on the Internet at [http://www.upi.com/Top\\_News/US/2010/06/10/Minneapolis-area-nurses-strike-for-a-day/UPI-48941276192064/](http://www.upi.com/Top_News/US/2010/06/10/Minneapolis-area-nurses-strike-for-a-day/UPI-48941276192064/).

12 Sun, "Growing National Nurses United union steps up strikes in aggressive new strategy."

13 See "Minneapolis-area nurses strike for a day."

14 Sun, "Growing National Nurses United union steps up strikes in aggressive new strategy."

15 Joe Carlson, "Minnesota Nurses Accept Contract, Avert Strike" *Modern Healthcare.Com*, July 7, 2010, available on the Internet at <http://www.modernhealthcare.com/article/20100707/NEWS/307079985> (accessed February 15, 2011).

16 Lorraine McCarthy, "Picketing: Dock Workers Honor Informational Picket, Shut Down New York, New Jersey Port," *Daily Labor Report: News Archive*, September 29, 2010, 187 DLR A-15, The Bureau of National Affairs, on the Internet at <http://www.BNA.com> (accessed February 15, 2011).

17 For more information, see the BLS [Work Stoppages Program](http://www.bls.gov/wsp/ws092010.htm) monthly report, September 2010, on the Internet at <http://www.bls.gov/wsp/ws092010.htm>.

18 Steve Strunsky, "Daylong shutdown at N.J. ports due to protesting dockworkers could prove costly," *The Star-Ledger*, September 29, 2010, on the Internet at [http://blog.nj.com/ledgerupdates\\_impact/print.html?entry=/2010/09/union\\_dockworkers\\_shut\\_down\\_nj](http://blog.nj.com/ledgerupdates_impact/print.html?entry=/2010/09/union_dockworkers_shut_down_nj) (accessed February 15, 2011).

19 See McCarthy, "Picketing: Dock Workers Honor Informational Picket."

20 Patrick McGeehan, "After 2 Days, Dockworkers Agree to End Strike," *New York Times* (online), September 29, 2010, on the Internet at <http://www.nytimes.com/2010/09/30/nyregion/30strike.html> (accessed February 15, 2011).

21 See McCarthy, "Picketing: Dock Workers Honor Informational Picket."

22 See [CES Strike Report](http://www.bls.gov/ces/cesstrk.htm), on the Internet at <http://www.bls.gov/ces/cesstrk.htm>.



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# Occupational Earnings of Full-time Healthcare Workers in Civilian Hospitals, 2008

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*This article uses National Compensation Survey data to compare earnings among full-time healthcare workers in civilian hospitals with those in the civilian sector as a whole; it also compares earnings of hospital healthcare workers by work level. The findings show that there are significant differences in hourly earnings by work level for many of the healthcare occupations examined in this study.*

U.S. hospitals<sup>1</sup> employ about 5.8 million workers<sup>2</sup> in a complex work environment, providing intensive medical care to treat acute illnesses or injuries for about 35 million patients annually.<sup>3</sup> In 2008, hospitals took in revenues of \$1.7 trillion.<sup>4</sup> Considering the size of the hospital industry in the United States and the projected employment growth of healthcare occupations over the next decade,<sup>5</sup> an analysis of current wages of hospital healthcare workers is timely. This article uses the 2008 [National Compensation Survey \(NCS\)](#) earnings estimates to discuss earnings differences between full-time workers in civilian hospitals and those in the civilian sector as a whole.<sup>6</sup> Then, the article analyzes the earnings of full-time civilian hospital healthcare workers by occupation and work level. The article finds that there are significant differences in hourly earnings by work level for many of the healthcare occupations studied.

U.S. hospitals employ workers in a wide variety of occupations that are found in other industries, including such occupations as computer support specialists, human resources managers, accountants and auditors, and building and grounds cleaning and maintenance workers; hospitals also employ workers, in occupations specific to the medical field, such as medical and clinical laboratory technologists, radiation therapists, and diagnostic medical sonographers. Within many of the healthcare occupations, there is a wide range of skills required and differences in on-the-job duties and responsibilities among workers. Also, workers may work full time or part time and be unionized, and there may be institutional differences in the types of jobs offered and pay practices between private industry and State and local government employers. Occupational earnings reflect these factors. Furthermore, earnings are only part of the total compensation of workers; benefits represent about 32 percent of total compensation costs in private hospitals and about 35 percent of such costs in State and local government hospitals.<sup>7</sup> The value of the benefits package offered may affect the wages workers are willing to accept.

The National Compensation Survey (NCS), which provides comprehensive measures of occupational earnings, compensation cost trends, the incidence of benefits, and benefit plan provisions, publishes a national annual bulletin on the occupational earnings of civilian<sup>8</sup> workers--defined by the NCS as those who work in private industry and in State and local government establishments. The NCS has published national data on the occupational earnings of hospital workers annually since the 2006 survey year.<sup>9</sup> The most recent data, for the 2008 survey year, include hourly earnings estimates for all workers, full-time workers, and part-time workers who are employed by hospitals in the civilian sector as a whole, those in private industry, and those in State and local government, by work level.<sup>10</sup> Relative standard errors are available for each estimate.<sup>11</sup>

## Earnings Of Full-time Civilian Healthcare Workers: Hospitals And All Civilian Industries

Full-time healthcare practitioners and technical occupations--professions such as physicians and surgeons, registered nurses, medical technologists and technicians, and therapists--are found throughout the civilian sector, most commonly in hospitals, ambulatory care centers, doctors offices, community centers, schools, nursing homes, and health units in business establishments. As table 1 shows, healthcare practitioners and technical workers in hospitals earned an average of \$29.07 per hour, while those in the civilian sector as a whole earned \$30.23 per hour.

**Table 1. Mean hourly earnings for selected healthcare occupations, full-time workers, civilian sector and civilian hospitals, 2008**

Occupation	All industries	Hospitals only
<b>Healthcare practitioner and technical occupations</b>	\$30.23	\$29.07
<b>Dentists</b>	63.24	(-)
Dentists, general	61.81	(-)
<b>Dietitians and nutritionists</b>	23.48	26.09
<b>Optometrists</b>	54.01	(-)
<b>Pharmacists</b>	51.54	50.45
<b>Physicians and surgeons</b>	76.46	46.99
Anesthesiologists	108.49	(-)
Family and general practitioners	77.95	60.00
Internists, general	74.16	30.89
Pediatricians, general	53.51	69.89
Psychiatrists	74.83	76.58
Surgeons	86.23	(-)
<b>Physician assistants</b>	42.58	41.43
<b>Registered nurses</b>	31.54	31.93
<b>Therapists</b>	31.11	28.57
Audiologists	33.19	(-)
Occupational therapists	34.26	32.19
Physical therapists	33.74	32.88
Radiation therapists	39.99	35.37
Recreational therapists	18.76	19.80
Respiratory therapists	24.96	25.21
Speech-language pathologists	35.01	31.02
<b>Veterinarians</b>	43.30	(-)
<b>Clinical laboratory technologists and technicians</b>	20.43	20.99
Medical and clinical laboratory technologists	24.55	25.30
Medical and clinical laboratory technicians	17.50	17.39
<b>Dental hygienists</b>	31.32	(-)
<b>Diagnostic related technologists and technicians</b>	27.39	26.32
Cardiovascular technologists and technicians	26.50	26.05
Diagnostic medical sonographers	32.17	33.83
Nuclear medicine technologists	36.32	34.20
Radiologic technologists and technicians	26.01	25.28
<b>Emergency medical technicians and paramedics</b>	15.74	20.11
<b>Health diagnosing and treating practitioner support technicians</b>	16.67	17.53
Dietetic technicians	11.05	(-)

A dash (-) indicates that no statistically reliable or otherwise publishable estimate is available for the occupation.

Source: *National Compensation Survey: Occupational Earnings in the United States, 2008*, table 3, "Full-time civilian workers: Mean and median hourly, weekly, and annual earnings and mean weekly and annual hours;" and table 34, "Civilian full-time workers in hospitals: Mean and median hourly, weekly, and annual earnings and mean weekly and annual hours;" on the Internet at <http://www.bls.gov/ncs/ncswage2008.htm>.

Occupation	All industries	Hospitals only
Pharmacy technicians	14.89	15.38
Psychiatric technicians	16.89	16.76
Respiratory therapy technicians	22.53	22.52
Surgical technologists	19.32	18.99
Veterinary technologists and technicians	14.32	(-)
Licensed practical and licensed vocational nurses	19.04	18.45
Medical records and health information technicians	16.48	17.73
Opticians, dispensing	18.14	(-)
Miscellaneous health technologists and technicians	18.50	19.39
Occupational health and safety specialists and technicians	26.99	(-)
Occupational health and safety specialists	26.75	(-)
Miscellaneous healthcare practitioner and technical workers	20.27	22.17
Athletic trainers	18.43	(-)
<b>Healthcare support occupations</b>	12.90	13.34
<b>Nursing, psychiatric, and home health aides</b>	11.53	12.77
Home health aides	10.24	12.20
Nursing aides, orderlies, and attendants	11.71	12.68
Psychiatric aides	12.55	13.32
<b>Occupational therapist assistants and aides</b>	18.73	19.40
Occupational therapist assistants	22.05	19.75
Occupational therapist aides	12.65	(-)
<b>Physical therapist assistants and aides</b>	18.49	15.78
Physical therapist assistants	24.21	19.70
Physical therapist aides	11.88	12.69
Massage therapists	20.03	(-)
<b>Miscellaneous healthcare support occupations</b>	14.45	14.55
Dental assistants	17.24	(-)
Medical assistants	13.70	14.42
Medical equipment preparers	14.80	15.81
Medical transcriptionists	15.04	14.91
Pharmacy aides	11.99	12.02
<b>Veterinary assistants and laboratory animal caretakers</b>	12.56	(-)

A dash (-) indicates that no statistically reliable or otherwise publishable estimate is available for the occupation.

Source: *National Compensation Survey: Occupational Earnings in the United States, 2008*, table 3, "Full-time civilian workers: Mean and median hourly, weekly, and annual earnings and mean weekly and annual hours;" and table 34, "Civilian full-time workers in hospitals: Mean and median hourly, weekly, and annual earnings and mean weekly and annual hours;" on the Internet at <http://www.bls.gov/ncs/ncswage2008.htm>.

Full-time physicians and surgeons as a group earned an average of \$76.46 per hour in the civilian economy as a whole. By contrast, full-time physicians and surgeons in hospitals earned an average of \$46.99 per hour, with a median of only \$27.56. These seemingly incongruous findings merit a closer look at the data.

### Earnings Of Full-time Physicians And Surgeons And Registered Nurses, In Hospitals

NCS raw data on physicians and surgeons' full-time earnings in hospitals were clustered in two areas--at about \$24 per hour and \$86 per hour--rather than spread in a normal (centralized) distribution around the mean. What is a likely reason for this? In civilian hospitals, the average full-time hourly earnings of general internists was \$30.89 per hour--significantly lower than for general internists in the civilian sector as a whole (\$74.16). The relatively low earnings of full-time general internists employed in civilian hospitals are due in part to the fact that this occupation is heavily populated by residents--medical doctors in their first year of clinical practice, who are working towards a State licensure, or those working towards certification in a medical specialty.<sup>12</sup> Residents typically work long hours compared with other full-time hospital physicians and surgeons. The number of hours worked by hospital residents is discussed more in the section of this article on *work levels*.

The Nations 2,542,760 *registered nurses*,<sup>13</sup> represent the largest healthcare occupation--more than a third of all healthcare professionals.<sup>14</sup> About 60 percent of registered nurses work in hospitals.<sup>15</sup> Registered nurses who work full time in hospitals earned \$31.93 per hour--not significantly different than the average earned by their counterparts the civilian economy as a whole (\$31.54). Like physicians and surgeons, registered nurses are not a homogenous group in terms of their work environment, duties and responsibilities, and the skills and formal education they are required to have and use on the job.<sup>16</sup> Considering the complexity of the hospital environment, richer data can provide more useful information on the earnings of healthcare workers. The NCS provides these data.

### Earnings By Work Level Among Full-time Healthcare Workers In Civilian Hospitals

The National Compensation Survey evaluates each surveyed job for *work level*, which is a classification of duties and responsibilities performed by the worker.<sup>17</sup> Work levels are used in pay-grade systems to determine wages and salaries--typically, the higher the work level, the higher the pay grade.<sup>18</sup> As a worker attains more experience on the job or receives additional training or education, the worker can take on greater responsibilities and increase the complexity or difficulty of duties performed on the job--in turn, he or she may be evaluated at a higher work level.

In the NCS, occupations are evaluated for work levels 1 through 15. In the civilian sector, occupations such as chief executives are typically found at the highest work levels; elementary and middle school teachers and paralegals and legal assistants are generally in the mid-range; and waiters and waitresses, crossing guards, and taxi drivers and chauffeurs are at the lowest work levels. Some occupations are found in a wide range of work levels. For example, accountants and auditors worked at levels 5 through 13, and engineers worked at levels 5 through 15.

For the 2008 data on civilian hospital healthcare workers, there was no occupation with publishable estimates above level 13, and no occupation covered all 13 levels. The distribution of occupational estimates by level in table 2 shows that there is generally a correlation of earnings with work level--the higher the work level, the higher the hourly earnings. Many occupations encompass a range of duties and responsibilities, and earnings tend to reflect this. In this sense, earnings data by occupational work level offer more information than occupational earnings data alone.

**Table 2. Mean hourly earnings of selected occupations, by work level, full-time, civilian hospital healthcare workers, 2008**

Occupation	All levels	Work level												
		1	2	3	4	5	6	7	8	9	10	11	12	13
Healthcare practitioner and technical occupations	\$29.07	(-)	(-)	\$12.89	\$15.37	\$18.73	\$21.66	\$25.53	\$29.99	\$31.83	\$40.12	\$43.74	\$70.31	\$83.80

A dash (-) indicates that no statistically reliable or otherwise publishable estimate is available for the occupation.

Source: *National Compensation Survey: Occupational Earnings in the United States, 2008*, table 34, "Civilian full-time workers in hospitals: Mean and median hourly, weekly, and annual earnings and mean weekly and annual hours" on the Internet at <http://www.bls.gov/ncs/ncswage2008.htm>.



Occupation	All levels	Work level														
		1	2	3	4	5	6	7	8	9	10	11	12	13		
Dietitians and nutritionists	26.09	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	25.06	(-)	26.34	(-)	(-)	(-)	(-)
Pharmacists	50.45	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	49.73	49.66	50.81	(-)	(-)
Physicians and surgeons	46.99	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	21.84	23.90	27.67	76.08	88.36
Family and general practitioners	60.00	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	90.00
Psychiatrists	76.58	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	75.49	(-)
Registered nurses	31.93	(-)	(-)	(-)	(-)	(-)	(-)	24.06	25.86	30.49	31.46	40.25	44.03	(-)	(-)	(-)
Therapists	28.57	(-)	(-)	(-)	(-)	21.32	23.63	25.04	29.09	33.35	35.87	(-)	(-)	(-)	(-)	(-)
Occupational therapists	32.19	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	31.34	32.82	(-)	(-)	(-)	(-)	(-)
Physical therapists	32.88	(-)	(-)	(-)	(-)	(-)	(-)	(-)	32.08	31.21	34.57	(-)	(-)	(-)	(-)	(-)
Recreational therapists	19.80	(-)	(-)	(-)	(-)	(-)	(-)	(-)	19.59	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Respiratory therapists	25.21	(-)	(-)	(-)	(-)	(-)	(-)	21.31	24.63	27.10	29.45	(-)	(-)	(-)	(-)	(-)
Clinical laboratory technologists and technicians	20.99	(-)	(-)	13.08	15.11	18.79	22.78	24.81	25.18	29.52	(-)	(-)	(-)	(-)	(-)	(-)
Medical and clinical laboratory technologists	25.30	(-)	(-)	(-)	(-)	(-)	24.27	25.23	25.14	29.52	(-)	(-)	(-)	(-)	(-)	(-)
Medical and clinical laboratory technicians	17.39	(-)	(-)	13.08	15.19	18.73	22.36	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Diagnostic related technologists and technicians	26.32	(-)	(-)	(-)	14.21	22.52	23.20	27.13	30.02	39.02	(-)	(-)	(-)	(-)	(-)	(-)
Cardiovascular technologists and technicians	26.05	(-)	(-)	(-)	13.77	23.19	23.21	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Diagnostic medical sonographers	33.83	(-)	(-)	(-)	(-)	(-)	(-)	34.33	(-)	37.88	(-)	(-)	(-)	(-)	(-)	(-)
Radiologic technologists and technicians	25.28	(-)	(-)	(-)	(-)	21.86	22.99	26.15	29.47	34.74	(-)	(-)	(-)	(-)	(-)	(-)
Emergency medical technicians and paramedics	20.11	(-)	(-)	(-)	(-)	18.94	21.55	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Health diagnosing and treating practitioner support technicians	17.53	(-)	(-)	12.38	14.75	17.92	20.98	21.83	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Pharmacy technicians	15.38	(-)	(-)	(-)	13.93	17.62	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Psychiatric technicians	16.76	(-)	(-)	(-)	13.36	16.22	20.53	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Respiratory therapy technicians	22.52	(-)	(-)	(-)	(-)	(-)	(-)	21.95	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Surgical technologists	18.99	(-)	(-)	(-)	17.12	18.14	21.09	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Licensed practical and licensed vocational nurses	18.45	(-)	(-)	(-)	16.44	18.01	19.69	20.99	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Medical records and health information technicians	17.73	(-)	(-)	13.79	15.47	17.27	20.12	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Miscellaneous health technologists and technicians	19.39	(-)	(-)	(-)	16.78	18.17	(-)	22.32	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)

A dash (-) indicates that no statistically reliable or otherwise publishable estimate is available for the occupation.

Source: *National Compensation Survey: Occupational Earnings in the United States, 2008*, table 34, "Civilian full-time workers in hospitals: Mean and median hourly, weekly, and annual earnings and mean weekly and annual hours" on the Internet at <http://www.bls.gov/ncs/ncswage2008.htm>.

Occupation	All levels	Work level												
		1	2	3	4	5	6	7	8	9	10	11	12	13
<b>Healthcare support occupations</b>	\$ 13.34	\$ 9.91	\$ 11.38	\$ 12.55	\$ 14.13	\$ 15.71	\$ 18.99	\$ 21.41	(-)	(-)	(-)	(-)	(-)	(-)
<b>Nursing, psychiatric, and home health aides</b>	12.77	9.92	11.21	12.57	14.01	14.10	16.97	(-)	(-)	(-)	(-)	(-)	(-)	(-)
<b>Nursing aides, orderlies, and attendants</b>	12.68	9.92	11.16	12.50	14.23	14.62	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
<b>Psychiatric aides</b>	13.32	(-)	12.13	13.25	13.18	13.97	16.97	(-)	(-)	(-)	(-)	(-)	(-)	(-)
<b>Occupational therapist assistants and aides</b>	19.40	(-)	(-)	(-)	(-)	(-)	19.31	(-)	(-)	(-)	(-)	(-)	(-)	(-)
<b>Physical therapist assistants and aides</b>	15.78	(-)	(-)	12.22	13.76	18.91	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
<b>Physical therapist assistants</b>	19.70	(-)	(-)	(-)	(-)	18.91	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
<b>Physical therapist aides</b>	12.69	(-)	(-)	12.22	12.25	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
<b>Miscellaneous healthcare support occupations</b>	14.55	(-)	12.47	12.51	14.38	16.56	19.21	(-)	(-)	(-)	(-)	(-)	(-)	(-)
<b>Medical assistants</b>	14.42	(-)	(-)	11.68	14.77	13.80	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
<b>Medical equipment preparers</b>	15.81	(-)	(-)	13.60	15.28	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
<b>Medical transcriptionists</b>	14.91	(-)	(-)	(-)	14.24	17.61	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)

A dash (-) indicates that no statistically reliable or otherwise publishable estimate is available for the occupation.

Source: *National Compensation Survey: Occupational Earnings in the United States, 2008*, table 34, "Civilian full-time workers in hospitals: Mean and median hourly, weekly, and annual earnings and mean weekly and annual hours" on the Internet at <http://www.bls.gov/nsc/nscswage2008.htm>.

The value of earnings data by work level is perhaps best illustrated for the earnings of registered nurses. A person using the title "registered nurse" must be registered in the State in which he or she works and must have a recognized degree in nursing.<sup>19</sup> Advanced practice registered nurses (APRNs) include nurse practitioners, certified nurse-midwives, clinical nurse specialists, and certified registered nurse anesthetists; APRNs hold a post-graduate degree and specialized certification. Greater levels of education make it possible for registered nurses to take on greater on-the-job duties and responsibilities--thus, to work at higher work levels and earn higher pay rates.

Formal training and education aside, more years of experience on the job also makes it possible for registered nurses to assume greater duties and responsibilities. Entry-level registered nurses provide care such as administering prescribed drugs, recording case histories, and taking blood pressure, pulse, and temperature readings. Nurses at higher levels consult with attending physicians to reevaluate medical treatment and may conduct established clinical procedures and provide specialized nursing care--for example, for heart and vascular disease patients. Some nurses may also supervise others on staff to ensure appropriate care for each patient. Certain hospital settings, such as intensive care units, operating and recovery rooms, emergency rooms, childbirth labor and delivery sections, and outpatient units, require specialized knowledge in addition to the formal education required for basic nursing.<sup>20</sup>

The NCS does not collect demographic data on surveyed workers, such as years of education completed, professional degrees achieved, or years of job experience. However, by assessing the work-level of the job--the actual duties performed and the responsibilities borne by the worker--the earnings estimates by work level take into account the *de facto* results of education, experience, and any other qualities of the worker. Considering all of these factors, it is not surprising that earnings and work levels of registered nurses vary widely. Full-time registered nurses in civilian hospitals earned, on average, \$31.93 per hour, with a range of \$24.06 at level 6 to \$44.03 at level 11.

The average earnings of civilian hospital physicians and surgeons are also made clearer using work-level data. Full-time hospital physicians and surgeons earned an average of \$46.99 per hour, ranging from \$21.84 at level 9 (typically residents) to \$88.36 at level 13 (typically surgeons and specialists). Level-9 hospital physicians and surgeons worked an average of 46.2 hours per week, for weekly earnings of \$1,008. By contrast, level-13 hospital physicians and surgeons worked an average of 40 hours per week, for weekly earnings of \$3,534.

Full-time hospital workers in healthcare support occupations earned an average of \$13.34 per hour, ranging from \$9.91 at level 1 to \$21.41 at level 7. Hourly earnings ranged from \$12.68 per hour for nursing aides, orderlies, and attendants to \$19.70 per hour for physical therapist assistants. Healthcare support occupations generally showed less variation in earnings by work level than healthcare practitioner and technical occupations.

Table 3 lists the hourly earnings of full-time healthcare workers in civilian hospitals at the lowest and highest publishable work levels.<sup>21</sup> The occupations selected for this table are those in which there was a significant earnings difference between the highest and lowest publishable work levels. This table is included to show that earnings estimates by work level give greater information than earnings estimates by occupation alone.

**Table 3. Mean hourly earnings of full-time workers in selected healthcare occupations, highest and lowest publishable work level, civilian hospitals, National Compensation Survey, 2008**

Occupation	Lowest level	Highest level
<b>Healthcare practitioner and technical occupations</b>	\$ 12.89 (level 3)	\$ 83.80 (level 13)
Physicians and surgeons	21.84 (level 9)	88.36 (level 13)
Registered nurses	24.06 (level 6)	44.03 (level 11)
Therapists	21.32 (level 5)	35.87 (level 10)
<b>Clinical laboratory technologists and technicians</b>	13.08 (level 3)	29.52 (level 9)
Medical and clinical laboratory technologists	24.27 (level 6)	29.52 (level 9)
Medical and clinical laboratory technicians	13.08 (level 3)	22.36 (level 6)
<b>Diagnostic related technologists and technicians</b>	14.21 (level 4)	39.02 (level 9)
Cardiovascular technologists and technicians	13.77 (level 4)	23.21 (level 6)
Radiologic technologists and technicians	21.86 (level 5)	34.74 (level 9)
<b>Health diagnosing and treating practitioner support technicians</b>	12.38 (level 3)	21.83 (level 7)
Psychiatric technicians	13.36 (level 4)	20.53 (level 6)
<b>Medical records and health information technicians</b>	13.79 (level 3)	20.12 (level 6)
<b>Healthcare support occupations</b>	9.91 (level 1)	21.41 (level 7)
Nursing, psychiatric, and home health aides	9.92 (level 1)	16.97 (level 6)
Nursing aides, orderlies, and attendants	9.92 (level 1)	14.62 (level 5)
Psychiatric aides	12.13 (level 2)	16.97 (level 6)
<b>Physical therapist assistants and aides</b>	12.22 (level 3)	18.91 (level 5)
<b>Miscellaneous healthcare support occupations</b>	12.47 (level 2)	19.21 (level 6)

Source: *National Compensation Survey: Occupational Earnings in the United States, 2008*, table 34, "Civilian full-time workers in hospitals: Mean and median hourly, weekly, and annual earnings and mean weekly and annual hours" on the Internet at <http://www.bls.gov/ncs/ncswage2008.htm>.

The release of the 2008 National Compensation Survey occupational earnings data on workers in hospitals is the third annual presentation of such data, which add greater detail to an already rich source of data. Occupational earnings by work level, a measure unique to the NCS, reveals a wide range in earnings for several healthcare occupations in civilian hospitals. Work-level data provide particular insight into the pay of full-time physicians and surgeons and registered nurses employed by civilian hospitals (private and State and local combined). The NCS also provides earnings estimates of workers in private

hospitals and in State and local government hospitals separately, including those who work part time (a topic that warrants further study.)<sup>22</sup> BLS plans to release the 2009 NCS national earnings data in a summer 2010 publication.

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## End Notes

<sup>1</sup> The term *hospitals* is used throughout the article to denote hospital employers within the scope of the National Compensation Survey (NCS). The NCS collects wage data on workers in hospitals defined under NAICS code 622000, which includes general medical and surgical hospitals, psychiatric and substance abuse hospitals, and specialty hospitals. Under the NCS, Federal government, military, and prison hospitals are excluded.

<sup>2</sup> Hospitals (NAICS code 622000) employed 5,782,200 employees in August 2009, according to the BLS [Current Employment Statistics](#) survey. This figure includes employment in total private hospitals, State government hospitals, and local government hospitals. See [Employment and Earnings](#), November 2009, table B-12, “[Employees on Nonfarm Payrolls by Detailed Industry](#),” pp. 91, 93, on the Internet at <http://www.bls.gov/opub/ee/empear200911.pdf>.

<sup>3</sup> American Hospital Association, 2008 survey, “[Fast Facts on U.S. Hospitals](#),” Health Forum LLC, 2009, November 11, 2009 update, on the Internet, at <http://www.aha.org/aha/resource-center/Statistics-and-Studies/fast-facts.html>. The American Hospital Association (AHA) defines *community hospitals* as “all nonfederal, short-term general, and other special hospitals. Other special hospitals include obstetrics and gynecology; eye, ear, nose, and throat; rehabilitation; orthopedic; and other individually described specialty services. Community hospitals include academic medical centers or other teaching hospitals if they are nonfederal short-term hospitals. Excluded are hospitals not accessible by the general public, such as prison hospitals or college infirmaries.” AHA 2008 data show that there are 5,010 community hospitals and 447 nonfederal psychiatric hospitals, for a total of 5,457 hospitals that, in general terms, approximate the NCS scope and definition of hospital employers.

<sup>4</sup> Gross patient revenues, 2008, [American Hospital Directory, Hospital Statistics](#), available on the Internet at [http://www.ahd.com/state\\_statistics.html](http://www.ahd.com/state_statistics.html), September 24, 2009 update. According to this publication, there were 4,037 *nonfederal, short-term, acute care hospitals* in the United States in 2008.

<sup>5</sup> [Employment Projections, 2008-18](#), USDL-09-1503 (U.S. Department of Labor), December 11, 2009, Occupational Employment, p. 3, on the Internet at: <http://www.bls.gov/news.release/pdf/ecopro.pdf>.

<sup>6</sup> Differences in earnings between healthcare workers in private industry and those in State and local government hospitals, and differences in earnings between full-time and part-time hospital healthcare workers are surely grounds for additional study; however, this article focuses on the earnings of full-time healthcare workers in civilian hospitals.

<sup>7</sup> [Employee Costs for Employee Compensation, Historical Listing, March 2004-September 2009](#), U.S. Bureau of Labor Statistics, table 8, “State and local government workers, by industry group: employer costs per hours worked for employee compensation and costs as a percentage of total compensation, 2004-2009,” p.69, Hospitals, December 2008; and table 28, “Private industry workers, hospitals by occupational group: Employer costs per hours worked for employee compensation and costs as a percentage of total compensation, 2004-2009,” p.288, December 2008; on the Internet, at <ftp://ftp.bls.gov/pub/special.requests/ocwc/ect/eceqqrtn.pdf>.

<sup>8</sup> The NCS defines civilian sector workers as those employed in State and local government and those in private industry; it excludes agricultural, Federal, military, household, and self-employed workers.

<sup>9</sup> [National Compensation Survey: Occupational Earnings in the United States, 2006](#), Bulletin 2590 (Bureau of Labor Statistics, September 2007), on the Internet at <http://www.bls.gov/ncs/ncswage2006.htm>. For [NCS national earnings archives](#), see 2009 National Compensation Survey Publications List, on the Internet at <http://www.bls.gov/ncs/ncspubs.htm>.

<sup>10</sup> See tables 34, 35, and 36, respectively, of [National Compensation Survey: Occupational Earnings in the United States, 2008](#), Bulletin 2720 (Bureau of Labor Statistics, August 2009), on the Internet, at [http://www.bls.gov/ncs/ncswage2008.htm#Wage\\_Tables](http://www.bls.gov/ncs/ncswage2008.htm#Wage_Tables).

<sup>11</sup> See [relative standard error \(RSE\)](#) table 34 in [National Compensation Survey: Occupational Earnings in the United States, 2008](#), Bulletin 2720 (Bureau of Labor Statistics, August 2009), on the Internet, at <http://www.bls.gov/ncs/ncswage2008.htm#RSE>. (There are no RSE tables 35 and 36 because the relative standard errors are included in data tables 35 and 36, respectively.)

<sup>12</sup> For more information on medical residency, see [Becoming a Physician](#) on the American Medical Association Web site at <http://www.ama-assn.org/ama/pub/education-careers/becoming-physician.shtml>.

<sup>13</sup> [Occupational Employment Statistics \(OES\)](#) data show that a total of 2,542,760 registered nurses worked in nonfarm establishments throughout the United States in May 2008. See: <http://www.bls.gov/oes/2008/may/oes291111.htm>.

- 14 Occupational Employment Statistics (OES) survey data show that in May 2008 there were 7,076,800 employed in healthcare practitioner and technical occupations. See [Occupational Employment and Wages, May 2008](http://www.bls.gov/oes/2008/may/oes290000.htm): <http://www.bls.gov/oes/2008/may/oes290000.htm>.
- 15 The May 2008 Occupational Employment Statistics (OES) survey data show that 1,458,520 registered nurses work in general medical and surgical hospitals (NAICS code 622100); see [Healthcare Practitioner and Technical Occupations](http://www.bls.gov/oes/2008/may/naics4_622100.htm#b29-0000), on the Internet at [http://www.bls.gov/oes/2008/may/naics4\\_622100.htm#b29-0000](http://www.bls.gov/oes/2008/may/naics4_622100.htm#b29-0000); 33,100 were employed in psychiatric and substance abuse hospitals (NAICS code 622200); see the page at [http://www.bls.gov/oes/2008/may/naics4\\_622200.htm#b29-0000](http://www.bls.gov/oes/2008/may/naics4_622200.htm#b29-0000); and 43,820 in specialty hospitals (NAICS code 622300); see the page at [http://www.bls.gov/oes/2008/may/naics4\\_622300.htm#b29-0000](http://www.bls.gov/oes/2008/may/naics4_622300.htm#b29-0000); for a total of 1,535,440 in all hospitals (NAICS code 622000). Registered nurses working in hospitals make up approximately 60 percent of all registered nurses ( $(1,535,440/2,542,760) \times 100 = 60$ ). For more information, see that page at <http://www.bls.gov/oes/2008/may/oes291111.htm>. There are some differences in the scope of the NCS and the OES, which affect the proportion noted here. See the [technical notes](#) of the May 2008 Occupational Employment Survey annual wage survey at [http://www.bls.gov/oes/2008/may/oes\\_tec.htm](http://www.bls.gov/oes/2008/may/oes_tec.htm).
- 16 According to SOC code 29-1111 (posted October 21, 2001; 2000 edition of the SOC), registered nurses assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required. Include advance practice nurses such as: nurse practitioners, clinical nurse specialists, certified nurse midwives, and certified registered nurse anesthetists. Advanced practice nursing is practiced by registered nurses who have specialized formal, post-basic education and who function in highly autonomous and specialized roles. See Standard Occupational Classification, “[29-1141 Registered Nurses](#),” on the Internet at [http://www.bls.gov/soc/soc\\_291141.htm](http://www.bls.gov/soc/soc_291141.htm).
- 17 For detail on job leveling, see [National Compensation Survey: Guide for Evaluating Your Firm's Jobs and Pay](#), (Bureau of Labor Statistics, October 2003), on the Internet, at <http://www.bls.gov/ncs/ocs/sp/ncbr0004.pdf>.
- 18 See “[Basics of Grade Structures](#),” by David Creelman, 2004, posted on the Internet at <http://www.speedeeo.com/Library/BasicsofSalaryGrades.pdf>.
- 19 To become a registered nurse, an individual must graduate from a State-approved school of nursing—either a 4-year university program, a 2-year associate degree program, or a 3-year diploma program—and pass a State licensing examination called the National Council Licensure Examination for Registered Nurses (NCLEX-RN). See American Nursing Association, *Nursing World*, “[Nursing Education](#),” on the Internet at <http://www.nursingworld.org/EspeciallyForYou/StudentNurses/Education.aspx> (accessed January 28, 2010).
- 20 see [National Compensation Survey: Guide for Evaluating Your Firm's Jobs and Pay](#), (Bureau of Labor Statistics, October 2003), on the Internet, at <http://www.bls.gov/ncs/ocs/sp/ncbr0004.pdf>.
- 21 Among occupations with two or more published estimates by work level.
- 22 See tables 34, 35, and 36 in [National Compensation Survey: Occupational Earnings in the United States, 2008](#), Bulletin 2720 (Bureau of Labor Statistics, August 2009), on the Internet, at [http://www.bls.gov/ncs/ncswage2008.htm#Wage\\_Tables](http://www.bls.gov/ncs/ncswage2008.htm#Wage_Tables).