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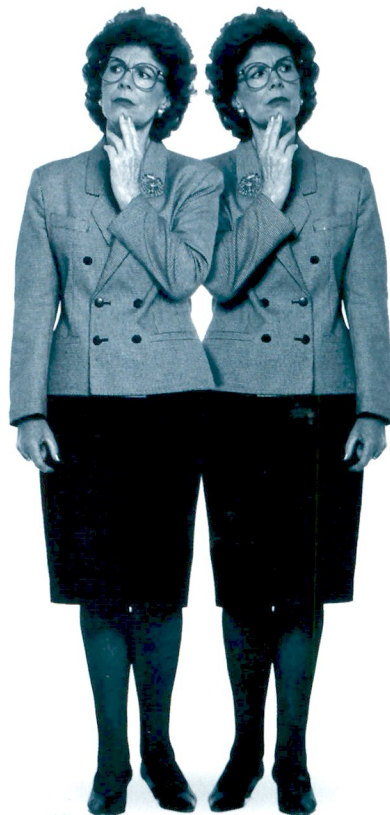


M O N T H L Y L A B O R  
**REVIEW**

U.S. Department of Labor

U. S. Bureau of Labor Statistics

**The  
sandwich  
generation:**  
women  
caring for  
parents and  
children





U.S. Department of Labor  
Elaine L. Chao, Secretary

U.S. Bureau of Labor Statistics  
Philip L. Rones, Acting Commissioner

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# MONTHLY LABOR REVIEW

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### The September Review

The soccer moms of the 1990s have watched their players grow to college age and seen their parents grow older and more in need of support. Charles Pierret uses data from the National Longitudinal Survey of Young Women to see how many of those women, who were 14 to 26 years old at the end of 1967, have become active providers of resources, time and/or money, to both their children and their parents. Pierret finds that such a “sandwich generation” could comprise as few as 1 percent of the group or as much as 33 percent, depending on what definitions one uses. His central result is that 9 percent of these women are giving a significant amount of care to both their children and their parents, and are thus charter members of the sandwich generation.

Abraham Mosisa reports that second-generation American workers have labor force participation and unemployment rates quite similar to those whose families have been in the country for three generations or more.

Thesia I. Garner, George Janini, William Passero, Laura Paszkiewicz, and Mark Vendemia make a painstakingly detailed comparison of the differences between the Consumer Expenditure Survey and estimates of personal consumption expenditure.

Bettina H. Aten works out a more economical method for making estimates of price levels in the local areas that are part of the Consumer Price Index sample.

### Work fatalities

A total of 5,702 fatal work injuries were recorded in the United States in 2005,

down about 1 percent from the revised total of 5,764 fatal work injuries recorded in 2004. The rate at which fatal work injuries occurred in 2005 was 4.0 per 100,000 workers, down slightly from a rate of 4.1 per 100,000 in 2004.

Of the 5,702 fatal work injuries recorded in 2005, 5,188 (or 91 percent) occurred in private industry. Service-providing industries in the private sector accounted for 48 percent of all fatal work injuries in 2005, while goods-producing industries accounted for 43 percent. Another 9 percent of the fatal work injuries in 2005 involved government workers.

A total of 29 work-related fatalities were attributable to hurricanes and their aftermath in 2005. Hurricane-related fatalities were concentrated in three States—Mississippi (10 fatalities), Louisiana (8 fatalities), and Florida (8 fatalities). Of the 29 cases identified by the fatality census, 9 involved workers who were struck by objects, 8 involved transportation-related incidents, and 5 resulted from falls. For more information on fatal work injuries, see “National Census of Fatal Occupational Injuries in 2005,” news release USDL 06–1364.

### Displaced workers

During the January 2003 through December 2005 period, 3.8 million workers were displaced from jobs they had held for at least 3 years. Of those long-tenured workers displaced during the January 2003 through December 2005 period, 49 percent lost or left their jobs due to plant or company closings or moves, 29 percent reported that their position or shift was abolished, and 22 percent cited insufficient work as the

reason for being displaced. The proportion of displaced workers reporting plant closings or moves was up slightly from the prior survey, and the share citing insufficient work was down.

Displacements in manufacturing made up 28 percent of the 3.8 million long-tenured workers who were displaced from their jobs during the 2003–05 period; long-tenured workers are those who had held their jobs for at least 3 years. Displacements in wholesale and retail trade (508,000) accounted for 13 percent of all long-tenured workers displaced during the 2003–05 period. Long-tenured displaced workers in professional and business services (406,000) made up 11 percent of the total.

The reemployment rate for displaced manufacturing workers (65 percent) was lower than the overall reemployment rate for displaced workers (70 percent). Reemployment rates for workers displaced from jobs in the transportation and utilities industry and in the financial activities industry (77 percent each) were above average. (Workers were not necessarily reemployed in the same industries from which they were displaced.) To learn more about displaced workers, see “Worker Displacement, 2003–2005,” news release USDL 06–1454. □

Communications regarding the *Monthly Labor Review* may be sent to the Editor-in-Chief at the addresses on the inside front cover.

News releases discussed above are available at

[www.bls.gov/bls/newsrels.htm](http://www.bls.gov/bls/newsrels.htm).

## The 'sandwich generation': women caring for parents and children

*Data from the National Longitudinal Survey are used to estimate the number and characteristics of women 45 to 56 years old who care for both their children and their parents; these women transfer a significant amount of money to their children and time to their parents*

Charles R. Pierret

The term "sandwich generation" has become increasingly common in the United States over the last two decades. In a collective sense, the term has been used to describe the middle-aged generation who have elderly parents and dependent children.<sup>1</sup> In the individual sense, the term describes people who are squeezed between the simultaneous demands of caring for their aging parents and supporting their dependent children. This article uses the term in the individual sense and estimates how many women 45 to 56 years old are part of the sandwich generation based on data from the National Longitudinal Survey of Young Women (NLSYW). It examines demographic characteristics of these women and the type and amount of support they give to their children and parents.

The size of the sandwich generation depends on how one defines it. An AARP report found that 44 percent of 45- to 55-year-olds had both at least one living parent and one child under age 21. Only 7 percent of 45- to 55-year-olds, however, lived in a household containing three generations; usually oneself, one's parents or in-laws, and one's children.<sup>2</sup> Support, of course, can mean something other than co-residence. Parents may provide financial support to their nonresident children for college expenses, the purchase of a home, or just as gifts. They may also provide help with childcare or household errands. Adult children can likewise help their elderly parents with personal care or errands, or with financial assistance, even if they do not live together.

In a sense, the sandwich generation is not a new phenomenon. Elderly or infirm parents historically have been cared for by their children, often within the child's home. The increased attention to the sandwich generation in recent years probably has its roots in many demographic trends.<sup>3</sup> As life expectancy increases, more middle-aged people tend to have parents who are still alive. Additionally, these parents probably have fewer children, so there might be fewer siblings with whom to share the burden. Adult children are more likely to live further from their parents, making decisions about caregiving more complicated and disruptive. Women are having children at later ages, so their parents are older, but their children are still young. Support for children might last longer than the support received by their parents' generation, often reaching into the early and even mid-20s as they attend college and establish their own households. Women are more likely to work outside the home, making it increasingly difficult to provide additional caregiving services. Interest in these problems is undoubtedly due to the fact that they are being experienced by the baby-boom generation, a group that, by its sheer size, garners a large amount of media attention.

This article determines what proportion of middle-aged American women can be classified as part of the sandwich generation. Using data from the NLSYW and its 1997 and 1999 sections on intrafamily transfers (that is, money or hours provided to another family member), this article provides estimates based on various definitions

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of membership in the sandwich generation. It concludes that, depending on our definition, somewhere between 1 percent and 33 percent of 45- to 56-year-old women are simultaneously caring for their parents and their children. The preferred estimate is that 9 percent of these women are giving a significant amount of care to both their children and their parents, and can be termed members of the sandwich generation.

## Data

The National Longitudinal Surveys (NLS), sponsored by the U.S. Bureau of Labor Statistics, are a set of surveys designed to gather information at multiple points in time on the labor market activities and other significant life events of several demographic groups of men and women.<sup>4</sup> The Young Women's cohort was started in 1968, with 5,159 women ages 14 to 24 as of December 31, 1967. Originally designed to include 5 annual interviews, the survey was conducted 22 times before it was discontinued in 2003. In 1999, the "Young Women" were 45 to 56 years old and were interviewed for their 20<sup>th</sup> time. The retention rate 31 years after the initial interview was 58.4 percent of those respondents who were still living. In general, respondents participated in 1-hour personal interviews. The questions have always focused on labor market activity, but this has generally been interpreted in a very broad sense to include any activities that affect or are affected by one's participation in the labor market. Thus, questions on education and training, child care, marriage and fertility, household composition, attitudes and expectations, criminal activity, government assistance programs, and other topics have complemented the extensive labor market information gathered from survey respondents.

In 1996, NLS management designed a section of the NLSYW questionnaire devoted to transfers of time and money among family members. The idea was to explore the web of connections linking respondents to their parents and adult children. Ultimately, the section proved longer than the 15 minutes available for its administration. Therefore, the questionnaire designers split the section into two parts. In the first, administered in the 1997 survey, respondents were asked about transfers to their parents. The second part, asked in 1999, focused on relations with the respondent's adult children.

The 1997 parent section begins with an enumeration of a respondent's parents,<sup>5</sup> either living or deceased, and those of her husband. For each of these parents, information about age, health, and residence is also collected. Respondents then provide information about the financial situation of their parents by answering questions about parental income and the net worth of the parents' assets. After this basic background information is collected, the 1997 survey collects extensive data about the amount of time and money the respondent spends assisting living parents and parents-in-law.<sup>6</sup> This could involve up to four separate households if both a

respondent's parents and her in-laws were no longer living together. Transfers were considered at the level of the married couple. Thus, all transfers from the respondent or her husband to a parent or his/her spouse were reported as one amount. Questions about time transfers asked about two types of assistance: help with personal care (defined in the survey as help with dressing, eating, cutting hair, or any other care involving the body) and help with household chores and errands (activities such as house cleaning, yard work, cooking, house repairs, car repairs, shopping, and trips to doctors). Respondents first reported whether they had spent any time in the past 12 months helping each parent with each type of assistance, and if so, the number of hours over the past 12 months they had spent helping each parent. Questions about financial assistance included information on loans, gifts with a total value of more than \$100, and other financial support, such as paying bills or expenses without the expectation of being paid back.

To capture complementary information about inter-generational transfers in the opposite direction, the 1999 survey asked Young Women about transfers involving their children, including biological, step-, and adopted children. Demographic data, including gender, age or date of birth, highest grade completed, marital status, presence and age of any children, relationship to the respondent, and residence, were collected for each child. Each respondent was then asked about time and money transfers to her adult children, those ages 19 and older and those ages 14 to 18 who were married or had a child.<sup>7</sup> These questions were similar to the parental questions asked in 1997, though chores and errands were broken out separately and an additional category for assisting with childcare was asked if the respondent had reported that the child had children. On the financial assistance side, questions about college attendance and support for college in the last 12 months were added to the 1997 questions regarding loans, gifts, and other financial assistance.

Unfortunately, some of the rich detail of these data cannot be used in the analysis of who is a member of the sandwich generation. This analysis aggregates assistance to all parents and to all children, reporting total assistance from the respondents both up and down the generations, but not distinguishing among the recipients of this assistance (for example, parents versus in-laws). It also does not separate time or money transfers by type, examining total time spent assisting parents, for example, but not how much of that time is spent on personal care or running errands. Only the group that is identified as members of the sandwich generation is examined using the type of transfers and the detailed contextual variables that are part of the NLSYW data.

There are two caveats to this study that should be mentioned at the outset. First, when weighted, the NLSYW data are nationally representative of the target population—women who were 14 to 24 on December 31, 1967 and resided in the United States at

the time of screening in 1966. Unfortunately, this excludes immigrants in this age range who immigrated after 1966. There is some evidence that this group may be more likely to be giving assistance to both their parents and children.<sup>8</sup> Longitudinal studies have a difficult time tracking changes to the population that occur after the screening period. It must be remembered that this analysis is about women in the target population, not all women in the United States.

Second, because of the structure of the questionnaire, respondents report on transfers to parents 2 years before they report on transfers to their children. The reported transfers are not as simultaneous as one might hope. Implicit is the assumption that transfers are ongoing, that transfers reported in 1997 were likely to have also taken place in 1999. Though perhaps a heroic assumption, it is a necessary one because of the available data.

## Analysis

Membership in the sandwich generation implies that one's parents and one's children are simultaneously dependent on oneself. Dependence, of course, is a matter of definition. The NLSYW allows us to vary the definition of dependence and estimate the number of American women between the ages of 45 and 56 who have relationships with their parents or children that meet the various thresholds.

*Support for parents.* Consider first the relationship between respondents and their parents. The top panel of table 1 presents the percentage of women ages 43 to 54 when interviewed in 1997 having from 0 to 4 living parents (including own parents and parents-in-law). More than 18 percent of these women have no living parents. Not surprisingly, younger women and married women have more parents; more than 15 percent of married women 43 to 48 still had all four of their parents and in-laws alive, compared with 5.8 percent of married women 49 to 54. The second panel of table 1 shows the number of parental households with which these women are related. Having parents who are not sharing a household may increase the stress and complexity of giving care to your parents, and may introduce stepparents into the equation. Almost half of all women in this group have only one parental household with which to contend, and less than 3 percent have more than 2.

Although more than 80 percent of all women in this age group have at least one parent, the level of support for their parents varies greatly. At the upper end, slightly more than 3 percent of women in this age group have at least one parent living with them. (See table 2.) Almost 8 percent have a parent living in a supported-living or nursing facility. In terms of financial support, more than 25 percent of women gave at least \$200 of support to their parents in the previous year and 6.2 percent gave more than \$1,000 in support. This latter group's average expenditure in support of their parents was \$2,716 for the year. More than one-

**Table 1.** Percent of 43- to 54-year-old women in 1997 with specified number of living parents and parent households, by marital status and age

Marital status	Number of parents				
	0	1	2	3	4
Total .....	18.4	30.1	30.0	14.2	7.4
Married .....	11.3	24.6	31.8	21.3	11
43-48 .....	7.8	18.9	31.9	26.1	15.2
49-54 .....	15.6	31.7	31.6	15.3	5.8
Unmarried .....	32.7	41	26.3	...	...
43-48 .....	23.5	42.7	33.8	...	...
49-54 .....	43.3	38.9	17.8	...	...
	Number of parent households				
	0	1	2	3	4
Total .....	18.4	46.3	32.6	2.6	0.1
Married .....	11.3	37.7	46.9	3.9	.2
43-48 .....	7.8	32.1	54.1	5.5	.6
49-54 .....	15.6	44.6	37.9	1.8	.0
Unmarried .....	32.7	63.4	.4	...	...
43-48 .....	23.5	70.8	5.8	...	...
49-54 .....	43.3	54.8	1.9	...	...

SOURCE: National Longitudinal Survey of Young Women, 1997.

fifth of women spent more than 100 hours during the previous year assisting their parents with personal care, household chores, or errands. Almost 10 percent spent more than 500 hours (almost 10 hours a week) helping parents. This group averaged 1,605 hours (more than 30 hours a week) of support during the year.

As table 2 shows, support for one's parents comes in many different forms, and the number of women supporting their parents depends on the definition of "support." The most inclusive definition counts a woman as supporting her parents if she had a co-resident parent or a parent in a supported living or nursing facility, or if she gave \$200 or 100 hours to her parents. By this definition, almost 45 percent of women could be said to be supporting their parents. A more restrictive definition, shown in the last row of table 2, estimates that 15.6 percent of women aged 43 to 54 years old either shared a residence with a parent, gave their parents \$1,000 or more, or spent 500 hours or more helping their parents with personal care, household chores, or errands. On average, this group gave \$1,124 to their parents and spent 1,008 hours helping them. It is apparent that a sizable minority of women in this age group are spending a lot of time and money supporting their parents.

*Support for children.* The other side of the sandwich generation reports on the support given to their children. Only 1 in 6 women in aged 45 to 56 reported having no living children.<sup>9</sup> Two is the modal number of children; about 10 percent of

**Table 2. Percent of 43- to 54-year-old women in 1997 giving specified support to parents**

Type of support	Percent of women	Average contribution (in dollars)	Average contribution (in hours)
One or more co-resident parent ....	3.2	—	—
One or more parent in support facility .....	7.8	—	—
Gave parents \$200 or more .....	27.4	\$936	—
Gave parents \$1,000 or more .....	6.2	\$2,716	—
Helped parents for 100 hours or more .....	21.8	—	759
Helped parents for 500 hours or more .....	9.3	—	1,605
Had co-resident parent, parent in support facility, gave parent \$200 or more, or helped parent for 100 hours or more .....	44.9	\$557	405
Had co-resident parent, gave parent \$1,000 or more, or helped parent for 500 hours or more .....	15.6	\$1,124	1,008

SOURCE: National Longitudinal Survey of Young Women, 1997.

women have more than four children. The following tabulation shows the number of living children reported by women aged 45 to 56 in 1999:

Number of children	Percent of women
0 .....	16.6
1 .....	14.5
2 .....	31.9
3 .....	17.9
4 .....	9.2
5 .....	4.6
6 or more .....	5.2

There are a number of ways in which parents support their children. Almost half (46.2 percent) of these women have children living with them. (See table 3.) Few of these women, however, have young children in their household; 1.6 percent have children under 7 and 11.0 percent have children under 14. A third of women in this age range have at least one of their children in college, 11 percent have a child who is attending college living with them, and almost one-fifth provide financial support to their children who are attending college. This support is quite substantial, averaging \$8,900.

Financial support of one's children is much more common than other assistance. Almost 40 percent of women gave their children \$200 or more during the year; about three times the percentage of women who gave assistance of more than 100 hours. The level of financial assistance to children is much higher than it is to parents. On the one hand, more than 25 percent of all women gave \$1,000 or more during the year to their children, compared with 6 percent who gave this much support to their

parents. And the average amount each of these heavy givers gave to their children was more than \$6,700, compared with an average \$2,700 given to parents. On the other hand, more women gave at least a low level of time assistance to their parents than to their children. The percentage of women who gave at least 100 hours of assistance to their parents was more than 50 percent greater than the percentage who gave this much assistance to their children (21.8 percent, versus 13.9 percent), though the percentage giving more than 500 hours to children was about the same as those giving 500 hours to their parents. Still, it appears that assisting children is a more capital intensive activity, whereas assisting parents is generally more labor intensive.

It is obvious that women in this age group are still very involved with raising their children. Two-thirds of these women had children in their household, were supporting children at college, or were giving at least \$200 or 100 hours to help their children. Including college expenses, the amount of support that middle-age women gave to support their children averaged \$5,410 in financial support and 268 hours of assistance in childcare, personal care, errands, or household chores. Even restricting this group further by requiring that children in the household be under 21, or that support be greater than \$1,000 or 500 hours, we still find more than 55 percent of women between 45 and 56 meet this threshold of assistance to their children. Again, their average contribution is quite substantial—almost \$6,500 and more than 6 hours a week of taking care of children, performing personal care, running errands, or helping with household chores.

*Simultaneous support.* Membership in the sandwich generation is defined as simultaneously giving assistance to both parents and children. Table 4 shows the percentage of 45- to 56-year-old women who are part of the sandwich generation based on various criteria. The strictest definition, in which both parents and children must be co-resident, is a fairly small group. Only a little more than 1 percent of women in this age group have both parents and children living with them. If we also include in the definition, children who are away at college, the group expands only slightly, from 1.1 percent of 45- to 56-year-old women to 1.2 percent. It is still not very common for women in this age group to be living with both their parents and their children.

It is common, however, for these women to be supporting their children and parents simultaneously in less dramatic ways. More than one-fifth of women gave either \$200 or 100 hours of their time to both their parents and their children. If we add to this definition, women whose parents are co-resident or in a supported nursing facility, and those whose children are co-resident or who are being supported at college, fully one-third of women in this age group could be classified as belonging to the sandwich generation. A stricter definition such as that in the last row of table 4, seems to capture the spirit of dependence better: support for parents is defined as either co-residence, \$1,000 of financial



**Table 3. Percent of 45- to 56-year-old women in 1999 giving specified support to children**

Type of support	Percent	Average contribution (in dollars)	Average contribution (in hours)
Child in the household .....	46.2	...	...
Child under 7 in the household ..	1.6	...	...
Child under 14 in the household ..	11	...	...
Child under 21 in the household ..	31.9	...	...
Child in college .....	33.7	...	...
Child living in household while in college .....	11.4	...	...
Financially supporting child (children) while in college .....	19.2	\$8,900	...
Gave children \$200 or more .....	39.4	\$4,856	...
Gave children \$1,000 or more ..	27.4	\$6,762	...
Helped children for 100 hours or more .....	13.9	1,282	...
Helped children for 500 hours or more .....	9	1,843	...
Had co-resident child, supported child in college, gave children \$200 or more, or helped children for 100 hours or more .....	67.1	\$5,410	268
Had co-resident child under 21, supported child in college, gave children \$1,000 or more, helped children for 500 hours or more .....	55.6	\$6,467	315

SOURCE: National Longitudinal Survey of Young Women, 1999.

aid or 500 hours of other assistance, and support for children is defined as co-residence of a child under age 21, support in college, \$1,000 of financial aid, or 500 hours of other assistance. By this definition, about 9 percent of all 45- to 56-

year-old women are simultaneously supporting both their parents and children, and would be included in the sandwich generation.

## The sandwich generation

Who are these 9 percent of 45- to 56-year-old women who make up the sandwich generation? Table 5 compares women in the sandwich generation with those of the same age who are not.

Sandwich-generation women are more likely to be married and out of the labor force and to have much greater income than other women of their same age. This probably reflects both opportunity and ability to support extended family members. Married women are more likely to have living parents (including in-laws) and children, and are less likely to be in the labor force. They have higher family incomes which provide the means to support family members financially and the ability to work less to offer nonfinancial assistance. In fact, after controlling for family income in a linear probability model,<sup>10</sup> marriage is no longer a significant determinant of membership in the sandwich generation—only income and being out of the labor force are significantly correlated with sandwich generation membership.

Another question is, “What types of support do the women in the sandwich generation provide to their children and parents?” One simple way of looking at this issue is to identify the type of support given to each group by these women<sup>11</sup> as shown in table 6. As we have seen, these women tend to give financial support to their children, but give personal or household care to their parents. Almost a third of these women qualify as members of the sandwich generation based on this pattern of support. Very few women qualify simply by supplying a place to live. Their involvement in the lives of their children and parents runs much deeper than that.

**Table 4. Percent of 45- to 56-year-old women in 1999 simultaneously giving specified support to children and parents**

Level of support for—		Percent
Parents	Children	
Co-residence .....	Co-residence .....	1.1
Co-residence .....	Co-residence or support for college .....	1.2
Aid of \$200 or more .....	Aid of \$200 or more .....	14.2
Aid of 100 hours or more .....	Aid of 100 hours or more .....	4.1
Aid of \$200 or 100 hours or more .....	Aid of \$200 or 100 hours or more .....	21.9
Aid of \$1,000 or more .....	Aid of \$1,000 or more .....	2.7
Aid of 500 hours or more .....	Aid of 500 hours or more .....	1.4
Aid of \$1,000 or 500 hours or more .....	Aid of \$1,000 or 500 hours or more .....	6.2
Co-residence, in support facility, or aid of \$200 or 100 hours or more .....	Co-residence, support in college, or aid of \$200 or 100 hours or more .....	33.1
Co-residence, or aid of \$1,000 or 500 hours or more .....	Co-residence under 21 years old, support in college, or aid of \$1,000 or 500 hours or more .....	9.0

SOURCE: National Longitudinal Survey of Young Women, 1997 and 1999.

**Table 5. Mean and standard error of selected characteristics of sandwich-generation women versus other 45- to 56-year-old women**

Variable	Sandwich generation	Other women
Age .....	50.3	50.3
Standard error .....	(.223)	(.065)
Married .....	.775	.661
Standard error .....	(.028)	(.010)
Out of the labor force .....	.278	.237
Standard error .....	(.030)	(.009)
Family income in 1999 (in thousands) ....	\$114.7	\$67.9
Standard error .....	(6.0)	(1.3)
Education (years) .....	14.0	13.7
Standard error .....	(.165)	(.065)
Black .....	.094	.110
Standard error .....	(.020)	(.006)

**Table 6. Type of support to children, versus type of support to parents from women in the sandwich generation**

Support to children	Total	Support to parents		
		Co-residence only	\$1,000 or more	500 hours or more
Total .....	...	3.4	39.7	57.0
Co-residence or college support only .....	27.8	.3	12.2	15.4
Support of \$1,000 or more .....	57.6	2.4	23.8	31.3
Support of 500 hours or more ..	14.6	.7	3.7	10.3

Table 7 breaks down support by the number of sandwich generation members providing it and the average level of that support. The level of support is striking. Almost 40 percent of this group is supporting children at college, with an average

contribution of more than \$10,000. More than 80 percent are spending an average of 23 hours a week helping their parents or in-laws, and almost 30 percent are spending an average of 26 hours helping their children. Eighty percent are contributing money other than college support to their children and more than 70 percent are contributing money to their parents. These amounts average \$6,263 and \$1,521 respectively. All told, this group transfers an average of \$10,000 and 1,350 hours annually to help their children and parents.

The bulk of financial transfers from the sandwich generation go to children, not to parents. Including support for college, these women give on average more than six times as much money to their children as to their parents. However, almost all transfers of money to parents are gifts; in comparison, almost one-quarter of the total value of money transfers to children by this group takes the form of loans. The children of these women are predominantly in their teens and twenties, and attempting to establish themselves in their adult lives. They should eventually be able to pay back any loans they are given by their parents. These women's parents, on the other hand, are elderly. If they need financial help, they may have no means of ever paying it back. Those in the sandwich generation may also see this as a way of paying back what their parents had given them in earlier times.

A sizeable group of women spends an average of 28 hours a week providing childcare, most likely for their grandchildren, while their own children work or attend school. A smaller group (5.9 percent of sandwich generation women) provides an average of 22 hours a week on personal care for their children, perhaps due to the child's disability or injury. Thus, around 2 percent of all women in this age range provide such personal care or childcare while providing substantial help to their own parents or in-laws.

**Table 7. Type of support given by women of the sandwich generation to their children and parents**

Type of support	To children			To parents		
	Percent giving	Average amount	Average if greater than zero	Percent giving	Average amount	Average if greater than zero
Co-residence .....	47.3	...	...	13.5	...	...
College support (dollars/year) .....	38.3	\$3,852	\$10,057	...	...	...
Time (hours/year) <sup>1</sup> .....	29.3	395	1,348	80.4	973	1,210
Personal care .....	5.9	68	1,153	53.4	522	978
Household chores and errands .....	14.3	117	818	73.9	512	693
Child care .....	20.0	280	1,400	...	...	...
Money (dollars/year) .....	80.7	\$5,054	\$6,263	73.7	\$1,121	\$1,521
Loans .....	32.2	\$1,192	\$3,702	.6	\$1	\$167
Gifts .....	79.4	\$3,578	\$4,506	71.5	\$857	\$1,199
Other .....	24.6	\$283	\$1,150	20.1	\$264	\$1,313

<sup>1</sup> Maximum time support is truncated at 4,380 hours per year (12 hours per day) for individual elements and the total. Therefore, the sum of the

individual items may be greater than the total.

## Conclusion

The NLSYW provides data on transfers of time and money to both parents and children for a representative group of middle-aged American women. It shows a high degree of connection between women in this age group and other family members, especially their children. Almost half have children living with them, and the 55 percent of these women who give a high level of support to their children—living with them, supporting them in college, or giving them more than \$1,000 or 500 hours of assistance—average more than \$6,400 of financial support, a figure that represents more than 10 percent of median family income. Help to parents comes more often in the form of assistance in running errands, doing household chores, or helping with personal care.

From these data, we find that the size of the sandwich generation—those simultaneously helping parents and children—depends on what definition we choose to adopt. Having

both one's parents and one's children in the household is fairly rare—about 1 percent of all women in this age group experience this three-generation household. But one-third of all women offer some help to both their parents and children. Defining the sandwich generation as aiding children with either co-residence, support for college, or transfers of more than \$1,000 or 500 hours and simultaneously aiding parents with co-residence or similarly-sized transfers implies that 9 percent of women between ages 45 and 56 are part of the sandwich generation.

The members of the sandwich generation are wealthier and more likely to be married and out of the labor force than other 45- to 56-year-old women. On average, they spend \$10,000 and 1,350 hours each year helping their children and parents. For the economy as a whole, these women represent important resource flows. With roughly 20 million American women in this age group, members of the sandwich generation are responsible for intrafamily transfers on the order of \$18 billion and 2.4 billion hours each year. □

## Notes

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<sup>1</sup> Russell A. Ward and Glenna Spitze, "Sandwiched Marriages: The Implications of Child and Parent Relations for Marital Quality in Midlife," *Social Forces*, vol. 77, no. 2, 1988, pp. 647–66.

<sup>2</sup> "In the Middle: A Report on Multicultural Boomers Coping with Family and Aging Issues," *AARP*, Washington, DC, July 2001.

<sup>3</sup> Steven K. Wisensale, "Toward the 21<sup>st</sup> Century: Family Change and Public Policy," *Family Relations*, vol. 41, no. 4, 1994, pp. 417–22.

<sup>4</sup> The discussion that follows borrows quite liberally from the *National Longitudinal Surveys Young Women Users' Guide 2001* (Bureau of Labor Statistics, 2001).

<sup>5</sup> Respondents were asked to identify their parents (parents-in-law) by naming the male and female individuals who "played the most

important role in raising you (your husband)." This might miss certain important parental relationships (for example, biological fathers when one was raised by a stepfather, or stepmothers who married one's father later in life and have survived him), but this limitation was necessary within the structure of the questionnaire.

<sup>6</sup> The survey also collected transfers from parents and in-laws, but this analysis does not use those data.

<sup>7</sup> If a respondent had more than five adult children, she was asked about transfers collectively rather than child-by-child. As in the 1979 survey, transfers from the children were also collected.

<sup>8</sup> "In the Middle," *AARP*, 2001.

<sup>9</sup> This includes biological, adoptive, and stepchildren.

<sup>10</sup> The results are not shown here.

<sup>11</sup> When support included both significant amounts of time and money, the more important activity was determined by whether the dollar amount of support was more or less than twice the number of hours of support.

# Labor force characteristics of second-generation Americans

*Second-generation American workers—those with at least one foreign-born parent—are more racially diverse and better educated than their counterparts in the third-and-higher generation; in terms of labor force status, however, the two groups have similar participation and unemployment rates*

Abraham Mosisa

This article documents the labor market characteristics of second-generation Americans compared with those of the “third-and-higher” generation. Second-generation Americans are native-born Americans who have either one parent or both parents who are foreign born. Americans of the third-and-higher generation are native-born Americans whose parents are both native born.<sup>1</sup>

This article examines the labor force status, occupations, and earnings of second- and third-and-higher-generation workers by a variety of demographic characteristics including age, sex, race or ethnicity,<sup>2</sup> educational attainment, and family status. (See box on page 11.) It also looks at the labor market situation of the two groups that make up the second generation—persons whose parents are both foreign born (foreign parentage) and persons who have one native-born parent and one foreign-born parent (mixed parentage). The article uses data from the 2005 Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS).<sup>3</sup>

### Demographics

In March 2005, there were 17.6 million second-generation Americans. They constituted 7.8 percent of the civilian noninstitutional popu-

lation aged 16 years and older. Americans of the third-and-higher generation numbered 174.8 million and made up 77.6 percent of the population. (The remainder—about 15 percent—were foreign born). There are some marked demographic differences between the second generation and the third-and-higher generation in terms of age, race or ethnicity, and education. (See tables 1 and 2.) A brief examination of the differences (and similarities) between these groups will be helpful in understanding their respective labor market characteristics. For the remainder of this article, native-born Americans whose parents are both native born are called “third generation” and should be understood to include those who are third-and-higher generation.

One of the major differences between the second generation and the third generation is the noticeably smaller proportion of the second generation who are aged 25 to 54 years, an age group for which labor force participation tends to be relatively high and unemployment relatively low. Forty percent of the second generation is in this broad age group, compared with 55 percent of the third generation. In contrast, as chart 1 shows, the proportion of the second generation who are 65 years and older (27.5 percent) is nearly double that of their third-generation counterparts. Persons 65 years and

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**Table 1. Percent distribution of the civilian non-institutional population by nativity and by selected characteristics, March 2005**

(Numbers in thousands)

Characteristic	Native born		Foreign born
	Second generation	Third-and-higher generation	
<b>Age and sex</b>			
Total, 16 years and older .....	17,638	174,839	32,759
Percent .....	100.0	100.0	100.0
16 to 24 years .....	23.1	16.2	12.7
25 to 54 years .....	39.9	54.6	65.3
25 to 34 years .....	16.3	16.0	24.7
35 to 44 years .....	13.1	18.8	23.8
45 to 54 years .....	10.5	19.8	16.7
55 years and older .....	37.0	29.2	22.0
55 to 64 years .....	9.6	14.0	10.5
65 years and older .....	27.5	15.2	11.6
Men, 16 years and older .....	8,507	83,658	16,538
Percent .....	100.0	100.0	100.0
16 to 24 years .....	23.5	17.0	13.7
25 to 54 years .....	42.2	55.5	66.9
55 years and older .....	34.3	27.6	19.4
55 to 64 years .....	9.1	13.9	9.9
65 years and older .....	25.2	13.7	9.5
Women, 16 years and older .....	9,131	91,182	16,221
Percent .....	100.0	100.0	100.0
16 to 24 years .....	22.7	15.5	11.7
25 to 54 years .....	37.7	53.8	63.6
55 years and older .....	39.5	30.6	24.7
55 to 64 years .....	10.0	14.0	11.1
65 years and older .....	29.5	16.6	13.6
<b>Race and Hispanic or Latino ethnicity<sup>1</sup></b>			
Total, 25 to 54 years .....	7,033	95,501	21,382
Percent .....	100.0	100.0	100.0
White non-Hispanic or Latino .....	52.5	78.8	17.8
Black non-Hispanic or Latino .....	4.1	13.4	7.6
Asian non-Hispanic or Latino .....	9.1	.4	23.4
Hispanic or Latino .....	31.1	5.3	50.2

<sup>1</sup> Estimates for the above race groups will not sum to totals shown because data are not presented for all races.

older are less likely than their younger counterparts to be labor force participants.

The difference in the age distributions between the second generation and the third generation is at least partly a result of changes in immigration laws that took place in the early 20<sup>th</sup> century when the flow of immigrants into the United States was sharply restricted.<sup>4</sup> (These restrictions remained in effect until the passage of the Immigration and Nationality Act of 1965, which eliminated the quota system based on national origin or ancestry for immigration to the United States). Because the wave of immigrants that entered the country prior to 1924 was larger than the wave entering after 1924, the group of offspring of the pre-1924 wave was also a large group and one that is now relatively old. Because the

inclusion of the disproportionately large population segment that is 65 years and older would make comparisons of the labor force characteristics between the second and third generations problematic, this article focuses primarily on persons aged 25 to 54 years.

*Race and ethnicity.* The second generation is more racially diverse than their third-generation counterparts. Overall, 31.1 percent of the second generation 25- to 54-year-olds are Hispanic or Latino and 9.1 percent are Asian non-Hispanic. By comparison, 5.3 percent of the third-generation 25- to 54-year-olds are Hispanic or Latino and 0.4 are Asian non-Hispanic. In contrast, about four-fifths of the third generation 25- to 54-year-olds are white non-Hispanics, compared with a little more than half of the second generation. Black non-Hispanics make up 13.4 percent of the third generation, but only 4.1 percent of the second generation. (See table 1 and chart 2.)

*Education.* Understanding the educational characteristics of the second generation is important to interpreting several features of their labor market characteristics. In general, second-generation individuals have somewhat higher educational attainment than their third-generation counterparts. In March 2005, for example, 38 percent of the second-generation 25- to 54-year-olds had graduated from college, compared with 29.7 percent of their third-generation counterparts. (See table 2.) In addition, the proportion of the second generation with graduate-level degrees (master's, professional or doctoral) was 12.0 percent, compared with 9.2 percent of the third generation.<sup>5</sup>

For all the major race and ethnic groups, the proportions of the second-generation 25- to 54-year-olds with college degrees are higher than those of the third generation. The largest difference is among blacks—36.9 percent of the second generation had college degrees, compared with 18.2

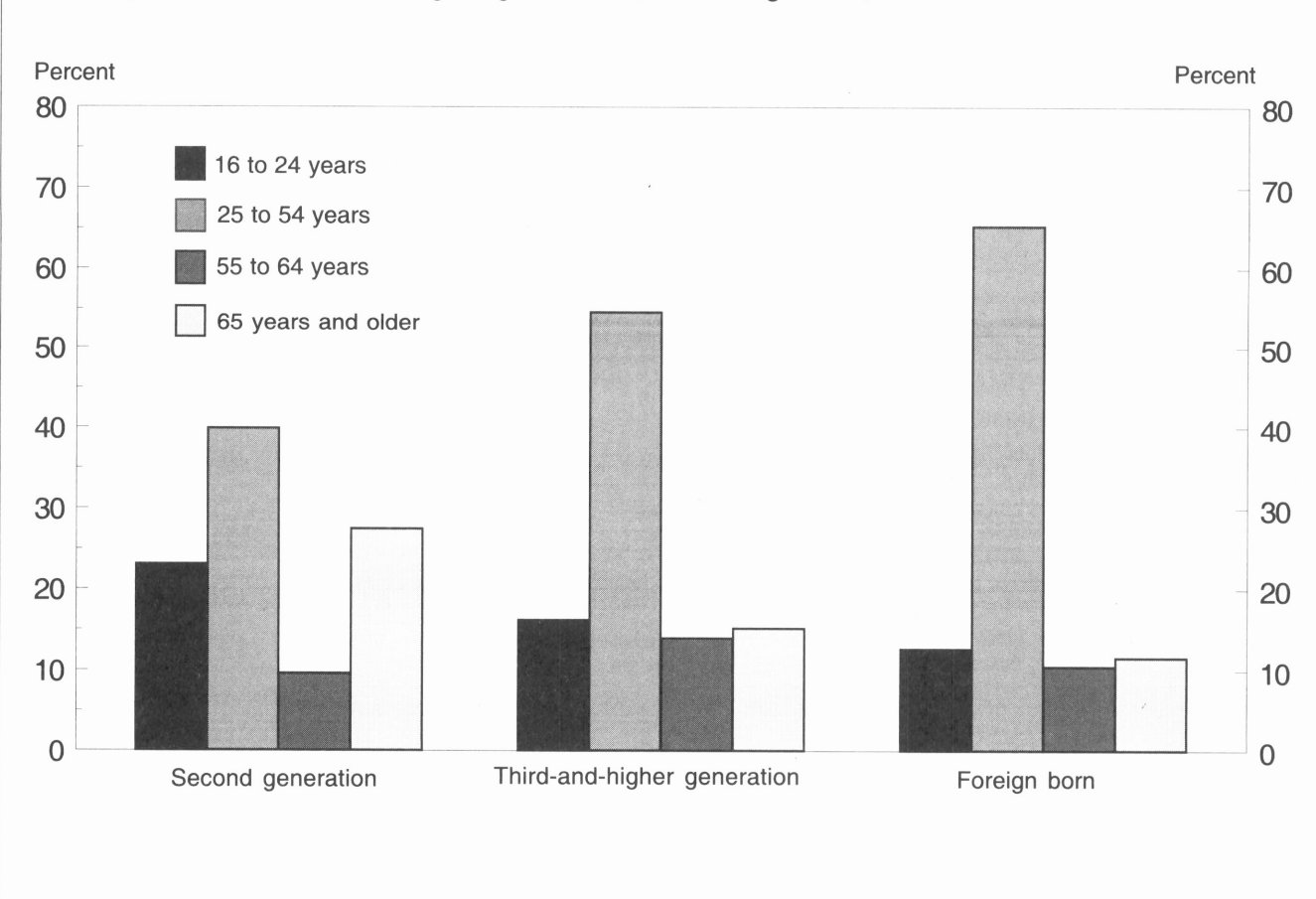
### Who are second-generation workers?

The youngest of the second-generation workers who were 16 years old in 2005 were born in 1989. Therefore, the parents of today's second-generation Americans of working age can only be the foreign born who arrived in the United States before 1989. For example, of the 32.6 million foreign born in 2005, about 65 percent entered the United States between 1989 and 2005. As a result, most of the foreign born today are not the parents of the second-generation workers under study. Therefore, comparisons of the labor market situation of the foreign born to that of the second generation are not made.

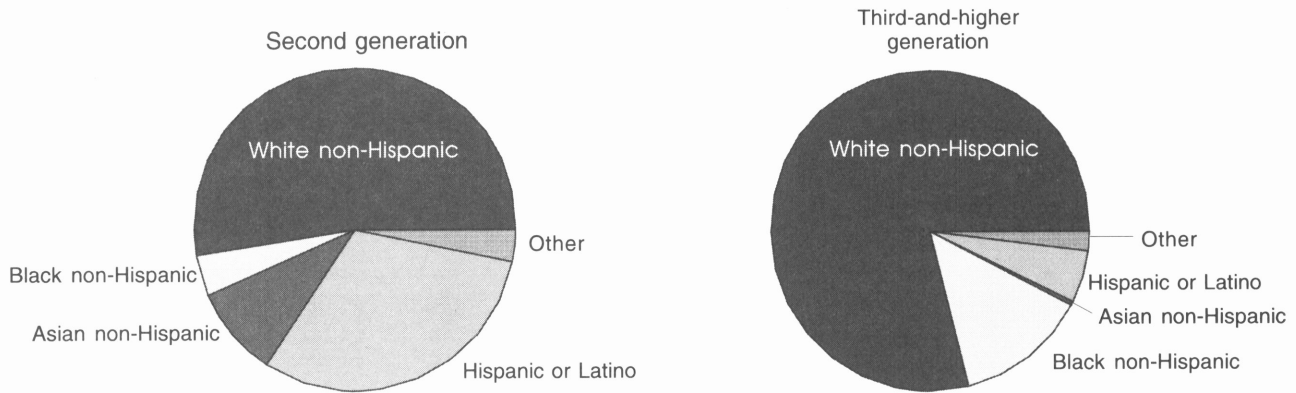
**Table 2. Educational attainment of the second generation and the third-and-higher generation, native-born civilian noninstitutional population aged 25 to 54 years by sex, race, and Hispanic or Latino ethnicity, March 2005**

Characteristic	Total, aged 25 to 54 years (in thousands)	Percent	Less than a high school diploma	High school graduates, no college	Some college or associate degree	Bachelor's degree and higher
<b>Second generation</b>						
Total .....	7,033	100.0	8.1	23.7	30.2	38.0
Men .....	3,587	100.0	8.6	25.9	29.5	36.0
Women .....	3,446	100.0	7.5	21.4	31.0	40.1
White non-Hispanic or Latino .....	3,691	100.0	4.0	22.9	29.1	44.0
Black non-Hispanic or Latino .....	285	100.0	4.6	25.5	33.0	36.9
Asian non-Hispanic or Latino .....	641	100.0	4.8	12.6	20.7	62.0
Hispanic or Latino .....	2,188	100.0	16.9	28.0	33.9	21.1
<b>Third-and-higher generation</b>						
Total .....	95,501	100.0	7.9	32.8	29.6	29.7
Men .....	46,410	100.0	8.6	35.3	27.3	28.8
Women .....	49,091	100.0	7.2	30.5	31.7	30.6
White non-Hispanic or Latino .....	75,272	100.0	6.3	31.5	29.4	32.8
Black non-Hispanic or Latino .....	12,814	100.0	12.3	40.2	29.4	18.2
Asian non-Hispanic or Latino .....	407	100.0	3.7	14.3	24.9	57.1
Hispanic or Latino .....	5,072	100.0	20.2	35.5	29.2	15.1

**Chart 1. Age distribution of the civilian noninstitutional population 16 years and older of the second generation, third-and-higher generation, and foreign born, March 2005**



**Chart 2. Percent distribution of second generation and third-and-higher generation, aged 25 to 54 years, by race, and Hispanic or Latino ethnicity, March 2005**



**Table 3. Labor force participation rates of the second generation and the third-and-higher generation, native-born population by selected characteristics, March 2005**

Characteristic	Total		Men		Women	
	Second generation	Third-and-higher generation	Second generation	Third-and-higher generation	Second generation	Third-and-higher generation
<b>Age</b>						
Total, 16 years and older .....	51.6	62.6	56.8	67.7	46.8	57.8
16 to 24 years .....	45.2	53.2	46.1	52.7	44.2	53.7
25 to 54 years .....	79.6	79.2	84.9	84.7	74.0	74.0
25 to 34 years .....	77.7	78.2	81.7	84.1	73.3	72.7
35 to 44 years .....	81.3	80.5	88.8	86.5	73.8	74.9
45 to 54 years .....	80.3	78.7	85.1	83.4	75.5	74.2
55 years and older .....	25.5	36.7	29.6	42.9	22.2	31.6
55 to 64 years .....	62.1	60.6	66.0	66.4	58.7	55.3
65 years and older .....	12.8	14.7	16.5	18.9	9.8	11.6
<b>Educational attainment, aged 25 to 54 years</b>						
Less than a high school diploma .....	68.9	63.6	77.0	72.2	59.0	53.8
High school graduates, no college .....	79.1	80.5	86.7	86.9	69.6	73.6
Some college, no degree .....	85.5	84.4	92.4	90.5	78.6	79.5
College graduates .....	87.6	89.4	93.1	95.3	82.4	84.1
<b>Race and Hispanic or Latino ethnicity, aged 25 to 54 years</b>						
White non-Hispanic or Latino .....	84.5	84.2	90.9	90.9	77.7	77.7
Black non-Hispanic or Latino .....	79.9	78.7	85.1	79.7	74.9	77.9
Asian non-Hispanic or Latino .....	80.9	80.3	84.1	87.2	77.0	73.7
Hispanic or Latino .....	82.8	78.8	90.5	85.5	75.2	72.5

**Table 4.** Unemployment rates of the second generation and the third-and-higher generation, native-born population by selected characteristics, March 2005

Characteristic	Total		Men		Women	
	Second generation	Third-and-higher generation	Second generation	Third-and-higher generation	Second generation	Third-and-higher generation
<b>Age</b>						
Total, 16 years and older .....	6.4	5.6	7.3	6.1	5.3	5.0
16 to 24 years .....	12.9	12.7	15.2	14.5	10.4	10.8
25 to 54 years .....	4.6	4.6	5.5	4.9	3.6	4.2
25 to 34 years .....	6.6	5.9	8.2	6.1	4.5	5.7
35 to 44 years .....	3.2	4.3	3.5	4.6	3.0	3.9
45 to 54 years .....	3.4	3.7	3.9	4.1	2.8	3.4
55 years and older .....	4.3	3.4	4.0	3.7	4.7	3.2
55 to 64 years .....	4.0	3.5	4.0	3.8	4.1	3.2
65 years and older .....	4.8	3.3	4.0	3.4	5.8	3.1
<b>Education, 25 to 54 years old</b>						
Less than a high school diploma .....	8.3	11.9	6.5	10.7	11.2	13.8
High school graduates, no college .....	6.4	5.8	8.4	6.2	3.3	5.2
Some college, no degree .....	4.6	4.3	6.4	4.5	2.5	4.2
College graduates .....	3.1	2.2	2.7	2.4	3.5	2.0
<b>Presence and age of own children 25 to 54 years old</b>						
With own children under 18 .....	3.4	3.8	4.2	3.3	2.6	4.2
With children 6 to 17 only .....	3.6	3.6	4.2	3.2	3.0	3.9
With children under 6 .....	3.3	4.0	4.2	3.4	2.2	4.8
With own children under 3 .....	3.6	3.8	4.6	3.2	2.4	4.5

percent of the third generation. At least some of the second-generation blacks are the offspring of African parents or Caribbean parents (or some combination of both) who came to the United States to pursue higher education. The difference in educational attainment is smallest among Asians and Hispanics or Latinos. For example, among Hispanics or Latinos, 21.1 percent of the second generation had college degrees, compared with 15.1 percent of the third generation.

### Labor force status

In March 2005, second-generation persons aged 25 to 54 were about equally likely to be labor force participants as their third-generation counterparts, 79.6 percent and 79.2 percent, respectively. This was true for both men and women. For both generations, men were more likely to be labor force participants than women. (See table 3.)

**Education.** The labor force participation rates of second- and third-generation 25- to 54-year-olds with high school diplomas and those with some college (no degree) are quite similar. Among those without a high school diploma, however, the participation rate of the second generation is higher—68.9 percent—than that of the third generation—

63.6 percent. Third-generation workers with college degrees are somewhat more likely to be labor force participants than their counterparts in the second generation.

**Race and ethnic origin.** The labor force participation rates of second- and third-generation whites and Asians (aged 25 to 54 ) are about the same. In contrast, second-generation Hispanics or Latinos and blacks in the same age group are more likely to be labor force participants than their third-generation counterparts.

**Mothers.** Overall, as the following tabulation shows, third-generation women with children under 18 years of age are more likely to be labor force participants than their second-generation counterparts:

	Labor force participation rates	
	Second generation	Third-and-higher generation
With own children under 18 years .....	73.1	75.3
With children 6 to 17 years, none younger .....	79.0	79.6
With children under 6 years	67.1	68.5



**Table 5. Occupational distribution of the employed second generation and third-and-higher generation, native-born population 25 to 54 years old by sex, race, and Hispanic or Latino ethnicity, March 2005**

Characteristic	Second generation			Third-and-higher generation		
	Total	Men	Women	Total	Men	Women
<b>Total</b>						
Total .....	100.0	100.0	100.0	100.0	100.0	100.0
Management, business, and financial operations occupations .....	17.6	16.7	18.8	16.3	17.2	15.4
Professional and related occupations .....	27.1	22.4	32.8	22.8	17.7	28.3
Service occupations .....	12.1	11.5	12.8	13.1	10.2	16.2
Sales and office occupations .....	24.9	19.3	31.6	24.7	16.8	33.2
Natural resources, construction, and maintenance occupations .....	8.2	14.7	.4	10.5	19.4	1.0
Production, transportation, and material moving occupations .....	10.0	15.4	3.6	12.6	18.8	5.9
<b>White non-Hispanic or Latino</b>						
Total .....	100.0	100.0	100.0	100.0	100.0	100.0
Management, business, and financial operations occupations .....	20.8	21.2	20.2	17.5	18.7	16.2
Professional and related occupations .....	30.0	23.7	37.7	24.0	18.7	29.9
Service occupations .....	10.5	9.4	11.8	11.4	8.7	14.5
Sales and office occupations .....	21.8	17.5	27.0	24.6	16.9	33.3
Natural resources, construction, and maintenance occupations .....	8.1	14.8	.2	11.0	19.9	1.0
Production, transportation, and material moving occupations .....	8.7	13.4	3.1	11.5	17.1	5.3
<b>Black non-Hispanic or Latino</b>						
Total .....	100.0	100.0	100.0	100.0	100.0	100.0
Management, business, and financial operations occupations .....	12.1	8.2	15.9	10.6	8.5	12.3
Professional and related occupations .....	30.3	30.0	30.6	17.4	11.6	22.1
Service occupations .....	12.6	10.6	14.7	21.5	18.4	24.1
Sales and office occupations .....	32.2	25.7	38.6	24.4	16.3	30.8
Natural resources, construction, and maintenance occupations .....	3.6	7.3	—	7.1	14.8	.9
Production, transportation, and material moving occupations .....	9.2	18.3	.3	19.0	30.5	9.8
<b>Asian non-Hispanic or Latino</b>						
Total .....	100.0	100.0	100.0	100.0	100.0	100.0
Management, business, and financial operations occupations .....	19.0	14.3	25.3	19.2	19.9	18.4
Professional and related occupations .....	36.7	37.9	35.1	31.1	26.6	35.8
Service occupations .....	10.2	11.6	8.4	12.4	13.8	11.0
Sales and office occupations .....	22.7	18.9	27.8	27.3	24.3	30.4
Natural resources, construction, and maintenance occupations .....	4.9	8.2	.5	4.0	7.7	—
Production, transportation, and material moving occupations .....	6.5	9.1	2.9	6.0	7.7	4.3
<b>Hispanic or Latino ethnicity</b>						
Total .....	100.0	100.0	100.0	100.0	100.0	100.0
Management, business, and financial operations occupations .....	12.3	10.5	14.4	12.7	12.5	12.9
Professional and related occupations .....	19.2	13.7	25.7	16.5	12.7	20.8
Service occupations .....	15.6	15.6	15.5	18.8	16.1	21.9
Sales and office occupations .....	29.6	22.0	38.7	26.8	17.3	37.4
Natural resources, construction, and maintenance occupations .....	9.8	17.5	.7	10.6	19.3	.8
Production, transportation, and material moving occupations .....	13.5	20.7	5.0	14.6	22.2	6.2

Dash indicates missing values

In March 2005, 75.3 percent of third-generation mothers were in the labor force, compared with 73.1 percent of second-generation mothers. The difference in participation rates between mothers in the two generations was mostly among those with children under 6 years of age.

*Unemployment.* Overall, the unemployment rate for members

of the second generation aged 25 to 54 years is the same as that for the same age group in the third generation. The jobless rate among second-generation men is higher than that for their third-generation counterparts; among women, the unemployment rate for those in the second generation is lower than that for those in the third generation. (See table 4.)

The unemployment rate of second-generation mothers with

**Table 6. Median annual earnings in 2004 of the second generation and third-and-higher generation, native-born population by age, sex, race, and Hispanic or Latino ethnicity**

Characteristic	Second generation	Third-and-higher generation
<b>Age and sex</b>		
Total, 16 years and older .....	\$38,016	\$36,840
16 to 24 years .....	20,706	20,775
25 to 54 years .....	40,417	38,982
55 years and older .....	41,644	39,526
Men, 16 years and older .....	42,042	41,688
16 to 24 years .....	20,006	22,224
25 to 54 years .....	44,414	43,261
55 years and older .....	50,833	47,346
Women, 16 years and older .....	33,653	30,886
16 to 24 years .....	22,563	19,593
25 to 54 years .....	36,275	32,552
55 years and older .....	34,656	31,603
<b>Race and Hispanic or Latino ethnicity</b>		
White non-Hispanic, total .....	42,623	39,241
16 to 24 years .....	22,872	21,284
25 to 54 years .....	44,500	40,452
55 years and older .....	43,198	40,513
Black non-Hispanic, total .....	34,478	29,790
16 to 24 years .....	24,749	19,890
25 to 54 years .....	40,740	30,210
55 years and older .....	30,698	30,432
Asian non-Hispanic, total .....	41,256	46,796
16 to 24 years .....	27,329	23,145
25 to 54 years .....	47,200	47,836
55 years and older .....	43,680	51,795
Hispanic or Latino ethnicity, total .....	30,069	30,500
16 to 24 years .....	18,720	19,967
25 to 54 years .....	33,292	32,694
55 years and older .....	39,210	30,667

children under age 18 was 2.6 percent in March 2005, compared with 4.2 percent for the third generation. Second-generation mothers with children under 3 years of age were also less likely to be unemployed than those of the third generation.

## Occupation

As a group, second-generation workers in the 25- to 54-year age group are somewhat more likely than their third-generation counterparts to be employed in professional and related occupations, and in management, business, and financial operations occupations. In contrast, third-generation workers are more likely than second-generation workers to be employed in production, transportation, and material moving occupations and in natural resources, construction, and maintenance occupations. (See table 5 on p. 15.)

Among second-generation male workers aged 25 to 54,

the largest three occupational shares are professional and related occupations (22.4 percent), sales and office occupations (19.3 percent), and management, business, and financial operations occupations (16.7 percent). Among third-generation male workers, the largest three occupational shares are natural resources, construction, and maintenance occupations (19.4 percent); production, transportation, and material moving occupations (18.8 percent); and professional and related occupations (17.7 percent).

Among women workers, those who are second generation are a little more likely than those who are third generation to be employed in professional and related occupations and in management, business, and financial operations. In contrast, third-generation women workers are more likely to be employed in service occupations and in production, transportation, and material moving occupations. The largest shares of both groups work in sales and office occupations (about 1 in 3 of each group), mostly in the office and administrative support occupations component. (See table 5.)

Among the major race and ethnic groups, second-generation whites, blacks and Asians are more likely to be employed in professional and related occupations than their counterparts in the third generation. Among blacks, the proportion of second-generation workers employed in professional and related occupations is much larger than that of third-generation workers, perhaps because second-generation blacks are more likely to be college graduates. Hispanics of both generations are concentrated in sales occupations, reflecting in part the relatively low proportions of Hispanics with college degrees. Third generation Hispanics are more likely to be employed in service occupations than their second-generation counterparts.

## Earnings

In 2004, about 4.5 million (88.2 percent) second-generation workers aged 25 to 54 years and 60.8 million (86.8 percent) third-generation workers in the same age group were employed full-time, year-round. The 2004 median annual earnings of the second-generation workers were \$40,417, somewhat higher than the \$38,982 for their third-generation counterparts.<sup>7</sup>

The difference was largely because second-generation women workers had median earnings that were considerably higher (\$36,275) than those of their third-generation counterparts (\$32,552). There was relatively little difference in median earnings among men for the two generations. (See table 6.)

## Foreign and mixed parentage

The second generation can be subdivided into two roughly

**Table 7. Selected characteristics of the second generation native-born population by parentage, March 2005**

(Numbers in thousands)

Characteristic	Total		Men		Women	
	Mixed parentage <sup>1</sup>	Foreign parentage <sup>2</sup>	Mixed parentage <sup>1</sup>	Foreign parentage <sup>2</sup>	Mixed parentage <sup>1</sup>	Foreign parentage <sup>2</sup>
<b>Total, 16 years and older</b> .....	8,759	8,879	4,244	4,263	4,515	4,616
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
16 to 24 years .....	19.0	27.2	19.3	27.8	18.7	26.7
25 to 54 years .....	44.5	35.3	45.8	38.5	43.2	32.4
55 years and older .....	36.6	37.4	34.9	33.7	38.1	40.9
55 to 64 years .....	14.1	5.1	13.4	4.8	14.7	5.3
65 years and older .....	22.5	32.4	21.5	28.9	23.4	35.6
<b>Race and Hispanic or Latino ethnicity<sup>3</sup></b>						
Total, 25 to 54 years .....	3,895	3,138	1,945	1,642	1,951	1,496
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
White non-Hispanic or Latino .....	65.9	35.8	65.8	37.2	66.0	34.3
Black non-Hispanic or Latino .....	2.9	5.5	2.6	5.4	3.2	5.6
Asian non-Hispanic or Latino .....	3.6	15.9	3.6	17.2	3.7	14.5
Hispanic or Latino .....	22.8	41.4	23.0	39.0	22.6	44.1
<b>Educational attainment</b>						
Total, 25 to 54 years old: percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Less than a high school diploma .....	6.9	9.5	8.6	8.7	5.2	10.5
High school graduates, no college .....	25.9	21.0	28.1	23.3	23.7	18.4
Some college, no degree .....	30.7	29.6	29.9	29.0	31.5	30.4
College graduates .....	36.5	39.9	33.4	39.1	39.6	40.8
<b>Employment status, 25 to 54 years old</b>						
Civilian labor force .....	3,283	2,584	1,752	1,470	1,531	1,114
Labor force participation rate .....	84.3	82.3	90.1	89.5	78.5	74.5
Employed .....	3,146	2,449	1,662	1,382	1,484	1,067
Employment-population ratio .....	80.8	78.0	85.5	84.2	76.1	71.3
Unemployed .....	137	135	90	88	47	47
Unemployment rate .....	4.2	5.2	5.1	6.0	3.1	4.2
<b>Occupation</b>						
Total 25 to 54 employed: percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Management, business, and financial operations occupations .....	17.9	17.3	16.4	17.0	19.7	17.6
Professional and related occupations .....	27.0	27.3	21.4	23.5	33.2	32.2
Service occupations .....	12.6	11.5	11.9	11.1	13.4	12.0
Sales and office occupations .....	24.5	25.5	19.5	19.0	30.0	33.9
Natural resources, construction, and maintenance occupations .....	8.2	8.2	15.2	14.2	.3	.4
Production, transportation, and material moving occupations .....	9.8	10.3	15.6	15.2	3.3	3.9
<b>Earnings</b>						
Median annual earnings of year-round, full-time workers, 25 to 54 years .....	\$41,036	\$39,567	\$45,375	\$43,346	\$37,039	\$35,489

<sup>1</sup> Refers to second-generation Americans with one parent who is foreign born and the other native born.

<sup>2</sup> Refers to second-generation Americans with both parents foreign born.

<sup>3</sup> Estimates for the above race groups will not sum to totals shown because data are not presented for all races.

equal groups based on the nativity of the parents. One group is the offspring of couples in which one parent is foreign born and the other native born ("mixed parentage"). The other group is the offspring of couples in which both parents are foreign born ("foreign parentage").

The demographic characteristics of second-generation workers of mixed parentage differ from those of second-generation workers of foreign parentage. In terms of age, the proportion of mixed-parentage, second-generation workers who are 25- to 54-year-olds is higher than those whose

parents are both foreign born—44.5 percent and 35.3 percent, respectively. In contrast, the proportion of mixed-parentage workers who are either aged 65 years and older or aged less than 25 years is lower than that of those with foreign parentage. The two groups also differ in terms of race and ethnic composition. Notably, those of mixed parentage are more likely to be white (65.9 percent) than those with foreign-born parentage (35.8 percent); 22.8 percent of workers of mixed parentage are Hispanic or Latino and 41.4 percent of those of foreign-born parentage are members of that ethnic group.

With regard to educational attainment, those of foreign parentage are somewhat more likely to have college degrees, but they also are more likely to be high school dropouts than those of mixed parentage. Those of mixed parentage are more likely to have some college or associates degrees and to be high school graduates. Men with foreign parentage are more likely to have college degrees than those of mixed parentage. Among the women, however, both groups are about equally likely to have college degrees.

In March 2005, the labor force participation rates of 25- to 54-year-old workers of mixed parentage was 84.3 percent, compared with 82.3 percent for those of foreign parentage. The difference in participation between the two groups stems from the higher participation among women of mixed parentage compared with those of foreign parentage. Foreign-and-mixed-parentage men, however, are about equally likely to be labor force participants. Among both the foreign- and-mixed-parentage groups, men are more likely to be labor force participants than women. (See table 7.)

Overall, the unemployment rate for those of foreign parentage in the 25- to 54-year age group was somewhat higher than that of their mixed-parentage counterparts (5.2 percent and 4.2 percent, respectively) in March 2005. The jobless rate among both the men and the women of mixed parentage was lower than that for of their foreign-parentage counterparts.

Turning to occupations, foreign-parentage male workers aged 25 to 54 years are more likely to be employed in professional and related occupations than their mixed-parentage counterparts. Among the women, those of mixed parentage are more likely to be employed in management, business, and financial operations occupations, while those of foreign parentage are more likely to be employed in sales and office occupations.

Overall, the median annual earnings in 2004 of full-time, year-round workers who were of mixed parentage were \$41,036, compared with \$39,567 for those who were of foreign parentage. Among the men, median earnings of those of mixed parentage were \$45,375, compared with \$43,346 for those who were of foreign parentage. Among the women, the median annual earnings of those of mixed parentage were also somewhat higher than the earnings of those who were of foreign parentage (\$37,039 and \$35,489, respectively).

IN SUMMARY, THERE ARE MARKED DIFFERENCES between second-generation American workers and their third-and-higher generation counterparts in terms of age, race and ethnicity, and education. A smaller proportion of the second generation is aged 25 to 54 years—an age group characterized by relatively high labor force participation and low unemployment, compared with their third-generation peers. The second generation is more racially diverse than the third generation; and second-generation individuals tend to have higher levels of education than their third-generation counterparts.

In terms of their labor market status, it appears that members of the second generation of American workers have achieved parity with their third-generation counterparts; indeed, in some respects, they may have become more successful. One of the key factors for the second generation's success lies in educational attainment. The second generation has taken advantage of access to education and 38.0 percent of those aged 25 to 54 years have at least a bachelor's degree, compared with 29.7 percent of the third generation.

Second-generation workers aged 25 to 54 are about as likely as their third-generation counterparts to be labor force participants and the jobless rate for both groups is about the same. Perhaps reflecting the higher proportion with college degrees, second-generation workers are somewhat more likely than third-generation workers to be employed in professional and related occupations, and in management, business, and financial operations. The median annual earnings of second-generation workers are somewhat higher than those of their third-generation counterparts. Finally, the two groups that make up the second generation—those of foreign parentage and mixed parentage—are about equally likely to be in the labor force, to work in similar occupations, and to earn about the same. □

## Notes

<sup>1</sup> Native-born persons include those born in the United States, Puerto Rico, or an outlying area of the United States (such as Guam or the U.S. Virgin Islands), and persons who were born in a foreign country but who had at least one parent who was a U.S. citizen. Native-born persons with either parent (or both) born in a foreign country are considered second generation. Native-born persons with neither parent

foreign born are considered third-and-higher generation. The foreign born are considered first generation.

<sup>2</sup> In this article, the usual BLS practice of counting Hispanics (an ethnic group) as part of the race category to which they belong has not been followed; instead of including Hispanics among the race

groups whites, blacks, and Asians, in this article they are shown separately. People of Hispanic origin may be of any race, including white, black, Asian, and some other race. In regular BLS practice, Hispanic-origin groups are included in both the white, Asian, and black population groups.

<sup>3</sup> The Annual Social and Economic (ASEC) Supplement, formerly known as the Annual Demographic Survey, contains the basic monthly demographic and labor force data, plus additional data on work experience, income, non-cash benefits, and migration. More detailed information regarding ASEC can be accessed from the Census Bureau Web site at the following Internet address: <http://www.census.gov/aprd/techdoc/cps/cpsmar04.pdf>

<sup>4</sup> For a more detailed discussion on the brief history of immigration and migration, see Abraham Mosisa, Terence McMenamin, and

Howard Hayghe, "Counting Minorities: A Brief History and a Look at the Future," *Report on the American Workforce* (U.S. Department of Labor, 2001), chapter 1.

<sup>5</sup> A 1995 study by Grace Kao and Marta Tienda showed that foreign-born parents have significantly higher educational aspirations for their children than do native-born parents. Thus, parental nativity status appears to be a crucial factor shaping the educational aspirations of their children. See Grace Kao and Marta Tienda, "Optimism and achievement: The educational performance of immigrant youth," *Social Science Quarterly*, March 1995, pp. 1-19.

<sup>6</sup> For a detailed explanation of money income, see "Current Population Survey (CPS) - Definitions and Explanations," on the Census Bureau Web site at the following Internet address: <http://www.census.gov/population/www/cps/cpsdef.html>

## The CE and the PCE: a comparison

*An analysis of a decline in the ratios of aggregate spending for various categories of expenditures from the BLS Consumer Expenditure Survey and the BEA's Personal Consumption Expenditures over an 11-year period employs a new methodology that takes into account the degree of comparability of those categories*

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Since the start of the ongoing Consumer Expenditure Survey (CE) in 1980, expenditure estimates from CE data have been compared regularly with corresponding expenditure estimates from other data sources to evaluate both the soundness of the CE estimates at any point in time and the consistency of the estimates over time. In 1987, Raymond Gieseman, the first within the Bureau of Labor Statistics (the Bureau, BLS) to use continuing survey data to conduct this work, stated the aim of the comparisons: "What was expected from these comparisons was a sense of degree and direction of possible survey errors, rather than an exact measure of bias, because the specific estimates from other sources are not necessarily the 'true' values."<sup>1</sup> In conjunction with other evaluation tools, data comparisons are employed to assess the cumulative effects of nonsampling errors on the quality of data obtained from the CE and to develop methodological studies to improve that quality.<sup>2</sup>

In addition to these internal uses, data comparisons have appeared regularly in CE publications. The major biennial releases of the CE program include tables comparing its data estimates with those from other sources. Articles on these comparative measures also have been published in the *Monthly Labor Review*.<sup>3</sup>

The primary source of independent data for comparison over the years has been the Personal Consumption Expenditures (PCE) of the

National Income and Product Accounts, produced by the Bureau of Economic Analysis (BEA); these data are the focus of this study. The PCE affords comprehensive coverage of item categories similar to those of the CE and, in fact, is used as a tool in the process of producing tables for CE publications.

Like all data sources, the CE and the PCE have their strengths and weaknesses. The strength of the CE is that an extensive accounting of expenditures made by consumer units<sup>4</sup> is collected through personal interviews and paper-and-pencil diaries. Separate samples of consumer units participate in the Diary survey and the quarterly Interview survey. A weakness is that the data are collected from samples and thus are subject to sampling errors. Nonsampling errors also may be introduced, in processing the data for final use. The strength of the PCE is that it provides estimates of aggregate expenditures for an extensive list of commodities purchased for consumption by and on behalf of households. However, PCE data are subject to (1) measurement errors in the censuses and sampling and nonsampling errors in surveys that provide source data to the BEA and (2) classification errors by the BEA in its estimation and allocation of production or output to the personal sector and other sectors in constructing the national accounts. Each year, previously released PCE aggregate expenditure estimates are subject to revision, which can result in meaningful differences over time. This alone supports the proposition that

there is no “true” value for consumer expenditure estimates, as suggested by Gieseeman.<sup>5</sup>

Work by a team of researchers within the Bureau<sup>6</sup> suggested that earlier methods comparing CE data with PCE data needed to be reevaluated. As a part of the reevaluation, the team kept in mind that the CE and alternative data sources were designed to serve different purposes; thus, comparisons of estimates may be affected by differences in scope, definition, and estimation procedure. The team attempted to reconcile these differences as much as possible to construct compatible estimates. The purpose of the current article is to highlight recent work of this team. A quantitative comparison of CE and PCE expenditure estimates is presented, followed by a discussion of differences between the estimates and possible reasons for them.

### Outline and summary of findings

The next section highlights previous research comparing the CE and the PCE. Following that, the foundations of the CE and the PCE are presented, including the purposes of the two surveys, the populations they cover, definitions of expenditures, and data collection methods. Then the historical comparison methodology developed and used by the CE is described.<sup>7</sup> Finally, ratios of CE-to-PCE aggregate expendi-

tures from 1984 through 2002 are calculated and shown for categories of expenditures. PCE expenditure estimates are based on 1997 benchmark data, updated to their current levels by periodic revisions that have occurred through 2005.

Exhibit 1 summarizes the trends in the CE-to-PCE ratios over the 1984–2002 period at a disaggregated level. For most categories of spending, the ratios have been decreasing. Appendix table C-1 shows that for two categories of expenditures—clothing for children less than 2 years of age and purchases of vehicles—CE aggregate expenditures are greater than PCE aggregates for earlier periods, but drop to or below PCE estimates in later years. Overall, however, the historical comparison methodology suggests that CE and PCE aggregate estimates are becoming more disparate with time.

After reviewing the historical comparison methodology, the BLS team decided that revisions were in order. Accordingly, this article describes the development of a new comparison methodology based on (1) knowledge gained from the results of earlier comparisons, (2) a deeper institutional understanding of the CE and the PCE gained from working with these data over time, and (3) recent work presented in the economics literature. The new methodology uses a different item classification scheme, reallocating detailed CE data to PCE categories by major type of product (that is, durables, nondurables, or services) instead of by type of expenditure (for example, food, trans-

## Exhibit 1. Trends in CE-to-PCE ratios, by expenditure groups, 1984–2002

### Decreasing

1984–2002 ratio  $\geq$  0.8:

- Food away from home
- Rented dwellings
- Telephone services
- Children under 2 years
- Transportation
- Vehicle purchases
- Utilities, fuels, and public services

1984–2002 ratio = 0.6–0.8:

- Food, total
- Household operations
- Household furnishings and equipment
- Men’s and boys’ apparel
- Women’s and girls’ apparel
- Televisions, radio, and sound equipment
- Personal care products and services

1984–2002 ratio = 0.4–0.6:

- Housekeeping supplies
- Apparel and services
- Maintenance and repairs
- Other vehicle expenses
- Entertainment
- Fees and admissions

### Decreasing (continued)

1984–2002 ratio = 0.4–0.6:

- Pets, toys, and playground equipment
- Other entertainment supplies and equipment
- Reading
- Tobacco products and smoking supplies

1984–2002 Ratio < 0.4:

- Alcoholic beverages
- Other apparel products and services
- Miscellaneous

### Stable

1984–2002 ratio  $\geq$  0.8:

- Rent, utilities, and public services
- Utilities, fuels, and public services

1984–2002 ratio = 0.6–0.8:

- Food at home

1984–2002 ratio = 0.4–0.6:

- Public transportation

### Increasing

1984–2002 ratio = 0.6–0.8:

- Footwear
- Vehicle rental and other charges

portation, or medical care). A more detailed description of the categories of items from the CE and the PCE is utilized than was used when the historical comparison methodology was developed. Consequently, more comparable product categories are constructed and are included in the final aggregates and ratios used in the newer comparison of the two sets of estimates.

The new framework should provide more usable, accurate comparisons for researchers examining consumption growth and changes in the inequality of consumption over time. For comparisons of consumption, researchers have most often focused on nondurables or services;<sup>8</sup> the new methodology will facilitate this work.

Using the new methodology on data for categories that are comparable between the CE and the PCE reveals that CE aggregate expenditures are 86 percent of PCE aggregate expenditures for 1992, drop to 85 percent in 1997, and fall further to 81 percent in 2002. When all categories of items, both comparable and noncomparable, are included, CE aggregate expenditures are 67 percent of PCE aggregates in 1992, 65 percent in 1997, and 60 percent in 2002.

When PCE aggregates are adjusted to reflect differences in population coverage between the CE and the PCE, the ratios are higher. For example, the ratio for comparable categories rises to about 88 percent for 1997 and 84 percent for 2002 when the population adjustment is made.<sup>9</sup>

Other differences between the CE and the PCE were identified for which no adjustments can be made. For example, because CE data are collected and coded by type of expenditure rather than by type of product, it is not always possible to assign items directly to a major type of product.

### Previous research comparing CE and PCE data

Comparisons of CE and PCE data have been conducted by researchers both inside and outside the Bureau.<sup>10</sup> Research over the last 20 years has used the CE and the PCE to assess economic growth and other economic trends.<sup>11</sup> Other research has focused on the quality of CE data, compared with PCE data, as the former affects the Consumer Price Index (CPI).<sup>12</sup> A brief review of several studies follows.

Daniel T. Slesnick used CE data from 1960–61, 1972–73, 1980–81, and 1984–89 to compare CE consumption expenditures with PCE estimates.<sup>13</sup> After making adjustments for differences in definition,<sup>14</sup> he concluded that approximately one-half of the difference between aggregate expenditures reported in the CE and the PCE could be accounted for by these definitional differences. He went on to note that the source of the remaining difference in expenditures “is a mystery that can only be resolved by future investigation.”<sup>15</sup> Slesnick posited reporting errors by households in the CE and PCE estimation procedures as possible reasons for the remaining disparity. Raymond Gieseman came to basically

the same conclusion.<sup>16</sup> Slesnick noted, “The magnitude of these adjustments [those made to the PCE during revisions] suggests [that] caution is in order before one assigns full blame for the differences in the estimated levels of aggregate expenditure to underreporting in the CEX [Consumer Expenditure] surveys.”<sup>17</sup>

In a report on alternative poverty measures, the General Accounting Office cited a 1994 BEA study that compared differences in CE and PCE estimates of expenditures for 1992.<sup>18</sup> The BEA concluded that more than half of the difference in aggregate expenditures was traceable to coverage and definitional differences, with the remainder due to statistical factors.<sup>19</sup>

One source of the difference between the CE and PCE estimates is that the PCE includes expenditures by nonprofit institutions serving households, whereas the CE does not.<sup>20</sup> Slesnick pointed out the necessity for removing such expenditures in comparing PCE with CE data.<sup>21</sup> The commodity groupings most affected are medical care, personal business, recreation, private education and research, and religious and welfare activities. Slesnick reported that in 1993 these categories represented about 10.6 percent of total PCE, 12.1 percent of PCE nondurables and services, and 18.6 percent of PCE services.<sup>22</sup>

In a study aimed at distinguishing the contributions to total PCE of nonprofits serving households, Charles Ian Mead reported that even more categories of expenditures are affected.<sup>23</sup> At the time of Mead’s original research, the amount of PCE attributable to households and to nonprofits serving households had not been determined by the BEA. In a later study, Mead, Clinton P. McCully, and Marshall B. Reinsdorf reported that about 55 percent of the expenditures for nonprofit institutions was directed toward medical care, and about 24 percent toward religious and welfare activities, over the 1992–2001 period.<sup>24</sup>

Also focusing on measuring consumption over time, Jack E. Triplett examined CE data as a way to evaluate PCE estimates.<sup>25</sup> Unlike Slesnick, Triplett did not use unit-level CE data, but chose published aggregates presented by Raphael Branch.<sup>26</sup> In discussing strengths and weaknesses of the two sources of data, Triplett stated that the input-output methodology employed to produce the PCE is qualitatively better at higher levels of aggregation than at lower ones: “The finer the level of detail, the more likely that the long chain of computation necessary to reach the PCE’s indirect estimate of consumer spending will have cumulative errors that affect the totals.”<sup>27</sup> Triplett went on to say, “The individual components of PCE and CE have been studied too little to permit conclusions about which is better and what can be learned from comparing the two.”<sup>28</sup>

In contrast, in comparing the CE and the PCE in regard to which would be the better primary source of data for weights for the CPI, David Lebow and Jeremy Rudd con-



cluded, "Neither measure of weights is perfect, but we see advantages to the PCE data on balance."<sup>29</sup> They emphasized the advantage of the PCE in that its data are derived primarily from businesses' responses to economic censuses. However, they also stated, "The main difficulty with the PCE data in this context lies in the need to subtract the purchases of businesses and governments from total expenditure data in order to obtain spending by households and non-profit institutions."<sup>30</sup> Lebow and Rudd stated that a disadvantage of the CE is that its data rely largely on respondents' memories of their own expenditures, as well as of those of others in their consumer unit.

A National Research Council panel that examined whether the CE or the PCE would serve as the better basis of the weights in the CPI was not consistent in its evaluation of the CE:

On the basis of available evidence, it is unclear whether the PCE or CEX weights are superior. What is clear, though, is that for some components the two systems produce very different results. The major hurdle inhibiting comparison among indexes weighted using alternative source data is the lack of uniformity in the scope and definition of goods and services covered. It is an open question as to how accurately expenditure categories can be mapped from the PCE to the CEX. We are not in a position to advocate one set of weights over the other, but the question certainly warrants further investigation....<sup>31</sup>

Yet later, "The panel concluded that it is likely that the CEX estimates of consumer expenditure shares are biased, perhaps seriously."<sup>32</sup> The panel recommended that the CE be carefully evaluated and that the net advantages of using the PCE to produce upper-level weights for the CPI be included in the evaluation (Recommendation 9-1).<sup>33</sup> No direct evaluation of the PCE was recommended. In Recommendation 9-2, the panel recommended that a program be set up to produce an experimental CPI based on PCE weights if the categories in the CE and PCE can be reasonably matched so that comparable item strata indexes can be created.<sup>34</sup>

Other users familiar with the CE and the PCE also have raised concerns about the increasing spread between aggregate expenditures reported in the CE and the corresponding PCE estimates.<sup>35</sup> Drawing on all these discussions and other informal contacts with users concerned with this issue, the Bureau has worked to produce the best comparisons of CE and PCE aggregate expenditures possible.<sup>36</sup>

### Basic concepts and methods

The CE and the PCE are designed to represent a similar concept of total consumption expenditures; however, they follow different paths to obtain their estimates.<sup>37</sup> Simply put, the Bureau of Labor Statistics collects CE expenditure data

through sample surveys and weights the results to obtain population estimates. The Bureau of Economic Analysis, in contrast, calculates PCE estimates on the basis of industry production data collected in economic censuses and through surveys conducted by outside agencies. There are clear differences in the types of expenditure data obtained, dictated by the data collection methods and data sources used by the two Agencies. In addition, the populations covered by the CE and the PCE differ.

The CE program covers consumer-unit purchases of goods and services used in day-to-day living. Data for the CE are reported directly by consumers through two components—the Diary Survey and the quarterly Interview Survey—administered by the Census Bureau. Respondents are instructed to report the out-of-pocket expenditures, including all excise and sales taxes, of all members of the consumer unit. A sample of consumer units separate and independent from the sample participating in the quarterly Interview component of the CE participates in the Diary component.

The Diary Survey is intended to capture everyday purchases, such as groceries, and lower cost items, such as laundry detergent. Respondents to the Diary component list all expenditures made for two consecutive 1-week periods.

The Interview Survey is designed to collect expenditures on major items of expense, such as property or vehicles, and on those items for which outlays occur on a regular basis, such as rent or utilities. Respondents are encouraged to use records in reporting expenditures, but also can use recall to report expenditures over the 3-month reference period of each interview. For the Interview Survey, respondents report data to an interviewer once per quarter for four consecutive quarters.

Once received, the data are processed and then released by the Bureau of Labor Statistics. Processing includes imputations and allocations as necessary.<sup>38</sup> Although certain items are collected uniquely in either the Diary or Interview Survey instrument, there is considerable overlap, in general, in the coverage of items. Thus, in a procedure known as integration, the Bureau chooses the Diary or the Interview as the most statistically reliable source for each expenditure item for both CE publications and data comparisons.

The BEA defines the PCE essentially as expenditures made directly by households and, unlike the CE, excludes person-to-person transactions and includes expenditures made on behalf of households by nonprofit institutions. In contrast to the CE, the PCE also includes expenditures financed under government programs, such as Medicare and Medicaid. The PCE defines owner-occupied-housing expenditures as a service flow and imputes space rent to represent the value of that flow. (In contrast, the CE uses expenditure outlays, not including reductions in principal.) As with the CE estimates, The PCE estimates include all excise and sales taxes.

Data for the PCE are gathered from numerous surveys and censuses. For benchmark years, the major source of data the BEA uses is the comprehensive Economic Census, conducted by the Census Bureau every 5 years. (The most recent one was completed in 2002.) Between benchmark years, the BEA uses data from the Annual Survey of Manufactures, the Annual Wholesale Trade Survey, the Service Annual Surveys, the Annual Wholesale Trade Survey, and the Annual Retail Trade Survey. These data are collected at a higher level of aggregation than data from the Economic Census. To arrive at a final purchasers' value for each item, the BEA obtains the basic value of shipments for durables and nondurables, the value of receipts received for services, and data for calculating wholesale and retail trade margins, taxes, and transportation costs.

The total purchasers' value for each item is apportioned among the various users of that item, such as government, exporters, and industry (the last as an input for the items it produces). The portion allocated to the household sector as PCE frequently is derived as a residual after other users receive their allocations.

For PCE estimates, the operating expenses of nonprofit institutions serve as a proxy for the value of services provided to consumers. The BEA calculates the operating expenses of a nonprofit institution as the total expenses of that institution, less receipts from the sales of goods and services considered secondary to the nonprofit's main line of business. These receipts are assigned to a PCE category under which they are considered primary. For example, cafeteria receipts at a nonprofit hospital are moved from healthcare to food as purchased meals and beverages. This approach decreases the amount of PCE that is directly attributed to nonprofit institutions.

The data sources and methodologies the BEA employs differ slightly between benchmark years (years ending in "2" or "7") and nonbenchmark years (years between the benchmark years). Benchmark years coincide with the economic censuses conducted by the Census Bureau. Expenditures are available at a detailed item level for use in the benchmark PCE estimates. The annual survey data from the nonbenchmark years are not collected in such detail, so the BEA must extrapolate from those data to estimate PCE.

The populations covered by the CE and the PCE are defined somewhat differently. The CE collects data from consumer units representing the civilian noninstitutional population residing in the continental United States, Alaska, and Hawaii and not on military bases.

The PCE covers all "persons resident" in the United States and the nonprofit institutions that serve them. "Persons resident" include persons who are physically located in the United States, persons who are employees of U.S. businesses and who are working abroad for 1 year or less, and persons who are U.S.

Government civilian or military personnel stationed abroad, regardless of the duration of their assignments.<sup>39</sup>

These basic methodological differences between the CE and the PCE explain some of the disparities between the CE and PCE aggregates. To see more clearly the magnitude of the differences between the estimates, the Bureau developed techniques for producing comparisons.

## Historical comparison methodology

*Development of methodology.* CE estimates and PCE estimates have been compared since the early 1980s. This section summarizes the process by which the comparisons have been carried out historically.<sup>40</sup>

In the past, the first step was to select item categories for comparison. The initial framework on which to produce matching CE-to-PCE estimates came from the item categories in the reference tables of CE bulletins and reports published since August 1989.<sup>41</sup>

It was not possible to create conceptually similar CE-to-PCE categories in every case. In some cases, adjustments were made to published CE categories in order to produce categories comparable to PCE categories. This approach required using CE data at the level at which expenditures are defined for CE and CPI purposes. Expenditure items at this level are designated by Universal Classification Codes, or UCC's. Thus, UCC's representing the value of vehicles disposed of and trade-in allowances for new and used vehicles, neither of which category is included in estimates of vehicle purchases in published CE tables, were combined with net payments for vehicles in order to derive an estimate for vehicle purchases similar to PCE estimates. In other instances, it was necessary to combine expenditure item categories to achieve comparability. For example, rent, utilities, and public services were combined because the CE does not extract utility charges that are included in contract rent.

Irreconcilable conceptual differences prevented a matching of categories such as owner-occupied shelter, healthcare, education, cash contributions, and personal insurance and pensions in accordance with publication definitions. In CE publications, owner-occupied shelter expenditures are defined to include mortgage interest and charges, property taxes, maintenance and repairs, insurance, and other related costs. In contrast, the BEA defines the value of owner-occupied shelter for PCE as space rent, which excludes charges for utilities, major appliances, furniture, and furnishings.

In its estimates, the PCE includes expenditures made for healthcare and education by nonprofit institutions serving households. These expenditures are considered out of the scope of the CE. In addition, healthcare expenditures in the

PCE include third-party payments by insurance companies and others, whereas the CE includes only out-of-pocket payments by consumers. Cash contributions to nonprofit organizations do not appear as a category in the PCE, but rather are subsumed under the religious and welfare activities category. Because most religious and welfare activities are carried out by nonprofit institutions serving households, the PCE consists of expenditures made by these institutions. Personal insurance and pension expenditures also are not included in the comparison, due to definitional differences. In CE published estimates, such expenditures consist of premiums paid on life and other personal insurance policies and contributions made to pension plans by consumer units. The PCE includes only expenses incurred for handling life insurance and pension plans.

With comparable CE-to-PCE item categories identified, CE and PCE expenditure data historically were processed and formatted to calculate annual aggregate estimates and CE-to-PCE ratios of expenditures by type of expenditure. For each year's CE-to-PCE comparison, the CE estimates were computed with data from the same source (the Diary or Interview component) selected for that item in published tables for that year, and the aggregates were generated in the same way as the published annualized estimates.<sup>42</sup>

Estimates of PCE aggregate expenditures were generated by the BEA and published in tables, organized by type of product and type of expenditure, in the *Survey of Current Business*. Each year, the BEA supplies the Bureau of Labor Statistics with a table of annual expenditure estimates. The level of precision in the PCE estimates was adjusted to match that in the CE estimates.

For those CE and PCE expenditure categories deemed conceptually comparable, a concordance was established that identified which detailed CE and PCE items should have been included in each category. Annual aggregate estimates for these items were summed to create annual aggregates for the comparable categories in the CE and the PCE. Then, CE-to-PCE ratios were calculated from the aggregates of the comparable categories.

*Trends in historical CE and PCE estimates.* In the years since the historical comparison method was introduced to produce comparable aggregate expenditure estimates, certain trends have appeared in the ratios of CE estimates to PCE estimates. The following tabulation presents averages of aggregate expenditure ratios for a subset of major expenditure categories for two periods:

Category	1984-91	1992-2002
Total food .....	0.77	0.73
Rent, utilities, and other related goods and services .....	.91	.88
Household operations .....	.87	.73

Apparel and services .....	.65	.54
Transportation .....	.89	.79
Entertainment .....	.64	.54
Personal care .....	.67	.60
Miscellaneous .....	.29	.20

Note that the first period begins with 1984, the first year for which CE-to-PCE data comparisons historically were generated, and runs to 1991. The second begins with 1992 and ends with 2002, both benchmark years for the PCE. PCE estimates reflect revisions made to the earlier years' aggregates through February 2005.

At the level of aggregation represented in the preceding tabulation, the ratios indicate that the CE aggregates are lower than the PCE aggregates and the disparity between them has increased between the two periods shown. The CE survey and the PCE produce the closest aggregates for (1) rent, utilities, and other related goods and services and (2) transportation. By contrast, PCE aggregate miscellaneous expenditures are substantially larger than CE estimates, resulting in quite low ratios of 0.29 and 0.20, respectively, for the two periods. The decline in the ratios has been relatively steady across the years for most major categories. More detailed results reveal trends for item groups within categories, and these trends help identify areas most responsible for the decline. (See appendix table C-1.)

The ratios presented in the preceding tabulation and in appendix table C-1 may differ from aggregate expenditure ratios published earlier for the same year. Although CE aggregates for a particular year change occasionally due to previously undiscovered errors in the data, it is more likely that the trend line in the aggregates exhibits spikes or disjoint shifts over time. These aberrations coincide with changes in sample design, data collection methods, and data processing in the CE. In contrast, changes in PCE aggregates are retrospective. When a new year's PCE aggregates are produced, the aggregates for previous years often are revised, due either to updated source data that the BEA has received in the interim or to the culmination of the benchmarking process.

A summary of trends in the ratios presented is presented in exhibit 1. A ratio is defined as stable if the difference between the average ratio for 1992-2002 is within 3 percentage points of the 1984-91 ratio. If the 1992-2002 ratio is 4 or more percentage points lower than the 1984-91 ratio, then the ratio is defined as decreasing. The subheadings in the exhibit denote the relative magnitudes of the ratios. Only two expenditure categories had increasing ratios, and just four had stable ratios.

## Revised comparison methodology

*Examination of historical trends.* As the ratios and trends suggest, gaps between aggregate expenditures in the CE and

the PCE are widening for most expenditure groups, making the study of the underlying reasons more pressing. Although some of the reasons for the gaps, such as differences in definition, coverage, and methodology, had been recognized and documented in the past when comparative estimates were presented, a more formal, comprehensive examination has never been conducted. For this reason, a team of researchers was formed to conduct an investigation into the matter and extend it to comparisons of the CE and other data sources. Among the objectives of this team were the following:

- addressing inquiries about differences in estimates between the CE and other sources,
- assessing the efficacy of the historical CE collection methodology, and
- suggesting possible revisions to improve the quality of CE data.

A summary of points made earlier concerning the methodology and concepts involved in obtaining the CE and PCE estimates is useful to review before examining possible reasons for differences in the estimates. The CE and the PCE each provide a measure of consumer expenditures, but these measures are derived from different types of data. The PCE is defined in terms of sales or the output of production, while the CE is based on purchases. Another important distinction between the two measures is that the PCE includes the expenditures of nonprofit institutions in defining their output. In theory, if (1) all sales and purchases are recorded accurately, (2) expenditures of nonprofit organizations are excluded from the PCE, and (3) the respective populations are adjusted to be the same, the CE and PCE estimates should be similar, if not the same, for the majority of items in the survey. In practice, however, these estimates are disparate.

Three major reasons for differences between CE and PCE estimates are the *methodology* of the two surveys, their *scope* (in terms of both whose expenditures are being measured and how expenditures are defined), and the *definitions* they employ. Aside from including the expenditures of nonprofit institutions, the PCE covers military personnel and others whose expenditures are ignored by the CE. In addition, certain expenditure categories were out of the scope of the PCE in previous comparisons because the BEA used the CE survey as the primary source for the PCE estimates. For example, the BEA used or still uses CE data, directly or through extrapolation, on motor vehicle leasing (cars and trucks), motor vehicle rental, taxis, nursery schools, and childcare.<sup>43</sup> The BEA also used CE estimates for medical and hospitalization insurance premiums in the PCE. Beginning with the 2000 annual revision of the PCE, however, the BEA adopted the Medical Expenditure Panel Survey (MEPS) as the primary data source for the medical care and hospitalization insurance component of the PCE.<sup>44</sup>

*Methodological reasons for differences.* The methodologies designed to produce CE and PCE estimates are dissimilar and account for some of the difference between the estimates. The BEA starts with a basic initial dollar value for each item. This dollar value consists of the value of manufacturers' shipments of goods or the value of receipts received by service providers. The data are obtained from various economic censuses and surveys. Data from these sources can suffer from reporting errors and, in the case of surveys, sampling errors. Using its expert judgment, the BEA staff makes adjustments for what it considers to be misreporting errors.

Wholesale and retail trade margins can account for a large proportion of the final purchasers' value of an item assigned to the PCE. The algorithm by which these margins are calculated can be summarized simply as *total receipts from sales by wholesalers and retailers, less total costs of acquisition, adjusted by changes in the value of unsold inventories held*. Because data limitations do not permit the production of trade margins at the item level, the BEA carries out an iterative series of adjustments and reallocations to obtain a reasonable estimate for wholesale and retail trade margins across items.

Commodity, wholesale, and retail taxes, which take the form of sales taxes, also are incorporated into the purchasers' value. On the basis of data from trade surveys, Census Bureau analysts determine sales tax rates, which the BEA then applies to sales receipts at the wholesale and retail levels. Next, total taxes are distributed among expenditure categories. The surveys that provide the data for deriving tax rates are subject to sampling and reporting errors, so adjustments similar to those made in the allocation of trade margins to expenditure categories also are applied to taxes.

The process of moving products from producer to wholesaler to retailer imposes transportation costs that increase the final purchasers' value. Data on air transit costs come from the Department of Transportation. The Census Bureau conducted the 1997 Commodity Flow Survey, which serves as the source for shipping charges by truck. The now-defunct Interstate Commerce Commission previously provided data on freight costs charged by railroads. These data are currently compiled by the American Association of Railroads.

After obtaining a final purchasers' value for an expenditure item, the BEA allocates that value to end users of the item, such as domestic industries, government, exporters, and consumers (PCE). Some allocations of the final purchasers' value are made directly to an end user on the basis of source data the BEA has, but in many cases, BEA staff draws on its past experience and expertise to determine these allocations. Often, the portion of an item's output allocated to PCE is the residual value left after allocations have been made to all other users.

In contrast to the methods used to arrive at PCE estimates, the CE estimates are derived from expenditure information provided directly by consumers through the Diary and Interview Surveys. Again, these surveys are subject to reporting and sampling errors that can affect expenditure estimates. Moreover, collecting data on family spending behavior through personal interviews and recordkeeping raises particular issues that can affect estimates of spending. The expenditures of some consumer items, such as alcoholic beverages and tobacco products, are likely underreported by respondents because of the sensitive nature of those items.

Proxy reporting is another reason for under- or misreporting. For example, in a comparison of CE health insurance premium data with MEPS health insurance data, the CE estimates for family policies were lower.<sup>45</sup> Further analysis pointed to employer-sponsored policies as the locus of the difference in estimates. The insurance component of MEPS (MEPS-IC) provides data on premiums for employer-sponsored coverage. The MEPS-IC is an establishment survey rather than a household survey, and the collection unit is an enrollee rather than a policy as in the CE survey. Operationally, the CE selects one respondent who reports for all members of the consumer unit and, as such, might not have perfect knowledge of the paying arrangements and out-of-pocket premium amounts for policies held by other members of the unit. For example, some respondents may have claimed that policy premiums were paid entirely by an employer or a union when, in reality, another member of the consumer unit actually paid some or all of the policy premiums.

Some of the questions in the CE Interview and Diary Surveys could be too global in nature to capture all expenditures or the correct expenditures in the intended category. For instance, expenditures for the use of automatic teller machines of financial institutions would be captured in the Interview survey through questions that ask, "Do you (or any members of your [consumer unit]) have any expenses for checking accounts or other bank services?" Because of the global nature of this question, respondents may not record expenses for automatic teller machines or may not record *all* expenditures related to the use of such machines.

Trends in the relationship between CE and PCE estimates also can be affected by periodic changes made to the Interview and Diary Survey instruments. Revised procedures applied in the processing of data collected in the instruments also may have an impact. The influence of these changes on estimates for specific categories is an area for further work.

*Scope-related reasons for differences.* Although the scopes of the CE and the PCE largely coincide in terms of transactions covered and expenditure items included, there are some notable instances in which they differ, with a resulting impact on the CE and PCE estimates.

In addition to the earlier noted population differences between the two surveys, the following expenditures are components of the PCE, but are outside the scope of the CE: the value of home production by persons living on farms for their own consumption; standard clothing issued to military personnel; and services, except life insurance services, furnished without payment by financial intermediaries. Also captured in the PCE, but not included in CE estimates, are expenditures made by third-party payers on behalf of the consumer, such as employer-paid benefits and insurance reimbursements. The Interview instrument does collect some reimbursement data for items such as expenditures on auto repairs and on medical care, but not on a systematic basis, because its emphasis is on respondents providing data on direct out-of-pocket spending.

The CE collects expenditure data on transactions between consumer units that can be significant for some categories, such as purchases of used vehicles. The PCE explicitly excludes these transactions in the derivation of its estimates. Also, allocations or payments into Social Security are included in the CE published estimates, but not in PCE estimates.

*Definitional reasons for differences.* The CE and the PCE define some expenditure categories differently, leading to differences between the CE and PCE estimates. For example, the CE defines education expenses as out-of-pocket expenditures, whereas the PCE estimates the operating expenses of private educational institutions as part of its estimate of education expenditures by households. Also, for publication purposes, the CE defines expenditures for owner-occupied housing to include spending for mortgage interest and charges, property taxes, maintenance and repairs, and other expenses; the PCE imputes space rent to estimate expenditures for owner-occupied dwellings. Finally, the CE defines retirement and pension expenditures as out-of-pocket contributions by the consumer unit to pension plans; the PCE estimates such expenditures from the administrative expenses incurred by sponsors managing pension plans.

*Development of revised methodology.* To understand better the differences between the CE and the PCE, the team decided to revamp the historical methodology used in earlier analytical work (for example, that of Raphael Branch)<sup>46</sup> by regrouping the CE items into PCE detailed categories. The categories are based on the framework of the 1992 Bridge table<sup>47</sup> and incorporate the item detail from the 1997 input-output data used in producing the PCE for the National Income and Product Accounts.<sup>48</sup> The Bridge table provides the most detailed information available regarding what is included in each PCE category. The CE items are represented by UCC's. In many instances, there is no perfect match between the CE

and PCE items assigned to a particular aggregate category, even when concepts are generally the same. These situations are discussed in the next subsection, in which each group is reviewed.<sup>49</sup>

The CE and the PCE are compared with respect to the following major classifications: durable goods, nondurable goods, and services. Within each of these classifications, expenditure aggregates are presented for subgroups. First, aggregate expenditures for both the CE and the PCE are presented, regardless of comparability of the category. Then, only those aggregates from categories with items deemed most comparable by the team are examined. Next, brief analyses explain why differences arise between the CE and PCE estimates, especially when they may be due to noncomparability of the CE and PCE component items. As will be seen, many fewer item categories are considered comparable than in past comparisons. The comparison of aggregate expenditures for 1997, the most recent benchmark year for which PCE estimates are available, is presented here. The comparison for 2002, the latest benchmark year, but not based on 2002 benchmark PCE estimates, is displayed in appendix table D-1.

All UCC's that nominally fit into the PCE framework are included in the initial analysis of comparable and non-comparable categories. In some cases, such as healthcare, the category is within the scope of both the CE and the PCE, but the operational definitions are sufficiently different to result in estimates that are not comparable. For example, as noted earlier, the full costs of healthcare are included in the PCE, but only the expenditures made by consumer units, net of reported reimbursements, are included in the CE definition.

Differences in scope and definition affect the comparability of estimates for purchases of used cars. The PCE includes (1) the retail trade margin for purchases by households from intermediaries, such as car dealers, for cars traded in by other households, (2) net purchases by households for cars originally in the business sector, such as company cars previously rented or leased, and (3) a value for scrap metal—representing used cars scrapped by households—which is deducted from purchases. The CE, by contrast, does not have estimates either for the retail trade margin from the first type of transaction or for the value of scrap metal. It does collect the transaction price of used-car purchases and thus covers business-to-household transactions, although it does not specifically identify such transactions. Direct household-to-household sales are included in the CE survey, but are out of the scope of the PCE, as mentioned earlier. Thus, used-car comparisons produced with the earlier methodology were very rough proxies and are now deemed not comparable.

*Evaluation of revised comparisons.* As seen in table 1, which presents CE and PCE aggregate expenditures for all item

groupings (comparable and not comparable) for 1997, the ratio of CE-to-PCE estimates for total goods and services is 0.65. CE aggregate durable goods expenditures are 81 percent of those for the PCE. CE nondurable goods spending equals 63 percent of the PCE value, while the CE-to-PCE ratio for service expenditures is 0.62. These ratios are not adjusted to account for the differences in the populations represented by the CE and the PCE. Recall that PCE expenditures represent those made by a larger population than the CE population. For most categories that are deemed comparable in definition and scope and that are adjusted for population differences, the CE and the PCE produce estimates that tend to be reasonably close to each other. For categories that differ in concept or vary in composition beyond that for which adjustments can be made, aggregate expenditures are more disparate—substantially in some cases.

*1. Durable Goods.* The item category of durable goods consists of motor vehicles and parts, furniture and household equipment, and other durable goods. Among the comparable durable-goods groups, estimates of expenditures for new automobiles and for kitchen and other household appliances were similar.

CE aggregate expenditures for motor vehicles and parts are higher than those calculated for the PCE. (The ratio is 1.04.) For the comparable category of new automobiles, the CE-to-PCE ratio is 1.03. The impact of the scope and definitional differences noted earlier on expenditures for used autos is reflected in much higher CE aggregate expenditures, compared with PCE estimates. (The CE-to-PCE ratio is 1.57.)

Within the component of other motor vehicles in both the CE and the PCE are trucks (new and used) and recreational vehicles. Like purchases of automobiles, purchases of trucks are distinguished between new and used; thus, as regards CE-to-PCE comparisons, the used-truck portion is subject to the same comparability issues as is the category of used cars. In the PCE, trucks also include truck tractors and bus chassis. While expenditures on these items are not likely to be reported by consumer units in the CE, they probably are small in the PCE. Estimates of expenditures for recreational vehicles for the CE and PCE are very close, although the category is not considered comparable because of the differential treatment of used vehicles.

The category “tires, tubes, accessories, and other parts” is composed chiefly of the same items in both surveys; however, there are significant differences in the estimates, probably because the CE estimate consists of expenditures net of reimbursements for insurance and warranty coverage, while the PCE retains the full cost for these items, regardless of the payer. CE estimates for specific items in this category may be higher than those derived for the PCE, because, in some cases, the CE instrument allows the respondent to include in the expenditure report labor charges associated

**Table 1. Comparison of 1997 aggregate Consumer Expenditures with Personal Consumption Expenditures based on 1997 PCE benchmark**

[In millions of dollars]

PCE categories	Raw aggregates		
	PCE	CE	Ratio
Total durables, nondurables, and services .....	\$5,544,512	\$3,589,914	0.65
Durable goods .....	689,767	561,031	.81
Motor vehicles and parts .....	302,228	315,177	1.04
New autos <sup>1</sup> .....	82,326	84,636	1.03
Net purchases of used autos .....	54,166	84,917	1.57
Other motor vehicles .....	123,810	129,980	1.05
Trucks, new and net used .....	114,566	121,129	1.06
Recreational vehicles .....	9,244	8,851	.96
Tires, tubes, accessories, and other parts .....	41,926	15,644	.37
Furniture and household equipment .....	256,165	174,753	.68
Furniture, including mattresses and bedsprings <sup>1</sup> .....	56,467	42,012	.74
Kitchen and other household appliances <sup>1</sup> .....	26,383	28,391	1.08
China, glassware, tableware, and utensils .....	25,464	6,966	.27
Video and audio goods, including musical instruments, and computer goods <sup>1</sup> .....	92,340	50,427	.55
Video and audio goods, including musical instruments <sup>1</sup> .....	58,871	30,644	.52
Computers, peripherals, and software <sup>1</sup> .....	33,469	19,783	.59
Other durable house furnishings (for example, floor coverings, clocks, lamps, and furnishings; blinds, rods, and other; writing equipment, handtools, tools, hardware, and supplies) .....	55,511	46,897	.84
Other durable goods .....	131,374	71,161	.54
Ophthalmic products and orthopedic appliances .....	18,621	7,789	.42
Wheel goods (including bicycles and motorcycles), sports (also includes guns) and photographic equipment, boats, and pleasure aircraft .....	44,783	33,842	.76
Jewelry and watches .....	40,944	18,086	.44
Books and maps .....	27,026	11,444	.42
Nondurable goods .....	1,618,967	1,026,129	.63
Food .....	796,201	559,008	.70
Food purchased for off-premise consumption <sup>1</sup> .....	492,521	337,499	.69
Alcoholic beverages purchased for off-premise consumption <sup>1</sup> .....	61,162	18,972	.31
Purchased meals and beverages <sup>1</sup> .....	294,942	218,288	.74
Alcoholic beverages in purchased meals <sup>1</sup> .....	32,170	13,604	.42
Food supplied to employees: civilians .....	7,688	3,221	.42
Food supplied to employees: military .....	523	( <sup>2</sup> )	...
Food produced and consumed on farms .....	527	( <sup>2</sup> )	...
Clothing and shoes .....	258,085	157,359	.61
Shoes <sup>1</sup> .....	40,732	33,126	.81
Women's and children's (girls' and infants') clothing and accessories, except shoes <sup>1</sup> .....	127,456	79,788	.63
Men's and boys' clothing and accessories, except shoes <sup>1</sup> .....	80,594	42,883	.53
Standard clothing issued to military personnel .....	315	( <sup>2</sup> )	...
Sewing goods for males and females .....	5,000	936	.19
Luggage for males and females .....	3,988	1,026	.26
Gasoline, fuel oil, and other energy goods <sup>1</sup> .....	147,739	127,847	.87
Other nondurable goods .....	416,942	181,515	.44
Tobacco products <sup>1</sup> .....	53,848	27,565	.51
Toilet articles and preparations <sup>1</sup> .....	51,624	25,749	.50
Semidurable house furnishings .....	31,400	9,069	.29
Cleaning and polishing preparations, and miscellaneous household supplies and paper products .....	53,854	34,339	.64
Drug preparations and sundries .....	111,140	37,231	.33
Nondurable toys and sport supplies .....	48,399	17,568	.36
Stationery and writing supplies .....	16,856	12,985	.77
Net foreign remittances .....	2,958	( <sup>2</sup> )	...
Magazines, newspapers, and sheet music .....	31,153	10,881	.35
Flowers, seeds, and potted plants .....	15,710	6,128	.39
Services .....	3,235,778	2,002,754	.62
Housing and household operations .....	1,179,605	1,286,839	1.09
Owner-occupied dwellings <sup>1</sup> .....	597,957	751,763	1.26
Rent and utilities, excluding telephone <sup>1</sup> .....	374,363	366,184	.98
Tenant-occupied nonfarm dwellings .....	198,957	208,293	1.05

See notes at end of table.

**Table 1. Continued—Comparison of 1997 aggregate Consumer Expenditures with Personal Consumption Expenditures based on 1997 PCE benchmark**

[In millions of dollars]

PCE categories	Raw aggregates		
	PCE	CE	Ratio
Electricity .....	\$94,516	\$95,934	1.02
Gas .....	36,832	31,774	.86
Water and other sanitary services .....	44,058	30,183	.69
Other lodging <sup>1</sup> .....	45,699	30,842	.67
Telephone and telegraph .....	103,648	85,416	.82
Domestic service <sup>1</sup> .....	14,688	7,954	.54
Other household operations (for example, moving and storage, household insurance, rug and furniture cleaning, electrical repair, reupholstery and furniture repair, postage, household operation services not elsewhere classified) .....	43,250	44,680	1.03
Transportation <sup>1</sup> .....	245,666	225,711	.92
Repair, greasing, washing, parking storage, rental, and leasing .....	152,867	101,934	.67
Bridge, tunnel, ferry tolls .....	4,367	1,846	.42
Insurance .....	37,807	79,709	2.11
Mass transit systems .....	7,839	7,650	.98
Taxicab .....	3,258	2,169	.67
Railway .....	420	2,237	5.33
Bus .....	2,223	1,110	.50
Airline .....	29,836	26,269	.88
Other (including water passenger; passenger transportation arrangement; limousine service; other local transportation; part of Amtrak passenger, trucking, and courier services, except air) .....	7,049	2,787	.40
Medical care .....	873,033	149,348	.17
Physicians .....	198,242	14,104	.07
Dentists .....	50,931	21,491	.42
Other professional services .....	141,981	10,097	.07
Hospitals .....	338,516	9,232	.03
Nursing homes .....	78,251	1,382	.02
Health insurance .....			
Medical care and hospitalization health insurance .....	50,569	93,042	1.84
income loss insurance .....	1,172	( <sup>2</sup> )	...
Workers' compensation .....	13,371	( <sup>2</sup> )	...
Recreation .....	215,065	110,190	.51
Admissions to all events <sup>1</sup> .....	24,984	18,595	.74
Motion picture theaters, theatre, opera, and entertainment .....	15,783	13,582	.86
Spectator sports .....	9,201	5,013	.54
Radio and television repair <sup>1</sup> .....	3,900	775	.20
Clubs and fraternal organizations .....	16,299	7,931	.49
Commercial participant amusements .....	59,423	17,987	.30
Parimutuel net receipts .....	4,018	5,616	1.40
Other (including pets and pet services, excluding vets; veterinarians; cable TV; film developing; photo studios; sporting and recreational camps; high school recreation; lotteries; videocassette rental; commercial amusements not elsewhere classified) .....	106,441	59,286	.56
Personal care .....	69,650	39,079	.56
Cleaning, storage, and repair of clothing and shoes <sup>1</sup> .....	13,646	7,966	.58
Barbershops, beauty parlors, and health clubs .....	31,247	30,147	.96
Other (including watch, clock, and jewelry repair; miscellaneous personal services) .....	24,757	965	.04
Personal business .....	412,926	36,080	.09
Brokerage charges and investment counseling .....	60,841	( <sup>2</sup> )	...
Bank service charges, trust services, and safe deposit box rental .....	43,711	3,715	.08
Services furnished without payment by financial intermediaries except life insurance carriers .....	133,056	( <sup>2</sup> )	...
Expense of handling life insurance and pension plans .....	81,880	( <sup>2</sup> )	...
Legal services <sup>1</sup> .....	53,748	14,336	.27
Funeral and burial expenses <sup>1</sup> .....	13,001	8,731	.67
Other personal business (including labor union expenses, professional association expenses, employment agency expenses, money orders, classified ads, tax return preparation services, personal business services not elsewhere classified) .....	26,689	9,298	.35

See notes at end of table.



**Table 1. Continued—Comparison of 1997 aggregate Consumer Expenditures with Personal Consumption Expenditures based on 1997 PCE benchmark**

[In millions of dollars]

PCE categories	Raw aggregates		
	PCE	CE	Ratio
Education and research .....	\$129,682	\$65,829	0.51
Higher education .....	69,834	37,324	.53
Nursery, elementary, and secondary schools .....	29,411	26,472	.90
Elementary and secondary schools .....	22,850	9,517	.42
Nursery schools .....	6,561	16,955	2.58
Other education and research .....	30,437	2,033	.07
Commercial and vocational schools .....	20,203	( <sup>3</sup> )	...
Foundations and nonprofit research .....	10,234	( <sup>2</sup> )	...
Religious and welfare activities .....	134,234	89,678	.67
All contributions, including religion (not a PCE category) .....		78,857	
Political organizations .....	579	( <sup>3</sup> )	...
Museums and libraries .....	6,204	( <sup>3</sup> )	...
Foundations to religion and welfare .....	6,596	( <sup>3</sup> )	...
Social welfare .....	80,632	10,821	.13
Childcare .....	19,682	7,576	.38
Social welfare (including membership organizations, job training and vocational rehabilitation services, residential care, individual and family services, social services not elsewhere classified, civic-social-fraternal associations) .....	60,950	3,245	.05
Religion .....	40,223	( <sup>3</sup> )	...
Net foreign travel .....	-24,083	( <sup>3</sup> )	...

<sup>1</sup> Comparable CE and PCE categories.

<sup>2</sup> Category not within the scope of the CE survey.

<sup>3</sup> The CE survey does not collect data at the indicated level of detail for this category.

with installing the part. (For example, the purchase of tires may include the price of the labor required to mount them.) However, when most of the expenditures represent the provision of a service for this article, the item in question is included among services.

Furniture and household equipment includes a broad set of items, as noted in the table. The CE-to-PCE ratio for this group is 0.68. The two categories of furniture (including mattresses and bedsprings) and kitchen and other household appliances appear to be most similar conceptually and operationally among all durable goods. The ratios for these categories are 0.74 and 1.08, respectively. By contrast, "china, glassware, tableware, and utensils" is a category that, although defined similarly, displays a wide gap between the CE and PCE estimates, resulting in a ratio of only 0.27. There is no obvious reason for this disparity.

The category "video and audio goods, including musical instruments, and computer goods" includes a large mix of items. Computers, peripherals, and software expenditures reported in the CE are only 59 percent of those calculated for the PCE. The difference probably results from the way the CE survey and the PCE obtain data on purchases by households. Only purchases made for nonbusiness purposes are in the scope of the CE. Thus, if a consumer unit purchased a computer or workstation for a home office, the purchase would not be reported in the survey. The PCE, however,

assigns *all* purchases made by the general public as being for personal consumption.

The final subgrouping in furniture and household equipment is "other durable house furnishings." The items included in the CE and the PCE do not match sufficiently to consider the respective categories comparable, even though the ratio, 0.84, is fairly high. The number of detailed component items used to derive the PCE estimate is significantly higher than the number of recall cues given to respondents in the CE survey in collecting similar expenditure data. Another source of difference is in the treatment of an item such as installed carpet for owners. For this item, the service charge for the installation can be included in the CE estimate, but would not be in the PCE estimate. (If the consumer unit considers the purchase of floor coverings to be a capital improvement to the dwelling, it will be excluded from the CE estimate and treated instead as an increase in the value of the home.)

Estimated aggregate expenditures for other durable goods are lower in the CE than in the PCE (the ratio is 0.54), although none of the corresponding subgroups in other durable goods are considered comparable categories. The CE excludes direct payments or reimbursements by third parties, such as insurance companies, for consumer purchases of ophthalmic products and orthopedic appliances; the PCE counts the full value for these items, regardless of payer. CE aggregate

expenditures for this grouping are 42 percent of the PCE estimate.

CE expenditures for wheel goods, sports and photographic equipment, boats, and pleasure aircraft are 76 percent of PCE expenditures. The category is not defined similarly in the two surveys, with some CE items included that actually overlap a number of PCE durable and nondurable categories. Within the CE item “general sports equipment” is golf equipment, such as golf clubs and golf balls. In deriving the PCE, the BEA allocates aggregate spending on golf equipment between wheel goods, sports and photographic equipment, boats, and pleasure aircraft, on the one hand, and nondurable toys and sport supplies in the “other nondurable goods” category, on the other hand. Although not explicitly stated, it can be assumed that the PCE durable allocation contains data on golf club expenditures, while the nondurable allocation includes data on golf balls. The CE survey cannot make the same allocation in “general sports equipment”; CE expenditures for this item are assigned to the durable category in the new comparison methodology. (See table 1.) The situation repeats itself with other sporting goods, reported in “general sports equipment” in the CE survey. As a result, the CE-to-PCE ratio of 0.76 for “wheel goods” is higher than it otherwise might be (and concomitantly, the CE-to-PCE ratio for nondurable toys and sport supplies is lower).

The ratio of CE-to-PCE expenditures for jewelry and watches is 0.44. Both surveys define the category similarly, but, as with the category “other durable house furnishings,” the PCE estimate is derived from a much more comprehensive set of items than is cued for in the CE. For example, the PCE category “jewelry made of precious metal” contains data on expenditures for school rings, cuff links, money clips, watch chains, rosaries, cigarette lighters, and locket. The CE instrument offers additional cues only for costume jewelry, rings, and infants’ jewelry. Also, proxy reporting may affect this category, in that a parent responding for the entire consumer unit may not be aware of purchases of costume jewelry made by his or her children.

The PCE category “books and maps” also is more comprehensive than its CE counterpart. The PCE category includes data on expenditures not only for books, but for publishing as well. By contrast, in the CE, consumers report expenditures for books, but not for publishing. The PCE also includes art reproductions and print maps in the “books and maps” category, whereas the CE includes them among household decorative items in the “other durable house furnishings” category.

*2. Nondurable goods.* Nondurable goods are grouped into four major categories: food; clothing and shoes; gasoline, fuel oil, and other energy goods; and other nondurable goods. Food, clothing, and the energy groups are the most

conceptually similar between the CE and the PCE. The ratio for the energy items, 0.87, is quite high. The ratio for food, 0.70, is lower, but still relatively high, while the ratio for clothing, 0.61, is lower still.

CE expenditures for food purchased for off-premise consumption is 69 percent of PCE expenditures in the same category. Included in PCE estimates, but not asked about in the CE, is the contribution of the Federal Women’s, Infants’, and Children’s (WIC) program to purchases of qualifying food groups. This contribution accounts for a portion of the CE shortfall with respect to the PCE. The CE estimate for purchased meals and beverages is 74 percent of that of the PCE; the latter includes food purchased at athletic venues, motion picture theaters, and other places that are not covered in such a specific manner in the CE. Although defined similarly in the CE and the PCE, the category “food supplied to employees—civilians” is not comparable between them, due to a major difference in the way the estimates are constituted. The CE collects respondents’ estimates of the monetary value of free meals received at work as part of pay. The BEA allocates a percentage of the value of many of the food items that are included in food purchased for off-premise consumption to derive its estimate. For example, part of the value for the detailed item “frozen vegetables” is assigned to “food purchased for off-premise consumption,” and part is assigned to “food supplied to employees—civilians.” There is no CE counterpart to either of the PCE categories titled “food supplied to employees—military” or “food produced and consumed on farms.” In the former case, military personnel living on base are not included in the CE population and therefore are not sampled in the survey; in the latter, the CE does not collect any data on the value of home production or any other good received, but not paid for, by a consumer unit.

The ratio of CE-to-PCE expenditures on clothing and shoes is 0.61. The ratio for shoes alone is somewhat higher (0.81). The category of shoes is considered comparable between the two surveys, even though the CE estimate excludes athletic shoes for sports-related use, which the PCE includes. Although expenditures for athletic footwear are relatively sizeable, purchases for sports-related use are likely to be dwarfed by purchases for general streetwear. The two clothing and accessories categories (women’s and children’s, and men’s and boys’) appear to be composed of the same universe of items. That the CE estimate is about two-thirds of the PCE estimate for women and children and about one-half for men and boys may be due to the issue of proxy reporting of expenditures in the CE. The only other major difference in the category of clothing and shoes is the inclusion of standard clothing issued to military personnel in the PCE, but not the CE, reflecting the fact that military personnel living on base are excluded from the CE sample.

The CE and the PCE appear to define nondurable energy

goods similarly. Aggregate expenditure estimates for this category also are fairly close, with the CE-to-PCE ratio standing at 0.87.

The category "other nondurable goods" comprises a mix of disparate item groups, such as tobacco products; toilet articles and preparations; and flowers, seeds, and potted plants. The CE-to-PCE ratio for the category is only 0.44, reflecting in some measure the noncomparability of many of the subgroups. Tobacco products make up one of the two comparable subgroups, yet the CE-to-PCE ratio, 0.51, is fairly low. Purchases of tobacco products are considered "sensitive" because they conceivably carry a negative connotation among consumers. Thus, respondents of the CE are more likely to either omit or underreport tobacco expenditures compared with other types of spending. The other comparable category—toilet articles and preparations—also has a relatively low ratio, 0.50, the reasons for which are not readily apparent.

All the remaining subgroups in other nondurables are not comparable between the CE and the PCE. Often, this is because CE items overlap PCE categories such that definitionally comparable subgroups cannot be created. In some instances, the overlap is between two subgroups of nondurables. For example, the CE assigns expenditures to an item category called "lawn and garden supplies," which includes fertilizer and seeds. The PCE, by contrast, puts expenditures on fertilizer into the category titled "cleaning and polishing preparations, and miscellaneous household supplies and paper products," while placing expenditures on seeds in the category "flowers, seeds, and potted plants." In this article, CE's lawn and garden supplies item is assigned to the cleaning preparations/household supplies category, thereby increasing the CE-to-PCE ratio for that category and decreasing the ratio for flowers, seeds, and potted plants from what they would be if the CE item were allocated differently.

Another instance in which a CE item overlaps PCE categories is musical instruments and accessories. Among the accessories included in the CE item category is sheet music. The PCE, however, assigns sheet music to a nondurable-goods category together with magazines and newspapers, but includes the remainder of musical instruments and accessories in durables, together with video and audio goods. The CE item, by contrast, is assigned entirely to the "video and audio goods" category, because PCE expenditures on sheet music are very small compared with PCE expenditures on video and audio goods.

A particularly thorny case that showcases all of these issues is the PCE nondurable category of stationery and writing supplies. The CE collects data for three UCC's, parts of which are assignable to stationery and writing supplies. The first item, which comes from the Diary Survey, is "stationery, giftwrap, etc." The stationery portion of this item

clearly belongs to the PCE category, but the giftwrap portion would be found among the paper products in the PCE's "cleaning and polishing preparations/miscellaneous household supplies/paper products" nondurable category. The other two UCC's contain expenditures for schoolbooks, supplies, or equipment for educational institutions other than colleges or universities. Among the cues for these UCC's are items, such as art supplies, that fall within the PCE category "stationery and writing supplies." The cues also include textbooks and microscopes, data on which would appear in the PCE durable categories "books and maps" and "wheel goods, sports and photographic equipment, boats, and pleasure aircraft," respectively. Although school supplies could not be separated from books and equipment, they were expected to represent the largest share of the two education-related UCC's, so it was decided to assign those UCC's to stationery and writing supplies. The addition of expenditures on giftwrap, schoolbooks, and school equipment represented in the CE estimate for this category could explain the reasonably high CE-to-PCE expenditure ratio (0.77).

The CE-to-PCE ratio for the category "drug preparations and sundries" is among the lowest of the ratios in all the other nondurable-goods subgroups. CE expenditures are only 33 percent of similar expenditures derived in the PCE. As with other medical goods and services, CE estimates of drug preparations and sundries include only out-of-pocket payments by consumers, whereas the PCE estimate counts reimbursements and other third-party payments as well.

*3. Services.* The major expenditure categories in services are housing and household operations, transportation, medical care, recreation, personal care, personal business, education and research, religious and welfare activities, and a PCE adjustment for net foreign travel. The analysis presented here shows that no major category is considered completely comparable between the CE and the PCE under the publication or new-methodology definition.

The category "housing and household operations" is composed of the following subgroups: owner-occupied dwellings; rent and utilities, excluding telephone; other lodging; telephone and telegraph; domestic service; and other household operations. Housing and household operations are treated as separate categories by the BEA in PCE tabulations, but are combined in this analysis to facilitate the creation of the comparable "rent and utilities" subgroup. The PCE assigns rent to the housing category and utilities to household operations. In the CE, however, some reports of rent include utilities, which cannot be split out.<sup>50</sup> The ratio of CE-to-PCE aggregates with rent and utilities together is 0.98 for 1997 and 0.91 for 2002. The CE estimates for individual utilities are slightly lower, due to the portion captured with rent. Despite this difference, these estimates compare closely

to PCE estimates. Expenditures for electricity are approximately the same for the CE and the PCE, yielding a ratio of 1.02. For gas, the ratio is 0.86, and for water and other sanitary services, the ratio is 0.69. This lower ratio for water may reflect the fact that water is more commonly included with CE rent than are the other utilities. For 1997, 67.3 percent of rent payments in the CE include expenditures for water, while only 22.1 percent include expenditures for gas and 14.4 percent include expenditures for electricity.

In comparisons using the historical methodology, expenditures for owner-occupied dwellings were not considered comparable because of differing CE publication-standard definitions and those used for the PCE. In the revised methodology, the CE redefines owner-occupied housing so that it matches the PCE definition more closely. The PCE defines owner-occupied housing expenditures starting with gross rents for equivalent renter-occupied units, excluding charges for utilities, major appliances, and furniture and furnishings. This measure, referred to as *space rent*, is imputed for owner-occupied housing units with the use of tabulations of contract-rent-to-property-value ratios by property-value class, matched to tables with counts of owner-occupied housing units by property-value class. The tabulations were obtained by the BEA from the Census Bureau's 1991 Residential Finance Survey (RFS), which is conducted once every 10 years in conjunction with the decennial census; the tables are from publications of the biennial American Housing Survey (AHS), starting with 1991 data. The RFS and AHS data are used to produce estimates for the 1991 PCE. In subsequent years, including the benchmark year 1992, average space rent is extrapolated with the use of the CPI for owner-occupied housing, as well as with an adjustment that would not be captured by the CPI alone. The quality adjustment takes into account additions, alterations, and depreciation of the housing stock. Average owner space rents are multiplied by the number of owner-occupied housing units as reported in the AHS for 1991 and every second year thereafter. For those years falling between AHS survey years, the BEA uses data from the Current Population Survey to interpolate and extrapolate the number of owner-occupied units.<sup>51</sup> PCE owner-occupied housing includes primary residences, vacation homes, and time shares.

For the revised comparison, reported rental equivalence values of owner-occupied properties made by respondents to the CE Interview are used to estimate expenditures for owner-occupied housing. For years prior to 1999, the CE data are not strictly comparable to the PCE data, lacking the rental equivalence value of owned vacation homes, including time shares. With rental equivalence used as a proxy for the space rent of owned nonvacation homes, the CE-to-PCE ratio for owner-occupied dwellings for 1997 is 1.26. (Were the rental

equivalence of vacation homes included, this ratio would be even higher.)

Since 1999, data on the rental value of owned vacation homes have been collected, making the CE estimate conceptually comparable to the PCE's. In the PCE, the rental value for vacation homes, including time shares, is calculated as 50 percent of the imputed value of housing units that are primarily rented. If a vacation home is for the homeowner's use only, then 100 percent of the imputed value is counted. The CE instrument does not detect whether the vacation home or time share is rented occasionally. (If it always is rented, then it is treated like a business property and is excluded from the survey.) In order to match the PCE process, 50 percent of the rental equivalence value for vacation homes and time shares (not rented as a business) reported in the CE is added to the CE's aggregate for owner-occupied housing. Even with the addition of an estimate for vacation homes, the ratio of CE to PCE aggregate expenditures has fallen over time. For example, the 2002 ratio is 1.22, compared with the earlier mentioned 1.26 for 1997.

The category "telephone and telegraph" is the first of the two subgroups in the services sector that are not considered comparable between the surveys. The major UCC that accounts for most of the CE estimate for telephone services includes expenses for pay phones. In the PCE, the receipts of pay phone operators are one of the miscellaneous personal services in the "other personal care" subgroup in the "personal care" category.

The other subgroup of services that is not considered comparable is household operations, although on first glance it would appear to be so because the CE and PCE estimates are so close. However, the household insurance component of other household operations is conceptually quite different in the CE and the PCE. As with other types of insurance, the CE defines household insurance as out-of-pocket premium payments made by consumers. The PCE, however, defines it as the premiums collected net of the losses paid by insurance companies. Because of this conceptual difference, CE estimates for expenditures for household insurance have averaged about 8 times greater than PCE estimates.

Transportation includes a broad range of services, from repairs to passenger fares. Many of the CE-to-PCE ratios are quite high, with some exceeding unity. Two of the subgroups—repair, greasing, washing, parking storage, rental, and leasing; and insurance—are deemed noncomparable. The locus of CE-PCE conceptual differences for the former subgroup is the repair component; these differences were noted earlier in the discussion of tires, tubes, accessories, and other parts. (See page 28.) Reimbursements for insurance and warranty coverage are included in the PCE, but not in the CE, estimates. In addition, as noted earlier, expenditures for repairs reported in the CE may combine the cost of parts with labor charges.

The vehicle insurance category encounters the same conceptual issues as household insurance. The PCE defines insurance as premiums collected less losses paid out, while the CE defines it as paid premiums only. Though not as dramatic as the difference between the estimates in the household insurance category, the conceptual difference in vehicle insurance leads to higher estimates in the CE such that the CE-to-PCE ratio is 2.11 for 1997.

Expenditures for mass transit systems are almost the same for the two data sources for 1997. Expenditures for taxicabs, buses, and airlines are lower in the CE, sporting CE-to-PCE ratios of 0.67, 0.50, and 0.88, respectively. Railway transportation expenditures are quite high in the CE, compared with PCE estimates; the CE-to-PCE ratio is 5.33. The source of the PCE data is Amtrak revenues. CE expenditures, by contrast, cover excursions on more rail lines than Amtrak, both in the United States and abroad.

Expenditures for medical care include expenditures for services provided by healthcare professionals and healthcare facilities and for health insurance premiums. The CE-to-PCE ratios are extremely low, with the exception of medical care and hospitalization health insurance, which has a ratio of 1.84. One reason for the low ratios is that the operating expenses of nonprofits serving households are included in the PCE estimate, but not in the CE aggregates. The low ratios also reflect the fact that the CE counts only out-of-pocket outlays net of payments and reimbursements by insurance companies and other third-party payers. Medical care expenditures for the PCE represent the full costs of care. The CE estimate for medical care and hospitalization insurance is much higher than that computed for the PCE and can be traced to the fact that the CE counts premiums paid, whereas the PCE deducts benefits and claims paid from premiums earned. Health insurance in the PCE also encompasses insurance against loss of income and workers' compensation insurance. Neither has a counterpart in the CE, which, on the one hand, does not directly collect data on income loss insurance purchased by consumers, and, on the other, does not consider workers' compensation as a consumer expenditure.

Recreation is composed of an eclectic set of categories. Each of two of the six subgroups—admissions to all events, and radio and television repair—is considered a comparable category between the two surveys. The CE-to-PCE ratio for admissions to all events, 0.74, is relatively high. Within this subgroup are two components whose CE-to-PCE ratios differ markedly: the CE estimate for admissions to motion picture theaters, the legitimate theatre, opera, and entertainment is 86 percent of the PCE estimate, while the CE estimate for admissions to spectator sports reaches only about one-half the PCE estimate. The CE-to-PCE ratio for radio and television repair, 0.20, is quite low.

The highest CE-to-PCE ratio in recreation is for parimutuel net receipts (1.4). However, the Diary item from which the CE calculates its estimate also includes licenses for pets, fishing, and guns, a component that is not in the PCE category. The CE-to-PCE ratio for commercial participant amusements is a very low 0.30. More than 60 percent of the PCE estimate is derived from casino gambling, which also includes slot machines and bingo. To the extent that casino gambling is associated with trips or vacations, the CE Interview instrument does not explicitly ask about it in collecting data on travel expenses. If respondents report gambling expenditures among their entertainment expenses on trips, those expenditures are distributed among other entertainment UCC's. In addition, casino gambling may suffer from both nonreporting and underreporting due to its "sensitive" nature. All of these factors may help account for the low CE-to-PCE ratio.

Overall CE personal care expenditures are about 56 percent of those derived for the PCE. For cleaning, storage, and repair of clothing and shoes—the only subgroup of personal care deemed a comparable category between the surveys—CE estimates are 56 percent of those calculated for the PCE. This ratio is similar to that reported for clothing and shoes (0.61) in nondurables. The CE and PCE estimates for the barbershops, beauty parlors, and health clubs subgroup are very close in magnitude, yielding a CE-to-PCE ratio of 0.96. However, while the PCE apportions most health club expenses to this subgroup, it allocates some such expenses to clubs and fraternal organizations, commercial participant amusements, and the commercial amusements component in the other subgroup of recreation. In the CE, by contrast, membership costs and other expenses for health clubs are combined into one UCC that is assigned to clubs and fraternal organizations. The personal care subgroup for which the CE-to-PCE ratio is lowest is "other personal care," which includes repair of watches, clocks, and jewelry and miscellaneous personal services. The ratio of just 0.04 is due primarily to the larger number of items included in the PCE estimate for which there are no counterparts in the CE. The only CE items that can be directly assigned to this category cover repairs of watches, jewelry, and personal care appliances, and the rental of clothing. The PCE includes bail bonding, dating services, buying clubs, shopping services, and a host of other miscellaneous services. In addition, as mentioned earlier, the PCE includes pay phone receipts in this subgroup, whereas the CE does not.

Personal business comprises a broad set of services, the largest three of which, in dollar terms, are not comparable due to conceptual or operational differences between the CE and the PCE. Almost one-third of the PCE estimate for personal business is accounted for by services furnished without payment by financial intermediaries except life insurance

carriers. By definition, the PCE estimate is an imputation that represents checking, bookkeeping, and investment services received by consumers for which they do not pay through explicit service charges. Hence, it is not included in CE expenditures, which represent only actual service charges paid by consumers. The subgroup titled "expense of handling life insurance and pension plans" is the next-largest contributor to personal business. As the name implies, the operating expenses incurred by life insurance carriers and private sponsors to administer policies and pension plans are part of the PCE. The CE, however, treats each of these differently: life insurance expenditures are represented by payments of policy premiums, while contributions made by consumers denote outlays to private pension plans. The third-largest component of personal business in the PCE is brokerage charges and (fees for) investment counseling. In the CE, respondents are asked to include broker fees with the purchase price of any financial assets they buy and to deduct such fees, without explicitly identifying them, from the proceeds of any financial assets they sell. Thus, for publication or comparison purposes, these fees are not considered part of CE expenditures.

The subgroup of bank service charges, trust services, and safe deposit bank rental is deemed noncomparable, primarily because the PCE covers a wider range of items than the CE survey covers. The CE does probe for rental expenses for safe deposit boxes as a separate item; however, expenditures for banking services are collected in a general question with few cues, compared with the detailed items from which the PCE estimate is derived. In addition, services associated with trusts, custodial accounts, and escrow accounts are included in this subgroup in the PCE, whereas data on trust and estate management services are collected together with data on the preparation of tax returns in an umbrella category titled "accounting fees" in the CE. These accounting fees are included in the CE estimate of "other personal business expenditures."

Conceptually, legal services and funeral and burial expenses are each comparable subgroups that display markedly different CE-to-PCE ratios. For legal services, the ratio is a very low 0.27, which may reflect a recall issue in that the CE instrument provides a limited number of cues for respondents concerning the types of legal proceedings for which the services of lawyers would be employed. It is also possible that respondents consider some of these proceedings—for, say, criminal or personal bankruptcy cases—to be sensitive and therefore are reluctant to report the attendant legal fees. The ratio for funeral and burial expenses, 0.67, is significantly higher than that for legal services. Operationally, the CE instrument is more comprehensive for the former than the latter subgroup. Although there is no obvious reason that the CE estimate is only two-

thirds of the PCE estimate, it is possible that respondents underreport funeral and burial expenses due to the personal and emotional nature of the subject.

The final subgroup of personal business, "other personal business," consists of an amalgam of items such as labor union expenses, fees for tax return preparation, classified ads, and miscellaneous personal business services, including photocopying and duplicating services and the services of private mail centers. As noted earlier, in the CE, tax return preparation is included with trust and estate management, a category that is split into two in the PCE and assigned to bank service charges and safe deposit box rental. In addition, data on many of these items are collected in the CE Diary instrument and assigned to a UCC for miscellaneous personal services. However, that UCC also includes expenditures for bail bonding and shopping services, found in the "other personal care subgroup," and for traffic or parking tickets, which are out of the scope of the PCE. For these reasons, other personal business was not considered comparable between the two surveys.

The category of education and research comprises (1) higher education, (2) nursery, elementary, and secondary schools, and (3) "other education and research." The category of education and research is similar to medical care in the PCE in that much of the education portion of the expenditure estimate comes from nonprofit institutions serving households. More specifically, for private educational institutions, the PCE defines expenditures as operating expenses. In the case of higher educational institutions, operating expenses exclude expenditures for research and development financed under contracts or grants. For public educational institutions, education expenses are defined as payments of tuition for students. The CE includes out-of-pocket expenses for tuition and other educational expenses (excluding room and board) in its estimate for education. In addition, there is nothing collected in the CE instrument that is comparable to the "foundations and nonprofit research" portion of the PCE estimate. These differences render the category noncomparable between the CE and the PCE.

The high CE-to-PCE ratio of 2.58 for the nursery schools item in the nursery, elementary, and secondary schools subgroup stands out. As opposed to paying for other schools, consumers are more likely to pay the full costs of nursery schools. In the CE, education expenditures for nursery schools are combined into one UCC with similar expenditures for preschools and child daycare centers. The PCE, in contrast, derives its estimate by allocating one-third of the expenses for child daycare services reported by private providers to nursery schools. The remaining two-thirds is assigned to the childcare component of the social welfare subgroup in the category "religious and welfare activities."

This allocation may explain the high CE-to-PCE ratio for nursery schools and, likewise, the relatively low ratio of 0.38 for childcare.

The "other education and research" subgroup is not deemed comparable between the two surveys primarily because the CE does not have a counterpart to the PCE expenditures derived from the operating expenses of grant-

making foundations and nonprofit firms engaged in research and development. The CE expenditures reported for other education and research come from schools that are actually very close in definition to the PCE component of commercial and vocational schools. The CE estimate, however, consists of tuition expenditures only, whereas the PCE estimate is derived from a broader class of items: operating expenses for

**Table 2. Summary comparison of aggregate Consumer Expenditures and Personal Consumption Expenditures based for 1992, 1997, and 2002 and restricted to the most comparable categories on the basis of concepts involved and comprehensiveness**

[In millions of dollars]

Category	1992			1997			2002		
	PCE	CE	CE-to-PCE ratio	PCE	CE	CE-to-PCE ratio	PCE	CE	CE-to-PCE ratio
<b>Total durables, nondurables, and services</b>									
Total .....	\$4,235,263	\$2,856,482	0.67	\$5,544,512	\$3,589,914	0.65	\$7,376,059	\$4,457,246	0.60
Comparable items .....	2,421,707	2,085,336	.86	3,027,956	2,563,644	.85	3,841,657	3,125,581	.81
Ratio of comparable items to total .....	.57	.73	...	.55	.71	...	.52	.70	...
Population-adjusted comparable items (PCE only) .....	2,357,166	2,085,336	.88	2,928,412	2,563,644	.88	3,730,773	3,125,581	.84
<b>Durable goods</b>									
Total durable goods .....	483,588	430,076	.89	689,767	561,031	.81	916,170	693,653	.76
Comparable durable goods .....	201,265	176,476	.88	257,516	205,466	.80	320,536	242,895	.76
Ratio of comparable durables to total durables .....	.42	.41	...	.37	.37	...	.35	.35	...
New autos .....	78,016	88,202	1.13	82,326	84,636	1.03	101,649	111,924	1.10
Furniture, including mattresses and bedsprings .....	38,957	31,922	.82	56,467	42,012	.74	68,288	46,171	.68
Kitchen and other household appliances .....	24,287	23,204	.96	26,383	28,391	1.08	31,537	33,666	1.07
Video and audio goods, including musical instruments, and computer goods .....	60,005	33,148	.55	92,340	50,427	.55	119,062	51,134	.43
<b>Nondurable goods</b>									
Total nondurable goods .....	1,330,504	866,976	.65	1,618,967	1,026,129	.63	2,080,101	1,212,863	.58
Comparable nondurable goods .....	1,167,003	808,815	.69	1,382,788	925,321	.67	1,723,492	1,083,624	.63
Ratio of comparable nondurables to total nondurables .....	.88	.93	...	.85	.90	...	.83	.89	...
Food purchased for off-premise consumption .....	415,693	299,635	.72	492,521	337,499	.69	615,604	389,640	.63
Alcoholic beverages purchased for off-premise consumption .....	48,853	16,388	.34	61,162	18,972	.31	75,461	25,497	.34
Purchased meals and beverages .....	245,954	179,103	.73	294,942	218,288	.74	380,021	267,770	.70
Alcoholic beverages in purchased meals .....	33,694	13,801	.41	32,170	13,604	.42	40,591	16,487	.41
Shoes .....	32,903	23,124	.70	40,732	33,126	.81	49,281	34,960	.71
Women's and children's (girls' and infants') clothing and accessories, except shoes ..	115,711	75,828	.66	127,456	79,788	.63	149,205	87,889	.59
Men's and boys' clothing and accessories, except shoes .....	63,645	45,018	.71	80,594	42,883	.53	92,586	45,769	.49
Gasoline, fuel oil, and other energy goods ...	124,639	107,384	.86	147,739	127,847	.87	177,467	148,800	.84
Tobacco products .....	48,008	27,266	.57	53,848	27,565	.51	89,122	35,668	.40
Toilet articles and preparations .....	37,903	21,268	.56	51,624	25,749	.50	54,154	31,144	.58
<b>Services</b>									
Total services .....	2,421,171	1,559,430	.64	3,235,778	2,002,754	.62	4,379,788	2,550,730	.58
Comparable services .....	1,053,439	1,100,045	1.04	1,387,652	1,432,857	1.03	1,797,629	1,799,062	1.00
Ratio of comparable services to total services ...	.44	.71	...	.43	.72	...	.41	.71	...
Owner-occupied dwellings .....	462,286	567,986	1.23	597,957	751,763	1.26	832,479	1,014,126	1.22
Rent and utilities, excluding telephone .....	302,733	300,749	.99	374,363	366,184	.98	466,483	424,634	.91
Other lodging .....	32,615	22,657	.69	45,699	30,842	.67	53,633	37,333	.70
Domestic service .....	11,356	7,937	.70	14,688	7,954	.54	16,754	8,958	.53
Transportation .....	157,664	158,353	1.00	245,666	225,711	.92	287,988	252,818	.88
Admissions to all events .....	16,614	12,658	.76	24,984	18,595	.74	34,583	21,888	.63
Radio and television repair .....	2,977	1,092	.37	3,900	775	.20	4,034	360	.09
Cleaning, storage, and repair of clothing and shoes .....	11,365	12,722	1.12	13,646	7,966	.58	15,784	13,501	.86
Legal services .....	44,860	9,180	.20	53,748	14,336	.27	71,258	14,910	.21
Funeral and burial expenses .....	10,969	6,711	.61	13,001	8,731	.67	14,633	10,534	.72

tax-exempt schools and tuition, fees, and other school receipts subject to Federal taxes.

Expenditures for religious and welfare activities in the PCE are derived almost exclusively from the operating expenses of nonprofits serving households. In contrast, most of the CE expenditures in this category are reported as contributions to charitable and other nonprofit organizations. Within the social welfare subgroup, CE estimates are for babysitting and child-care in noninstitutional settings, adult daycare, and home care for the elderly, disabled, handicapped, or convalescents. Because of this conceptual incompatibility, the category of religious and welfare activities is not considered comparable between the CE and the PCE. The ratio for the entire category is 0.67.

*Summary of comparable CE-to-PCE estimates.* When the CE and PCE estimates are focused on only those categories which are comparable to each other in the two surveys, the ratio of CE-to-PCE aggregate expenditures moves closer to unity. (See table 2.) Adjusting for population differences between the surveys brings the ratio even closer. The comparability adjustment also somewhat mitigates the decline in the ratio over time: for 1992, the ratio increases by 19 percentage points, from 0.67 to 0.86, and it rises by an additional percentage point for both 1997 and 2002.

Taking out noncomparable items increases the CE-to-PCE ratio for services by an average of about 40 percentage points for each of the 3 benchmark years. For the same 3 years, the ratio for nondurable goods increases an average of 4 points, while that for durable goods decreases marginally.

Not surprisingly, eliminating noncomparable items from the comparison has a major impact on services, because the estimates in many of that category's components are affected by

significant conceptual differences. Third-party payments in medical care; services provided by nonprofit institutions in medical care, education, and religious and welfare activities; and services furnished without payment by financial intermediaries in personal business are examples of noncomparable categories whose elimination from the comparison has a considerable impact on services. Thus, in some sense, the remaining service categories exhibit the "good ratios" that are closer to unity. For some comparable categories—for example, radio and television repair (0.20 for 1997) and legal services (0.27 for 1997)—the ratios nonetheless are still low.

In the case of nondurable goods, restricting the comparison to comparable categories does not improve the ratios as much. To some extent, this is because most of the aggregate expenditures for nondurables for 1997—85 percent for the PCE and 90 percent for the CE—are found in comparable categories. The lowest ratio in nondurable goods is 0.31, for purchases of alcoholic beverages. The CE is known to exhibit underreporting in sensitive items such as alcohol. Underreporting also explains the relatively low ratio for tobacco products (0.51).

The CE-to-PCE ratio for comparable categories of durable goods displays little change, despite the fact that the ratio has decreased more for durable goods than for the other two major expenditure groups.

Pinpointing the reasons for the increasing disparities between the two surveys is the continuing goal of the BLS team. Whether the differences are due to the way the PCE is derived, to the manner in which CE data are collected and adjusted, or to some combination of the two is yet to be determined. Future research will focus on expenditure categories for which estimates have been similar in the past, but that now show CE estimates growing less rapidly than their PCE counterparts. □

## Notes

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<sup>1</sup> Raymond Gieseman, "The Consumer Expenditure Survey: quality control by comparative analysis," *Monthly Labor Review*, March 1987, pp. 8–14, quote from p. 9.

<sup>2</sup> The CE consists of two components: a weekly Diary Survey and a quarterly Interview Survey. Simply put, in the former, respondents fill out two consecutive 1-week expenditure diaries. In the latter, respondents report expenditures through personal interviews every 3 months. Each CE component is described more fully later in this article. Early methodological work included the use of a supplementary Diary administered to respondents and interviewers to measure attitudes and behaviors associated with keeping the Diary, and the use of different formats for the Diary instrument. More recent work includes the testing of computer-assisted personal interviewing (CAPI). Findings from this work led to the use of a CAPI instrument to collect data in the Interview component since April 1, 2003, and in the household characteristics questionnaire of the Diary component since January 2004.

<sup>3</sup> For recent published comparisons, see the following BLS publications: *Consumer Expenditure Survey 1992–93*, Bulletin 2462, September 1995; *Consumer Expenditure Survey 1994–95*, Bulletin 2492, December 1997; *Consumer Expenditure Survey 1996–97*, Report 935, September 1999; *Consumer Expenditure Survey 1998–99*, Report 955, November 2001; and *Consumer Expenditure Survey*



2001–02, Report 969, September 2003. Source data against which CE data have been compared include, for example, the National Health Expenditures from the Health Care Financing Administration, expenditures from the Residential Energy Consumption Survey and Residential Transportation Energy Consumption Survey from the Department of Energy, *Progressive Grocer* and *Supermarket Business* food expenditures, and personal consumption expenditures (PCE) of the National Income and Product Accounts from the Bureau of Economic Analysis. Other occasional comparisons also have been conducted. For example, health insurance expenditures from the CE survey have been compared with those from the Medical Expenditure Panel Survey supplied by the Agency for Healthcare Research and Quality of the U.S. Department of Health and Human Services. Appendix A includes a summary of sources that have been compared with the CE.

<sup>4</sup> A consumer unit comprises (1) all members of a particular household who are related by blood, marriage, adoption, or some other legal arrangement; (2) a person living alone or sharing a household with others or living as a roomer in a private home or lodging house or in permanent living quarters in a hotel or motel, but who is financially independent; or (3) two or more persons living together who use their income to make joint expenditure decisions. Financial independence is determined by the three major expense categories: housing, food, and other living expenses. For a respondent to be considered financially independent, at least two of the three major expense categories have to be provided entirely or in part by the respondent.

<sup>5</sup> Gieseman, “The Consumer Expenditure Survey,” p. 9.

<sup>6</sup> In April 2000, a team of researchers from the Division of Consumer Expenditure Surveys and the Division of Price and Index Number Research, was convened to compare the CE data with data from other sources, primarily the PCE. The team’s first report describes the team charter, plans for comparing the data, and results obtained from comparing CE and PCE footwear aggregate expenditures. (See William Passero Thesia Garner, Sheila Sankaran, and Mark Vendemia, “Comparison of Estimates from the U.S. Consumer Expenditure Survey and the National Accounts Personal Consumption Expenditures: Footwear,” unpublished paper, Nov. 19, 2001).

<sup>7</sup> This methodology, which is based on the type of expenditure (for example, food, housing, or transportation) and has been used previously in official publications (most recently in *Consumer Expenditure Survey, 1998–99*, Report 955 (Bureau of Labor Statistics, November 2001)), is referred to as the “historical comparison methodology.”

<sup>8</sup> For example, Orazio P. Attanasio and Guglielmo Weber examine CE data in “Is Consumption Growth Consistent with Intertemporal Optimization? Evidence from the Consumer Expenditure Survey,” *Journal of Political Economy*, December 1995, pp. 1121–57; and Jonathan A. Parker and Christian Julliard focus on PCE nondurable expenditures in “Consumption Risk and Cross-Sectional Returns,” *Journal of Political Economy*, February 2005, pp. 185–222. Also, Daniel T. Slesnick, “Aggregate Consumption and Saving in the Postwar United States,” *Review of Economics and Statistics*, November 1992, pp. 585–97, and “Are Our Data Relevant to the Theory? The Case of Aggregate Consumption,” *Journal of Business and Economic Statistics*, January 1998, pp. 52–61, examines such adjustments to CE and PCE expenditures aimed at making the data from the two sources more comparable in an effort to estimate consumption. Finally, Jonathan Fisher and David S. Johnson, “Consumption Mobility in the United States: Evidence from Two Panel Data Sets,” unpublished manuscript (Bureau of Labor Statistics, 2004), and David S. Johnson, Timothy Smeeding, and Barbara Boyle Torrey, “Economic in equality through the prisms of income and consumption,” *Monthly Labor Review*, April 2005, use CE data to estimate the consumption of durables, nondurables, and services.

<sup>9</sup> To adjust the PCE estimates so that they refer to the same population as the CE does (that is, encompassing the noninstitutional population, those not living on a military base, and those not living overseas), the PCE aggregates would need to be multiplied by approximately 0.967 for 1997 and by 0.97 for 2002. The multiplier is derived by finding the proportion of the total U.S. population covered by the CE survey to the total population covered by the PCE. (See *Statistical Abstract of the United States: 2003*, 123rd edition (U.S. Census Bureau, 2003).)

<sup>10</sup> One of the earliest comparisons by outside researchers was Henrik S. Houthakker and Lester D. Taylor’s, *Consumer Demand in the United States: Analyses and Projections*, 2d ed. (Cambridge, MA, Harvard University Press, 1970). In this work, the authors compared 1960–61 CE data with PCE aggregate expenditures. (See also Slesnick, “Aggregate Consumption and Saving,” which cites Houthakker and Taylor.)

<sup>11</sup> For example, Attanasio and Weber, “Is Consumption Growth Consistent?” and Jonathan A. Parker and Bruce Preston, “Precautionary Saving and Consumption Fluctuations,” *American Economic Review*, September 2005, pp. 1119–43, use CE data to focus on consumption growth; Barry Bosworth, Gary Burtless, and John Sabelhaus, “The Decline in Saving: Evidence from Household Surveys,” *Brookings Papers on Economic Activity*, vol. 1991, no. 1 (1991), pp. 183–241, examine CE and PCE data with regard to the decline in savings in the United States; and Jesús Fernández-Villaverde and Dirk Krueger, “Consumption over the Life Cycle: Facts from Consumer Expenditure Survey Data,” unpublished manuscript, University of Pennsylvania and University of Frankfurt, 2004, use CE data and specify cohorts by the reference person’s age to examine consumption over the life cycle of consumer units.

<sup>12</sup> For example, see Jack E. Triplett, “Measuring Consumption: The Post-1973 Slowdown and the Research Issues,” *Federal Reserve Bank of St. Louis Review*, May–June 1997, pp. 9–42; Dennis Fixler and Ted Jaditz, “An Examination of the Difference Between the CPI and the PCE Deflator,” Working Paper 361 (Bureau of Labor Statistics, 2002); David S. Johnson and John Greenlees, “Comparison of Movements in the CPI and PCE Price Indexes,” paper presented to the Federal Economic Statistics Advisory Committee (FESAC) (Bureau of Labor Statistics, March 21, 2003); David E. Lebow and Jeremy B. Rudd, “Measurement Error in the Consumer Price Index: Where Do We Stand?” *Journal of Economic Literature*, March 2003, pp. 159–201; and Charles L. Schultze and Christopher Mackie, eds., *At What Price? Conceptualizing and Measuring Cost-of-Living and Price Indexes*, Panel on Conceptual, Measurement, and Other Statistical Issues in Developing Cost-of-Living Indexes (Washington, DC, National Academy Press, 2002). Triplett also examined the relationship between the PCE deflator and the CPI.

<sup>13</sup> Slesnick, “Aggregate Consumption and Saving.”

<sup>14</sup> Slesnick refers to this exercise as a “crude attempt at reconciling the two series” (*Ibid.*, p. 593).

<sup>15</sup> *Ibid.*, p. 594.

<sup>16</sup> Gieseman, “The Consumer Expenditure Survey.”

<sup>17</sup> Slesnick, “Aggregate Consumption and Saving,” p. 594.

<sup>18</sup> *Alternative Poverty Measures*, GAO/GGD-96–183R (General Accounting Office, 1996).

<sup>19</sup> *Ibid.*; see also “Reconciliation of PCE and Consumer Expenditure Survey Estimates of Consumer Spending,” preliminary draft (Bureau of Economic Analysis, Sept. 7, 1994).

<sup>20</sup> Nonprofit institutions serving households that are included in the PCE consist of trade unions, professional associations, clubs and fraternal organizations, educational institutions, foundations for education and research, and religious and welfare organizations. (See Charles Ian Mead, “Separate Recognition of Income and Outlays of Nonprofit Institutions Serving Households,” mimeo (Bureau of Economic Analysis, 2002).)

<sup>21</sup> Slesnick, "Are Our Data Relevant to the Theory?"

<sup>22</sup> *Ibid.*, p. 54.

<sup>23</sup> Mead, "Separate Recognition of Income and Outlays," table 1, "North American Industry Classification System (NAICS) Industries with Nonprofit Activity in Personal Consumption Expenditures." The industries listed include broadcasting and telecommunications; information and data processing services; professional, scientific, and technical services; education services; ambulatory health care services; hospitals; nursing and residential care facilities; social assistance; performing arts, spectator sports, and related industries; museums, historical sites, and similar institutions; amusement, gambling, and recreation industries; accommodations; and religious, grantmaking, civic, professional, and similar organizations.

<sup>24</sup> Charles Ian Mead, Clinton P. McCully, and Marshall B. Reinsdorf, "Income and Outlays of Households and of Nonprofit Institutions Serving Households," *Survey of Current Business*, April 2003, pp. 13–17.

<sup>25</sup> Triplett, "Measuring Consumption."

<sup>26</sup> E. Raphael Branch, "The Consumer Expenditure Survey: a comparative analysis," *Monthly Labor Review*, December 1994, pp. 47–55.

<sup>27</sup> Triplett, "Measuring Consumption," p. 16.

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

<sup>29</sup> David E. Lebow and Jeremy B. Rudd, "Measurement Error in the Consumer Price Index: Where Do We Stand?" *Journal of Economic Literature*, March 2003, pp. 159–201; quote from p. 168.

<sup>30</sup> *Ibid.*

<sup>31</sup> Charles, L. Schultze and Christopher D. Mackie, eds., *At What Price? Conceptualizing and Measuring Cost-of-Living and Price Indexes*, National Research Council Panel on Conceptual, Measurement, and Other Statistical Issues in Developing Cost-of-Living Indexes (Washington, DC, National Academy Press, 2002), p. 250.

<sup>32</sup> *Ibid.*, p. 274.

<sup>33</sup> Recommendation 9-1 reads as follows: "Before additional resources are directed toward increasing its sample size (beyond the current plan), the accuracy of the CEX should be carefully evaluated. Assessing the net advantages of using the BEA's PCE to produce the upper-level weights for the national CPI should be part of this evaluation" (Schultze and Mackie, *At What Price?* p. 274).

<sup>34</sup> Recommendation 9-2 states, "If categories can be reasonably well matched between the CPI and PCE, so that comparable item strata indexes can be created, a program should be set up to produce an experimental CPI that uses PCE-generated weights at the upper (218 item) level but that is otherwise no different from the CPI" (Schultze and Mackie, *At What Price?* p. 274).

<sup>35</sup> For example, in an e-mail communication between David Lebow of the Federal Reserve Board and John Greenlees of the Bureau of Labor Statistics on Feb. 8, 2000, concerning CPI weights based on the CE, Lebow expressed concerns about the difference in magnitude of the CE weights used for the CPI relative to those used in the production of the PCE. Concerns also were expressed by attendees of the Conference on Current and Future Developments in the Consumer Expenditure Survey, sponsored by the MacArthur Network on Inequality and Poverty in Broader Perspectives and held at Princeton University, May 19–20, 1998. Weighing in as well were the Council

of Professional Associations of Federal Statistics, which held a statistical policy seminar titled "Integrating Federal Statistical Information Processes" in Washington, DC, in November 2000; and J. Steven Landefeld, Robert Parker, and others attending the BLS Conference on Issues in Measuring Price Change and Consumption, Washington, DC, June 5–8, 2000.

<sup>36</sup> The Bureau's investigations are reflected in the work of Gieseman, "The Consumer Expenditure Survey," and Branch, "The Consumer Expenditure Survey."

<sup>37</sup> Descriptions of the CE survey and the PCE are based on various publications. (See, for example, *Personal Consumption Expenditures*, Methodology Paper Series MP-6 (Bureau of Economic Analysis, June 1990); *BLS Handbook of Methods*, Bulletin 2490 (Bureau of Labor Statistics, April 1997); and Carol S. Carson, "GNP: An Overview of Source Data and Estimating Methods," *Survey of Current Business*, July 1987, pp. 103–27.)

<sup>38</sup> For more information on BLS adjustment of the data, see Appendix B.

<sup>39</sup> The PCE population typically has been about 3 percent higher than the CE population since 1992.

<sup>40</sup> In a BLS mimeo, "CE to PCE Comparison Methodology," Thomas Pollard gives a comprehensive description of the steps followed by the Bureau to produce CE-to-PCE comparisons.

<sup>41</sup> *Consumer Expenditure Survey 1984–86*, Bulletin 2333 (Bureau of Labor Statistics, August 1989).

<sup>42</sup> For more information on selecting the appropriate source and on how annual estimates for publications are calculated, see chapter 16 of the *BLS Handbook of Methods*.

<sup>43</sup> Clint McCully, "Presentation on PCE to the CE Staff" (Bureau of Economic Analysis, Apr. 19, 2000).

<sup>44</sup> The BEA planned to continue monitoring expenditures on private health insurance reported in the CE on an annual basis as a cross-check on its own estimates (e-mail from Ernie Wilcox, Bureau of Economic Analysis, to Thesia I. Garner, Bureau of Labor Statistics, Nov. 2, 2000).

<sup>45</sup> Thesia I. Garner and Bill Passero, "Out-of-Pocket Expenditures for Private Health Insurance: An Analysis of Consumer Expenditure Survey and Medical Expenditure Panel Survey Data," mimeo (Bureau of Labor Statistics, June 1, 2001). (See Appendix A for a more detailed description.)

<sup>46</sup> See Branch, "The Consumer Expenditure Survey."

<sup>47</sup> "NIWD PCE Bridge to 1992 Input-Output Table," unpublished data sent by Greg Key of the Bureau of Economic Analysis to William D. Passero of the Bureau of Labor Statistics, Mar. 19, 2002.

<sup>48</sup> "1997 Benchmark I-O Accounts," data for BLS internal use only (Bureau of Economic Analysis, Feb. 5, 2003).

<sup>49</sup> The detailed concordance of PCE categories and CE UCC items used for this exercise is available from the authors upon request.

<sup>50</sup> In 1992, 1997, and 2002, 77 percent of all rent payments included payment of at least one of the following utilities: electricity, gas, water, and trash.

<sup>51</sup> For further information, visit the BEA Web site at [www.bea.gov](http://www.bea.gov).

## APPENDIX A: Sources that are compared with the Consumer Expenditure Survey

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*Personal Consumption Expenditures (PCE).* The principal source of independent estimates used in conjunction with the Consumer Expenditure Survey (CE) is the PCE component of the National Income and Product Accounts (NIPA) produced by the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce. The PCE measures the market value of goods and services purchased by the "personal sector," one of the four sectors covered in the NIPA. The personal sector consists of "persons resident" in the United States, where the term *persons* is defined as "individuals and the nonprofit institutions that serve them." PCE estimates of aggregate expenditures represent the market value of goods and services purchased by all persons. The BEA conducts comprehensive revisions of the NIPA at 5-year intervals, primarily to update the series with new results from the Census Bureau's quinquennial censuses and other sources used in the Accounts. These revisions may include revisions to selected methods of estimation. In addition, the BEA conducts annual revisions to the PCE that affect earlier data and that also may include changes in estimation methods.

*National Health Expenditures.* The Centers for Medicare & Medicaid Services (CMS), formerly the Health Care Financing Administration (HCFA), of the U. S. Department of Health and Human Services publishes annual data on total U.S. aggregate healthcare expenditures. This data set, called the National Health Expenditures, consists of data on expenditures by all sources in the U.S. economy, including public and private sources. The National Health Expenditures cover U.S. citizens living abroad, military personnel, and parts of the institutional population (a larger population than is covered by the CE survey). In particular, CMS data cover the nursing home population, whereas the CE does not. Also, the CMS reports out-of-pocket healthcare expenditures, which include expenditures for medical care that are not covered by personal health insurance or other sources of payment. To derive out-of-pocket estimates, the CMS uses data from administrative and industry sources, as well as CE data.

*Residential Energy Consumption Survey (RECS).* The Energy Information Administration of the U.S. Department of Energy administers the Residential Energy Consumption Survey (RECS), which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects data on energy use in occupied primary housing units. RECS data are obtained from three different sources: onsite personal interviews conducted in the housing unit; telephone interviews with the rental agents of housing units that

have any of their energy use included in their rent; and questionnaires mailed to the housing units' energy suppliers, asking them to provide the units' actual energy consumption amounts and expenditures. The universe for this sample design comprises all housing units occupied as the primary residence in the 50 States and the District of Columbia. The RECS does not cover vacant housing units, seasonal units, or second homes.

*Medical Expenditure Panel Survey.* The Medical Expenditure Panel Survey (MEPS) is published by the Agency for Health Care Research and Quality (formerly the Agency for Health Care Policy and Research) of the U.S. Department of Health and Human Services. The MEPS estimate, used to measure the cost of out-of-pocket private health insurance premiums, is based on data collected from both the household component (HC) and the insurance component (IC) of the survey, with MEPS-IC employment-based data augmented by data from the Office of Personnel Management on Federal employees. The MEPS-HC collects data on hospitalization and physician coverage only, excluding single-purpose coverage such as insurance that provides for only dental or vision healthcare needs. The MEPS-IC differs from the CE in that it is an establishment survey rather than a household survey and the collection unit is an enrollee rather than a policy. Unlike the MEPS-HC, the MEPS-IC reports premiums—both employer-paid premiums and out-of-pocket premiums paid by employees—for employer-sponsored coverage (as well as providing information on the coverage itself); thus, the data representing the portion of out-of-pocket premiums can be compared against CE data on aggregate premiums.

*Supermarket Business, Inc., and Progressive Grocer.* Food expenditure comparisons between the CE, on the one hand, and *Supermarket Business, Inc.*, and *Progressive Grocer*, on the other, were published periodically from 1987 until 1997. *Supermarket Business, Inc.*, conducted annual mail and telephone surveys of food manufacturers, packers, wholesalers, and retailers. These surveys focused on measuring total industry retail sales covering all types of food stores. *Progressive Grocer* conducted annual independent studies of the sales performance of supermarkets (grocery stores with annual food sales of \$2 million or more) in relation to other kinds of retail outlets, comparing sales by product and by category. Such outlets accounted for about 80 percent of grocery store food sales. *Supermarket Business, Inc.*, and *Progressive Grocer* subsequently merged, and the combined entity no longer provides usable food expenditure data for comparison with the CE.

## APPENDIX B: Data adjustment in the Consumer Expenditure Survey

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In determining its estimates for the Personal Consumption Expenditures (PCE), the Consumer Expenditure (CE)-PCE comparison team learned that the Bureau of Economic Analysis employs substantial "expert judgment" in its production of PCE estimates. This judgment could affect the accuracy of the estimates and therefore affect the CE-to-PCE ratio. Several of the BEA adjustments to the PCE are presented in the main text of this article.

At the same time, the CE's "expert judgment," which comes in the form of allocations and imputations, or a combination of both,

could affect the accuracy of the CE estimates, further contributing to differences between the CE and PCE aggregate expenditure estimates. Appendix table B-1 lists the percent of total expenditures that each of these "expert judgments" constitutes. The table provides information regarding the magnitude of the adjustments in the CE aggregates and suggests which categories of expenditures would be most affected, thereby influencing the CE-to-PCE ratios.

Appendix table B-1 presents expenditures and data adjustment results for 1997. As an example, 25 percent of food expenditures

is allocated, 0.6 percent is imputed, and 74.4 percent is directly reported (requiring no data adjustments).

The estimates in appendix table B-1 were computed with the use of indicator variables, or cost flags,<sup>1</sup> that are assigned to each UCC record in the CE data file to indicate whether the value was directly reported, imputed, allocated, or imputed and allocated. For this reason, grouping UCC's into the categories presented in the table may return a higher rate of adjustment for a particular category than it should. For example, one may say that a consumer unit paid  $x$  amount of money on utilities. The amount  $x$  would then be allocated to the different types of utilities on the basis of CE-developed formulas, so that each individual UCC for which an allocation was made would get a cost flag indicating that fact. Then, when the UCC's were regrouped under the utilities category, they would carry the allocation cost flags with them. The number of allocations in the utilities category would then include these expenditures (the original amount  $x$ ), even though they were directly reported as utilities. The total allocated expenditures for utilities would therefore appear to be higher than they actually are. This problem can occur in all categories for which respondents are likely to group items together.

Consequently, the estimates for allocations will be higher than the actual expenditures allocated.

## Note to Appendix B

<sup>1</sup> The cost flags are as follows:

- 0 No adjustment
- 1 One of the source fields was flagged by the Census Bureau (source flag > 0)
- 2 Manually updated
- 3 Imputation
- 4 Allocation
- 5 Imputation and allocation
- 6 Computation only
- 7 Computation and imputation
- 8 Computation and allocation
- 9 Computation, imputation and allocation
- Q Manual imputation
- R Manual allocation
- S Section 18 special processing

**Appendix table B-1. Percentage of data affected by data adjustment procedures, by category of expenditures, 1997**

Category of expenditures	Total expenditures (millions of dollars)	Imputations	Allocations	Imputations and allocations	Directly reported
Food .....	\$505,791	0.6	25.0	0.0	74.4
Food at home .....	303,340	.3	21.4	.0	78.3
Food away from home .....	202,451	1.0	30.4	.0	68.5
Alcoholic beverages .....	22,401	.3	12.0	.0	87.6
Rent, utilities, and public service .....	483,668	5.9	10.1	.2	83.9
Rent .....	228,987	11.0	3.5	.0	85.4
Utilities .....	169,265	1.2	24.0	.5	74.3
Telephone .....	85,416	1.2	.0	.0	98.8
Household operations .....	57,905	.8	3.1	.0	96.0
Housekeeping supplies .....	47,914	.0	6.4	.0	93.6
Household furnishings and equipment .....	159,560	1.1	10.2	.1	88.6
Household textiles .....	8,353	.6	6.3	.0	93.1
Furniture .....	40,894	.9	26.7	.3	72.1
Floor coverings .....	8,198	.3	5.3	.0	94.4
Major appliances .....	17,861	4.1	4.8	.4	90.7
Small appliances, miscellaneous household equipment .....	84,255	.7	4.2	.0	95.1
Apparel and services .....	175,752	.1	15.3	.1	84.4
Men's and boys' .....	42,883	.2	16.6	.2	83.0
Women's and girls' .....	71,670	.2	19.4	.2	80.2
Children under 2 years .....	8,117	.1	20.7	.1	79.2
Footwear .....	33,126	.0	11.7	.0	88.3
Other apparel products and services .....	19,956	.0	1.3	.0	98.6
Transportation .....	681,669	7.9	3.7	.0	88.4
Vehicle purchase .....	288,830	13.6	.0	.0	86.4
Gas and motor oil .....	115,872	1.9	.2	.0	97.9
Other vehicle expenses .....	235,459	4.6	4.0	.1	91.3
Public transportation .....	41,508	3.8	37.4	.2	58.6
Healthcare .....	194,300	5.3	3.1	.1	91.4
Health insurance .....	93,042	10.2	.0	.0	89.8
Medical services .....	56,000	1.0	6.4	.4	92.3
Drugs .....	33,804	.7	3.0	.0	96.3
Medical supplies .....	11,389	.7	12.8	.4	86.1
Entertainment .....	182,147	3.8	4.3	.1	91.7
Fees and admissions .....	49,699	4.0	10.8	.5	84.7
Televisions, radios, and sound equipment .....	60,946	1.9	1.0	.0	97.1

**Appendix table B-1. Continued—Percentage of data affected by data adjustment procedures, by category of expenditures, 1997**

Category of expenditures	Total expenditures (millions of dollars)	Allocations	Imputations	Imputations and allocations	Directly reported
Pets, toys, and playground equipment .....	25,222	.1	2.6	.0	97.3
Other entertainment supplies and equipment .....	46,281	8.1	2.8	.0	89.1
Personal care products and services .....	55,644	5.1	1.0	.0	93.9
Reading .....	17,270	5.7	.0	.0	94.3
Education .....	60,241	1.7	3.8	.0	94.5
Tobacco .....	27,839	3.7	.1	.0	96.2
Miscellaneous .....	58,846	14.5	2.2	.0	83.2
Life and other personal insurance .....	39,975	7.5	.0	.0	92.5

**Appendix table C-1. CE-to-PCE ratios of aggregate expenditures, historical methodology<sup>1</sup>**

Published title	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Food, total .....	0.77	0.80	0.77	0.78	0.75	0.78	0.76	0.74	0.75	0.74	0.72
Food at home .....	.69	.70	.67	.69	.67	.71	.69	.72	.73	.74	.72
Food away from home .....	.95	1.00	.97	.95	.89	.92	.88	.77	.77	.73	.73
Alcoholic beverages .....	.44	.47	.41	.43	.38	.38	.36	.35	.37	.32	.33
Rent, utilities, etc. ....	.95	.84	.92	.92	.92	.92	.91	.89	.92	.90	.92
Rented dwellings, total .....	.95	.85	.92	.93	.95	.95	.92	.88	.94	.91	.93
Utilities, fuels, and related .....	.94	.82	.92	.90	.88	.88	.89	.90	.90	.89	.90
Telephone services .....	.94	.83	.90	.91	.94	.94	.95	.95	.88	.88	.87
Household operations .....	.91	.82	.83	.88	.93	.91	.80	.85	.82	.76	.76
Housekeeping supplies .....	.58	.61	.59	.59	.59	.61	.60	.61	.60	.54	.51
Household furnishings .....	.76	.68	.71	.69	.68	.66	.67	.72	.68	.67	.67
Apparel and services .....	.70	.68	.64	.64	.62	.62	.62	.65	.62	.58	.56
Men and boys .....	.77	.75	.71	.70	.70	.68	.66	.70	.71	.64	.57
Women and girls .....	.69	.70	.64	.65	.61	.65	.66	.69	.63	.59	.59
Children under 2 years .....	1.03	1.02	1.08	1.06	1.08	1.22	1.21	1.07	.94	.95	.94
Footwear .....	.77	.73	.64	.67	.67	.60	.69	.75	.70	.72	.71
Other apparel .....	.54	.49	.51	.50	.46	.44	.41	.46	.43	.39	.37
Transportation .....	.95	.85	.98	.86	.91	.87	.83	.90	.86	.84	.87
Vehicle purchases .....	1.17	1.07	1.22	1.03	1.15	1.09	1.02	1.16	1.09	1.06	1.11
Gasoline and motor oil .....	1.03	.92	1.10	1.00	1.03	.98	.93	.92	.89	.88	.89
Other vehicle expenses .....	.62	.51	.58	.56	.55	.54	.55	.62	.61	.58	.59
Maintenance and repairs .....	.62	.51	.57	.55	.54	.53	.55	.62	.60	.57	.56
Vehicle rental and other .....	.59	.51	.65	.59	.59	.60	.53	.64	.66	.64	.66
Public transportation .....	.65	.59	.61	.61	.59	.57	.57	.61	.59	.59	.65
Entertainment .....	.68	.64	.65	.64	.65	.63	.59	.61	.59	.60	.57
Fees and admissions .....	.80	.69	.72	.73	.71	.67	.61	.59	.54	.56	.58
Televisions, radios, sound .....	.73	.65	.68	.63	.65	.63	.65	.67	.68	.75	.66
Pets, toys, and playground .....	.71	.66	.70	.70	.68	.66	.67	.62	.60	.60	.55
Other entertainment .....	.47	.52	.51	.51	.57	.57	.44	.53	.52	.45	.42
Personal care .....	.73	.70	.68	.67	.64	.66	.62	.67	.63	.60	.60
Reading .....	.59	.55	.58	.55	.52	.54	.51	.53	.53	.51	.47
Tobacco products, etc. ....	.70	.60	.67	.63	.66	.65	.65	.64	.57	.55	.56
Miscellaneous .....	.31	.29	.30	.29	.29	.29	.26	.26	.26	.22	.24
		1995	1996	1997	1998	1999	2000	2001	2002	1984-91	1992-2002
Food, total .....		0.72	0.75	0.73	0.72	0.73	0.71	0.71	0.70	0.77	0.73
Food at home .....		.73	.73	.72	.68	.69	.69	.67	.66	.70	.71
Food away from home .....		.71	.78	.75	.78	.79	.75	.76	.75	.92	.75
Alcoholic beverages .....		.33	.36	.35	.34	.34	.37	.34	.36	.40	.35
Rent, utilities, etc. ....		.80	.89	.90	.89	.88	.85	.88	.86	.91	.88
Rented dwellings, total .....		.80	.90	.90	.89	.89	.86	.87	.84	.92	.88
Utilities, fuels, and related .....		.80	.88	.90	.90	.87	.84	.91	.87	.89	.88
Telephone services .....		.79	.87	.82	.81	.78	.77	.79	.84	.92	.83
Household operations .....		.62	.69	.68	.64	.75	.73	.81	.78	.87	.73
Housekeeping supplies .....		.52	.54	.53	.52	.53	.51	.53	.52	.60	.53
Household furnishings .....		.63	.63	.66	.67	.59	.57	.55	.58	.70	.63

See note at end of table.

**Appendix table C-1. Continued— CE-to-PCE ratios of aggregate expenditures, historical methodology<sup>1</sup>**

Published title	1985	1986	1987	1988	1989	1990	1991	1992	1984-91	1992-2002
Apparel and services .....	.54	.58	.55	.51	.50	.51	.49	.49	.65	.54
Men and boys .....	.59	.56	.51	.50	.51	.52	.51	.49	.71	.56
Women and girls .....	.59	.64	.61	.56	.54	.55	.54	.57	.66	.58
Children under 2 years .....	.92	.96	.87	.82	.71	.84	.82	.83	1.10	.87
Footwear .....	.76	.79	.81	.70	.72	.80	.70	.71	.69	.74
Other apparel .....	.29	.36	.35	.32	.33	.28	.27	.25	.48	.33
Transportation .....	.73	.82	.77	.77	.76	.75	.77	.77	.89	.79
Vehicle purchases .....	.90	1.05	.95	.94	.97	.97	.98	.96	1.11	1.00
Gasoline and motor oil .....	.82	.89	.88	.92	.85	.82	.84	.86	.99	.87
Other vehicle expenses .....	.51	.53	.54	.51	.49	.47	.49	.49	.57	.53
Maintenance and repairs .....	.48	.48	.49	.45	.44	.40	.42	.43	.56	.48
Vehicle rental and other .....	.59	.65	.66	.65	.61	.65	.65	.62	.59	.64
Public transportation .....	.54	.71	.58	.58	.51	.50	.52	.54	.60	.57
Entertainment .....	.50	.56	.55	.52	.51	.49	.49	.52	.64	.54
Fees and admissions .....	.50	.52	.51	.49	.47	.49	.48	.47	.69	.51
Televisions, radios, sound .....	.57	.61	.61	.56	.59	.56	.58	.59	.66	.61
Pets, toys, and playground .....	.52	.55	.52	.50	.50	.46	.45	.48	.68	.52
Other entertainment .....	.39	.54	.56	.50	.44	.41	.39	.49	.52	.46
Personal care .....	.56	.70	.68	.50	.50	.67	.57	.62	.67	.60
Reading .....	.39	.41	.41	.40	.38	.34	.33	.34	.55	.41
Tobacco products, etc. ....	.52	.52	.52	.50	.45	.44	.40	.40	.65	.49
Miscellaneous .....	.21	.22	.22	.19	.19	.15	.16	.17	.29	.20

<sup>1</sup> CE-to-PCE ratio, 1984–2002, for the categories in table 20 of *Consumer Expenditure Survey, 1998–1999*, p. 37.

**Appendix table D-1. Comparison of 2002 aggregate Consumer Expenditures with Personal Consumption Expenditures based on 1997 PCE benchmark**

[In millions of dollars]

PCE categories	Raw aggregates		
	PCE	CE	CE-to-PCE ratio
Total durables, nondurables, and services .....	\$7,376,059	\$4,457,246	0.60
Durable goods .....	916,170	693,653	.76
Motor vehicles and parts .....	426,144	436,625	1.02
New autos .....	101,649	111,924	1.10
Net purchases of used autos .....	58,392	112,513	1.93
Other motor vehicles .....	215,387	195,506	.91
Trucks, new and net used .....	203,461	183,394	.90
Recreational vehicles .....	11,926	12,112	1.02
Tires, tubes, accessories, and other parts .....	50,716	16,682	.33
Furniture and household equipment .....	319,917	180,432	.56
Furniture, including mattresses and bedsprings <sup>1</sup> .....	68,288	46,171	.68
Kitchen and other household appliances <sup>1</sup> .....	31,537	33,666	1.07
China, glassware, tableware, and utensils .....	31,843	8,660	.27
Video and audio goods, including musical instruments, and computer goods <sup>1</sup> .....	119,062	51,134	.43
Video and audio goods, including musical instruments <sup>1</sup> .....	74,898	33,617	.45
Computers, peripherals, and software <sup>1</sup> .....	44,164	17,517	.40
Other durable house furnishings (for example, floor coverings, clocks, lamps, and furnishings; blinds, rods, and other; writing equipment, handtools, tools, hardware, and supplies) .....	69,187	40,801	.59
Other durable goods .....	170,109	76,596	.45
Ophthalmic products and orthopedic appliances .....	21,642	8,122	.38
Wheel goods (including bicycles and motorcycles), sports (also includes guns) and photographic equipment, boats, and pleasure aircraft .....	60,559	43,976	.73
Jewelry and watches .....	51,039	11,577	.23
Books and maps .....	36,869	12,921	.35

See notes at end of table.

Appendix table D-1.

Continued—Comparison of 2002 Aggregate Consumer Expenditures with Personal Consumption Expenditures based on 1997 PCE benchmark (not adjusted for population differences)

[In millions of dollars]

PCE categories	Raw aggregates		
	PCE	CE	CE-to-PCE ratio
Nondurable goods .....	2,080,101	1,212,863	.58
Food .....	1,005,828	659,973	.66
Food purchased for off-premise consumption <sup>1</sup> .....	615,603	389,640	.63
Alcoholic beverages purchased for off-premise consumption <sup>1</sup> .....	75,461	25,497	.34
Purchased meals and beverages <sup>1</sup> .....	380,021	267,770	.70
Alcoholic beverages in purchased meals <sup>1</sup> .....	40,591	16,487	.41
Food supplied to employees: civilians .....	9,052	2,563	.28
Food supplied to employees: military .....	676	( <sup>2</sup> )	...
Food produced and consumed on farms .....	476	( <sup>2</sup> )	...
Clothing and shoes .....	302,114	170,775	.57
Shoes <sup>1</sup> .....	49,281	34,960	.71
Women's and children's (girls' and infants') clothing and accessories, except shoes <sup>1</sup> .....	149,204	87,889	.59
Men's and boys' clothing and accessories, except shoes <sup>1</sup> .....	92,586	45,769	.49
Standard clothing issued to military personnel .....	343	( <sup>2</sup> )	...
Sewing goods for males and females .....	6,501	1,486	.23
Luggage for males and females .....	4,199	671	.16
Gasoline, fuel oil, and other energy goods <sup>1</sup> .....	177,467	148,800	.84
Other nondurable goods .....	594,692	233,315	.39
Tobacco products <sup>1</sup> .....	89,122	35,668	.40
Toilet articles and preparations <sup>1</sup> .....	54,154	31,144	.58
Semidurable house furnishings .....	37,390	16,258	.43
Cleaning and polishing preparations, and miscellaneous household supplies and paper products .....	66,636	46,275	.69
Drug preparations and sundries .....	213,034	57,980	.27
Nondurable toys and sport supplies .....	58,955	16,107	.27
Stationery and writing supplies .....	18,077	14,609	.81
Net foreign remittances .....	4,035	( <sup>2</sup> )	...
Magazines, newspapers, and sheet music .....	35,273	9,108	.26
Flowers, seeds, and potted plants .....	18,016	6,166	.34
Services .....	\$4,379,788	\$2,550,730	0.58
Housing and household operations .....	1,553,754	1,647,839	1.06
Owner-occupied dwellings <sup>1</sup> .....	832,479	1,014,126	1.22
Rent and utilities, excluding telephone <sup>1</sup> .....	466,483	424,634	.91
Tenant-occupied nonfarm dwellings .....	258,677	240,872	.93
Electricity .....	111,748	109,987	.98
Gas .....	40,838	36,967	.91
Water and other sanitary services .....	55,220	36,808	.67
Other lodging <sup>1</sup> .....	53,633	37,333	.70
Telephone and telegraph .....	128,259	107,258	.84
Domestic service <sup>1</sup> .....	16,754	8,958	.53
Other household operations (for example, moving and storage, household insurance, rug and furniture cleaning, electrical repair, reupholstery and furniture repair, postage, household operation services not elsewhere classified) .....	56,146	55,530	.99
Transportation <sup>1</sup> .....	287,990	252,818	.88
Repair, greasing, washing, parking storage, rental, and leasing ..	185,992	107,196	.58
Bridge, tunnel, ferry tolls .....	5,829	1,624	.28
Insurance .....	45,842	100,168	2.19
Mass transit systems .....	9,000	7,266	.81
Taxicab .....	3,384	2,833	.84
Railway .....	573	1,804	3.15
Bus .....	2,336	1,287	.55
Airline .....	28,113	27,306	.97
Other (including water passenger; passenger transportation arrangement; limousine service; other local transportation; part of Amtrak passenger, trucking, and courier services, except air) .....	6,921	3,334	.48

See notes at end of table.

**Appendix table D-1. Continued—Comparison of 2002 aggregate Consumer Expenditures with Personal Consumption Expenditures based on 1997 PCE benchmark**

[In millions of dollars]

PCE categories	Raw aggregates		
	PCE	CE	CE-to-PCE ratio
Medical care .....	1,210,272	197,331	.16
Physicians .....	278,304	16,539	.06
Dentists .....	72,162	25,447	.35
Other professional services .....	189,695	13,164	.07
Hospitals .....	477,141	9,875	.02
Nursing homes .....	96,873	1,397	.01
Health insurance .....			
Medical care and hospitalization health insurance .....	79,721	130,909	1.64
Income loss insurance .....	1,999	( <sup>3</sup> )	...
Workers' compensation .....	14,377	( <sup>3</sup> )	...
Recreation .....	299,556	151,663	.51
Admissions to all events <sup>1</sup> .....	34,583	21,888	.63
Motion picture theaters, theatre, opera, and entertainment .....	21,091	16,129	.76
Spectator sports .....	13,492	5,759	.43
Radio and television repair .....	4,034	360	.09
Clubs and fraternal organizations .....	21,051	12,098	.57
Commercial participant amusements .....	78,332	21,032	.27
Parimutuel net receipts .....	5,314	5,491	1.03
Other (including pets and pet services, excluding vets; veterinarians; cable tv; film developing; photo studios; sporting and recreational camps; high school recreation; lotteries; videocassette rental; commercial amusements not elsewhere classified) .....	151,075	90,794	.60
Personal care <sup>1</sup> .....	92,893	43,015	.46
Cleaning, storage, and repair of clothing and shoes .....	15,784	13,501	.86
Barbershops, beauty parlors, and health clubs .....	41,637	27,893	.67
Other (including watch, clock, and jewelry repair; miscellaneous personal services) .....	35,472	1,621	.05
Personal business .....	552,124	40,022	.07
Brokerage charges and investment counseling .....	75,694	( <sup>3</sup> )	...
Bank service charges, trust services, and safe deposit box rental .....	75,502	3,652	.05
Services furnished without payment by financial intermediaries except life insurance carriers .....	\$193,684	( <sup>3</sup> )	...
Expense of handling life insurance and pension plans .....	84,750	( <sup>3</sup> )	...
Legal services <sup>1</sup> .....	71,258	14,910	.21
Funeral and burial expenses <sup>1</sup> .....	14,633	10,534	.72
Other personal business (including labor union expenses, professional association expenses, employment agency expenses, money orders, classified ads, tax return preparation services, personal business services not elsewhere classified) .....	36,603	10,926	.30
Education and research .....	190,736	93,658	.49
Higher education .....	103,853	52,716	.51
Nursery, elementary, and secondary schools .....	38,310	38,080	.99
Elementary and secondary schools .....	28,188	14,455	.51
Nursery schools .....	10,122	23,625	2.33
Other education and research .....	48,573	2,862	.06
Commercial and vocational schools .....	33,259	( <sup>3</sup> )	...
Foundations and nonprofit research .....	15,314	( <sup>3</sup> )	...
Religious and welfare activities .....	202,882	124,384	.61
All contributions, including religion (not a PCE category) .....	...	110,900	...
Political organizations .....	4,149	( <sup>3</sup> )	...
Museums and libraries .....	8,524	( <sup>3</sup> )	...
Foundations to religion and welfare .....	11,842	( <sup>3</sup> )	...
Social welfare .....	125,853	13,484	.11
Childcare .....	30,319	7,107	.23
Social welfare (including membership organizations, job training and vocational rehabilitation services, residential care, individual and family services, social services not elsewhere classified, civic-social-fraternal associations) ...	95,535	6,377	.07
Religion .....	52,514	( <sup>3</sup> )	...
Net foreign travel .....	-10,418	( <sup>3</sup> )	...

<sup>1</sup> Comparable CE and PCE categories.<sup>2</sup> Category not within the scope of the CE survey.<sup>3</sup> The CE survey does not collect data at the indicated level of detail for this category.



## Interarea price levels: an experimental methodology

*Differences in relative price levels for areas of the United States can be estimated with a modified Country-Product-Dummy (CPD) method often used in international comparisons of the purchasing power of currencies; CPI observations and CE weights are used to estimate experimental price level differentials for 2003 and 2004*

Bettina H. Aten

Although the Consumer Price Index (CPI) survey is not designed as an interarea survey, it is possible to use its price observations and sampling weights to obtain estimates of area price levels for various categories of consumer expenditure. Combining these estimates across the expenditure categories produces an experimental index of the price level differences for the areas. This was first done some 15 years ago by Mary Kokoski, Patrick Cardiff, Brent Moulton, and Kim Zieschang using 1988–89 prices, and more recently by Bettina Aten using 2003 prices.<sup>1</sup> This article shows a shortcut approach for calculating the 2003 interarea prices and repeats the exercise for 2004. It also describes the methodology, presents the detailed results for 2003, and provides a comparison with the 2004 results.

### General methodology and data

The headline CPI (the CPI-U) measures the average price change for urban consumers, who comprise approximately 87 percent of the total U.S. population. The CPI collects prices in selected urban areas throughout the country from about 23,000 retail and service establishments. In addition, data on rents are collected for about 50,000 renter-occupied housing units.<sup>2</sup> Each price observation has a reference date and represents a good or service that is uniquely identified by a set of characteristics, including the geographic area.

Not all areas have the same goods and services priced; rather, items are selected within categories to represent those sold in each area. Each observation also has a weight. The weight is an estimate of the amount of consumer expenditure the observation represents. In other contexts this is called the representativity<sup>3</sup> of the price in the framework of the probability sample from which it is drawn.

Because there are multiple quotes for most observations, there are in total more than 1 million price quotes per year. Nonrent items are priced monthly or bimonthly; for rents, there are two quotes per year for each dwelling, taken 6 months apart. (See table 1.) Due to the multiple pricings, there are approximately 245,000 unique annual observations, each identified by outlet, quote code, and version. The price of these unique observations is the geometric average of all of its prices collected over the year.

The CPI is organized in a four-tier system of increasing detail: major group, expenditure class, item stratum, and entry level item (ELI). Many ELI's make use of a fifth tier called a cluster. These observations are organized into eight groups of goods and services: housing, transportation, food and beverages, education, recreation, medical, apparel, and other. Table 1 also shows the number of item strata in each group. An example of an item stratum within the housing group is major appliances. However, the actual price observations are on

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**Table 1.** Distribution of price observations by major expenditure group, 2003

Major expenditure group		Observations (in thousands)		Weight (percent)	Item strata levels	Number of regressions	
		Original	Unique			Long	Shortcut
	Total .....	1,079	245	100	211	373	72
1	Housing (including rents) .....	236	83	42	36	102	16
2	Transportation .....	118	24	17	21	25	8
3	Food and beverages .....	381	57	15	62	130	5
4	Education .....	54	9	6	17	20	8
5	Recreation .....	77	20	6	26	29	14
6	Medical .....	84	14	6	14	9	4
7	Apparel .....	86	30	4	20	34	10
8	Other .....	43	8	4	15	24	7

specific major appliances such as refrigerators, washers, dryers, and so forth, called ELIS. An item stratum corresponds to the lowest level of detail for which expenditure weights are available in all 38 geographic areas and is therefore the target level of the estimation process described in the next paragraph. The two columns in table 1 labeled “Number of regressions” are explained below.

*Step one: estimating price parities (item stratum “prices” in each area).* The first step of the estimation process consists of obtaining price levels, also known as price parities, for each item stratum in each geographic location, such as flour in Boston or women’s shoes in Chicago. Price parities refer to the predicted dollar value of an item stratum with particular characteristics, while price levels are generally expressed relative to one area, or the average of all areas.<sup>4</sup> For example, suppose the estimated price parity for an ounce of white flour in a 1 pound bag sold in a supermarket in Philadelphia is \$0.01, and in Honolulu, \$0.02. If the average price across all areas is \$0.015, the price level for flour in Philadelphia will be 0.67 and for Honolulu, 1.33.

The price parities are obtained from a hedonic regression that has the log of the observed prices as the dependent variable, and the geographic areas, outlet types, and product characteristics as independent variables. The coefficients are estimated using a weighted least squares regression where the weights are the quote weights for each price observation.<sup>5</sup> This is shown in equation (1) which is run separately for each stratum.

$$\ln P_{ijn} = \sum_{i=1}^M \alpha_i A_i + \sum_{j=1}^J \sum_{n=1}^N \beta_{jn} Z_{jn} + \varepsilon_{ijn} \quad (1)$$

where:

$(A_i, Z_{jn})$  are two sets of dummy variables with  $i=1, \dots, M$  (geographic areas);  $j=1, \dots, J$  (classifications); and  $n=1, \dots, N$  (characteristic values).

Because the equation is overidentified,

$\beta_{jn} = 0$  (for one arbitrarily chosen  $n=1, \dots, N$  within each  $j$ ).

The antilogarithm of each  $(\alpha_i)$  is area  $i$ ’s price parity,<sup>6</sup> (the average price of the base item) and the antilog of each  $\beta_{jn}$  is the factor by which the price of the item differs from its base value. Each estimated regression results in a set of 38 price parities, the 38 antilog  $(\alpha_i)$ ’s.

For example, a regression analysis using equation (1) can be run on item stratum FX01: alcoholic beverages away from home. The four classification variables for this item stratum are cluster, outlet type, serving time, and serving size. The cluster variable consists of three values or products—beer, ale, and malt products; wine products; and distilled alcohol products—thus  $N_1=3$ . Within outlet types there are 16 different types, hence  $N_2=16$ . Serving time has two values: “happy hours” or “non-happy hours” ( $N_3=2$ ), and lastly, serving size was coded into three values: bottle, multiple serving, and single serving ( $N_4=3$ ). Because the equation is overidentified, one value from each characteristic is arbitrarily chosen to be the base and set to 0, leaving a total of 20  $\beta_{jn}$ ’s to be estimated.

One might expect interaction between some of these characteristics, such as outlet type and serving time, or cluster and serving size. The general procedure followed here is to keep the model specification simple because of the sheer number of characteristics in the CPI. In instances when the number of observations for an item stratum was sufficiently large, such as for airline travel, more complex specifications were tested.

Under the “long” method reported by Aten,<sup>7</sup> a total of 373 regressions (See table 1.) at the item stratum level or below were estimated for 2003; this number, obviously, exceeds the number of item strata (211). The four strata for medical insurance prices were excluded from this article. Many item strata are subdivided into multiple ELI’s or clusters, and the regressions were run at the most detailed level possible, hence, the larger number of regressions. In addition, there

are 25 item strata labeled “other” that have weights but no price observations. These are assigned a price level equal to the weighted geometric average of the price levels obtained from the regressions within the same expenditure class. The long study therefore aggregated 398 categories (373 + 25) for each area.

However, for the 38 metropolitan levels, data on expenditures from the Consumer Expenditure Survey (CE) are available only at the item stratum level, so if more detailed ELI or cluster price levels were obtained, they were averaged to the item stratum level for the nonfood strata. For the food expenditure category, the more detailed prices and uses were kept and expenditures from the region level, which are available, were allocated to the area level.<sup>8</sup>

In the previous BLS study by Kokoski, Cardiff, and Moulton, the regressions included all the characteristics for all items—a kitchen sink approach that may have led to overparameterization in some models.<sup>9</sup> In contrast, this study attempts to evaluate each individual regression, and to include the characteristics recommended by the CPI in their documentation, in the hope of discarding irrelevant variables and producing more efficient estimates of the area coefficients.<sup>10</sup> This slower, one-at-a-time regression approach may limit the operational feasibility of implementing annual estimates, and a

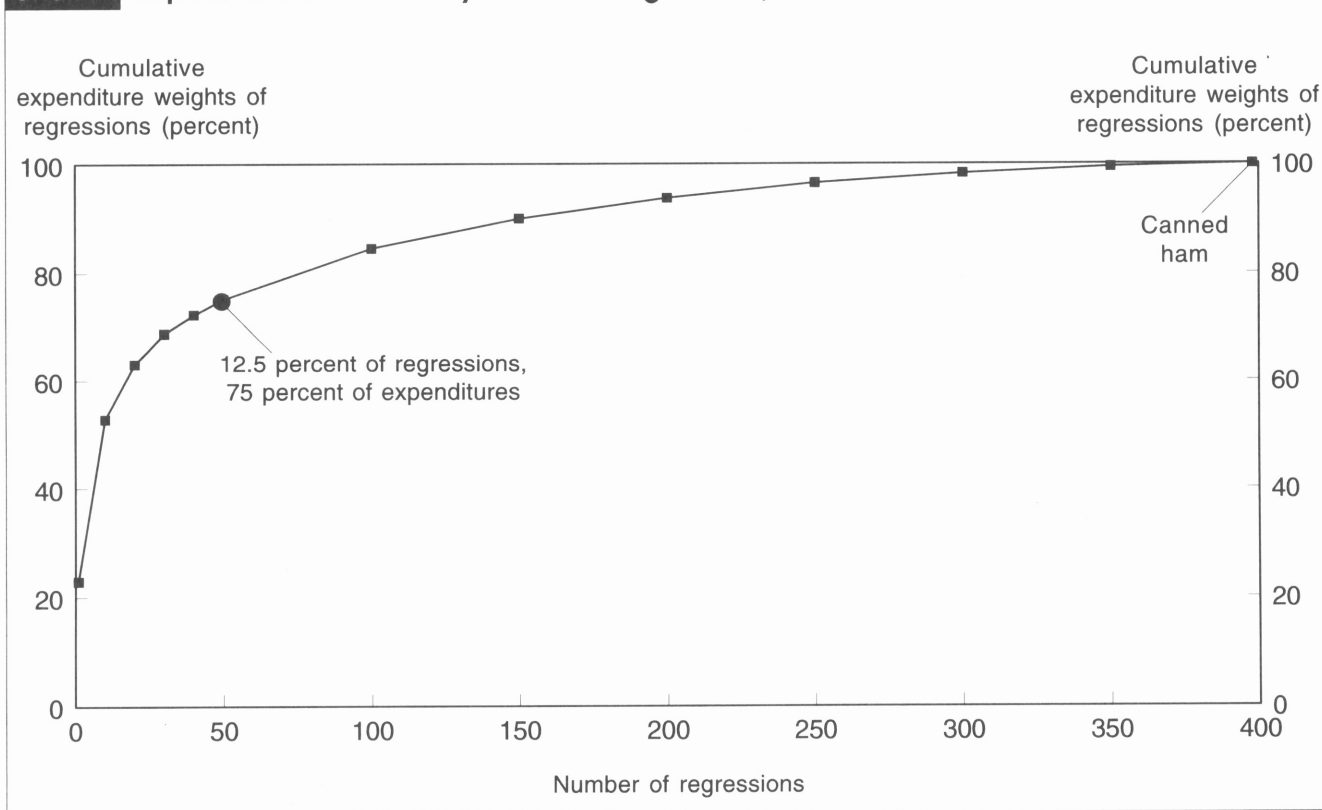
shortcut approach that reduced the number of estimated regressions (last column in table 1) is discussed below.

*Shortcut estimates.* If the 398 item categories of the “long” method are ranked by their weights, the top 50 account for nearly three-quarters of the total expenditure weight and the top 100 for 85 percent of the total weight. The contribution of any 1 item stratum whose weight was below the top 100 was less than 0.13 percent, with the smallest weight (0.004 percent) going to canned ham, a cluster in the food group. (See chart 1.)

Comparisons were made between the overall price levels obtained using the full set of 373 regressions and an abbreviated set of the top 50 regressions (ranked by their expenditure weights). Differences were small, in the range of 5 percentage points, with a maximum of 2.9 percentage points and a minimum of -2.1 percentage points for any given area. Thus, reducing the number of detailed hedonic regressions by a factor of eight does not appear to significantly affect the overall results.<sup>11</sup> Further, a slight variation of this shortcut was tested that produced even tighter results, and this is the version described here.

Instead of doing all possible regressions (at ELI or cluster level) and then ranking them, the top 50 were chosen based on their 2001–02 weight from the CE. Regression analyses

**Chart 1. Expenditure distribution by number of regressions, 2003**



were run on these 50 item strata, which represent 77 percent of total expenditure weights across all areas. One advantage of choosing item strata first, rather than regressions first, is that the item strata remain the same over a 2-year period, and are generally stable in the short run, so it is not necessary to redo all regressions every year in order to rank the top 50.

For the remaining item strata, price levels were obtained from a single weighted regression with only areas and ELI's (and clusters, when available) as independent variables. For example, item stratum FB01, bread, has only one ELI and two clusters: white bread and bread other than white. Thus, although there are different varieties, brands, and packaging of breads within each type, and they are sold in a wide range of outlets, only a dummy variable for cluster is entered as a classification variable in the regression. This is a weighted version of the basic Country Product Dummy (CPD) approach and is shown in equation (2).<sup>12</sup> It is a simpler variation of equation (1), and is also estimated for each item stratum, but the difference is that instead of entering outlet type, brand, and other classification variables, only the ELI or cluster type is used.

$$\ln P_{ij} = \sum_{i=1}^M \alpha_i A_i + \sum_{j=1}^J \beta_j Z_j + \varepsilon_{ij} \quad (\text{for each item stratum } k) \quad (2)$$

where:

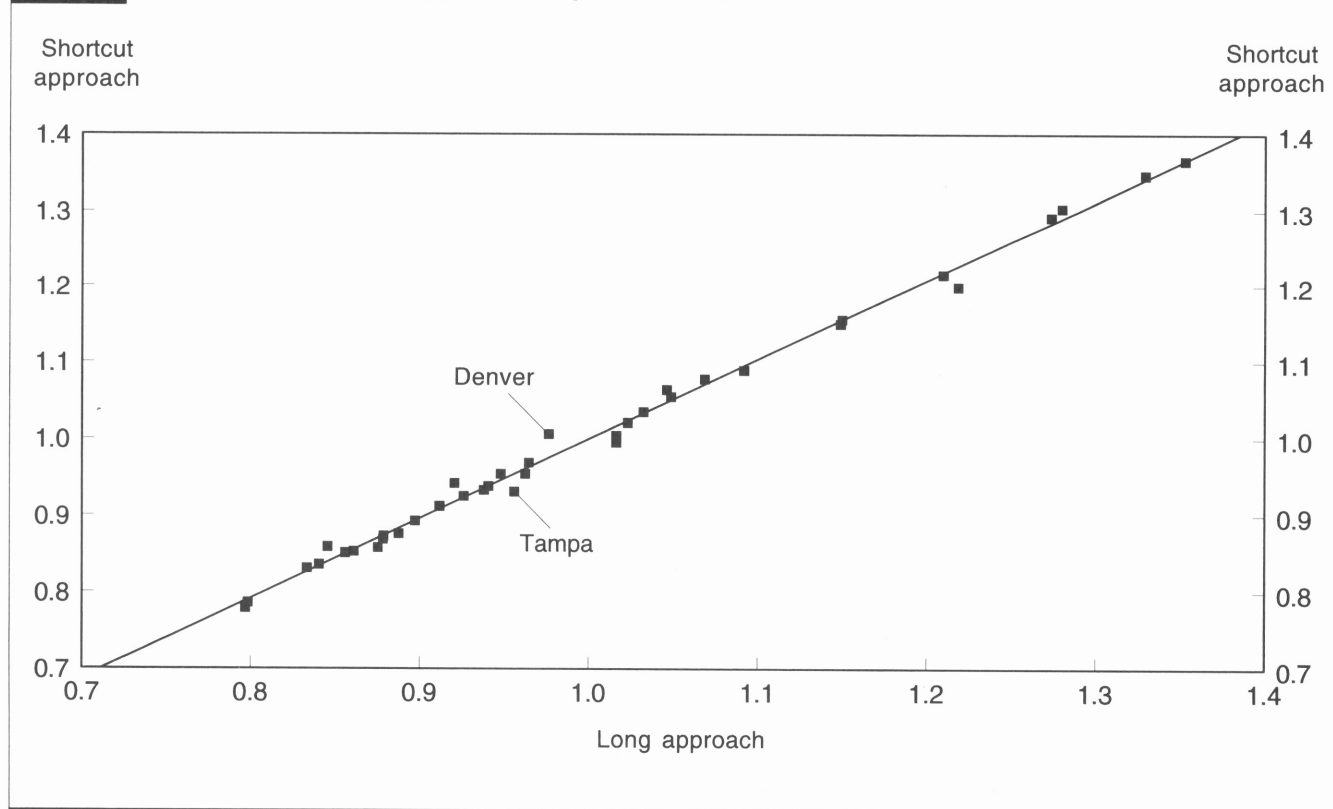
$(A_i, Z_j)$  are two sets of dummy variables with  $i = 1, \dots, M$  (geographic areas) and  $j = 1, \dots, J$  (ELI/clusters).

Because the equation is overidentified,  $\beta_j = 0$  (for any one arbitrarily chosen  $j$ ).

Differences between the original estimates and this shortcut approach's estimates remained small, 2.5 and -3.0 percentage points between the price levels. The results are discussed in more detail later in the article.

*Step two: estimating aggregate price levels.* The second step—for both long and shortcut approaches—consists of aggregating the item stratum price parities for each metropolitan area into an overall price level that extends across all expenditure headings. The aggregation chosen here is known as a variation of the CPD approach similar to equation (2). It consists of a weighted least squares regression and is shown in equation (3).<sup>13</sup> The expenditure weights are the annual dollar expenditures from the 2001–02 CE, in percentage, or share-weight form.<sup>14</sup>

**Chart 2. Long versus shortcut approach to price levels, 2003**



$$\ln P_{ik} \{ = (\alpha_i)_k \} = \sum_{i=1}^M \lambda_i A_i + \sum_{k=1}^K \delta_k X_k + \varepsilon_{i,k} \quad (3)$$

where:

$(A_i, X_k)$  are two sets of dummy variables with  $i=1, \dots, M$  (geographic areas) and  $k=1, \dots, K$  (item strata).

Because the equation is overidentified,  $\delta_k = 0$  (for one arbitrarily chosen  $k$ ).

The dependent variable ( $\ln P_{ik}$ ) is now the predicted price level ( $\alpha_i$ ) estimated for each item stratum  $k$  from equation (1) or equation (2) in the previous step, and the independent variables are the areas and item strata themselves. The

interpretation of the coefficients is similar to that of the first step: the price parity of area  $i$  is the antilogarithm of  $\lambda_i$ . The overall price level of area  $i$  is the ratio of this antilog relative to the U.S. average of the antilogs of the  $\lambda_i$ 's.

### Detailed results: 2003

Price level differences range from a drop of 0.03 relative to the U.S. average in Tampa to an increase of 0.03 for Denver when using the shortcut approach. (See table 2.) In general, areas with low price levels were slightly lower using the shortcut and areas with high price levels were slightly higher so that the range increased.

**Table 2. Area price levels, 2003: long versus shortcut approach**

Area name	Long	Short	Difference: long - short	Long rank	Short rank	Difference: long rank- short rank
Philadelphia .....	1.02	1.00	0.02	15	16	-1
Boston .....	1.15	1.16	-0.01	7	7	0
Pittsburgh .....	.83	.83	.00	36	36	0
New York City .....	1.27	1.29	-0.02	4	4	0
New York suburbs .....	1.28	1.30	-0.02	3	3	0
New Jersey suburbs .....	1.15	1.15	.00	8	8	0
Chicago .....	1.03	1.04	-0.01	13	13	0
Detroit .....	.94	.94	.00	22	22	0
St. Louis .....	.85	.86	-0.01	34	31	3
Cleveland .....	.88	.87	.01	30	30	0
Minneapolis .....	1.02	1.00	.02	16	17	-1
Milwaukee .....	.90	.89	.01	27	27	0
Cincinnati .....	.88	.86	.02	31	32	-1
Kansas City .....	.86	.85	.01	32	33	-1
District of Columbia .....	1.07	1.08	-0.01	10	10	0
Baltimore .....	.96	.95	.01	19	20	-1
Dallas .....	.96	.97	-0.01	18	18	0
Houston .....	.92	.94	-0.02	25	21	4
Atlanta .....	.94	.93	.01	23	23	0
Miami .....	1.02	1.02	.00	14	14	0
Tampa .....	.96	.93	.03	20	24	-4
Los Angeles .....	1.21	1.22	-0.01	6	5	1
Greater Los Angeles .....	1.09	1.09	.00	9	9	0
San Francisco .....	1.35	1.37	-0.02	1	1	0
Seattle .....	1.05	1.06	-0.01	11	12	-1
San Diego .....	1.22	1.20	.02	5	6	-1
Portland .....	.95	.95	.00	21	19	2
Honolulu .....	1.33	1.35	-0.02	2	2	0
Anchorage .....	1.05	1.06	-0.01	12	11	1
Phoenix .....	.93	.93	.00	24	25	-1
Denver .....	.98	1.01	-0.03	17	15	2
Midwest C <sup>1</sup> .....	.80	.79	.01	37	37	0
South C <sup>1</sup> .....	.80	.78	.02	38	38	0
West C <sup>1</sup> .....	.89	.88	.01	28	28	0
Northeast B <sup>1</sup> .....	.91	.91	.00	26	26	0
Midwest B <sup>1</sup> .....	.84	.84	.00	35	35	0
South B <sup>1</sup> .....	.86	.85	.01	33	34	-1
West B <sup>1</sup> .....	.88	.87	.01	29	29	0
<b>Statistical distributions</b>						
Maximum .....	1.35	1.37	...	...	...	...
Minimum .....	.80	.78	...	...	...	...
Range .....	.56	.59	...	...	...	...
Coefficient of variation (percent) .....	15.2	15.8	...	...	...	...
Mean .....	1.00	1.00	...	...	...	...

<sup>1</sup> See appendix exhibit A-2 for description of area.

Areas are listed in roughly regional order: Northeast, Midwest, South, and West. The names of the areas have been abbreviated to their main city, but often comprise a number of counties and surrounding areas. For example, the District of Columbia includes 6 counties in Maryland, 11 counties and 6 cities in Virginia, and 2 counties in West Virginia. There are 31 such cities, plus 7 regional area groupings: C areas in the Midwest, South, and West and B areas in the Midwest, South, West, and Northeast. The C areas are a sample of urban, nonmetropolitan areas, while the B areas consist of medium-size and small metropolitan areas. There currently is no C-size area sample for the Northeast. (See appendix for a complete list of the areas.)

Chart 2 compares the long and shortcut results for 2003. The shortcut values that are below the line of equality, such as the one for Tampa, indicate that the price level estimate from the shortcut method is below the estimate from the long method, while those above the line of equality, such as Denver, correspond to higher shortcut estimates of price level. The pattern reflects the higher range and greater variation of the shortcut approach.

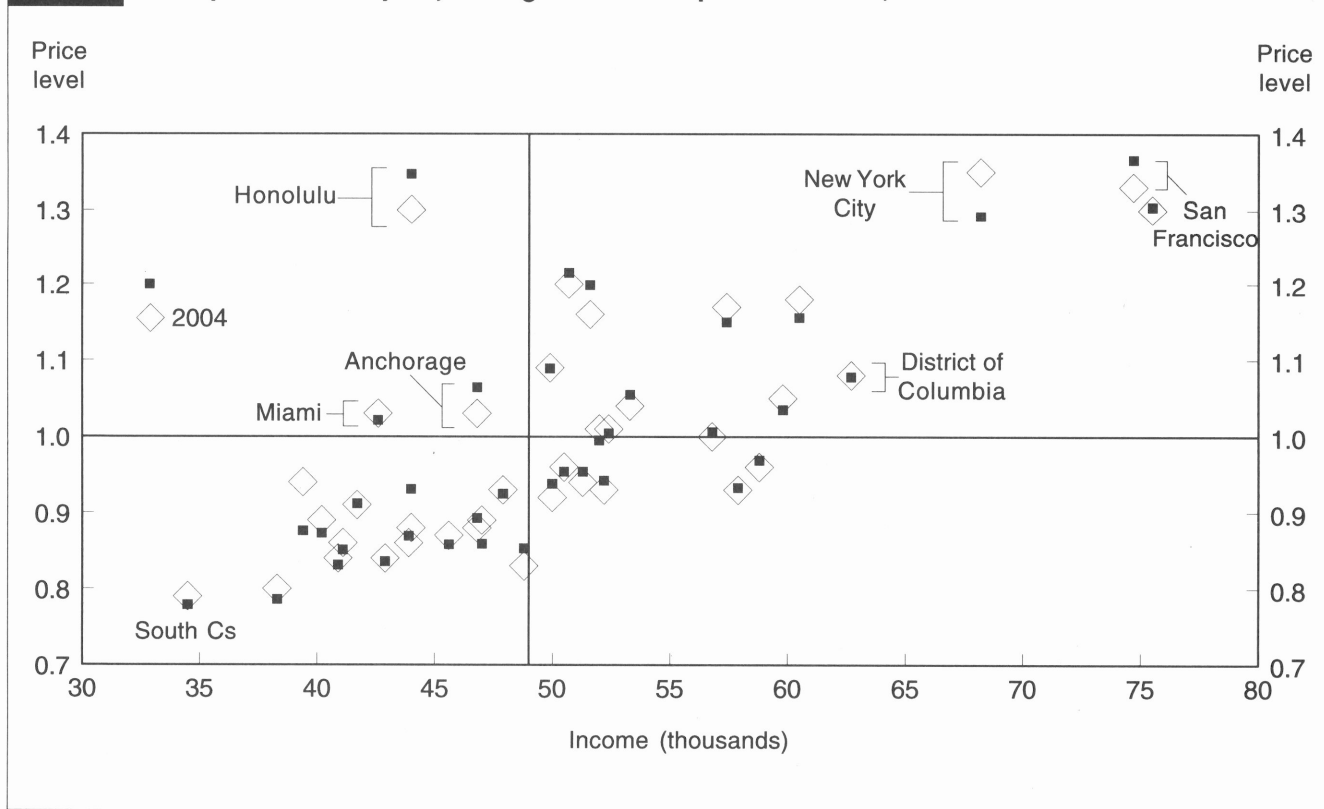
*Major expenditure groups.* Table 3 provides more detail on the pattern of the price levels, in decreasing expenditure weight order of the eight major expenditure groups of the CPI:

housing, including rents; transport; food and beverages; education; recreation; medical; apparel; and other expenditures. These subaggregate price levels are also obtained using equation (2), but the weights are normalized to each expenditure group, rather than to the total sum of expenditures.

*Rents and owners' equivalent rents.* Housing is the largest expenditure group, with 42 percent of total expenditures. Within housing, the distribution is as follows: owners' equivalent rents at 23 percent, followed by household furnishings at 13 percent, and rents at 6 percent of total expenditures. The owners' equivalent rents and rents are observations culled from the same housing database and require elaboration. Because rents and owners' equivalent rents account for nearly 30 percent of overall consumer expenditures, the regression models for these two categories will have the largest single impact on the overall price levels.<sup>15</sup> The importance of housing, specifically rents and owners' equivalent rents, suggests that these regressions require more sophisticated prediction criteria and more detailed analysis of the source data.<sup>16</sup>

The housing observations total nearly 80,000 renter units for the year 2003. They include observations on the same unit priced twice, on a 6-month cycle: January and July,

**Chart 3. Area price levels by adjusted gross income per household, 2003 and 2004**



**Table 3.** Area price levels for major expenditure groups by descending weight in the Consumer Expenditure Survey, 2003

Area name	Major expenditure groups (percent weight in Consumer Expenditure Survey)							
	Housing	Transport	Food and beverages	Education	Recreation	Medical	Apparel	Other
	(42)	(17)	(15)	(6)	(6)	(6)	(4)	(4)
Philadelphia .....	1.01	1.01	1.03	0.97	1.05	1.21	0.85	0.98
Boston .....	1.32	.95	.96	1.40	1.09	.76	1.08	1.05
Pittsburgh .....	.73	.95	.88	.97	.85	.80	.90	.83
New York City .....	1.44	1.05	1.29	1.32	.97	1.20	.99	1.02
New York suburbs .....	1.38	1.10	1.23	1.44	1.16	1.30	.97	1.17
New Jersey suburbs .....	1.29	1.05	1.05	.91	1.12	1.06	.96	1.20
Chicago .....	1.01	1.00	1.11	.98	1.22	.98	1.04	1.01
Detroit .....	.85	1.00	1.02	.92	1.07	.91	1.04	1.06
St. Louis .....	.75	.92	.91	.97	.85	1.02	1.03	.73
Cleveland .....	.82	.93	.93	.80	.97	.90	.95	.95
Minneapolis .....	.93	1.06	1.06	1.16	.89	2.10	.98	1.13
Milwaukee .....	.82	.95	.92	1.00	1.06	.71	1.11	1.09
Cincinnati .....	.77	.99	.85	.98	1.04	1.02	.98	.77
Kansas City .....	.78	.91	.93	.94	.94	.77	.95	1.04
District of Columbia .....	1.07	1.04	1.08	1.07	1.00	1.18	1.10	.96
Baltimore .....	.92	.94	1.02	1.10	1.15	.77	1.03	.99
Dallas .....	.91	1.04	.93	1.14	.96	.91	1.06	1.05
Houston .....	.89	.96	.90	.85	1.07	.86	.99	.92
Atlanta .....	.92	.96	.90	1.11	.94	.86	1.03	.92
Miami .....	1.01	1.00	.97	1.08	1.03	1.07	1.17	1.17
Tampa .....	.93	1.04	.94	.82	1.15	.82	1.07	.96
Los Angeles .....	1.47	1.10	1.07	.79	.84	1.05	1.11	1.11
Greater Los Angeles .....	1.25	1.05	.95	.82	.93	.93	1.07	.95
San Francisco .....	1.70	1.09	1.11	.96	1.14	1.15	.93	1.25
Seattle .....	1.00	1.07	1.02	1.03	.96	1.47	1.31	1.12
San Diego .....	1.47	1.05	1.05	.94	1.02	1.07	1.09	1.05
Portland .....	.90	1.04	.97	1.00	.94	.88	.93	1.07
Honolulu .....	1.55	1.19	1.26	1.10	1.20	1.10	.97	1.10
Anchorage .....	1.04	.95	1.27	.87	.96	1.11	1.12	1.10
Phoenix .....	.84	1.01	.98	.86	.95	1.23	.94	.97
Denver .....	.96	1.04	.97	.85	1.15	.76	.98	1.16
Midwest C <sup>1</sup> .....	.65	.91	.91	1.07	.88	.75	.87	.81
South C <sup>1</sup> .....	.66	.92	.88	.85	.82	.91	.85	.85
West C <sup>1</sup> .....	.75	.96	1.01	1.20	.94	.93	.90	.88
Northeast B <sup>1</sup> .....	.88	.91	.91	1.19	.97	.77	.86	.97
Midwest B <sup>1</sup> .....	.75	.90	.88	.87	.94	.93	.94	.88
South B <sup>1</sup> .....	.75	.95	.92	.95	.91	.94	.93	.86
West B <sup>1</sup> .....	.83	1.00	.92	.75	.88	.85	.90	.84
<b>Statistical distributions</b>								
Maximum .....	1.70	1.19	1.29	1.44	1.22	2.10	1.31	1.25
Minimum .....	.65	.90	.85	.75	.82	.71	.85	.73
Range .....	1.05	.29	.44	.68	.39	1.39	.46	.53
Coefficient of variation (percent) .....	27	7	11	16	11	26	10	13
Mean .....	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

<sup>1</sup> See appendix exhibit A-2 for description of area.

February and August, and so forth. Most observations have two item weights, one for the rent index and one for the owners' equivalent rent index. (Some renter units are only for owners' equivalent rent.) The implicit rents of owner-occupied housing units are not directly observable; current CPI practice is to impute them.<sup>17</sup> After taking the geometric mean of the observations for each uniquely identified housing unit, the observations are reduced to a total of 27,222 for rents and 30,289 for owners' equivalent rents. Three percent are new construction units.

In addition to the collection cycle and rental/owners' equivalent classification, numerous housing characteristics are available for most observations, including the type of structure (single, multi-unit, detached, mobile), the number of rooms and bathrooms, the utilities that are included, the availability and type of parking, air conditioning, rent control status, length of occupancy, and approximate age of the unit. The quote weights associated with the rent/owner equivalent rent observations were adjusted to reflect sampling proportional to expenditures, rather than proportional to the

population. This makes them consistent with the weights used in the regressions for all the remaining items in the CPI.

Table 4 gives the results for rent and owners' equivalent rent. Census variables were not used in these regressions for this article.<sup>18</sup> However, rent regressions that BLS conducts to correct for housing depreciation (sometimes called "age bias") do use Census variables. There are two main types of Census variables: demographic and neighborhood characteristics, both at the zip code level. The former includes race, education, age, and proportion of people under poverty, while the latter includes the proportion of renters, the proportion of large buildings, and the infrastructure available—lack of plumbing, for example. Although many of these are correlated with the price level of rents, they are also highly correlated with income levels.<sup>19</sup> When these proxies for income are omitted from the rent regressions, the predicted price levels for rents are higher in high-income areas such as San Francisco, New York, and Boston, and lower in the smaller, less-densely populated regions such as the South C metropolitan areas. This article views income-associated differences in rent levels as part of the interarea price level differences.

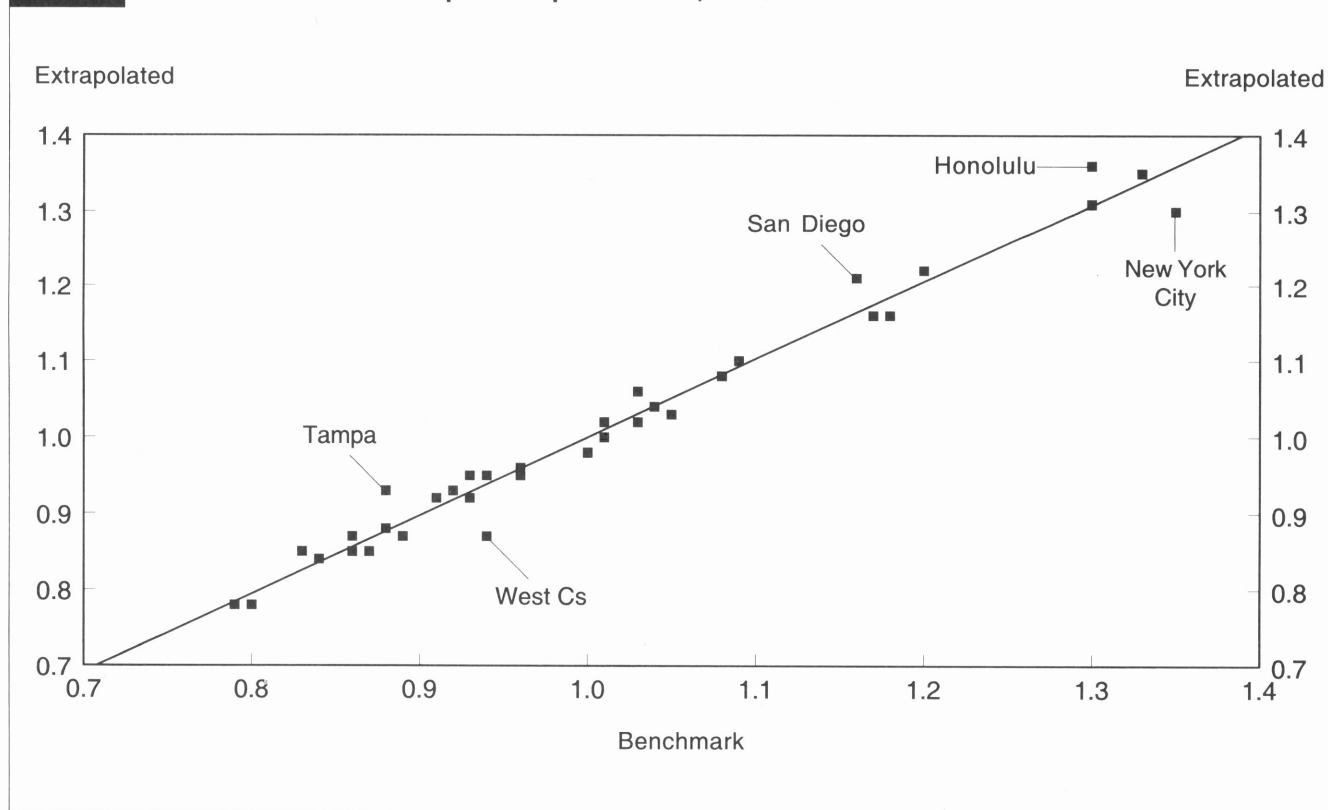
Should race and income be included in a hedonic regression of rents? No, because price level differences associated with them are valid differences and their effect

should not be removed from the estimates of area price levels. One could argue for the inclusion of some but not all Census variables, such as the proportion of renters versus owners, or for a more sophisticated modeling approach. One such approach might disentangle the income, race, and education variables more effectively, or take into account the zip code level spatial autocorrelation that they introduce. However, for this article, only observed differences in the actual sampled housing units were included.

### Comparison of 2003 versus 2004 results

*Price levels, 2004.* The shortcut approach was applied to 2004 prices using the same methodology as described in the previous section. Detailed hedonic regressions for the same top 50 item strata as in 2003 were estimated; the shortcut CPD for the remaining items and for the aggregation procedure was repeated using 2004 prices and weights. The hedonic regression for 2004 had about the same number of observations as 2003. The 2004 price levels are shown in table 5, in descending income order, with 2003 shortcut price levels repeated from table 2 for comparison. The income column is the annual adjusted gross income from the Internal Revenue Service (IRS), in thousands of dollars.<sup>20</sup>

**Chart 4. Benchmark versus extrapolated price levels, 2004**





**Table 4. Area price levels, 2003: rents and owner equivalent rents**

Area name	Owner-equivalent	Owner-equivalent rank	Rent	Rent rank
Philadelphia .....	0.93	16	1.05	12
Boston .....	1.45	7	1.44	4
Pittsburgh .....	.61	36	.68	36
New York City .....	1.57	5	1.43	5
New York suburbs .....	1.60	4	1.42	6
New Jersey suburbs .....	1.35	8	1.31	9
Chicago .....	1.02	12	1.05	13
Detroit .....	.80	24	.80	27
St. Louis .....	.68	33	.74	32
Cleveland .....	.72	31	.74	30
Minneapolis .....	.91	19	.87	22
Milwaukee .....	.77	28	.76	29
Cincinnati .....	.72	30	.78	28
Kansas City .....	.73	29	.73	33
District of Columbia .....	1.09	10	1.18	10
Baltimore .....	.92	18	.95	18
Dallas .....	.89	21	.89	20
Houston .....	.85	23	.86	24
Atlanta .....	.89	22	.94	19
Miami .....	.97	14	1.06	11
Tampa .....	.90	20	.95	17
Los Angeles .....	1.67	3	1.39	7
Greater Los Angeles .....	1.30	9	1.33	8
San Francisco .....	1.92	1	1.82	1
Seattle .....	1.06	11	.98	16
San Diego .....	1.54	6	1.49	3
Portland .....	.94	15	.89	21
Honolulu .....	1.74	2	1.54	2
Anchorage .....	.99	13	.99	15
Phoenix .....	.78	27	.85	25
Denver .....	.92	17	1.02	14
Midwest C <sup>1</sup> .....	.57	37	.61	37
South C <sup>1</sup> .....	.56	38	.60	38
West C <sup>1</sup> .....	.72	32	.74	31
Northeast B <sup>1</sup> .....	.79	26	.82	26
Midwest B <sup>1</sup> .....	.67	34	.72	35
South B <sup>1</sup> .....	.67	35	.72	34
West B <sup>1</sup> .....	.79	25	.87	23
<b>Statistical distributions</b>				
Maximum .....	1.919	...	1.816	...
Minimum .....	.560	...	.599	...
Range .....	1.359	...	1.217	...
Coefficient of variation (percent) .....	35.7	...	29.9	...
Mean .....	1.00	...	1.00	...

<sup>1</sup> See appendix exhibit A-2 for description of area.

Chart 3 reflects a relationship that has been found at the international level, namely that price levels rise with income levels. The lines in the middle of the graph indicate the mean levels—\$49,000 per return for the adjusted gross income in 2001, and 1.00 for the price level. Areas in the top right quadrant of the chart are areas of higher than average price levels, and higher than average income levels, such as San Francisco and the New York areas. Honolulu, Anchorage, and Miami are the only three areas in the top left quadrant, indicating areas with high price levels but low incomes relative to the mean.

*Benchmark versus extrapolation.* The preceding section highlighted the overall price levels using the original

(long) and shortcut approaches for 2003, followed by the 2004 shortcut results. Each of these use actual prices for the year in question, and are termed “benchmark” estimates in what follows. If we take the 2003 results and extrapolate them using the CPI price-change between 2003 and 2004 for each item stratum, will these be similar to the 2004 benchmark results?

There are two main ways in which this can be done. The first involves simply multiplying the aggregate 2003 results by the overall CPI price change for each area, then re-normalizing the price levels to the U.S. average. This is termed “aggregate extrapolation.” (See table 6 and chart 4.) The second method is the disaggregate version, multiplying each

**Table 5. Shortcut area price levels, 2003 and 2004**

Income rank	Area name	Shortcut 2003	Shortcut 2004	Income (thousands)
1	New York suburbs .....	1.30	1.30	75.5
2	San Francisco .....	1.37	1.33	74.7
3	New York City .....	1.29	1.35	68.2
4	District of Columbia .....	1.08	1.08	62.7
5	Boston .....	1.16	1.18	60.5
6	Chicago .....	1.04	1.05	59.8
7	Dallas .....	.97	.96	58.8
8	Atlanta .....	.93	.93	57.9
9	New Jersey suburbs .....	1.15	1.17	57.4
10	Denver .....	1.01	1.00	56.8
11	Seattle .....	1.06	1.04	53.3
12	Philadelphia .....	1.00	1.01	52.4
13	Houston .....	.94	.93	52.2
14	Minneapolis .....	1.00	1.01	52.0
15	San Diego .....	1.20	1.16	51.6
16	Baltimore .....	.95	.94	51.3
17	Los Angeles .....	1.22	1.20	50.7
18	Portland .....	.95	.96	50.5
19	Detroit .....	.94	.92	50.0
20	Greater Los Angeles .....	1.09	1.09	49.9
21	Kansas City .....	.85	.83	48.8
22	Phoenix .....	.93	.93	47.9
23	St. Louis .....	.86	.89	47.0
24	Anchorage .....	1.06	1.03	46.8
25	Milwaukee .....	.89	.88	46.8
26	Cincinnati .....	.86	.87	45.6
27	Honolulu .....	1.35	1.30	44.0
28	Tampa .....	.93	.88	44.0
29	Cleveland .....	.87	.86	43.9
30	Midwest B <sup>1</sup> .....	.84	.84	42.9
31	Miami .....	1.02	1.03	42.6
32	Northeast B <sup>1</sup> .....	.91	.91	41.7
33	South B <sup>1</sup> .....	.85	.86	41.1
34	Pittsburgh .....	.83	.84	40.9
35	West B <sup>1</sup> .....	.87	.89	40.2
36	West C <sup>1</sup> .....	.88	.94	39.4
37	Midwest C <sup>1</sup> .....	.79	.80	38.3
38	South C <sup>1</sup> .....	.78	.79	34.5
<b>Statistical distributions</b>				
	Maximum .....	1.37	1.35	75.5
	Minimum .....	.78	.79	34.5
	Range .....	.59	.56	41.0
	Coefficient of variation (percent) .....	15.7	15.3	18.7
	Mean .....	1.00	1.00	50.6

<sup>1</sup> See appendix exhibit A-2 for description of area.

of the 2003 item stratum price levels from the first stage equation using the CPI for that stratum as a deflator for each item stratum and area, then reaggregating them using equation (2), termed "detailed extrapolations." The detailed extrapolation results are not included, as they were nearly identical to the aggregate extrapolations, differing only at the third decimal place in 34 out of 38 areas, and by only 0.01 in Pittsburgh, New York (City and suburbs), and the Milwaukee areas.

The benchmark estimates do differ from the extrapolated price levels, with Tampa, San Diego, and Honolulu showing higher extrapolated levels than their benchmarks, and New York City and the West C region showing lower extrapolated price levels than the 2004 long approach. This may raise consistency and reconciliation issues common in time-space

comparisons, such as those faced by the Organisation for Economic Co-operation and Development (OECD) in their purchasing power parity comparisons.<sup>21</sup> Note that it would be highly unusual for there to be no differences, implying that all item strata prices in all areas changed at the same rate, assuming that both quote weights and expenditures weights remained unchanged.

## Conclusions

This article follows groundbreaking work done at BLS based on 1989 prices. Changes from that work include a more tailored approach to each hedonic regression, the use of normalized quote weights, the use of weights at a more

**Table 6. Area price levels, 2004: benchmark versus extrapolated**

Area name	2004 benchmark	2004 aggregate extrapolation
Philadelphia .....	1.01	1.02
Boston .....	1.18	1.16
Pittsburgh .....	.84	.84
New York City .....	1.35	1.30
New York suburbs .....	1.30	1.31
New Jersey suburbs .....	1.17	1.16
Chicago .....	1.05	1.03
Detroit .....	.92	.93
St. Louis .....	.89	.87
Cleveland .....	.86	.87
Minneapolis .....	1.01	1.00
Milwaukee .....	.88	.88
Cincinnati .....	.87	.85
Kansas City .....	.83	.85
District of Columbia .....	1.08	1.08
Baltimore .....	.94	.95
Dallas .....	.96	.96
Houston .....	.93	.95
Atlanta .....	.93	.92
Miami .....	1.03	1.02
Tampa .....	.88	.93
Los Angeles .....	1.20	1.22
Greater Los Angeles .....	1.09	1.10
San Francisco .....	1.33	1.35
Seattle .....	1.04	1.04
San Diego .....	1.16	1.21
Portland .....	.96	.95
Honolulu .....	1.30	1.36
Anchorage .....	1.03	1.06
Phoenix .....	.93	.92
Denver .....	1.00	.98
Midwest C <sup>1</sup> .....	.80	.78
South C <sup>1</sup> .....	.79	.78
West C <sup>1</sup> .....	.94	.87
Northeast B <sup>1</sup> .....	.91	.92
Midwest B <sup>1</sup> .....	.84	.84
South B <sup>1</sup> .....	.86	.85
West B <sup>1</sup> .....	.89	.87
<b>Statistical distributions</b>		
Maximum .....	1.350	1.357
Minimum .....	.787	.779
Range .....	.563	.578
Coefficient of variation (percent) .....	15.3	15.9
Mean .....	1.00	1.00

<sup>1</sup> See appendix exhibit A-2 for description of area.

detailed level, and the choice of multilateral aggregation method. In the previous work, an overall price level was not calculated, partly because of the method of aggregation that was employed.

An attempt was made to keep the process of specifying regressions consistent and transparent for the entire CPI, but there were differences in the treatment of certain categories. For example, more time was spent on the expenditure groups with larger weights, such as housing, transportation, and food. Care was also taken to look at numerous alternative specifications in some of the more complex items, such as new cars and trucks, personal computers, airline travel, and

particularly rents and owners' equivalent rents, but no formal hypothesis tests were done to determine the degree of improvement of one model over another.

In principle, one could obtain the aggregate area price levels using just one large regression if it included all price quotes and all the characteristics for each item stratum, ELI, or cluster. Some decision would be needed on how to reconcile the two sets of available weights—the sampling quote weights and the consumer expenditure weights, and how to determine which item characteristics were more important than others. In practice, however, the structure of the CPI makes it very difficult to attempt such a one-step process. The advantage of taking two steps is that it provides flexibility in determining each regression, and the process is similar to current methods for estimating time-to-time price indexes, which also makes individual item level hedonic adjustments, and then aggregates them across expenditure groups.

The two-step process is also consistent with the methodology being developed in the International Comparison Program (ICP), whereby participating countries provide average price parities for a set of overlapping items across broad regions of the world in the first step of a benchmark comparison. The price parities are then aggregated to the major expenditure levels of Gross Domestic Product (GDP) using a weighted CPD method similar to the one described here.

There are two main directions for analysis that seem to follow directly from this work—the first emerges from the estimates of the first-stage regressions, where the range of item level price parities across areas can be large. Preliminary work on estimating the variances of these area price levels for 1 year has been done using a Monte Carlo approach, but it would be useful to know if these variations persist over time and remain similar across items.<sup>22</sup>

Secondly, how might these estimates be expanded to other geographic aggregations, such as the State or more microareas? For smaller geographic areas, one might use fewer item stratum regressions in the first-stage models and modify both the quote weights and expenditure weights to obtain more than 38 metropolitan area price levels. For State-level estimates, one suggestion is to supplement the interarea variation from the CPI with housing and energy price information that is also available for rural areas, and then aggregate the urban with the nonurban prices to predict State or regional price levels. □

## Notes

<sup>1</sup> See Mary Kokoski, Patrick Cardiff, and Brent Moulton, "Interarea Price Indices for Consumer Goods and Services: An Hedonic Approach Using CPI Data," working paper No. 256, available from the Office of Prices and Living Conditions, July 1994 and Mary Kokoski, Brent

Moulton and Kim Zieschang, "Interarea Price Comparisons for Heterogeneous Goods and Several Levels of Commodity Aggregation," in Alan Heston and Robert Lipsey, eds., *International and Interarea Comparisons of Income, Output and Prices*, (University of Chicago Press, 1999), pp. 123–66; see also Bettina Aten, "Report on Interarea Price Levels, 2003," working paper No. 2005–11 (Bureau of Economic Analysis, May 2005).

<sup>2</sup> See the BLS Web site for detailed information at <http://www.bls.gov/cpi/cpiovrw.htm#item1and> <http://www.bls.gov/cpi/cpifact6.htm>.

<sup>3</sup> The term representativity is used in the International Comparison Program to denote the relative importance of items that are priced, usually at a level where expenditure weights are not available. See the World Bank ICP Web site at <http://web.worldbank.org>.

<sup>4</sup> Using price parities or price levels makes no difference to the aggregate results, but the explained variances can be inflated because of the differences in scale—say between flour with a mean predicted price of less than \$1 and catered events in the hundreds of dollars.

<sup>5</sup> Quote weights adjust the individual price observations for the probability sampling procedure of the CPI and are normalized by area and item stratum. The weighted least squares estimates minimize the weighted residual sum of squares of equation (1). For an extensive discussion of the effects of weights on the Country Product Dummy, see Case 2, ICP Handbook, Chapter 10 on the Internet at <http://siteresources.worldbank.org/ICPINT/Resources/Ch10.doc>.

For analogous work on estimating purchasing power parities (PPP's) across countries, see S. Heravi, Alan Heston, and Mick Silver, "Using Scanner Data to Estimate Country Parities: An Exploratory Study," *The Review of Income and Wealth*, Volume 49, Issue 1, March 2003, pp. 1–22; Dietmar Moch and Jack Triplett, "PPPs for PCS: Hedonic Comparison of Computer Prices in France and Germany," 27<sup>th</sup> General Conference of the International Association for Income and Wealth, Sweden, 2002; and Jack Triplett, "Handbook on Hedonic Indexes and Quality Adjustments in Price Indexes: Special Application to Information Technology Products," SIT working paper 2004/9, Organisation for Economic Co-operation and Development, 2004.

<sup>6</sup> A correction for mean bias is applied to the coefficients. This is equal to adding half the standard error of the estimate to the coefficient before taking its antilog. See Arthur S. Goldberger, *Introductory Econometrics*, Harvard University Press, 1998.

<sup>7</sup> See Aten, "Report on Interarea Price Levels, 2003."

<sup>8</sup> For a more detailed description, see Aten, "Report on Interarea Price Levels, 2003."

<sup>9</sup> See Kokoski and others, "Interarea Price Indices."

<sup>10</sup> Documentation for each ELI and cluster combination can be obtained from the BLS CPI division.

<sup>11</sup> The sensitivity of the results to changes in the model specification is discussed in detail in Aten, "Report on Interarea Price Levels, 2003." The greatest sensitivity, as might be expected, is in the treatment of the rent and owner equivalent rent equations, which, on average, account for about 30 percent of total expenditures.

<sup>12</sup> The term was first used in this context by Robert Summers, "International Price Comparisons based upon Incomplete Data," *The*

*Review of Income and Wealth*, Volume 19, Issue 1, March 1973. The area dummy variables in the hedonic regressions in the first step can also be considered multilateral price indexes based on the CPD approach, but generally, the term CPD is used when only the area and the product itself are the explanatory variables. Recent literature on the CPD includes Sergey Sergeev, "The Use of Weights within the CPD and EKS Methods at the basic heading level," *Statistics Austria*, mimeograph, 2004; Mick Silver, "Missing Data and the Hedonic Country-Product-Dummy (CPD) Variable Method," mimeograph, Cardiff University, UK, 2004; W.E. Diewert, "Weighted Country Product Dummy Variable Regressions and Index Number Formulae," Department of Economics, Discussion paper 02–15 (University of British Columbia, Vancouver, BC, Canada, 2002); D.S. Prasada Rao, "On the equivalence of Weighted Country Product Dummy Method and the Rao System for Multilateral Price Comparisons" (School of Economics, University of Queensland, Brisbane, Australia, 2002); and E. Selvanathan and D. S. Prasada Rao, *Index Numbers: A Stochastic Approach* (Ann Arbor, the University of Michigan Press, 1994).

<sup>13</sup> Angus Deaton with Jed Friedman, Vivi Alatas, "Purchasing Power Parity Exchange Rates from household survey data: India and Indonesia" (Research Program in Development Studies, Princeton University, 2004), pp. 5–10, has a clear discussion of the properties of the weighted CPD price levels derived from equation (2) in the context of multilateral index number theory.

<sup>14</sup> Actual rather than share weights are used in some multilateral aggregation procedures, such as the Geary-Khamis system used in the Penn World Tables 6.1. See Alan Heston, Robert Summers, and Bettina Aten, Penn World Table Version 6.1 (Center for International Comparisons at the University of Pennsylvania (CICUP), October 2002).

<sup>15</sup> An analysis of this sensitivity is given in Aten, "Report on Interarea Price Levels, 2003."

<sup>16</sup> For an example, see Brent Moulton, "Interarea Indexes of the Cost of Shelter Using Hedonic Quality Adjustment Techniques," *Journal of Econometrics* 68(1), 1995, pp. 181–204.

<sup>17</sup> The imputation procedure is beyond the scope of this paper. See, for example, BLS Handbook of Methods, Bulletin 2414 (Bureau of Labor Statistics, 1992), and Walter Lane and John Sommers, "Improved Measures of Shelter Costs," *American Statistical Association Proceedings of the Business and Economic Statistics Section*, 1984.

<sup>18</sup> Census variables are used in the first report. See Aten, "Report on Interarea Price Levels, 2003."

<sup>19</sup> A principal components analysis (Aten, "Report on Interarea Price Levels, 2003.") revealed that about a third of the standard variance among the Census variables was because of the first principal component that contrasts race (percent white, percent white occupancy) with income levels (percent under poverty, percent renters and percent ownership of 2+ cars).

<sup>20</sup> The income variable is the adjusted gross income per IRS tax return for 2001, kindly provided by Ann Dunbar of the Bureau of Economic Analysis.

<sup>21</sup> For an example, see Seppo Varjonen, "Consistency between GDP based on PPPs and National Accounts Time Series," OECD, Paris, France, October 2001.

<sup>22</sup> See Bettina Aten and Alan Heston, "Putting Confidence Levels on Price Level Estimates, a Proposal for Discussion," Workshop at the University of California at Davis, Institute of Governmental Affairs, Davis, CA, May 31–June 1, 2005.

**Exhibit A-1. List of geographical areas**

Rank	Region	Area	Name	Areas included
1	Northeast	A102	Philadelphia	Atlantic, Burlington, Cape May, Camden, Cumberland, Gloucester, Salem, NJ; New Castle, DE; Cecil, MD; Bucks, Chester, Delaware, Montgomery, Philadelphia, PA
2		A103	Boston	Windham <sup>1</sup> , CT; Bristol <sup>1</sup> , Essex, Hampden <sup>1</sup> , Middlesex, Norfolk, Plymouth, Suffolk, Worcester <sup>1</sup> , MA; York <sup>1</sup> , ME; Hillsborough <sup>1</sup> , Merrimack <sup>1</sup> , Rockingham <sup>1</sup> , Strafford <sup>1</sup> , NH
3		A104	Pittsburgh	Alleghany, Beaver, Butler, Fayette, Washington, Westmoreland, PA
4		A109	New York City	Bronx, Kings, New York, Queens, Richmond, NY
5		A110	New York suburbs	Dutchess, Nassau, Orange, Putnam, Rockland, Suffolk, Westchester, NY; Fairfield <sup>1</sup> , Litchfield <sup>1</sup> , Middlesex <sup>1</sup> , New Haven <sup>1</sup> , CT
6		A111	New Jersey suburbs	Bergen, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, Warren, NJ; Pike, PA
7	Midwest	A207	Chicago	Cook, Dekalb, Dupage, Grundy, Kane, Kankakee, Kendall, Lake Mchenry, suburbs Will, IL; Lake, Porter, IN; Kenosha, WI
8		A208	Detroit	Genessee, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, Wayne, MI
9		A209	St. Louis	Clinton, Jersey, Madison, Monroe, St. Clair, IL; Crawford <sup>1</sup> , Franklin, Jefferson, Lincoln, St. Charles, St. Louis, Warren, St. Louis City, MO
10		A210	Cleveland	Ashtabula, Cuyahoga, Geauga, Lake Lorain, Medina, Portage, Summit, OH
11		A211	Minneapolis	Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington, Wright, MN; Pierce, St. Croix, WI
12		A212	Milwaukee	Milwaukee, Ozaukee, Racine, Washington, Waukesha, WI
13	A213	Cincinnati	Dearborn, Ohio, IN; Boone, Campbell, Gallatin, Grant, Kenton, Pendleton, KY; Brown, Butler, Clermont, Hamilton, Warren, OH	
14	A214	Kansas City	Johnson, Leavenworth, Miami, Wyandotte, KS; Cass, Clay, Clinton, Jackson, Lafayette, Platte, Ray, MO	
15	South	A312	Washington	Calvert, Charles, Frederick, Montgomery, Prince George's, Washington, MD; Arlington, Clarke, Culpeper, Fairfax, Fauquier, King George, Loudoun, Prince William, Spotsylvania, Stafford, Warren, Alexandria City, Fairfax City, Falls Church City, Fredericksburg City, Manassas City, Manassas Park City, VA; Berkeley, Jefferson, WV.
16		A313	Baltimore	Anne Arundel, Baltimore, Carroll, Harford, Howard, Queen Anne's, Baltimore City, MD
17		A316	Dallas	Collin, Dallas, Denton, Ellis, Henderson, Hood, Hunt, Johnson, Kaufman, Parker, Rockwall, Tarrant, TX
18		A318	Houston	Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, Waller, TX
19		A319	Atlanta	Barrow, Bartow, Carroll, Cherokee, Clayton, Cobb, Coweta, Dekalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Newton, Paulding, Pickens, Rockdale, Spalding, Walton, GA
20		West	A320	Miami
21	A321		Tampa	Hernando, Hillsborough, Pasco, Pinellas, FL
22	A419		Los Angeles	Los Angeles County, CA
23	A420		Greater LA	Orange, Riverside, San Bernardino, Ventura, CA
24	A422		San Francisco	Alameda, Contra Costa, Marin, Napa, Santa Clara, Santa Cruz, San Francisco, San Mateo, Solano, Sonoma, CA
25	A423		Seattle	Island, King, Kitsap, Pierce, Snohomish, Thurston, WA
26	A424		San Diego	San Diego, CA
27	A425		Portland	Clackamas, Columbia, Marion, Multnomah, Polk, Washington, Yamhill, OR; Clark, WA
28	A426	Honolulu	Honolulu, HI	

See footnote at end of table.

**Exhibit A-1. Continued—List of geographical areas**

Rank	Region	Area	Name	Areas included
29		A427	Anchorage	Anchorage, AK
30		A429	Phoenix	Maricopa, Pinal, AZ
31		A433	Denver	Adams, Arapohoe, Boulder, Denver, Douglas, Jefferson, Weld, CO
32	Midwest	D200	Midwest C	Urban nonmetro – see details in exhibit A-2
33	South	D300	South C	Urban nonmetro
34	West	D400	West C	Urban nonmetro
35	Northeast	X100	Northeast B	Medium, small
36	Midwest	X200	Midwest B	Medium, small
37	South	X300	South B	Medium, small
38	West	X400	West B	Medium, small

<sup>1</sup> Only partially included.

**Exhibit A-2. List of aggregated areas (D200–X400)**

Rank	Aggregation	Area	Name	Description
1	Midwest C	D200	C212 Faribault C216 Chanute C218 Brookings C222 Mt. Vernon	Urban parts of Rice, MN Urban parts of Allen, Neosho, KS Urban parts of Brookings, Lake, Moody, SD Urban parts of Jefferson, IL
2	South C	D300	C328 Arcadia C332 Morristown C334 Picayune C344 Statesboro	Urban parts of De Soto, Hardee, FL Urban parts of Hamblen, Jefferson, TN Urban parts of Pearl River, MS Urban parts of Burke, Bulloch, Jenkins, Screven, GA
3	West C	D400	C450 Bend C456 Pullman	Urban parts of Deschutes, OR Pullman, WA
4	Northeast B	X100	B102 Reading B104 Syracuse B106 Buffalo B108 Hartford  B110 Burlington B112 Sharon B114 Johnstown	Berks, PA Cayuga, Madison, Onondaga, Owego, NY Erie, Niagara, NY Hartford <sup>1</sup> , Litchfield <sup>1</sup> , Middlesex <sup>1</sup> , New London <sup>1</sup> , Tolland <sup>1</sup> , Windham <sup>1</sup> , CT Chittenden <sup>1</sup> , Franklin <sup>1</sup> , Grand Isle <sup>1</sup> , VT Mercer, PA Cambria, Somerset, PA
5	Midwest B	X200	B218 Wausau B220 Dayton B222 Evansville B224 Columbus B226 Saginaw B228 Elkhart B230 Decatur B232 Youngstown B234 Madison B236 Lincoln	Marathon, WI Clark, Greene, Miami, Montgomery, OH Posey, Vanderburgh, Warrick, IN; Henderson, KY Delaware, Fairfield, Franklin, Licking, Madison, Pickaway, OG Bay, Midland, Saginaw, MI Elkhart, IN Macon, IL Columbiana, Mahoning, Trumbull, OH Dane, WI Lancaster, NE
6	South B	X300	B338 Chattanooga B340 Florence B342 Albany	Catoosa, Dade, Walker, GA; Hamilton, TN Florence, SC Dougherty, Lee, GA

See footnote at end of table.

**Exhibit A-2. List of aggregated areas (D200-X400)**

Rank	Aggregation	Area	Name	Description
			B344 Norfolk	Currituck, NC; Gloucester, Isle of Wight, James City, Mathews, York, Chesapeake City, Hampton City, Newport News City, Norfolk City, Poquoson City, Portsmouth City, Suffolk City, Virginia Beach City, Williamsburg City, VA
			B346 Pine Bluff	Jefferson, AR
			B348 Raleigh	Chatham, Durham, Franklin, Johnstown, Orange, Wake, NC
			B350 Richmond	Charles City, Chesterfield, Dinwiddie, Goochland, Hanover, Henrico, New Kent, Powhatan, Prince George, Colonial Heights City, Hopewell City, Petersburg City, Richmond City, VA
			B352 Beaumont	Hardin, Jefferson, Orange, TX
			B354 Brownsville	Cameron, TX
			B356 Florence	Colbert, Lauderdale, AL
			B358 Greenville	Anderson, Cherokee, Greenville, Pickens, Spartanburg, SC
			B360 Fort Myers	Lee, FL
			B362 Birmingham	Blount, Jefferson, St. Clair, Shelby, AL
			B364 Melbourne	Brevard, FL
			B366 Lafayette	Acadia, Lafayette, St. Landry, St. Martin, LA
			B368 Ocala	Marion, FL
			B370 Gainesville	Alachua, FL
			B372 Amarillo	Potter, Randall, TX
			B374 San Antonio	Bexar, Comal, Guadalupe, Wilson, TX
			B376 Oklahoma City	Canadian, Cleveland, Logan, McClain, Oklahoma, Pottawattamie, OK
			B378 Baton Rouge	East Baton Rouge, Livingston, West Baton Rouge, LA
			B380 Midland	Ector, Midland, TX
7	West B	X400	B482 Chico	Chico, CA
			B484 Provo	Utah, UT
			B486 Modesto	Stanislaus, CA
			B488 Boise City	Ada, Canyon, ID
			B490 Las Vegas	Mohave, AZ; Clark, Nye, NV
			B492 Yuma	Yuma, AZ

<sup>1</sup> Only partially included.

## Before and after Katrina and Rita

It's difficult for most of us to imagine such a weather forecast:

*Most of the area will be uninhabitable for weeks...perhaps longer. ... Power outages will last for weeks. ... Water shortages will make human suffering incredible by modern standards.*

So read an urgent weather message issued by the National Weather Service as Hurricane Katrina approached Louisiana and Mississippi a year ago. (Urgent Weather Message. National Weather Service New Orleans, Louisiana. August 28, 2005, 10:11 a.m.) Less than a month later, Hurricane Rita made its way across the region.

In "Recovery Comes Slowly" (*Econ South*, Federal Reserve Bank of Atlanta, Second Quarter 2006) Michael Chriszt assesses recovery and rebuilding 9 months into the post-hurricane period.

Debris removal is one measure of recovery. The majority of debris on private land remains on the ground in Louisiana; by contrast, Mississippi has removed almost all of such debris. In Louisiana, particularly New Orleans, buildings were flooded—damaged but not destroyed. This, along with uncertainties regarding insurance settlements and the rebuilding of the levee system, leaves residents from those affected areas in limbo. Absent property owners, evacuated far and wide, have delayed municipal government action to condemn and demolish damaged structures. In coastal Mississippi, entire neighborhoods were completely destroyed by high winds, making removal of debris a foregone conclusion.

Sales tax revenues before and after the Hurricanes are another measure of recovery. Sales tax revenue in Orleans Parish (New Orleans) in the first quarter

of 2006 is about two-thirds of what it was in the same period of 2005, but it is rising steadily. This is to be expected in a flooded and evacuated city. In adjoining Jefferson Parish, sales tax revenue is above the prehurricane level. Some of the increase is due to spending that has moved out of New Orleans. In the affected areas along the Mississippi coast, Jackson and Harrison counties, sales tax revenues are also higher than those in the prehurricane period. Nonetheless, residents are re-building homes and replacing possessions.

The number of employed people and the unemployment rate also are measures of recovery. The number of people employed in the New Orleans metropolitan area declined by 200,000 between August and September of 2005. The number has increased by 24,000 since then. New hires occurred in the leisure and hospitality, construction, and health-care sectors. During this time, the unemployment rate has hardly changed—people who would be unemployed if they stayed in New Orleans have moved elsewhere. In the Gulfport-Biloxi area, the number of people employed has declined immediately after the hurricane and since then. The unemployment rate is higher than in the prehurricane period.

Housing statistics also tell part of the hurricane recovery story. In New Orleans, building permits for multifamily residential construction have increased since the hurricane, but are below prehurricane levels. Sales of existing homes are also down. In Mississippi, permits for single-family homes are above levels for the previous year in the affected counties.

Tourism is a major part of the economy of the hurricane-affected region. In the months since the hurricanes only a fraction of hotels, restaurants, and casinos are open for business, employing workers, and

serving customers. Louisiana and Mississippi were affected in different ways by Katrina and Rita and each faces its own difficulties on the road to recovery, but as Michael Chriszt writes, "thoughtful planning and leadership are paving the way."

## Cars all over the map

The restructuring of the American automotive industry has occurred along many dimensions: financial, technological, and marketing, to name a few. In the Federal Reserve Bank of Chicago's *Economic Perspectives*, Thomas H. Klier and Daniel P. McMillen analyze changes in the geographic footprint of the light vehicles industry.

At their base point of 1980, chosen as the last year before the significant emergence of foreign-owned "transplants" in the industry, assembly lines were "located in a fairly compact region that extends north-south from the Twin Cities in Minnesota to Kansas City, and from there all the way to the East Coast."

By 1990, there was a net increase of one assembly line as 13 were opened and 12 closed. This began to change the east-west automotive belt in two ways: the importance of the East Coast declined as assembly lines were closed and newly opened lines extended the automobile-assembly region southward. In addition, newly opened assembly lines filled in portions of northern Illinois, Indiana, and Ohio.

The north-south extension of assembly line density continued through 2002, the last year of Klier and McMillen's data. Of the even assembly lines that were opened between 1990 and 2003, only one was in the heart of the traditional area and one was on its southernmost fringe. The rest established a new east-west band of assembly plants reaching from central Mississippi to South Carolina. □



## Hands that labor and write

*Hands: Physical Labor, Class, and Cultural Work.* By Janet Zandy. New Brunswick, NJ, Rutgers University Press, 2004, 240 pp., \$21.95/paperback.

According to the Center for Disease Control and Prevention, on average, nearly 11,000 workers are treated in emergency rooms each day, with about 200 of these workers hospitalized. Each day, thousands of employees require time away from their jobs to recuperate, while 15 workers die from their injuries, and another 134 die from work-related diseases.

These numbers are a chilling assessment of an average day in the United States in 2005. Do these numbers elicit the same response as the latest employment or inflation news? Can we begin to comprehend the risk and loss that workers and their families face on a daily basis? Numbers alone will not necessarily engender sensitivity to the daily concerns of workers, nor will they help us understand the historical struggle for safe working conditions. Janet Zandy, in *Hands: Physical Labor, Class, and Cultural Work*, exposes us to how the physicality of labor has shaped culture and colored American labor history.

In the process of analyzing what constitutes working-class literature, the author provides a wide range of depictions of work and workers in literature, from some well-known authors of the past century to the growing ranks of worker-writers and poets in today's alternative press. *Hands* is Zandy's fourth book on working-class studies. Foremost literary history and criticism, this book is also a significant contribution to understanding labor history, especially with respect to working conditions, "in the skin of a worker."

Zandy, a professor of language and literature, shows us through examples of working-class literature, as well as

other writings and art, how work-related injuries "collectively attest to untold stories of labor." Early in *Hands*, the author asserts that "this book is dialectically grounded between the values and sustaining labor of my parents and other working-class people and their places of labor, toxic waste sites (metaphoric and actual) with all the occupational hazards and dangers those workers knowingly or unknowingly faced. How that dialectic exposes and expresses itself as cultural informs the writing that follows."

*Hands* begins with a series of powerful essays entitled "Loss: Circumstances and Choices." Included is a personal history of sorts—a tour of Trubeck Labs, where the author's father used to work in the 1950s, the remnants of which became a Superfund cleanup site in the 1980s. In "Dialpainters," the story of young women employed by the Radium Luminous Corporation in Orange, New Jersey, in the 1920s, Zandy relates to us class and gender issues that surrounded their compensation claims for radium poisoning. She also tells the reader about the efforts of the Consumers League, a voluntary women's organization, which fought for improved working conditions. In addition to the story of documentary photographer Lewis Hine and the photographs he produced, these writings also include descriptions of the Hawks Nest incident, "America's Worst Industrial Disaster," that claimed the lives of hundreds of West Virginia tunnel diggers to silicosis. With this collection of essays, Zandy challenges the reader to "widen the lens and see," in the words of poet Muriel Rukeyser.

Later in the book, the author documents both the terrible Triangle Shirtwaist Company fire of 1911 that claimed the lives of 146 workers, and its literary response: "fire poetry." Horrific photographs complement Zandy's description of the New York City incident. With the background the author provides—such as the earlier general strike that

began at the Triangle Company, and the seven prior fires experienced by the company's owners—a much different picture emerges than what was covered by most of the media in 2003, when the building where the fire occurred became a national landmark. Adding more current relevance to this event, the author notes that 45 years later, several blocks away from the triangle fire site, 24 workers died in another factory fire, because of inadequate fire protection. Even more recently, during the 1990s, similar events occurred in the Far East. Zandy notes, "The cause of death was not an unforeseen natural catastrophe, but rather unsafe working conditions where profits took precedence over human lives."

Zandy succeeds in demonstrating how unsafe work is a subject for literary and cultural expression. "Incidents that affect the lives of working people in one generation often become the historical and cultural antecedents for future generations." The essays in *Hands* are full of such examples.

Cultural expression is also revealed through collective remembrance. In "Ralph Fasanella: Epic Painter of the Working Class," the author demonstrates how "the working-class artist/survivor forges cultural expressions that expand loss and grief from the private to the collective and historical." In an essay dedicated to Workers Memorial Day, Zandy provides the background of the annual April 28 observance. As the director of the National Institute of Occupational Safety and Health said this past year, the day "is a powerful reminder that job-related deaths, injuries, and illnesses are national tragedies with serious ramifications for individuals, families, and society. Going to work should not result in the loss of life or well-being." Zandy describes how the day is much more than simply a reminder and how it has emerged as a public event, imbued with meaning. The day "merges statistics on job deaths and injuries, private memory, and public his-

tory with shared grief and outrage over preventable deaths and injuries to working people.”

In examining what is *not* a working-class novel, Zandy contrasts the works of different authors and offers explanations as to where they fail. Though Michael Ondaatje's *In the Skin of Lion* (1987) and other representations of labor effectively display the physicality of labor, Zandy claims they “are ultimately static representations of labor. They are without the costs of political engagement, the reader stays within a comfort-zone.” This contrasts with the emotional discomfiture of Tillie Olsen's *Yonondio* (1975). In an essay entitled “Worker ghosts,” Zandy probes intentions and raises questions about representing worker subjectivities in books about job closures. These books function as “witness to the enormous industrial and economic shifts affecting the lives of ordinary workers,” but they are not necessarily considered working-class literature.

Zandy identifies some basic characteristics of working-class texts. At the

center of these texts is the living experience of the workers, as represented by the working class. A working-class text “recognizes and resists the transformation of the human I/we into an it—a thing, a commodity, a working unit, a disembodied hand.” Beyond affirming the working-class experience, these texts help recover “submerged labor histories,” according to the author. The genre defies traditional structure and form, challenging dominant assumptions about aesthetics. Another common element of working-class writings, according to Zandy, is class consciousness, with many working-class writers taking sides in their writing. “Their words offer hope and model struggle.” All of these characteristics are offered as an empirical framework for discussion, rather than a strict definition.

The author does not hide her political views, which are shared by many worker writers—the language of class oppression and labor exploitation permeate much of this work. Zandy sees a “historicity of class experience being inseparable from an understanding of

working-class literature.” That economic circumstance affects human relationships and creates disparities is a fact that few can deny. However, from reading *Hands*, one might have the impression that Zandy expects that working-class literature must recognize and conform to the dichotomous view of an ongoing class war. I think this view will only serve to diminish the “working-class agency” that this literature has the potential to produce.

Working-class writings, as an evolving area of study, refocus labor studies from the history of unions and collective bargaining to the living expression of laborer's experiences and frustrations. More than once, Zandy warns that this is not an exercise about guilt. Instead, worker-writing is purposeful—it can uniquely convey the very real issues of worker health and safety and motivate for positive change.

—Bruce Bergman  
Bureau of Labor Statistics,  
Boston–New York region

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# Notes on Current Labor Statistics

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

## General notes

The following notes apply to several tables in this section:

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

Seasonally adjusted data appear in tables 1–14, 17–21, 48, and 52. Seasonally adjusted labor force data in tables 1 and 4–9 were revised in the February 2005 issue of the *Review*. Seasonally adjusted establishment survey data shown in tables 1, 12–14, and 17 were revised in the March 2005 *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 interna-

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

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

## Establishment survey data

### Description of the series

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

#### Definitions

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

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

in each establishment which reports them.

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

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

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

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

### Notes on the data

Establishment survey data are annually adjusted to comprehensive counts of employment (called "benchmarks"). The March 2003 benchmark was introduced in February 2004 with the release of data for January 2004, published in the March 2004 is-

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

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

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

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

In the establishment survey, estimates for the most recent 2 months are based on incomplete returns and are published as preliminary in the tables (12–17 in the *Review*). When all returns have been received, the estimates are revised and published as "final" (prior to any benchmark revisions) in the

third month of their appearance. Thus, December data are published as preliminary in January and February and as final in March. For the same reasons, quarterly establishment data (table 1) are preliminary for the first 2 months of publication and final in the third month. Fourth-quarter data are published as preliminary in January and February and as final in March.

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

## Unemployment data by State

### Description of the series

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

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

### Notes on the data

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

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

## Quarterly Census of Employment and Wages

### Description of the series

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

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

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

## Definitions

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

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

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

An **establishment** is an economic unit, such as a farm, mine, factory, or store, that produces goods or provides services. It is

typically at a single physical location and engaged in one, or predominantly one, type of economic activity for which a single industrial classification may be applied. Occasionally, a single physical location encompasses two or more distinct and significant activities. Each activity should be reported as a separate establishment if separate records are kept and the various activities are classified under different NAICS industries.

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

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

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

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

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

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

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

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

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

### Notes on the data

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

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

To insure the highest possible quality of data, State employment security agencies verify with employers and update, if necessary, the industry, location, and ownership classification of all establishments on a 3-year cycle. Changes in establishment classification codes resulting from the verification process are introduced with the data reported for the first quarter of the year.

Changes resulting from improved employer reporting also are introduced in the first quarter. For these reasons, some data, especially at more detailed geographic levels, may not be strictly comparable with earlier years.

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

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

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

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

## Job Openings and Labor Turnover Survey

### Description of the series

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

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

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

### Definitions

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



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

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

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

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

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

dividing the number by employment and multiplying by 100.

## Notes on the data

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

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

The Federal Government reorganization that involved transferring approximately 180,000 employees to the new Department of Homeland Security is not reflected in the JOLTS hires and separations estimates for the Federal Government. The Office of Personnel Management's record shows these transfers were completed in March 2003. The inclusion of transfers in the JOLTS definitions of hires and separations is intended to cover ongoing movements of workers between establishments. The Department of Homeland Security reorganization was a massive one-time event, and the inclusion of these inter-governmental 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; 30-35)

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

## Employment Cost Index

### Description of the series

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

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

Sample establishments are classified by industry categories based on the 2002 North American Classification System (NAICS). Within a sample establishment, specific job categories are selected and classified into about 800 occupations according to the 2000 Standard Occupational Classification (SOC) System. Individual occupations are combined to represent one of ten intermediate aggregations, such as professional and related occupations, or one of five higher-level aggregations, such as management, professional, and related occupations.

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

## Definitions

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

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

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

Excluded from wages and salaries and

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

## Notes on the data

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

ADDITIONAL INFORMATION on the Employment Cost Index is available at <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 in-

surance 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 <http://www.bls.gov/ncs/ebs/home.htm> or by telephone at (202) 691-6199.

## Work stoppages

(Table 35)

### Description of the series

Data on work stoppages measure the number and duration of major strikes or lockouts (involving 1,000 workers or more) occurring during the month (or year), the number of workers involved, and the amount of work time lost because of stoppage. These data are presented in table 36.

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

## Definitions 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 <http://www.bls.gov/cba/home.htm> or by telephone at (202) 691-6199.

## Price Data

(Tables 2; 37-47)

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

## Consumer Price Indexes

### Description of the series

The **Consumer Price Index** (CPI) is a measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The CPI is calculated monthly for two population groups, one consisting only of urban households whose primary source of income is derived from the employment of wage earners and clerical workers, and the other consisting of all urban households. The wage earner in-

dex (CPI-W) is a continuation of the historic index that was introduced well over a half-century ago for use in wage negotiations. As new uses were developed for the CPI in recent years, the need for a broader and more representative index became apparent. The all-urban consumer index (CPI-U), introduced in 1978, is representative of the 1993-95 buying habits of about 87 percent of the noninstitutional population of the United States at that time, compared with 32 percent represented in the CPI-W. In addition to wage earners and clerical workers, the CPI-U covers professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force.

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

Data collected from more than 23,000 retail establishments and 5,800 housing units in 87 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 14 major urban centers are presented in table 38. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

### Notes on the data

In January 1983, the Bureau changed the way in which homeownership costs are 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 domes-

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

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

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

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

## International Price Indexes

### Description of the series

The **International Price Program** produces monthly and quarterly export and import price indexes for nonmilitary goods and services traded between the United States and the rest of the world. The export price index provides a measure of price change for all products sold by U.S. residents to foreign buyers. ("Residents" is defined as in the national income accounts;

it includes corporations, businesses, and individuals, but does not require the organizations to be U.S. owned nor the individuals to have U.S. citizenship.) The import price index provides a measure of price change for goods purchased from other countries by U.S. residents.

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

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

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

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

### Notes on the data

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

Because a price index depends on the same items being priced from period to period, it is necessary to recognize when a product's specifications or terms of transaction have been modified. For this reason, the Bureau's questionnaire requests detailed descriptions of the physical and functional characteristics of the products being priced, as well as information on the number of units bought or sold, discounts, credit terms,

packaging, class of buyer or seller, and so forth. When there are changes in either the specifications or terms of transaction of a product, the dollar value of each change is deleted from the total price change to obtain the "pure" change. Once this value is determined, a linking procedure is employed which allows for the continued repricing of the item.

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

## Productivity Data

(Tables 2; 48-51)

### Business and major sectors

#### Description of the series

The productivity measures relate real output to real input. As such, they encompass a family of measures which include single-factor input measures, such as output per hour, output per unit of labor input, or output per unit of capital input, as well as measures of multifactor productivity (output per unit of combined labor and capital inputs). The Bureau indexes show the change in output relative to changes in the various inputs. The measures cover the business, nonfarm business, manufacturing, and nonfinancial corporate sectors.

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

#### Definitions

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

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

compensation per hour deflated by the change in the Consumer Price Index for All Urban Consumers.

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

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

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

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

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

**Capital services** are the flow of services from the capital stock used in production. It is developed from measures of the net stock of physical assets—equipment, structures, land, and inventories—weighted by rental prices for each type of asset.

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

### Notes on the data

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

from the Federal Reserve Board are adjusted to these annual output measures by the BLS. Compensation data are developed from data of the Bureau of Economic Analysis and the Bureau of Labor Statistics. Hours data are developed from data of the Bureau of Labor Statistics.

The productivity and associated cost measures in tables 48–51 describe the relationship between output in real terms and the labor and capital inputs involved in its production. They show the changes from period to period in the amount of goods and services produced per unit of input.

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

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

## Industry productivity measures

### Description of the series

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

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

### Definitions

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

tity 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 Website at: [www.bls.gov/lpc/home.htm](http://www.bls.gov/lpc/home.htm)

## International Comparisons (Tables 52–54)

### Labor force and unemployment

#### Description of the series

Tables 52 and 53 present comparative measures of the labor force, employment, and unemployment approximating U.S. concepts for the United States, Canada, Australia, Japan, and six European countries. The labor force statistics published by other industrial countries are not, in most cases, comparable to U.S. concepts. Therefore, the Bureau

adjusts the figures for selected countries, for all known major definitional differences, to the extent that data to prepare adjustments are available. Although precise comparability may not be achieved, these adjusted figures provide a better basis for international comparisons than the figures regularly published by each country. For further information on adjustments and comparability issues, see Constance Sorrentino, “International unemployment rates: how comparable are they?” *Monthly Labor Review*, June 2000, pp. 3–20 (available on the BLS Web site at: [www.bls.gov/opub/mlr/2000/06/art1full.pdf](http://www.bls.gov/opub/mlr/2000/06/art1full.pdf)).

### Definitions

For the principal U.S. definitions of the labor force, employment, and unemployment, see the Notes section on Employment and Unemployment Data: Household survey data.

### Notes on the data

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

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

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

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

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

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

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

For Australia, the 2001 break reflects the introduction in April 2001 of a redesigned labor force survey that allowed for a closer application of International Labor Office guidelines for the definitions of labor force statistics. The Australian Bureau of Statistics

revised their data so there is no break in the employment series. However, the reclassification of persons who had not actively looked for work because they were waiting to begin a new job from "not in the labor force" to "unemployed" could only be incorporated for April 2001 forward. This reclassification diverges from the U.S. definition where persons waiting to start a new job but not actively seeking work are not counted in the labor force. The impact of the reclassification was an increase in the unemployment rate by 0.1 percentage point in 2001.

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

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

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

## Manufacturing productivity and labor costs

### Description of the series

Table 54 presents comparative indexes of manufacturing labor productivity (output per hour), output, total hours, compensation per hour, and unit labor costs for the United States, Australia, Canada, Japan, Korea, Taiwan, and nine 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 all employed persons (wage and salary earners plus self-employed persons and unpaid family workers) with the exception of Belgium and Taiwan, where only employees (wage and salary earners), are counted.

### Definitions

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

The output measure for manufacturing in the United States is the chain-weighted index of real gross product originating (deflated value added), estimated by the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce. It is based on the North American Industry Classification System (NAICS). For more information on the U.S. measure, see "Improved Estimates of Gross Product by Industry for 1947–98," Survey of Current Business, June 2000, pp. 24–38 and "Gross Domestic Product by Industry for 1947–86. New Estimates Based on the North American Industry Classification System," Survey of Current Business, December 2005, pp. 70–84. Most of the other economies now also use annual moving price weights, but earlier years were estimated using fixed price weights, with the weights typically updated every 5 or 10 years.

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

**Total labor hours** refers to hours worked in all economies. The measures are developed from statistics of manufacturing employment and average hours. The series used for Australia, Canada, Denmark, France (from 1970 forward), Germany, Norway, and Sweden are official series published with the national accounts. For the United Kingdom from 1992, an official annual index of total manufacturing hours is used. Where official total hours series are not available, the measures are developed by BLS using employment figures published with the national accounts, or other comprehensive employment series, and estimates of annual hours worked.

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

related subsidies. Self-employed workers are included in the all-employed persons measures by assuming that their compensation is equal to the average for wage and salary employees.

### Notes on the data

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

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

Official published data for Australia are in fiscal years that begin on July 1. The Australian Bureau of Statistics has furnished calendar year data for recent years for output and hours. For earlier years and for compensation, data are BLS estimates using two-year moving averages of fiscal year data.

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

## Occupational Injury and Illness Data

(Tables 55-56)

### Survey of Occupational Injuries and Illnesses

#### Description of the series

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

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

### Definitions

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

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

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

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

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

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

#### Notes on the data

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

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

The survey continues to measure the num-

ber 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: <http://www.bls.gov/iif/>

## Census of Fatal Occupational Injuries

The Census of Fatal Occupational Injuries compiles a complete roster of fatal job-re-

lated 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/)



## I. Labor market indicators

Selected indicators	2004	2005	2004			2005				2006	
			II	III	IV	I	II	III	IV	I	II
<b>Employment data</b>											
Employment status of the civilian noninstitutional population (household survey): <sup>1</sup>											
Labor force participation rate.....	66.0	66.0	66.0	66.0	66.0	65.8	66.1	66.2	66.1	66.0	66.1
Employment-population ratio.....	62.3	62.7	62.3	62.4	62.4	62.4	62.7	62.9	62.8	62.9	63.0
Unemployment rate.....	5.5	5.1	5.6	5.5	5.4	5.2	5.1	5.0	5.0	4.7	4.7
Men.....	5.6	5.1	5.7	5.6	5.6	5.4	5.0	5.0	4.9	4.7	4.7
16 to 24 years.....	12.6	12.4	12.9	12.5	12.6	13.2	12.5	12.1	11.7	11.2	11.1
25 years and older.....	4.4	3.8	4.5	4.4	4.3	4.1	3.8	3.8	3.7	3.6	3.6
Women.....	5.4	5.1	5.4	5.3	5.2	5.1	5.1	5.1	5.1	4.8	4.6
16 to 24 years.....	11.0	10.1	10.9	10.9	10.9	10.4	10.4	9.8	10.0	9.6	9.2
25 years and older.....	4.4	4.2	4.4	4.3	4.2	4.1	4.2	4.2	4.2	3.9	3.8
Employment, nonfarm (payroll data), in thousands: <sup>1</sup>											
Total nonfarm.....	131,435	133,463	131,277	131,602	132,244	132,694	133,230	133,750	134,161	134,722	135,125
Total private.....	109,814	111,660	109,683	109,981	110,533	110,960	111,454	111,907	112,291	112,849	113,198
Goods-producing.....	21,882	22,133	21,858	21,932	22,001	22,039	22,126	22,140	22,242	22,363	22,419
Manufacturing.....	14,315	14,232	14,330	14,336	14,307	14,271	14,247	14,208	14,211	14,226	14,245
Service-providing.....	109,553	111,330	109,419	109,670	110,243	110,655	111,104	111,610	111,920	112,359	112,706
Average hours:											
Total private.....	33.7	33.8	33.7	33.7	33.7	33.7	33.7	33.8	33.8	33.8	33.9
Manufacturing.....	40.8	40.7	40.9	40.8	40.5	40.6	40.4	40.6	40.9	41.0	41.2
Overtime.....	4.6	4.6	4.6	4.6	4.5	4.5	4.4	4.5	4.6	4.5	4.6
<b>Employment Cost Index<sup>1, 2, 3</sup></b>											
Total compensation:											
Civilian nonfarm <sup>4</sup> .....	3.7	3.1	1.0	1.0	.5	1.0	.6	.8	.6	.7	.9
Private nonfarm.....	3.8	2.9	1.1	.8	.5	1.0	.7	.6	.5	.8	.9
Goods-producing <sup>5</sup> .....	4.6	3.2	1.0	1.2	.4	1.1	1.0	.8	.2	.3	1.0
Service-providing <sup>5</sup> .....	3.5	2.8	1.1	.7	.5	1.0	.6	.6	.5	1.0	.8
State and local government.....	3.6	4.1	.4	1.6	.7	.8	.3	2.0	.9	.5	.4
Workers by bargaining status (private nonfarm):											
Union.....	5.4	2.8	1.5	.8	.6	.6	.9	.8	.4	.5	1.3
Nonunion.....	3.5	2.9	.9	.8	.5	1.1	.6	.6	.5	.9	.8

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

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

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

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

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

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

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

Selected measures	2004	2005	2004			2005				2006	
			II	III	IV	I	II	III	IV	I	II
<b>Compensation data<sup>1, 2, 3</sup></b>											
Employment Cost Index—compensation:											
Civilian nonfarm.....	3.7	3.1	1.0	1.0	0.5	1.0	0.6	0.8	0.6	0.7	0.9
Private nonfarm.....	3.8	2.9	1.1	.8	.5	1.0	.7	.6	.5	.8	.9
Employment Cost Index—wages and salaries:											
Civilian nonfarm.....	2.5	2.6	.6	.9	.3	.6	.6	.7	.6	.7	.8
Private nonfarm.....	2.6	2.5	.8	.8	.3	.7	.6	.6	.5	.7	1.0
<b>Price data<sup>1</sup></b>											
Consumer Price Index (All Urban Consumers): All Items.....											
	3.3	3.4	1.2	.2	.2	1.0	.5	2.2	-1.0	1.5	1.6
Producer Price Index:											
Finished goods.....	4.1	5.4	1.2	.0	1.1	2.0	.3	3.2	.0	.1	1.7
Finished consumer goods.....	4.6	6.8	1.4	-1.7	.9	-2.6	1.4	4.1	-4	.1	2.1
Capital equipment.....	2.4	1.3	.5	.4	1.6	2.1	-2	.3	.7	.5	.3
Intermediate materials, supplies, and components.....	9.1	8.4	3.0	1.9	.9	3.5	.8	3.9	1.1	1.1	3.0
Crude materials.....	18.0	22.1	7.6	-5.1	8.3	9.7	-2.5	-1.4	2.0	-11.7	1.5
<b>Productivity data<sup>4</sup></b>											
Output per hour of all persons:											
Business sector.....	3.5	2.6	4.5	.5	1.6	3.1	1.2	5.0	.2	4.5	1.1
Nonfarm business sector.....	3.4	2.7	5.1	.2	.4	3.6	2.3	4.4	-.1	4.3	1.1
Nonfinancial corporations <sup>5</sup> .....	4.0	5.0	3.1	5.5	1.6	5.0	4.9	3.0	3.2	7.2	-

<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—				
	2005			2006		2005			2006	
	II	III	IV	I	II	II	III	IV	I	II
Average hourly compensation: <sup>1</sup>										
All persons, business sector.....	0.8	8.3	3.1	6.9	5.1	4.0	4.9	4.0	4.8	5.9
All persons, nonfarm business sector.....	1.6	7.8	2.9	6.9	5.4	4.0	4.8	4.1	4.8	5.7
Employment Cost Index—compensation: <sup>2</sup>										
Civilian nonfarm <sup>3</sup> .....	.6	.8	.6	.7	.9	3.2	3.0	3.1	2.8	3.0
Private nonfarm.....	.7	.6	.5	.8	.9	3.1	2.9	2.9	2.6	2.8
Union.....	.9	.8	.4	.5	1.3	3.0	3.0	2.8	2.7	3.0
Nonunion.....	.6	.6	.5	.9	.8	3.1	2.9	2.9	2.6	2.8
State and local government.....	.3	2.0	.9	.5	.4	3.5	3.9	4.1	3.7	3.8
Employment Cost Index—wages and salaries: <sup>2</sup>										
Civilian nonfarm <sup>3</sup> .....	.6	.7	.6	.7	.8	2.5	2.3	2.6	2.7	2.8
Private nonfarm.....	.6	.6	.5	.7	1.0	2.5	2.3	2.5	2.4	2.8
Union.....	.8	.8	.5	.3	.9	2.4	2.5	2.5	2.5	2.5
Nonunion.....	.6	.6	.5	.8	1.0	2.5	2.3	2.5	2.5	2.9
State and local government.....	.2	1.3	.9	.3	.5	2.3	2.6	3.1	2.8	3.1

<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		2005						2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>TOTAL</b>															
Civilian noninstitutional population <sup>1</sup>	223,357	226,082	226,153	226,421	226,693	226,959	227,204	227,425	227,553	227,763	227,975	228,199	228,428	228,671	228,912
Civilian labor force.....	147,401	149,320	149,605	149,792	150,083	150,043	150,183	150,153	150,114	150,449	150,652	150,811	150,991	151,321	151,534
Participation rate.....	66.0	66.0	66.2	66.2	66.2	66.1	66.1	66.0	66.0	66.1	66.1	66.1	66.1	66.2	66.2
Employed.....	139,252	141,730	142,111	142,425	142,435	142,625	142,611	142,779	143,074	143,257	143,641	143,688	143,976	144,363	144,329
Employment-population ratio <sup>2</sup>	62.3	62.7	62.8	62.9	62.8	62.8	62.8	62.8	62.9	62.9	63.0	63.0	63.0	63.1	63.0
Unemployed.....	8,149	7,591	7,494	7,367	7,648	7,418	7,572	7,375	7,040	7,193	7,011	7,123	7,015	6,957	7,205
Unemployment rate.....	5.5	5.1	5.0	4.9	5.1	4.9	5.0	4.9	4.7	4.8	4.7	4.7	4.6	4.6	4.8
Not in the labor force.....	75,956	76,762	76,548	76,629	76,610	76,916	77,021	77,271	77,439	77,314	77,323	77,388	77,437	77,350	77,379
<b>Men, 20 years and over</b>															
Civilian noninstitutional population <sup>1</sup>	99,476	100,835	100,874	101,004	101,136	101,265	101,383	101,489	101,560	101,657	101,754	101,857	101,963	102,075	102,187
Civilian labor force.....	75,364	76,443	76,619	76,787	76,792	76,780	76,722	76,786	76,928	77,115	77,335	77,415	77,477	77,296	77,308
Participation rate.....	75.8	75.8	76.0	76.0	75.9	75.8	75.7	75.7	75.9	75.9	76.0	76.0	76.0	75.7	75.7
Employed.....	71,572	73,050	73,345	73,479	73,331	73,500	73,441	73,468	73,844	73,857	74,197	74,169	74,202	74,215	74,082
Employment-population ratio <sup>2</sup>	71.9	72.4	72.7	72.7	72.5	72.6	72.4	72.4	72.7	72.7	72.9	72.8	72.8	72.7	72.5
Unemployed.....	3,791	3,392	3,274	3,307	3,461	3,281	3,282	3,318	3,084	3,258	3,137	3,246	3,275	3,082	3,226
Unemployment rate.....	5.0	4.4	4.3	4.3	4.5	4.3	4.3	4.3	4.0	4.2	4.1	4.2	4.2	4.0	4.2
Not in the labor force.....	24,113	24,392	24,255	24,218	24,344	24,485	24,660	24,703	24,631	24,542	24,419	24,442	24,486	24,779	24,878
<b>Women, 20 years and over</b>															
Civilian noninstitutional population <sup>1</sup>	107,658	108,850	108,880	108,996	109,114	109,228	109,332	109,425	109,478	109,562	109,646	109,736	109,829	109,927	110,026
Civilian labor force.....	64,923	65,714	65,813	65,778	66,129	66,175	66,223	66,215	66,022	66,081	66,038	66,187	66,280	66,609	66,872
Participation rate.....	60.3	60.4	60.4	60.3	60.6	60.6	60.6	60.5	60.3	60.3	60.2	60.3	60.3	60.6	60.8
Employed.....	61,773	62,702	62,744	62,901	63,074	63,162	63,170	63,249	63,163	63,262	63,305	63,362	63,555	63,878	64,035
Employment-population ratio <sup>2</sup>	57.4	57.6	57.6	57.7	57.8	57.8	57.8	57.8	57.7	57.7	57.7	57.7	57.9	58.1	58.2
Unemployed.....	3,150	3,013	3,070	2,877	3,055	3,013	3,053	2,966	2,859	2,819	2,733	2,825	2,725	2,730	2,837
Unemployment rate.....	4.9	4.6	4.7	4.4	4.6	4.6	4.6	4.5	4.3	4.3	4.1	4.3	4.1	4.1	4.2
Not in the labor force.....	42,735	43,136	43,067	43,219	42,985	43,053	43,109	43,209	43,456	43,481	43,608	43,550	43,549	43,319	43,154
<b>Both sexes, 16 to 19 years</b>															
Civilian noninstitutional population <sup>1</sup>	16,222	16,398	16,399	16,421	16,443	16,465	16,489	16,511	16,515	16,545	16,575	16,606	16,637	16,668	16,700
Civilian labor force.....	7,114	7,164	7,172	7,228	7,163	7,088	7,238	7,152	7,164	7,253	7,279	7,210	7,234	7,416	7,353
Participation rate.....	43.9	43.7	43.7	44.0	43.6	43.0	43.9	43.3	43.4	43.8	43.9	43.4	43.5	44.5	44.0
Employed.....	5,907	5,978	6,022	6,045	6,030	5,964	6,000	6,061	6,067	6,138	6,139	6,157	6,220	6,270	6,211
Employment-population ratio <sup>2</sup>	36.4	36.5	36.7	36.8	36.7	36.2	36.4	36.7	36.7	37.1	37.0	37.1	37.4	37.6	37.2
Unemployed.....	1,208	1,186	1,150	1,183	1,133	1,124	1,238	1,091	1,097	1,115	1,140	1,053	1,015	1,145	1,142
Unemployment rate.....	17.0	16.6	16.0	16.4	15.8	15.9	17.1	15.2	15.3	15.4	15.7	14.6	14.0	15.4	15.5
Not in the labor force.....	9,108	9,234	9,226	9,193	9,281	9,377	9,251	9,359	9,352	9,292	9,296	9,396	9,402	9,253	9,347
<b>White<sup>3</sup></b>															
Civilian noninstitutional population <sup>1</sup>	182,643	184,446	184,490	184,669	184,851	185,028	185,187	185,327	185,436	185,570	185,704	185,849	186,002	186,166	186,329
Civilian labor force.....	121,086	122,299	122,431	122,638	122,843	122,810	122,813	122,994	123,168	123,022	123,103	123,357	123,449	123,747	123,946
Participation rate.....	66.3	66.3	66.4	66.4	66.5	66.4	66.3	66.4	66.4	66.3	66.3	66.4	66.4	66.5	66.5
Employed.....	115,239	116,949	117,168	117,446	117,354	117,396	117,598	117,729	118,071	117,926	118,193	118,357	118,429	118,720	118,846
Employment-population ratio <sup>2</sup>	63.1	63.4	63.5	63.6	63.5	63.4	63.5	63.5	63.7	63.5	63.6	63.7	63.7	63.8	63.8
Unemployed.....	5,847	5,350	5,263	5,193	5,489	5,415	5,215	5,264	5,097	5,096	4,910	5,001	5,020	5,027	5,100
Unemployment rate.....	4.8	4.4	4.3	4.2	4.5	4.4	4.2	4.3	4.1	4.1	4.0	4.1	4.1	4.1	4.1
Not in the labor force.....	61,558	62,148	62,059	62,031	62,008	62,218	62,374	62,333	62,268	62,548	62,601	62,492	62,552	62,418	62,383
<b>Black or African American<sup>3</sup></b>															
Civilian noninstitutional population <sup>1</sup>	26,065	26,517	26,526	26,572	26,618	26,663	26,705	26,744	26,788	26,826	26,865	26,905	26,943	26,982	27,021
Civilian labor force.....	16,638	17,013	17,199	17,130	17,068	17,150	17,118	16,979	16,982	17,273	17,334	17,326	17,312	17,231	17,369
Participation rate.....	63.8	64.2	64.8	64.5	64.1	64.3	64.1	63.5	63.4	64.4	64.5	64.4	64.3	63.9	64.3
Employed.....	14,909	15,313	15,581	15,476	15,455	15,591	15,299	15,397	15,476	15,660	15,726	15,698	15,767	15,685	15,714
Employment-population ratio <sup>2</sup>	57.2	57.7	58.7	58.2	58.1	58.5	57.3	57.6	57.8	58.4	58.5	58.3	58.5	58.1	58.2
Unemployed.....	1,729	1,700	1,619	1,654	1,613	1,559	1,819	1,582	1,506	1,614	1,608	1,628	1,545	1,547	1,655
Unemployment rate.....	10.4	10.0	9.4	9.7	9.5	9.1	10.6	9.3	8.9	9.3	9.3	9.4	8.9	9.0	9.5
Not in the labor force.....	9,428	9,504	9,327	9,442	9,549	9,513	9,587	9,766	9,806	9,553	9,531	9,580	9,631	9,751	9,652

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		2005						2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>Hispanic or Latino ethnicity</b>															
Civilian noninstitutional population <sup>1</sup>	28,109	29,133	29,168	29,264	29,361	29,456	29,552	29,645	29,622	29,707	29,793	29,880	29,966	30,053	30,140
Civilian labor force.....	19,272	19,824	19,792	19,925	19,944	20,047	20,214	20,292	20,528	20,485	20,489	20,583	20,574	20,753	20,663
Participation rate.....	68.6	68.0	67.9	68.1	67.9	68.1	68.4	68.4	69.3	69.0	68.8	68.9	68.7	69.1	68.6
Employed.....	17,930	18,632	18,700	18,760	18,647	18,871	18,991	19,066	19,344	19,356	19,385	19,476	19,541	19,649	19,578
Employment-population ratio <sup>2</sup>	63.8	64.0	64.1	64.1	63.5	64.1	64.3	64.3	65.3	65.2	65.1	65.2	65.2	65.4	65.0
Unemployed.....	1,342	1,191	1,092	1,164	1,297	1,176	1,223	1,226	1,184	1,129	1,104	1,107	1,033	1,104	1,085
Unemployment rate.....	7.0	6.0	5.5	5.8	6.5	5.9	6.1	6.0	5.8	5.5	5.4	5.4	5.0	5.3	5.3
Not in the labor force.....	8,837	9,310	9,376	9,340	9,417	9,409	9,338	9,353	9,094	9,222	9,304	9,297	9,392	9,300	9,477

<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		2005						2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>Characteristic</b>															
Employed, 16 years and older.....	139,252	141,730	142,111	142,425	142,435	142,625	142,611	142,779	143,074	143,257	143,641	143,688	143,976	144,363	144,329
Men.....	74,524	75,973	76,258	76,404	76,257	76,396	76,410	76,529	76,857	76,888	77,273	77,237	77,313	77,357	77,162
Women.....	64,728	65,757	65,853	66,022	66,178	66,229	66,200	66,250	66,217	66,369	66,368	66,451	66,663	67,006	67,168
Married men, spouse present.....	45,084	45,483	45,489	45,666	45,457	45,634	45,480	45,469	45,790	45,679	45,806	45,837	45,843	45,809	45,558
Married women, spouse present.....	34,600	34,773	34,956	34,960	34,943	34,868	34,910	34,948	35,167	35,039	35,074	35,300	35,171	35,394	35,309
<b>Persons at work part time<sup>1</sup></b>															
All industries:															
Part time for economic reasons.....	4,567	4,350	4,411	4,450	4,565	4,240	4,175	4,138	4,133	4,204	3,989	3,978	4,137	4,266	4,261
Slack work or business conditions.....	2,841	2,684	2,716	2,752	2,893	2,643	2,595	2,541	2,649	2,655	2,494	2,474	2,703	2,729	2,658
Could only find part-time work.....	1,409	1,341	1,374	1,392	1,331	1,299	1,246	1,246	1,226	1,238	1,191	1,179	1,152	1,190	1,202
Part time for noneconomic reasons.....	19,380	19,491	19,539	19,548	19,581	19,696	19,612	19,582	19,708	19,564	19,373	19,460	19,701	19,684	19,501
Nonagricultural industries:															
Part time for economic reasons.....	4,469	4,271	4,353	4,406	4,500	4,161	4,105	4,051	4,064	4,107	3,884	3,900	4,037	4,158	4,143
Slack work or business conditions.....	2,773	2,636	2,670	2,728	2,846	2,592	2,567	2,508	2,606	2,590	2,382	2,422	2,612	2,656	2,578
Could only find part-time work.....	1,399	1,330	1,371	1,394	1,335	1,284	1,230	1,230	1,198	1,225	1,177	1,169	1,150	1,189	1,197
Part time for noneconomic reasons.....	19,026	19,134	19,110	19,168	19,207	19,255	19,235	19,214	19,368	19,199	19,044	19,112	19,292	19,310	19,170

<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		2005						2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>Characteristic</b>															
Total, 16 years and older.....	5.5	5.1	5.0	4.9	5.1	4.9	5.0	4.9	4.7	4.8	4.7	4.7	4.6	4.6	4.8
Both sexes, 16 to 19 years.....	17.0	16.6	16.0	16.4	15.8	15.9	17.1	15.2	15.3	15.4	15.7	14.6	14.0	15.4	15.5
Men, 20 years and older.....	5.0	4.4	4.3	4.3	4.5	4.3	4.3	4.3	4.0	4.2	4.1	4.2	4.2	4.0	4.2
Women, 20 years and older.....	4.9	4.6	4.7	4.4	4.6	4.6	4.6	4.5	4.3	4.3	4.1	4.3	4.1	4.1	4.2
White, total <sup>1</sup> .....	4.8	4.4	4.3	4.2	4.5	4.4	4.2	4.3	4.1	4.1	4.0	4.1	4.1	4.1	4.1
Both sexes, 16 to 19 years.....	15.0	14.2	13.6	13.8	13.3	14.2	13.9	13.4	13.3	12.7	12.7	12.3	12.7	13.6	12.9
Men, 16 to 19 years.....	16.3	16.1	15.5	15.3	15.3	15.1	15.1	13.8	14.4	14.6	14.0	14.2	15.0	14.9	14.2
Women, 16 to 19 years.....	13.6	12.3	11.7	12.4	11.4	13.3	12.6	12.9	12.1	10.7	11.4	10.4	10.3	12.4	11.6
Men, 20 years and older.....	4.4	3.8	3.7	3.7	4.0	3.8	3.6	3.8	3.6	3.7	3.5	3.6	3.7	3.5	3.6
Women, 20 years and older.....	4.2	3.9	4.0	3.7	4.0	4.0	3.9	3.8	3.7	3.8	3.6	3.7	3.6	3.6	3.7
Black or African American, total <sup>1</sup> .....	10.4	10.0	9.4	9.7	9.5	9.1	10.6	9.3	8.9	9.3	9.3	9.4	8.9	9.0	9.5
Both sexes, 16 to 19 years.....	31.7	33.3	32.8	35.9	33.1	32.4	38.4	24.4	31.4	30.8	33.1	29.5	25.0	27.8	31.6
Men, 16 to 19 years.....	35.6	36.3	38.9	39.5	33.7	35.0	44.9	23.6	30.9	31.8	32.6	31.9	29.4	32.1	35.6
Women, 16 to 19 years.....	28.2	30.3	27.4	32.6	32.5	30.3	31.5	25.2	31.8	29.9	33.4	27.0	20.5	23.7	28.0
Men, 20 years and older.....	9.9	9.2	8.3	8.6	8.7	8.5	9.4	8.6	7.5	8.5	8.3	8.9	9.0	8.5	9.0
Women, 20 years and older.....	8.9	8.5	8.2	8.2	8.1	7.5	9.0	8.5	8.1	7.8	7.6	7.8	7.2	7.5	7.8
Hispanic or Latino ethnicity.....	7.0	6.0	5.5	5.8	6.5	5.9	6.1	6.0	5.8	5.5	5.4	5.4	5.0	5.3	5.3
Married men, spouse present.....	3.1	2.8	2.7	2.9	2.7	2.6	2.6	2.6	2.4	2.4	2.4	2.6	2.5	2.5	2.5
Married women, spouse present.....	3.5	3.3	3.4	3.2	3.4	3.3	3.3	3.2	3.0	2.9	2.7	2.9	3.0	2.9	3.1
Full-time workers.....	5.6	5.0	4.9	4.9	5.0	4.9	4.9	4.8	4.7	4.7	4.6	4.7	4.5	4.5	4.6
Part-time workers.....	5.3	5.4	5.5	5.1	5.3	5.4	5.7	5.5	4.8	5.2	5.1	5.1	5.1	5.2	5.4
<b>Educational attainment<sup>2</sup></b>															
Less than a high school diploma.....	8.5	7.6	7.6	7.6	8.2	7.1	7.4	7.5	7.0	7.2	7.0	7.0	6.9	7.0	7.1
High school graduates, no college <sup>3</sup> .....	5.0	4.7	4.8	4.7	5.0	4.8	4.8	4.6	4.4	4.4	4.2	4.4	4.4	4.1	4.5
Some college or associate degree.....	4.2	3.9	3.7	3.6	3.6	3.8	3.8	3.9	3.5	3.6	3.7	3.8	3.8	3.5	3.6
Bachelor's degree and higher <sup>4</sup> .....	2.7	2.3	2.4	2.1	2.3	2.3	2.2	2.2	2.1	2.2	2.2	2.2	2.1	2.1	2.1

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

2 Data refer to persons 25 years and older.

3 Includes high school diploma or equivalent.

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

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

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

[Numbers in thousands]

Weeks of unemployment	Annual average		2005						2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Less than 5 weeks.....	2,696	2,667	2,616	2,544	2,751	2,708	2,779	2,764	2,556	2,595	2,676	2,635	2,516	2,673	2,704
5 to 14 weeks.....	2,382	2,304	2,452	2,268	2,253	2,263	2,268	2,240	2,263	2,074	2,011	2,115	2,242	2,052	2,175
15 weeks and over.....	3,072	2,619	2,483	2,672	2,584	2,477	2,492	2,417	2,241	2,482	2,333	2,373	2,297	2,133	2,338
15 to 26 weeks.....	1,293	1,130	1,069	1,229	1,120	1,045	1,108	1,068	1,090	1,126	1,044	1,046	968	1,020	998
27 weeks and over.....	1,779	1,490	1,414	1,444	1,464	1,432	1,383	1,350	1,151	1,356	1,288	1,327	1,329	1,112	1,340
Mean duration, in weeks.....	19.6	18.4	17.7	18.9	18.2	18.0	17.6	17.3	16.8	17.6	16.9	16.8	17.1	16.2	17.3
Median duration, in weeks.....	9.8	8.9	8.9	9.4	8.5	8.6	8.5	8.5	8.4	8.9	8.5	8.5	8.5	7.5	8.2

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		2005						2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Job losers <sup>1</sup> .....	4,197	3,667	3,626	3,474	3,697	3,508	3,455	3,486	3,336	3,361	3,412	3,531	3,524	3,409	3,370
On temporary layoff.....	998	933	954	874	970	944	899	935	873	885	918	907	949	981	933
Not on temporary layoff.....	3,199	2,734	2,673	2,600	2,726	2,564	2,556	2,552	2,462	2,477	2,494	2,624	2,575	2,428	2,437
Job leavers.....	858	872	825	839	874	889	900	841	839	849	817	846	878	818	857
Reentrants.....	2,408	2,386	2,411	2,455	2,423	2,349	2,538	2,430	2,314	2,313	2,158	2,180	2,119	2,091	2,358
New entrants.....	686	666	627	633	626	654	679	644	622	680	634	579	525	650	629
<b>Percent of unemployed</b>															
Job losers <sup>1</sup> .....	51.5	48.3	48.4	46.9	48.5	47.4	45.6	47.1	46.9	46.7	48.6	49.5	50.0	48.9	46.7
On temporary layoff.....	12.2	12.3	12.7	11.8	12.7	12.8	11.9	12.6	12.3	12.3	13.1	12.7	13.5	14.1	12.9
Not on temporary layoff.....	39.3	36.0	35.7	35.1	35.8	34.7	33.8	34.5	34.6	34.4	35.5	36.8	36.5	34.8	33.8
Job leavers.....	10.5	11.5	11.0	11.3	11.5	12.0	11.9	11.4	11.8	11.8	11.6	11.9	12.5	11.7	11.9
Reentrants.....	29.5	31.4	32.2	33.2	31.8	31.7	33.5	32.8	32.5	32.1	30.7	30.5	30.1	30.0	32.7
New entrants.....	8.4	8.8	8.4	8.6	8.2	8.8	9.0	8.7	8.7	9.4	9.0	8.1	7.4	9.3	8.7
<b>Percent of civilian labor force</b>															
Job losers <sup>1</sup> .....	2.8	2.5	2.4	2.3	2.5	2.3	2.3	2.3	2.2	2.2	2.3	2.3	2.3	2.3	2.2
Job leavers.....	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.5	.6	.6	.5	.6
Reentrants.....	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.5	1.5	1.4	1.4	1.4	1.4	1.6
New entrants.....	.5	.4	.4	.4	.4	.4	.5	.4	.4	.5	.4	.4	.3	.4	.4

<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		2005						2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Total, 16 years and older.....	5.5	5.1	5.0	4.9	5.1	4.9	5.0	4.9	4.7	4.8	4.7	4.7	4.6	4.6	4.8
16 to 24 years.....	11.8	11.3	10.8	11.3	11.0	10.8	11.2	10.7	10.5	10.7	10.2	10.3	10.0	10.4	10.8
16 to 19 years.....	17.0	16.6	16.0	16.4	15.8	15.9	17.1	15.2	15.3	15.4	15.7	14.6	14.0	15.4	15.5
16 to 17 years.....	20.2	19.1	18.5	18.6	18.8	18.7	21.4	17.8	16.5	17.9	18.6	15.9	15.1	17.0	16.7
18 to 19 years.....	15.0	14.9	14.4	15.0	13.9	14.2	14.2	13.5	14.4	13.9	13.7	14.1	13.4	14.3	14.7
20 to 24 years.....	9.4	8.8	8.3	8.8	8.7	8.5	8.4	8.5	8.2	8.5	7.6	8.2	8.1	7.9	8.5
25 years and older.....	4.4	4.0	4.0	3.8	4.1	3.9	3.9	3.9	3.7	3.8	3.7	3.7	3.7	3.6	3.7
25 to 54 years.....	4.6	4.1	4.2	4.0	4.2	4.1	4.1	4.1	3.8	4.0	3.9	3.9	3.9	3.7	3.9
55 years and older.....	3.7	3.4	3.5	3.2	3.6	3.2	3.1	3.3	3.2	2.9	2.7	3.0	3.0	2.9	3.1
Men, 16 years and older.....	5.6	5.1	4.9	4.9	5.1	4.8	5.0	4.9	4.6	4.8	4.6	4.7	4.8	4.6	4.8
16 to 24 years.....	12.6	12.4	11.7	12.5	12.1	11.5	12.3	11.3	11.2	11.6	11.0	11.1	11.3	11.0	11.3
16 to 19 years.....	18.4	18.6	18.3	18.0	17.4	16.5	19.1	16.0	16.2	17.1	16.8	16.2	16.2	17.0	17.1
16 to 17 years.....	22.0	22.0	22.9	21.4	21.3	18.1	23.6	19.8	17.0	21.3	20.5	17.9	17.6	18.0	16.9
18 to 19 years.....	16.3	16.5	15.5	16.2	15.1	15.5	15.6	13.8	15.4	14.6	14.4	15.8	15.3	16.6	17.6
20 to 24 years.....	10.1	9.6	8.8	10.0	9.8	9.4	9.1	9.2	8.9	9.1	8.3	8.7	9.1	8.2	8.7
25 years and older.....	4.4	3.8	3.8	3.6	3.9	3.7	3.7	3.8	3.5	3.7	3.6	3.6	3.7	3.5	3.6
25 to 54 years.....	4.6	3.9	3.9	3.8	4.0	3.8	3.8	3.9	3.5	3.9	3.8	3.8	3.8	3.6	3.8
55 years and older.....	3.9	3.3	3.2	3.1	3.3	3.2	3.1	3.3	3.2	2.8	2.7	3.1	3.0	3.1	3.2
Women, 16 years and older.....	5.4	5.1	5.1	4.9	5.1	5.1	5.1	5.0	4.8	4.7	4.7	4.7	4.5	4.6	4.7
16 to 24 years.....	11.0	10.1	9.7	9.9	9.7	10.1	10.0	9.9	9.8	9.7	9.4	9.4	8.6	9.7	10.2
16 to 19 years.....	15.5	14.5	13.8	14.7	14.3	15.2	15.0	14.4	14.4	13.6	14.5	13.0	11.7	13.8	13.9
16 to 17 years.....	18.5	16.5	14.5	15.9	16.6	19.1	19.5	16.1	16.1	14.7	16.7	14.0	12.5	15.9	16.5
18 to 19 years.....	13.5	13.1	13.2	13.8	12.6	12.8	12.7	13.2	13.2	13.1	13.0	12.3	11.3	11.9	11.7
20 to 24 years.....	8.7	7.9	7.7	7.4	7.4	7.5	7.5	7.7	7.4	7.7	6.7	7.5	7.0	7.5	8.3
25 years and older.....	4.4	4.2	4.3	4.0	4.3	4.2	4.3	4.1	4.0	3.9	3.8	3.9	3.8	3.7	3.8
25 to 54 years.....	4.6	4.4	4.5	4.2	4.4	4.4	4.5	4.4	4.1	4.1	4.1	4.1	4.0	3.9	4.0
55 years and older <sup>1</sup> .....	3.6	3.4	4.1	3.8	3.9	3.1	3.1	2.9	3.3	3.1	2.5	2.6	2.6	3.0	3.5

<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	June 2005	May 2006 <sup>P</sup>	June 2006 <sup>P</sup>	State	June 2005	May 2006 <sup>P</sup>	June 2006 <sup>P</sup>
Alabama.....	4.0	3.6	3.6	Missouri.....	5.3	4.4	4.7
Alaska.....	6.6	7.1	6.6	Montana.....	4.0	3.8	3.5
Arizona.....	4.7	4.2	4.4	Nebraska.....	3.7	3.2	3.1
Arkansas.....	4.9	5.3	5.2	Nevada.....	4.1	4.0	4.2
California.....	5.4	5.0	4.9	New Hampshire.....	3.6	3.3	3.3
Colorado.....	5.1	4.5	4.5	New Jersey.....	4.3	5.0	4.9
Connecticut.....	4.9	4.0	4.1	New Mexico.....	5.3	4.2	4.1
Delaware.....	4.2	3.8	3.7	New York.....	5.0	4.6	4.6
District of Columbia.....	6.5	5.7	5.4	North Carolina.....	5.4	4.6	4.6
Florida.....	3.8	3.2	3.0	North Dakota.....	3.5	3.3	3.5
Georgia.....	5.3	4.9	4.8	Ohio.....	6.0	5.3	5.1
Hawaii.....	2.7	3.0	3.1	Oklahoma.....	4.5	4.1	3.9
Idaho.....	3.8	3.5	3.5	Oregon.....	6.3	5.6	5.4
Illinois.....	5.9	4.6	4.5	Pennsylvania.....	5.0	4.8	4.7
Indiana.....	5.4	5.0	5.2	Rhode Island.....	5.0	5.5	5.5
Iowa.....	4.6	3.4	3.6	South Carolina.....	6.7	6.5	6.7
Kansas.....	5.1	4.5	4.6	South Dakota.....	3.8	2.9	3.0
Kentucky.....	6.1	5.6	5.8	Tennessee.....	5.7	5.4	5.6
Louisiana.....	5.5	5.2	4.6	Texas.....	5.2	5.1	5.1
Maine.....	4.8	4.4	4.6	Utah.....	4.3	3.5	3.1
Maryland.....	4.2	3.8	4.0	Vermont.....	3.4	3.0	3.3
Massachusetts.....	4.8	5.0	5.0	Virginia.....	3.6	3.0	3.1
Michigan.....	6.7	6.0	6.3	Washington.....	5.6	5.1	5.1
Minnesota.....	3.9	3.7	3.6	West Virginia.....	5.0	4.8	4.9
Mississippi.....	7.2	7.3	7.1	Wisconsin.....	4.7	4.7	4.7
				Wyoming.....	3.9	3.7	3.3

<sup>P</sup> = preliminary



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

State	June 2005	May 2006 <sup>P</sup>	June 2006 <sup>P</sup>	State	June 2005	May 2006 <sup>P</sup>	June 2006 <sup>P</sup>
Alabama.....	2,153,995	2,173,733	2,176,031	Missouri.....	3,022,210	3,044,062	3,029,678
Alaska.....	338,466	345,818	345,450	Montana.....	493,533	502,279	499,252
Arizona.....	2,840,023	2,941,159	2,940,114	Nebraska.....	985,343	983,220	985,862
Arkansas.....	1,362,222	1,392,414	1,392,194	Nevada.....	1,215,651	1,269,921	1,271,665
California.....	17,687,594	17,794,086	17,743,286	New Hampshire.....	732,006	735,006	738,838
Colorado.....	2,547,326	2,622,569	2,630,411	New Jersey.....	4,428,175	4,478,519	4,466,667
Connecticut.....	1,817,160	1,831,704	1,834,757	New Mexico.....	934,149	956,118	952,325
Delaware.....	437,957	445,961	444,641	New York.....	9,411,785	9,554,032	9,544,542
District of Columbia.....	295,538	293,263	294,954	North Carolina.....	4,319,755	4,403,553	4,394,216
Florida.....	8,646,100	8,929,047	8,922,833	North Dakota.....	359,028	364,070	363,805
Georgia.....	4,588,004	4,688,382	4,681,165	Ohio.....	5,902,474	5,913,470	5,923,990
Hawaii.....	632,966	644,984	650,637	Oklahoma.....	1,742,730	1,758,053	1,760,923
Idaho.....	738,769	759,219	757,515	Oregon.....	1,860,452	1,886,751	1,885,563
Illinois.....	6,459,729	6,507,025	6,518,494	Pennsylvania.....	6,288,990	6,302,869	6,305,434
Indiana.....	3,203,405	3,263,871	3,256,653	Rhode Island.....	569,436	579,681	579,826
Iowa.....	1,659,301	1,678,504	1,676,629	South Carolina.....	2,072,650	2,119,767	2,120,090
Kansas.....	1,474,641	1,479,681	1,477,371	South Dakota.....	431,848	430,659	431,654
Kentucky.....	2,000,332	2,012,121	2,014,619	Tennessee.....	2,909,696	2,967,204	2,981,758
Louisiana.....	2,117,381	1,876,778	1,871,236	Texas.....	11,210,042	11,418,072	11,442,810
Maine.....	711,480	714,239	714,818	Utah.....	1,266,997	1,314,929	1,308,706
Maryland.....	2,936,967	2,992,732	2,986,431	Vermont.....	354,945	361,332	361,890
Massachusetts.....	3,363,321	3,350,288	3,370,054	Virginia.....	3,937,571	3,995,885	3,993,964
Michigan.....	5,092,527	5,091,956	5,114,674	Washington.....	3,290,062	3,338,366	3,347,982
Minnesota.....	2,938,452	2,936,903	2,936,520	West Virginia.....	800,638	816,327	814,993
Mississippi.....	1,353,406	1,318,635	1,313,496	Wisconsin.....	3,040,197	3,075,850	3,086,730
				Wyoming.....	285,281	292,416	290,764

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

p = preliminary

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

[In thousands]

Industry	Annual average		2005							2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>P</sup>	July <sup>P</sup>	
<b>TOTAL NONFARM.....</b>	131,435	133,463	133,617	133,792	133,840	133,877	134,231	134,376	134,530	134,730	134,905	135,017	135,117	135,251	135,372	
<b>TOTAL PRIVATE.....</b>	109,814	111,660	111,795	111,941	111,985	112,025	112,351	112,498	112,686	112,854	113,006	113,099	113,193	113,300	113,406	
<b>GOODS-PRODUCING.....</b>	21,882	22,133	22,131	22,146	22,143	22,179	22,264	22,282	22,335	22,373	22,381	22,419	22,407	22,435	22,422	
<b>Natural resources and</b>																
<b>mining.....</b>	591	625	624	627	631	636	641	644	648	653	661	670	672	677	682	
Logging.....	67.6	64.2	63.8	63.4	62.7	62.1	62.1	62.0	62.1	62.3	63.0	63.8	63.7	63.0	62.5	
Mining.....	523.0	560.7	559.9	563.1	567.9	573.8	579.3	582.1	585.6	590.8	597.7	606.2	608.5	613.5	619.7	
Oil and gas extraction.....	123.4	125.9	126.1	126.2	126.5	127.4	128.9	128.7	129.9	130.9	131.9	133.5	134.6	136.7	139.1	
Minino. except oil and gas <sup>1</sup> .....	205.1	212.1	212.7	212.6	212.7	214.5	215.0	214.3	214.4	216.0	217.6	218.2	218.5	219.2	219.8	
Coal mining.....	70.6	73.8	74.1	73.7	74.5	75.1	75.1	75.4	76.0	77.2	78.3	78.7	78.4	78.3	78.4	
Support activities for mining.....	194.6	222.7	221.1	224.3	228.7	231.9	235.4	239.1	241.3	243.9	248.2	254.5	255.4	257.6	260.8	
<b>Construction.....</b>	6,976	7,277	7,283	7,306	7,325	7,347	7,409	7,416	7,460	7,494	7,495	7,505	7,501	7,499	7,504	
Construction of buildings.....	1,630.0	1,694.6	1,691.8	1,699.8	1,697.6	1,702.4	1,722.4	1,727.2	1,742.5	1,745.1	1,749.2	1,756.0	1,756.1	1,752.6	1,759.7	
Heavy and civil engineering.....	907.4	952.8	961.0	961.4	963.9	965.3	977.1	974.8	987.0	992.4	990.5	987.5	985.4	981.5	981.2	
Specialty trade contractors.....	4,438.6	4,629.1	4,629.8	4,645.1	4,663.3	4,679.2	4,709.4	4,714.3	4,730.8	4,756.3	4,755.7	4,761.5	4,759.7	4,765.0	4,763.4	
<b>Manufacturing.....</b>	14,315	14,232	14,224	14,213	14,187	14,196	14,214	14,222	14,227	14,226	14,225	14,244	14,234	14,259	14,236	
Production workers.....	10,072	10,062	10,050	10,054	10,048	10,069	10,103	10,123	10,155	10,164	10,170	10,192	10,198	10,221	10,212	
<b>Durable goods.....</b>	8,924	8,953	8,946	8,950	8,933	8,952	8,960	8,970	8,977	8,981	8,992	9,017	9,014	9,033	9,015	
Production workers.....	6,139	6,217	6,204	6,222	6,218	6,249	6,274	6,299	6,323	6,331	6,347	6,370	6,380	6,400	6,393	
Wood products.....	549.6	554.9	553.6	553.7	552.2	550.7	556.7	558.9	560.7	557.5	558.3	554.5	555.5	551.6	552.2	
Nonmetallic mineral products.....	505.5	503.2	501.8	501.5	501.1	500.8	502.0	500.8	505.1	506.5	507.2	506.6	502.7	502.3	503.9	
Primary metals.....	466.8	468.7	468.1	468.0	469.7	470.5	471.5	469.4	472.9	470.9	473.1	472.9	473.7	475.6	476.3	
Fabricated metal products.....	1,497.1	1,519.0	1,521.1	1,521.9	1,521.7	1,520.8	1,524.1	1,526.7	1,527.7	1,531.8	1,534.1	1,538.0	1,540.5	1,544.4	1,550.2	
Machinery.....	1,143.0	1,161.8	1,165.0	1,164.3	1,163.4	1,174.5	1,164.4	1,166.9	1,163.4	1,168.7	1,171.5	1,174.9	1,179.6	1,184.3	1,191.9	
Computer and electronic products <sup>1</sup> .....	1,322.8	1,320.4	1,322.8	1,323.6	1,322.8	1,323.5	1,322.0	1,322.2	1,317.3	1,321.9	1,322.0	1,329.0	1,327.5	1,334.5	1,328.0	
Computer and peripheral equipment.....	210.0	206.5	207.6	207.8	207.4	207.9	206.3	205.7	201.7	201.8	202.7	203.1	202.7	203.3	203.2	
Communications equipment.....	148.4	148.1	147.6	147.6	147.9	148.2	148.0	149.2	147.3	148.8	149.3	149.6	149.6	149.7	146.7	
Semiconductors and electronic components.....	454.1	451.1	451.4	451.7	451.8	450.7	450.6	451.0	451.2	453.1	453.1	457.8	458.5	461.4	463.2	
Electronic instruments.....	431.4	438.1	439.1	440.1	440.6	441.6	442.0	441.7	443.1	445.0	444.3	446.4	445.6	448.7	445.5	
Electrical equipment and appliances.....	445.1	435.6	434.3	434.5	431.8	431.1	434.3	434.4	436.5	437.6	439.3	441.4	442.4	445.1	444.6	
Transportation equipment.....	1,765.7	1,772.3	1,761.3	1,765.2	1,753.7	1,765.5	1,771.8	1,776.7	1,781.6	1,771.7	1,772.6	1,785.2	1,779.8	1,786.7	1,764.2	
Furniture and related products.....	573.3	563.3	561.3	561.3	561.3	560.5	558.4	558.0	557.4	557.5	557.6	558.5	556.8	555.1	550.0	
Miscellaneous manufacturing.....	655.5	654.0	656.9	655.9	655.0	653.6	654.7	655.8	654.1	656.5	656.7	655.5	655.0	653.6	653.6	
<b>Nondurable goods.....</b>	5,391	5,278	5,278	5,263	5,254	5,244	5,254	5,252	5,250	5,245	5,233	5,227	5,220	5,226	5,221	
Production workers.....	3,933	3,846	3,846	3,832	3,830	3,820	3,829	3,824	3,832	3,833	3,823	3,822	3,818	3,821	3,819	
Food manufacturing.....	1,493.7	1,472.0	1,474.7	1,468.6	1,461.4	1,458.5	1,465.0	1,466.0	1,463.4	1,462.6	1,460.7	1,462.4	1,461.7	1,466.2	1,465.7	
Beverages and tobacco products.....	194.6	191.9	190.8	189.9	191.0	192.4	193.4	192.3	194.4	194.3	194.4	195.0	194.9	195.6	196.5	
Textile mills.....	236.9	217.9	217.5	216.2	214.7	213.2	210.9	209.0	208.6	206.3	203.7	201.7	199.9	197.2	194.2	
Textile product mills.....	175.7	172.3	172.0	172.0	173.0	173.8	174.5	173.9	175.4	173.9	170.5	168.1	168.2	168.3	168.6	
Apparel.....	285.5	260.2	259.4	257.1	255.1	251.8	253.7	253.3	253.7	253.1	252.8	252.3	250.8	249.6	249.1	
Leather and allied products.....	41.8	39.5	39.5	39.7	39.5	39.6	39.5	39.7	38.9	38.4	37.5	37.7	37.5	37.2	36.9	
Paper and paper products.....	495.5	484.4	484.6	483.2	480.5	478.5	478.5	478.1	477.7	477.3	475.2	472.8	472.9	471.0	469.4	
Printing and related support activities.....	662.6	648.1	646.4	645.3	646.4	645.1	644.8	644.0	643.4	644.1	644.1	643.0	640.9	641.8	639.3	
Petroleum and coal products.....	111.7	112.7	113.3	113.6	113.0	113.1	112.3	112.3	111.5	112.9	113.3	114.0	114.6	115.7	116.6	
Chemicals.....	887.0	879.2	879.4	878.3	880.3	879.3	881.5	884.0	886.4	885.8	887.0	887.1	887.7	891.1	894.3	
Plastics and rubber products.....	805.7	800.3	800.1	799.2	799.5	799.1	799.4	798.9	796.2	796.4	793.6	792.5	791.1	791.9	790.7	
<b>SERVICE-PROVIDING.....</b>	109,553	111,330	111,486	111,646	111,697	111,698	111,967	112,094	112,195	112,357	112,524	112,598	112,710	112,816	112,950	
<b>PRIVATE SERVICE-PROVIDING.....</b>	87,932	89,527	89,664	89,795	89,842	89,846	90,087	90,216	90,351	90,481	90,625	90,680	90,786	90,865	90,984	
<b>Trade, transportation, and utilities.....</b>	25,533	25,909	25,976	25,985	25,944	25,945	26,006	26,015	26,042	26,048	26,075	26,053	26,039	26,040	26,051	
<b>Wholesale trade.....</b>	5,662.9	5,749.5	5,755.3	5,759.3	5,762.3	5,767.8	5,782.7	5,783.8	5,801.8	5,810.6	5,824.0	5,833.5	5,842.1	5,848.1	5,846.9	
Durable goods.....	2,950.5	2,992.0	2,993.4	2,995.4	2,997.8	3,002.3	3,010.5	3,017.6	3,028.5	3,032.2	3,039.7	3,044.7	3,047.0	3,050.7	3,049.4	
Nondurable goods.....	2,010.0	2,022.3	2,023.6	2,023.1	2,022.1	2,021.7	2,028.9	2,023.9	2,025.6	2,030.4	2,032.9	2,034.4	2,039.8	2,040.2	2,041.3	
Electronic markets and agents and brokers.....	702.4	735.2	738.3	740.8	742.4	743.8	743.3	742.3	747.7	748.0	751.4	754.4	755.3	757.2	756.2	
<b>Retail trade.....</b>	15,058.2	15,254.9	15,309.8	15,312.9	15,267.0	15,259.6	15,292.9	15,300.3	15,300.4	15,289.4	15,306.6	15,260.4	15,225.7	15,221.2	15,225.1	
Motor vehicles and parts dealers <sup>1</sup> .....	1,902.3	1,918.9	1,925.9	1,927.6	1,929.4	1,921.5	1,914.3	1,914.7	1,910.2	1,911.6	1,911.8	1,911.0	1,909.6	1,909.7	1,907.2	
Automobile dealers.....	1,257.3	1,260.6	1,266.5	1,266.2	1,268.9	1,260.5	1,254.5	1,252.4	1,248.0	1,247.6	1,244.6	1,245.6	1,245.3	1,245.6	1,246.2	
Furniture and home furnishings stores.....	563.4	577.8	578.5	578.8	580.9	581.5	583.3	583.0	589.6	590.7	591.3	595.3	595.2	595.3	595.8	
Electronics and appliance stores.....	516.2	532.8	534.0	537.3	539.9	540.5	541.2	540.5	534.2	536.5	535.1	534.8	533.1	534.0	534.1	

See notes at end of table.

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

[In thousands]

Industry	Annual average		2005						2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>P</sup>	July <sup>P</sup>
Building material and garden supply stores.....	1,227.1	1,272.3	1,279.3	1,277.8	1,272.3	1,273.1	1,281.6	1,290.9	1,300.1	1,309.1	1,312.4	1,313.9	1,317.2	1,315.5	1,320.5
Food and beverage stores.....	2,821.6	2,813.6	2,822.6	2,810.7	2,803.0	2,809.5	2,806.6	2,805.9	2,805.9	2,807.4	2,809.6	2,808.8	2,803.4	2,804.2	2,808.3
Health and personal care stores.....	941.1	955.2	954.1	960.4	953.8	959.3	964.7	966.1	959.4	955.9	960.3	956.8	959.8	958.4	958.2
Gasoline stations.....	875.6	871.3	874.6	876.2	873.9	874.6	869.1	869.6	869.4	870.2	866.0	867.0	859.5	863.2	864.1
Clothing and clothing accessories stores.....	1,364.3	1,414.1	1,430.7	1,430.8	1,414.2	1,413.5	1,434.5	1,448.1	1,434.3	1,432.2	1,423.1	1,418.6	1,412.3	1,423.3	1,431.5
Sporting goods, hobby, book, and music stores.....	641.3	642.1	642.7	643.0	631.3	638.7	641.5	640.0	641.3	637.8	634.5	632.8	628.7	628.1	623.8
General merchandise stores <sup>1</sup> .....	2,863.1	2,919.1	2,931.1	2,931.3	2,927.4	2,910.6	2,920.4	2,906.9	2,919.1	2,907.0	2,929.4	2,892.0	2,880.0	2,866.0	2,857.9
Department stores.....	1,605.3	1,602.8	1,613.5	1,611.4	1,610.9	1,590.6	1,595.2	1,596.9	1,597.5	1,596.7	1,607.4	1,591.4	1,584.1	1,574.4	1,569.4
Miscellaneous store retailers.....	913.5	902.9	903.1	903.9	902.2	899.1	897.3	899.0	901.5	900.7	902.5	899.5	896.3	892.2	892.6
Nonstore retailers.....	428.8	434.9	433.2	435.1	438.7	437.7	438.4	435.6	435.4	430.3	430.6	429.9	430.6	431.3	431.1
<b>Transportation and warehousing.....</b>	<b>4,248.6</b>	<b>4,346.7</b>	<b>4,353.0</b>	<b>4,353.9</b>	<b>4,355.4</b>	<b>4,358.4</b>	<b>4,370.2</b>	<b>4,371.6</b>	<b>4,380.0</b>	<b>4,387.4</b>	<b>4,384.4</b>	<b>4,398.1</b>	<b>4,410.8</b>	<b>4,411.0</b>	<b>4,419.7</b>
Air transportation.....	514.5	501.3	503.6	501.6	495.1	493.7	488.9	486.9	489.0	489.1	487.6	489.0	486.7	486.7	487.6
Rail transportation.....	225.7	228.3	228.9	228.4	228.2	228.1	227.8	227.3	227.4	227.4	227.5	227.4	227.8	227.5	227.3
Water transportation.....	56.4	60.6	60.2	61.0	61.8	62.6	63.6	63.7	63.4	63.0	62.5	62.8	62.9	62.8	63.2
Truck transportation.....	1,351.7	1,393.0	1,396.3	1,394.4	1,397.4	1,402.0	1,403.7	1,404.0	1,406.0	1,407.5	1,409.2	1,417.4	1,419.3	1,425.6	
Transit and ground passenger transportation.....	384.9	388.5	387.3	386.7	388.0	388.5	394.9	392.2	394.1	394.6	394.5	391.0	394.8	393.5	390.8
Pipeline transportation.....	38.4	37.6	37.4	37.6	37.6	37.2	37.2	37.0	37.4	37.5	37.7	37.8	38.1	38.1	38.4
Scenic and sightseeing transportation.....	27.2	29.9	31.4	31.7	31.8	31.5	31.4	31.1	30.3	31.5	32.4	31.8	31.9	31.3	31.3
Support activities for transportation.....	535.1	550.6	549.5	549.2	551.9	549.8	553.9	556.2	560.7	564.7	562.2	564.2	566.4	567.7	565.3
Couriers and messengers.....	556.6	571.7	571.3	574.1	573.8	576.3	576.8	579.7	576.8	576.5	575.2	577.6	581.2	580.5	582.7
Warehousing and storage.....	558.1	585.2	587.1	589.2	589.8	588.7	592.0	593.5	594.9	595.6	595.6	599.1	603.5	603.6	607.5
<b>Utilities.....</b>	<b>563.8</b>	<b>557.6</b>	<b>557.7</b>	<b>559.1</b>	<b>558.9</b>	<b>559.4</b>	<b>560.1</b>	<b>559.7</b>	<b>559.3</b>	<b>560.4</b>	<b>559.5</b>	<b>560.5</b>	<b>560.3</b>	<b>559.4</b>	<b>559.5</b>
<b>Information.....</b>	<b>3,118</b>	<b>3,066</b>	<b>3,061</b>	<b>3,065</b>	<b>3,071</b>	<b>3,058</b>	<b>3,064</b>	<b>3,066</b>	<b>3,065</b>	<b>3,073</b>	<b>3,072</b>	<b>3,070</b>	<b>3,061</b>	<b>3,062</b>	<b>3,052</b>
Publishing industries, except Internet.....	909.1	903.7	905.9	904.8	904.4	903.7	902.8	902.5	901.5	903.9	903.5	904.4	902.9	901.4	901.5
Motion picture and sound recording industries.....	385.0	379.3	375.9	381.2	390.6	379.3	383.5	387.7	391.2	389.7	389.5	384.4	377.3	380.3	376.6
Broadcasting, except Internet.....	325.0	326.6	328.3	329.1	326.7	327.6	325.7	325.1	323.4	325.3	325.5	327.1	327.0	327.6	326.8
Internet publishing and broadcasting.....	29.9	30.4	29.9	30.1	30.4	30.1	30.1	30.4	29.6	30.7	30.3	30.4	30.5	30.3	29.4
Telecommunications.....	1,034.6	998.7	996.8	994.2	993.4	991.2	995.1	993.3	991.3	994.6	993.2	993.5	993.1	989.2	986.2
ISPs, search portals, and data processing.....	383.7	376.8	373.6	375.6	376.1	376.9	376.7	377.8	377.4	378.7	380.7	380.0	380.4	383.8	381.6
Other information services.....	50.8	50.1	50.7	50.1	49.7	49.4	49.9	49.6	50.4	49.6	49.4	49.7	50.1	49.8	49.9
<b>Financial activities.....</b>	<b>8,031</b>	<b>8,141</b>	<b>8,136</b>	<b>8,155</b>	<b>8,172</b>	<b>8,201</b>	<b>8,217</b>	<b>8,223</b>	<b>8,244</b>	<b>8,268</b>	<b>8,282</b>	<b>8,308</b>	<b>8,315</b>	<b>8,315</b>	<b>8,324</b>
Finance and insurance.....	5,949.0	6,012.0	6,002.5	6,014.7	6,029.1	6,053.3	6,066.7	6,068.2	6,081.8	6,103.8	6,120.1	6,134.5	6,139.0	6,130.5	6,143.2
Monetary authorities—central bank.....	21.8	20.8	20.7	20.7	20.7	20.7	20.9	21.0	21.2	21.2	21.3	21.4	21.5	21.7	21.8
Credit intermediation and related activities <sup>1</sup> .....	2,817.0	2,865.8	2,866.1	2,871.4	2,880.9	2,892.9	2,895.8	2,894.2	2,896.7	2,906.7	2,914.7	2,921.3	2,924.3	2,920.0	2,926.2
Depository credit intermediation <sup>1</sup> .....	1,751.5	1,774.4	1,773.5	1,778.5	1,783.5	1,790.8	1,793.3	1,793.2	1,793.0	1,803.3	1,810.6	1,813.6	1,816.8	1,816.1	1,819.3
Commercial banking.....	1,280.8	1,297.9	1,296.9	1,300.0	1,302.8	1,306.9	1,309.0	1,306.0	1,303.3	1,311.4	1,318.3	1,320.1	1,321.7	1,322.7	1,323.3
Securities, commodity contracts, investments.....	766.1	783.2	779.6	783.4	786.2	790.5	790.7	790.4	792.9	795.9	798.8	800.7	800.8	797.6	799.2
Insurance carriers and related activities.....	2,258.6	2,255.4	2,249.3	2,252.9	2,255.1	2,262.1	2,271.8	2,274.8	2,283.5	2,292.2	2,297.1	2,302.5	2,302.9	2,301.0	2,305.1
Funds, trusts, and other financial vehicles.....	85.4	86.8	86.8	86.3	86.2	87.1	87.5	87.8	87.5	87.8	88.2	88.6	89.5	90.2	90.9
Real estate and rental and leasing.....	2,081.9	2,129.3	2,133.3	2,139.8	2,143.3	2,147.5	2,150.2	2,154.5	2,161.7	2,164.2	2,162.3	2,173.8	2,176.4	2,184.0	2,180.6
Real estate.....	1,415.1	1,455.8	1,458.8	1,464.8	1,469.0	1,474.7	1,478.4	1,481.6	1,490.5	1,492.3	1,489.2	1,499.3	1,498.0	1,503.2	1,503.6
Rental and leasing services.....	641.1	646.4	647.4	647.8	646.8	645.1	643.9	645.0	643.3	643.9	644.9	646.1	650.2	651.9	647.4
Lessors of nonfinancial intangible assets.....	25.7	27.1	27.1	27.2	27.5	27.7	27.9	27.9	27.9	28.0	28.2	28.4	28.2	28.9	29.6
<b>Professional and business services.....</b>	<b>16,395</b>	<b>16,882</b>	<b>16,898</b>	<b>16,932</b>	<b>16,997</b>	<b>16,991</b>	<b>17,061</b>	<b>17,121</b>	<b>17,127</b>	<b>17,156</b>	<b>17,199</b>	<b>17,211</b>	<b>17,276</b>	<b>17,319</b>	<b>17,367</b>
Professional and technical services <sup>1</sup> .....	6,774.0	7,013.0	7,024.7	7,043.9	7,062.2	7,074.8	7,087.2	7,118.9	7,133.8	7,147.1	7,170.3	7,192.0	7,220.6	7,240.9	7,277.6
Legal services.....	1,163.1	1,164.1	1,167.5	1,166.9	1,159.5	1,159.2	1,160.0	1,160.8	1,161.8	1,161.0	1,162.5	1,162.5	1,159.6	1,157.7	1,159.0
Accounting and bookkeeping services.....	805.9	840.0	841.3	845.5	848.9	851.0	847.5	859.0	847.0	846.2	849.9	852.7	860.4	867.2	868.3
Architectural and engineering services.....	1,258.2	1,307.2	1,307.8	1,314.6	1,324.3	1,326.1	1,335.3	1,335.6	1,340.5	1,348.3	1,356.5	1,360.6	1,369.3	1,372.9	1,381.2

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		2005						2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>p</sup>	July <sup>p</sup>
Computer systems design and related services.....	1,148.6	1,189.3	1,189.2	1,191.7	1,195.9	1,204.4	1,204.9	1,212.1	1,226.0	1,230.5	1,235.2	1,243.1	1,255.5	1,258.8	1,268.7
Management and technical consulting services.....	789.9	843.6	847.6	851.0	852.9	855.5	861.4	865.4	867.8	871.7	875.4	878.0	879.4	880.0	886.8
Management of companies and enterprises.....	1,724.4	1,751.6	1,757.1	1,756.6	1,754.2	1,749.9	1,743.2	1,756.7	1,772.6	1,771.0	1,774.9	1,775.4	1,779.7	1,783.0	1,787.6
Administrative and waste services.....	7,896.0	8,117.0	8,116.0	8,131.5	8,180.5	8,165.8	8,230.5	8,245.1	8,220.1	8,237.5	8,253.7	8,244.0	8,276.1	8,294.9	8,301.4
Administrative and support services <sup>1</sup> .....	7,567.4	7,782.8	7,778.4	7,794.6	7,846.5	7,835.6	7,897.8	7,911.0	7,884.9	7,903.1	7,917.9	7,908.5	7,941.1	7,960.8	7,967.4
Employment services <sup>1</sup> .....	3,428.5	3,575.3	3,561.5	3,582.2	3,628.2	3,617.2	3,663.7	3,671.0	3,638.3	3,636.8	3,644.0	3,633.9	3,653.8	3,659.2	3,659.0
Temporary help services.....	2,387.2	2,538.9	2,523.9	2,538.7	2,573.7	2,576.2	2,616.2	2,628.1	2,605.6	2,602.0	2,604.6	2,596.8	2,613.4	2,602.7	2,605.7
Business support services.....	757.8	759.8	759.5	759.4	757.2	752.7	754.7	751.8	760.7	760.6	761.3	761.6	765.8	766.5	767.5
Services to buildings and dwellings.....	1,693.7	1,729.8	1,738.5	1,735.3	1,735.4	1,741.1	1,755.4	1,751.1	1,750.0	1,761.6	1,765.8	1,766.0	1,767.4	1,773.4	1,776.3
Waste management and remediation services.....	328.6	334.2	337.6	336.9	334.0	330.2	332.7	334.1	335.2	334.4	335.8	335.5	335.0	334.1	334.0
<b>Educational and health services.....</b>	<b>16,953</b>	<b>17,342</b>	<b>17,368</b>	<b>17,413</b>	<b>17,451</b>	<b>17,440</b>	<b>17,481</b>	<b>17,507</b>	<b>17,544</b>	<b>17,585</b>	<b>17,622</b>	<b>17,650</b>	<b>17,676</b>	<b>17,704</b>	<b>17,734</b>
Educational services.....	2,762.5	2,818.9	2,820.4	2,832.4	2,844.9	2,815.9	2,820.2	2,827.5	2,828.5	2,840.1	2,845.4	2,849.2	2,853.1	2,852.2	2,858.6
Health care and social assistance.....	14,190.2	14,522.9	14,547.4	14,580.3	14,605.8	14,624.5	14,661.2	14,679.6	14,715.6	14,744.9	14,776.5	14,800.4	14,823.3	14,852.1	14,875.8
Ambulatory health care services <sup>1</sup> .....	4,952.3	5,110.0	5,121.8	5,137.7	5,145.1	5,152.9	5,172.7	5,181.4	5,202.1	5,216.1	5,232.5	5,240.1	5,249.1	5,257.1	5,266.1
Offices of physicians.....	2,047.8	2,101.1	2,104.2	2,111.8	2,115.3	2,119.8	2,128.4	2,135.8	2,143.3	2,148.2	2,154.8	2,162.1	2,168.6	2,173.7	2,177.8
Outpatient care centers.....	450.5	473.5	474.7	476.5	479.3	480.6	482.4	484.1	485.9	486.9	488.6	488.8	488.8	490.3	489.5
Home health care services.....	776.6	814.1	817.1	819.6	820.5	820.8	824.3	822.1	829.1	831.9	835.8	835.5	839.9	839.4	842.4
Hospitals.....	4,284.7	4,346.9	4,353.5	4,361.0	4,366.8	4,371.7	4,379.2	4,382.5	4,387.3	4,393.0	4,402.5	4,409.6	4,417.6	4,427.4	4,435.9
Nursing and residential care facilities <sup>1</sup> .....	2,818.4	2,856.2	2,859.0	2,863.4	2,871.0	2,868.1	2,871.9	2,871.9	2,876.5	2,881.2	2,881.3	2,888.4	2,894.8	2,900.9	2,911.4
Nursing care facilities.....	1,576.9	1,579.3	1,579.9	1,580.9	1,582.2	1,578.9	1,582.5	1,582.5	1,583.5	1,583.4	1,582.6	1,585.4	1,590.1	1,588.6	1,593.7
Social assistance <sup>1</sup> .....	2,134.8	2,209.8	2,213.1	2,218.2	2,222.9	2,231.8	2,237.4	2,243.8	2,249.7	2,254.6	2,260.2	2,262.3	2,261.8	2,266.7	2,262.4
Child day care services.....	764.7	784.5	786.6	785.7	787.8	793.2	792.9	793.3	795.1	795.8	795.6	797.0	793.7	790.6	783.0
<b>Leisure and hospitality.....</b>	<b>12,493</b>	<b>12,802</b>	<b>12,833</b>	<b>12,860</b>	<b>12,826</b>	<b>12,840</b>	<b>12,881</b>	<b>12,898</b>	<b>12,932</b>	<b>12,955</b>	<b>12,976</b>	<b>12,989</b>	<b>13,014</b>	<b>13,023</b>	<b>13,062</b>
Arts, entertainment, and recreation.....	1,849.6	1,890.7	1,894.9	1,903.1	1,895.1	1,897.8	1,907.5	1,905.9	1,903.5	1,906.5	1,903.1	1,911.5	1,910.2	1,911.8	1,918.0
Performing arts and spectator sports.....	367.5	369.1	372.2	372.9	372.2	365.0	362.8	362.1	356.3	364.9	364.4	369.2	374.3	374.3	377.4
Museums, historical sites, zoos, and parks.....	118.3	120.7	121.3	121.1	123.2	121.6	121.0	121.6	121.4	121.9	121.5	122.8	124.1	123.8	124.3
Amusements, gambling, and recreation.....	1,363.8	1,400.9	1,401.4	1,409.1	1,399.7	1,411.2	1,423.7	1,422.2	1,425.8	1,419.7	1,417.2	1,419.5	1,411.8	1,413.7	1,416.3
Accommodations and food services.....	10,643.2	10,911.4	10,937.9	10,956.6	10,931.2	10,942.4	10,973.9	10,992.3	11,028.0	11,048.9	11,072.8	11,077.7	11,104.0	11,110.8	11,143.5
Accommodations.....	1,789.5	1,812.0	1,813.2	1,817.9	1,814.5	1,812.9	1,811.1	1,809.2	1,808.0	1,804.2	1,803.1	1,795.4	1,799.3	1,798.0	1,803.7
Food services and drinking places.....	8,853.7	9,099.4	9,124.7	9,138.7	9,116.7	9,129.5	9,162.8	9,183.1	9,220.0	9,244.7	9,269.7	9,282.3	9,304.7	9,312.8	9,339.8
<b>Other services.....</b>	<b>5,409</b>	<b>5,386</b>	<b>5,392</b>	<b>5,385</b>	<b>5,381</b>	<b>5,371</b>	<b>5,377</b>	<b>5,386</b>	<b>5,397</b>	<b>5,396</b>	<b>5,399</b>	<b>5,399</b>	<b>5,405</b>	<b>5,402</b>	<b>5,394</b>
Repair and maintenance.....	1,228.8	1,236.2	1,240.9	1,235.6	1,230.8	1,227.1	1,232.0	1,241.4	1,240.7	1,242.8	1,245.8	1,249.8	1,251.5	1,251.8	1,242.7
Personal and laundry services.....	1,272.9	1,272.9	1,271.3	1,271.7	1,271.3	1,270.3	1,271.1	1,270.3	1,278.4	1,275.5	1,270.7	1,269.7	1,269.8	1,267.9	1,270.0
Membership associations and organizations.....	2,907.5	2,877.1	2,879.6	2,877.9	2,879.2	2,873.2	2,873.6	2,874.5	2,877.7	2,877.6	2,882.4	2,879.3	2,883.8	2,882.5	2,881.0
<b>Government.....</b>	<b>21,621</b>	<b>21,803</b>	<b>21,822</b>	<b>21,851</b>	<b>21,855</b>	<b>21,852</b>	<b>21,880</b>	<b>21,878</b>	<b>21,844</b>	<b>21,876</b>	<b>21,899</b>	<b>21,918</b>	<b>21,924</b>	<b>21,951</b>	<b>21,966</b>
Federal.....	2,730	2,724	2,726	2,725	2,725	2,724	2,728	2,713	2,705	2,707	2,706	2,704	2,708	2,708	2,716
Federal, except U.S. Postal Service.....	1,947.5	1,950.8	1,950.7	1,950.4	1,949.9	1,949.5	1,953.1	1,941.2	1,935.6	1,938.8	1,937.0	1,937.9	1,938.1	1,942.7	1,944.9
U.S. Postal Service.....	782.1	773.4	775.5	774.6	774.7	774.1	774.9	772.1	769.1	769.3	766.2	769.7	764.9	770.9	
State.....	4,982	5,021	5,023	5,024	5,026	5,022	5,032	5,036	5,007	5,024	5,024	5,032	5,032	5,038	5,039
Education.....	2,238.1	2,249.7	2,249.0	2,251.5	2,255.1	2,248.1	2,256.6	2,258.1	2,232.4	2,248.1	2,248.0	2,255.0	2,254.7	2,258.3	2,256.6
Other State government.....	2,743.9	2,770.9	2,773.8	2,772.1	2,771.1	2,773.5	2,775.8	2,777.4	2,774.9	2,775.7	2,776.2	2,777.3	2,776.9	2,779.8	2,782.4
Local.....	13,909	14,058	14,073	14,102	14,104	14,106	14,120	14,129	14,132	14,145	14,169	14,182	14,184	14,205	14,211
Education.....	7,765.2	7,864.1	7,878.0	7,900.9	7,891.9	7,894.9	7,899.3	7,906.9	7,902.6	7,911.9	7,922.1	7,927.3	7,922.9	7,934.1	7,940.2
Other local government.....	6,144.1	6,193.7	6,195.0	6,200.6	6,212.1	6,211.5	6,220.6	6,222.2	6,228.9	6,233.2	6,246.7	6,254.3	6,260.9	6,270.7	6,270.4

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

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

p = preliminary.

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

Industry	Annual average		2005							2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>p</sup>	July <sup>p</sup>	
<b>TOTAL PRIVATE</b> .....	33.7	33.8	33.8	33.7	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.9	33.8	33.9	33.9	
<b>GOODS-PRODUCING</b> .....	40.0	40.1	39.9	39.9	40.0	40.3	40.4	40.2	40.4	40.4	40.4	40.6	40.4	40.6	40.7	
<b>Natural resources and mining</b> .....	44.5	45.6	45.9	45.9	45.9	46.0	45.0	45.6	46.1	45.2	45.2	45.5	44.9	46.0	46.1	
<b>Construction</b> .....	38.3	38.6	38.2	38.3	38.2	38.5	39.2	38.7	39.1	38.9	38.9	39.1	38.5	39.0	38.9	
<b>Manufacturing</b> .....	40.8	40.7	40.5	40.6	40.7	41.0	40.8	40.8	40.9	41.0	41.1	41.2	41.2	41.3	41.4	
Overtime hours.....	4.6	4.6	4.5	4.6	4.5	4.6	4.6	4.5	4.5	4.6	4.5	4.6	4.6	4.6	4.5	
Durable goods.....	41.3	41.1	41.0	41.1	41.2	41.6	41.3	41.2	41.3	41.4	41.4	41.6	41.5	41.6	41.8	
Overtime hours.....	4.7	4.6	4.6	4.7	4.6	4.8	4.7	4.5	4.5	4.6	4.6	4.6	4.6	4.6	4.5	
Wood products.....	40.7	40.0	39.6	39.6	39.6	40.8	40.5	40.1	40.1	40.3	40.4	40.4	40.1	39.6	40.1	
Nonmetallic mineral products.....	42.3	42.2	41.7	41.6	41.9	42.6	43.5	42.7	43.1	42.9	43.0	43.3	43.1	43.6	43.7	
Primary metals.....	43.1	43.1	43.1	43.2	43.4	43.5	43.5	43.7	43.6	43.4	43.4	43.4	43.7	43.8	44.0	
Fabricated metal products.....	41.1	41.0	40.9	40.9	40.8	41.6	41.2	41.1	41.2	41.3	41.5	41.7	41.4	41.5	41.6	
Machinery.....	41.9	42.1	42.0	42.0	42.1	42.2	42.0	41.9	41.8	42.1	42.1	42.6	42.5	42.5	42.9	
Computer and electronic products.....	40.4	40.0	40.1	39.9	40.2	40.5	40.3	40.3	40.5	40.4	40.5	40.7	40.5	40.8	40.7	
Electrical equipment and appliances.....	40.7	40.6	40.8	40.9	41.3	41.4	41.0	40.9	41.2	41.4	41.3	41.4	41.2	41.3	41.5	
Transportation equipment.....	42.5	42.5	42.3	42.7	42.7	43.0	42.7	42.6	42.6	42.7	42.8	43.0	43.0	42.9	43.5	
Furniture and related products.....	39.5	39.2	39.2	39.2	39.3	39.2	38.5	38.3	38.2	38.5	38.5	38.5	38.7	38.7	38.7	
Miscellaneous manufacturing.....	38.5	38.7	38.3	38.7	38.8	39.0	38.6	38.5	38.5	38.6	38.5	38.7	38.7	38.9	38.8	
<b>Nondurable goods</b> .....	40.0	39.9	39.7	39.7	39.9	40.1	40.0	40.2	40.3	40.4	40.4	40.5	40.6	40.7	40.8	
Overtime hours.....	4.4	4.4	4.3	4.4	4.4	4.4	4.4	4.6	4.4	4.5	4.4	4.5	4.5	4.5	4.5	
Food manufacturing.....	39.3	39.0	39.0	38.8	38.8	38.9	39.0	39.3	39.6	39.7	39.8	39.7	39.9	39.9	40.0	
Beverage and tobacco products.....	39.2	40.0	40.0	40.0	39.5	40.8	40.1	40.0	39.9	39.9	40.2	40.1	40.9	41.2	41.5	
Textile mills.....	40.1	40.3	40.2	40.1	39.9	40.2	40.6	41.0	40.6	40.5	40.3	40.3	40.4	40.8	40.9	
Textile product mills.....	38.9	39.0	38.2	38.7	38.7	38.8	39.6	40.0	40.1	40.4	39.6	40.2	40.2	40.2	40.4	
Apparel.....	36.0	35.7	35.5	35.8	35.8	36.1	35.9	35.6	36.0	35.8	36.0	36.5	36.7	36.8	36.9	
Leather and allied products.....	38.4	38.4	39.0	38.6	38.5	38.7	39.5	39.4	39.4	39.3	39.5	38.8	39.3	39.1	38.5	
Paper and paper products.....	42.1	42.5	42.3	42.4	42.8	42.9	42.5	42.6	42.4	42.5	42.4	42.9	43.1	43.3	43.4	
Printing and related support activities.....	38.4	38.4	38.4	38.4	38.6	38.5	38.3	38.4	38.8	39.0	39.0	39.3	39.2	39.3	39.2	
Petroleum and coal products.....	44.9	45.6	45.4	45.2	47.4	47.3	45.8	44.5	45.0	44.6	45.0	45.1	45.4	45.6	45.9	
Chemicals.....	42.8	42.3	42.1	41.6	42.0	42.9	42.3	42.5	42.6	42.8	42.7	42.7	42.4	42.6	42.9	
Plastics and rubber products.....	40.4	40.0	39.6	39.9	40.0	40.0	40.1	40.5	40.5	40.5	40.8	40.8	40.7	40.8	41.0	
<b>PRIVATE SERVICE-PROVIDING</b> .....	32.3	32.4	32.4	32.3	32.4	32.4	32.4	32.4	32.4	32.4	32.3	32.4	32.4	32.4	32.4	
<b>Trade, transportation, and utilities</b> .....	33.5	33.4	33.3	33.2	33.3	33.3	33.4	33.4	33.3	33.3	33.3	33.4	33.3	33.4	33.4	
Wholesale trade.....	37.8	37.7	37.6	37.5	37.7	37.8	37.8	37.9	37.8	37.9	37.8	38.1	37.9	38.0	38.0	
Retail trade.....	30.7	30.6	30.5	30.4	30.5	30.4	30.6	30.5	30.5	30.4	30.4	30.5	30.4	30.4	30.4	
Transportation and warehousing.....	37.2	37.0	37.0	36.9	36.6	36.7	36.8	36.7	36.6	36.7	36.7	36.6	36.7	36.9	37.0	
Utilities.....	40.9	41.1	41.2	41.2	41.2	41.3	41.2	41.4	41.0	41.1	41.0	41.2	41.3	41.3	41.7	
<b>Information</b> .....	36.3	36.5	36.6	36.5	36.6	36.7	36.5	36.6	36.6	36.5	36.6	36.6	36.5	36.6	36.7	
<b>Financial activities</b> .....	35.5	35.9	36.1	36.0	36.0	36.1	35.9	35.9	36.0	35.7	35.6	35.7	35.5	35.6	35.7	
<b>Professional and business services</b> .....	34.2	34.2	34.3	34.1	34.3	34.3	34.3	34.3	34.6	34.5	34.4	34.7	34.4	34.6	34.6	
<b>Education and health services</b> .....	32.4	32.6	32.7	32.5	32.7	32.7	32.5	32.5	32.5	32.5	32.5	32.5	32.6	32.6	32.5	
<b>Leisure and hospitality</b> .....	25.7	25.7	25.8	25.7	25.8	25.7	25.7	25.6	25.7	25.6	25.6	25.6	25.6	25.6	25.6	
<b>Other services</b> .....	31.0	30.9	31.0	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	31.0	30.9	30.9	30.9	

<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		2005							2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>p</sup>	July <sup>p</sup>	
<b>TOTAL PRIVATE</b>																
Current dollars.....	\$15.67	\$16.11	\$16.14	\$16.16	\$16.19	\$16.28	\$16.28	\$16.35	\$16.40	\$16.47	\$16.51	\$16.61	\$16.62	\$16.69	\$16.77	
Constant (1982) dollars.....	8.23	8.17	8.20	8.15	8.05	8.09	8.15	8.20	8.17	8.20	8.19	8.18	8.15	8.17	8.17	
<b>GOODS-PRODUCING.....</b>	17.19	17.60	17.63	17.68	17.66	17.74	17.74	17.77	17.79	17.80	17.82	17.87	17.92	17.99	17.99	
<b>Natural resources and mining.....</b>	18.07	18.73	18.74	18.88	19.03	19.04	18.95	19.12	19.33	19.40	19.52	19.71	19.79	19.85	19.92	
<b>Construction.....</b>	19.23	19.46	19.52	19.51	19.54	19.58	19.59	19.65	19.63	19.66	19.65	19.70	19.86	20.02	20.04	
<b>Manufacturing.....</b>	16.15	16.56	16.58	16.65	16.60	16.71	16.68	16.70	16.71	16.72	16.74	16.78	16.79	16.80	16.80	
Excluding overtime.....	15.29	15.69	15.71	15.76	15.73	15.82	15.79	15.83	15.84	15.83	15.87	15.89	15.90	15.91	15.93	
Durable goods.....	16.82	17.34	17.36	17.45	17.38	17.51	17.50	17.52	17.53	17.54	17.57	17.60	17.65	17.68	17.69	
Nondurable goods.....	15.05	15.27	15.27	15.30	15.30	15.35	15.29	15.31	15.33	15.33	15.33	15.37	15.33	15.30	15.28	
<b>PRIVATE SERVICE-PRIVATE SERVICE-PROVIDING.....</b>	15.26	15.71	15.75	15.76	15.80	15.89	15.89	15.97	16.03	16.11	16.16	16.27	16.27	16.34	16.44	
<b>Trade, transportation, and utilities.....</b>	14.58	14.93	15.00	14.98	14.98	15.05	15.04	15.10	15.13	15.19	15.20	15.30	15.30	15.38	15.49	
Wholesale trade.....	17.65	18.16	18.22	18.21	18.26	18.32	18.45	18.56	18.53	18.61	18.66	18.69	18.79	18.84	18.92	
Retail trade.....	12.08	12.36	12.45	12.41	12.35	12.43	12.35	12.39	12.44	12.46	12.47	12.58	12.54	12.60	12.69	
Transportation and warehousing.....	16.52	16.71	16.75	16.78	16.82	16.82	16.85	16.87	16.91	16.99	16.98	17.10	17.04	17.19	17.35	
Utilities.....	25.61	26.70	26.98	26.84	26.95	27.17	27.15	27.34	27.48	27.54	27.53	27.44	27.34	27.47	27.63	
<b>Information.....</b>	21.40	22.07	22.17	22.21	22.32	22.65	22.40	22.60	22.98	22.82	23.00	23.13	23.16	23.24	23.34	
<b>Financial activities.....</b>	17.52	17.94	17.95	17.92	18.01	18.09	18.20	18.27	18.33	18.45	18.49	18.64	18.64	18.69	18.79	
<b>Professional and business services.....</b>	17.48	18.07	18.11	18.14	18.15	18.30	18.29	18.42	18.54	18.66	18.80	18.98	18.93	18.98	19.17	
<b>Education and health services.....</b>	16.15	16.72	16.76	16.79	16.84	16.90	16.95	17.00	17.04	17.13	17.16	17.22	17.26	17.33	17.37	
<b>Leisure and hospitality.....</b>	8.91	9.14	9.13	9.16	9.22	9.22	9.24	9.27	9.27	9.36	9.42	9.49	9.54	9.57	9.61	
<b>Other services.....</b>	13.98	14.33	14.35	14.39	14.40	14.46	14.46	14.47	14.48	14.50	14.48	14.49	14.52	14.56	14.58	

<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		2005						2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>P</sup>	July <sup>P</sup>
<b>TOTAL PRIVATE</b> .....	\$15.67	\$16.11	\$16.05	\$16.06	\$16.22	\$16.35	\$16.30	\$16.37	\$16.52	\$16.51	\$16.51	\$16.68	\$16.58	\$16.60	\$16.73
Seasonally adjusted.....	—	—	16.14	16.16	16.19	16.28	16.28	16.35	16.40	16.47	16.51	16.61	16.62	16.69	16.77
<b>GOODS-PRODUCING</b> .....	17.19	17.60	17.64	17.71	17.78	17.82	17.76	17.82	17.73	17.72	17.72	17.82	17.89	17.99	18.02
<b>Natural resources and mining</b> .....	18.07	18.73	18.70	18.76	18.93	19.01	18.90	19.23	19.47	19.41	19.61	19.82	19.79	19.77	19.88
<b>Construction</b> .....	19.23	19.46	19.56	19.59	19.69	19.75	19.61	19.68	19.50	19.57	19.53	19.61	19.78	19.99	20.12
<b>Manufacturing</b> .....	16.15	16.56	16.50	16.60	16.66	16.70	16.70	16.81	16.76	16.71	16.71	16.76	16.76	16.78	16.72
Durable goods.....	16.82	17.34	17.21	17.41	17.45	17.52	17.54	17.67	17.56	17.54	17.54	17.56	17.60	17.64	17.54
Wood products .....	13.03	13.16	13.21	13.04	13.08	13.28	13.32	13.23	13.17	13.16	13.17	13.27	13.35	13.49	13.52
Nonmetallic mineral products .....	16.25	16.61	16.93	16.85	16.76	16.71	16.55	16.53	16.51	16.55	16.61	16.72	16.60	16.56	16.57
Primary metals .....	18.57	18.94	18.93	18.99	19.07	19.08	19.21	19.16	19.37	19.22	19.18	19.34	19.10	19.12	19.15
Fabricated metal products .....	15.31	15.80	15.84	15.88	15.91	15.93	16.01	16.18	16.12	16.06	16.09	16.04	16.09	16.13	16.18
Machinery .....	16.68	17.03	17.12	17.00	17.02	17.06	17.01	17.07	17.07	17.01	16.99	16.95	17.03	17.03	17.19
Computer and electronic products .....	17.27	18.40	18.59	18.56	18.65	18.61	18.60	18.72	18.71	18.75	18.61	18.76	18.71	18.81	19.05
Electrical equipment and appliances .....	14.90	15.25	15.29	15.34	15.32	15.39	15.42	15.56	15.47	15.48	15.42	15.37	15.42	15.47	15.58
Transportation equipment .....	21.49	22.10	21.46	22.27	22.31	22.54	22.55	22.71	22.33	22.30	22.32	22.28	22.40	22.50	21.87
Furniture and related products .....	13.16	13.44	13.44	13.45	13.55	13.45	13.45	13.52	13.53	13.48	13.50	13.70	13.66	13.65	13.75
Miscellaneous manufacturing .....	13.84	14.08	14.22	14.11	14.06	14.08	14.12	14.20	14.08	14.08	14.30	14.37	14.40	14.29	14.53
Nondurable goods.....	15.05	15.27	15.33	15.25	15.34	15.31	15.28	15.35	15.39	15.31	15.29	15.38	15.31	15.29	15.33
Food manufacturing .....	12.98	13.04	13.01	12.98	13.08	13.00	13.06	13.13	13.08	13.01	13.02	13.08	13.11	13.13	13.11
Beverages and tobacco products .....	19.14	18.79	19.05	18.46	18.67	18.57	18.76	18.59	18.41	18.24	18.19	18.39	18.24	17.99	18.10
Textile mills .....	12.13	12.38	12.44	12.44	12.39	12.31	12.48	12.45	12.50	12.38	12.41	12.42	12.42	12.55	12.54
Textile product mills .....	11.39	11.66	11.75	11.75	11.70	11.71	11.78	11.89	11.75	11.74	11.74	11.90	11.97	11.98	12.07
Apparel .....	9.75	10.24	10.29	10.24	10.36	10.28	10.41	10.47	10.62	10.59	10.61	10.61	10.58	10.63	10.68
Leather and allied products .....	11.63	11.50	11.54	11.55	11.70	11.49	11.57	11.33	11.25	11.00	11.11	11.25	11.45	11.72	11.82
Paper and paper products .....	17.91	17.98	18.22	17.95	17.97	17.94	17.87	17.91	17.87	17.74	17.78	17.98	17.88	17.93	18.19
Printing and related support activities .....	15.71	15.75	15.71	15.78	15.95	15.89	15.73	15.92	15.90	15.69	15.77	15.72	15.77	15.65	15.77
Petroleum and coal products .....	24.39	24.54	24.59	24.13	24.39	24.59	24.64	24.62	24.74	24.78	24.81	24.74	24.32	23.91	23.84
Chemicals .....	19.17	19.67	19.72	19.73	19.84	19.88	19.68	19.85	19.95	19.92	19.63	19.76	19.51	19.34	19.29
Plastics and rubber products .....	14.59	14.82	14.92	14.92	14.87	14.80	14.78	14.84	15.00	14.89	14.90	14.93	14.93	15.00	15.02
<b>PRIVATE SERVICE-PROVIDING</b> .....	15.26	15.71	15.62	15.61	15.79	15.95	15.90	15.98	16.20	16.19	16.19	16.38	16.23	16.21	16.38
<b>Trade, transportation, and utilities</b> .....	14.58	14.93	14.97	14.93	15.00	15.09	15.00	14.96	15.20	15.23	15.23	15.44	15.29	15.35	15.53
Wholesale trade .....	17.65	18.16	18.17	18.13	18.23	18.42	18.46	18.58	18.64	18.65	18.60	18.86	18.71	18.73	19.06
Retail trade .....	12.08	12.36	12.43	12.37	12.37	12.42	12.28	12.25	12.47	12.47	12.50	12.70	12.57	12.61	12.71
Transportation and warehousing .....	16.52	16.71	16.79	16.79	16.82	16.83	16.88	16.86	16.92	16.95	16.96	17.11	16.97	17.17	17.42
Utilities .....	25.61	26.70	26.83	26.64	27.19	27.26	27.37	27.44	27.53	27.60	27.60	27.69	27.33	27.19	27.47
<b>Information</b> .....	21.40	22.07	21.98	22.09	22.40	22.80	22.45	22.61	23.08	22.84	22.89	23.19	23.10	23.00	23.20
<b>Financial activities</b> .....	17.52	17.94	17.90	17.90	18.02	18.22	18.17	18.23	18.45	18.45	18.46	18.76	18.59	18.57	18.84
<b>Professional and business services</b> .....	17.48	18.07	17.98	17.93	18.04	18.38	18.25	18.44	18.85	18.77	18.82	19.20	18.86	18.84	19.23
<b>Education and health services</b> .....	16.15	16.72	16.80	16.76	16.87	16.90	16.94	17.04	17.10	17.14	17.16	17.23	17.21	17.27	17.41
<b>Leisure and hospitality</b> .....	8.91	9.14	9.01	9.05	9.23	9.26	9.29	9.39	9.33	9.41	9.43	9.48	9.55	9.49	9.49
<b>Other services</b> .....	13.98	14.33	14.24	14.29	14.39	14.45	14.46	14.52	14.55	14.54	14.49	14.58	14.55	14.51	14.49

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

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

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

Industry	Annual average		2005								2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>p</sup>	July <sup>p</sup>		
<b>TOTAL PRIVATE</b> .....	528.36	543.65	542.49	544.43	549.86	557.54	550.94	551.67	558.38	553.09	554.74	565.45	558.75	564.40	572.17		
Seasonally adjusted.....			545.53	544.59	547.22	550.26	550.26	552.63	554.32	556.69	558.04	563.08	561.76	565.79	568.50		
<b>GOODS-PRODUCING</b> .....	688.17	705.28	700.31	713.71	721.87	723.49	721.06	719.93	710.97	708.80	712.34	711.02	724.55	735.79	729.81		
<b>Natural resources and mining</b> .....	803.82	853.89	850.85	870.46	876.46	882.06	854.28	876.89	887.83	869.57	876.57	901.81	892.53	915.35	910.50		
<b>CONSTRUCTION</b> .....	735.55	750.63	758.93	769.89	775.79	772.23	768.71	749.81	744.90	747.57	749.95	753.02	769.44	791.60	792.73		
<b>Manufacturing</b> .....	658.59	673.61	658.35	673.96	684.73	688.04	688.04	695.93	685.48	680.10	685.11	677.10	690.51	693.01	683.85		
Durable goods.....	694.13	713.05	693.56	715.55	725.92	730.58	731.42	738.61	723.47	720.89	726.16	714.69	730.40	735.59	720.89		
Wood products.....	530.15	526.91	523.12	522.90	524.51	545.81	544.79	533.17	521.53	517.19	526.80	530.80	539.34	540.95	540.80		
Nonmetallic mineral products.....	688.20	700.62	704.29	711.07	715.65	728.56	731.51	699.22	698.37	695.10	704.26	717.29	718.78	728.64	722.45		
Primary metals.....	799.78	815.52	802.63	812.77	829.55	828.07	839.48	843.04	854.22	839.91	834.33	823.88	832.76	833.63	831.11		
Fabricated metal products.....	628.80	647.32	638.35	646.32	653.90	665.87	664.42	674.71	665.76	660.07	666.13	649.62	666.13	669.40	665.00		
Machinery.....	699.59	716.48	712.19	707.20	721.65	718.23	719.52	728.89	716.94	712.72	716.98	705.12	723.78	723.78	732.29		
Computer and electronic products.....	697.83	735.82	738.02	734.98	753.46	757.43	760.74	763.78	754.01	753.75	753.71	752.28	755.88	765.57	767.72		
Electrical equipment and appliances.....	606.97	619.19	614.66	625.87	637.31	643.30	641.47	645.74	638.91	631.58	633.76	613.26	630.68	634.27	637.22		
Transportation equipment.....	912.98	938.37	869.13	950.93	963.79	973.73	967.40	990.16	949.03	949.98	957.53	926.85	965.44	969.75	911.98		
Furniture and related products.....	519.62	527.11	526.85	531.28	540.65	521.86	520.52	529.98	514.14	516.28	518.40	520.60	524.54	533.72	532.13		
Miscellaneous manufacturing.....	533.07	545.19	534.67	546.06	546.93	550.53	547.86	552.38	542.08	544.90	554.84	547.50	557.28	558.74	555.05		
Nondurable goods.....	602.53	609.13	602.47	605.43	618.20	616.99	617.31	624.75	620.22	613.93	616.19	613.66	620.06	622.30	620.87		
Food manufacturing.....	509.55	508.03	504.79	507.52	516.66	510.90	515.87	522.57	515.35	507.39	511.69	506.20	521.78	525.20	523.09		
Beverages and tobacco products.....	751.20	752.39	760.10	745.78	741.20	752.09	757.90	738.02	721.67	720.48	729.42	733.76	755.14	751.98	754.77		
Textile mills.....	486.68	498.47	492.62	496.36	499.32	491.17	511.68	515.43	510.00	498.91	503.85	498.04	501.77	509.53	504.11		
Textile product mills.....	443.12	455.19	444.15	452.38	458.64	456.69	470.02	483.92	473.53	473.12	466.08	468.86	478.80	482.79	480.39		
Apparel.....	351.56	366.11	359.12	367.62	370.89	372.14	375.80	376.92	379.13	380.18	385.14	379.84	388.29	391.18	389.82		
Leather and allied products.....	446.66	442.16	441.98	443.52	450.45	448.11	460.49	449.80	438.75	430.10	443.29	429.75	451.13	459.42	445.61		
Paper and paper products.....	754.14	763.36	765.24	757.49	778.10	773.21	766.62	779.09	761.26	745.08	746.76	758.76	770.63	778.16	785.81		
Printing and related support activities.....	603.97	604.80	598.55	604.37	623.65	616.53	608.75	617.70	618.51	611.91	616.61	609.94	613.45	610.35	613.45		
Petroleum and coal products.....	1,095.00	1,117.94	1,118.85	1,078.61	1,170.72	1,170.48	1,148.22	1,095.59	1,100.93	1,087.84	1,104.05	1,125.67	1,101.70	1,090.30	1,103.79		
Chemicals.....	819.73	831.40	820.35	818.80	831.30	848.88	838.37	853.55	855.86	854.57	840.16	843.75	823.32	821.95	817.90		
Plastics and rubber products.....	589.84	592.50	578.90	593.82	602.24	593.48	597.11	611.41	609.00	601.56	607.92	597.20	607.65	613.50	603.80		
<b>PRIVATE SERVICE-PROVIDING</b> .....	493.30	508.66	507.65	507.33	511.60	519.97	513.57	516.15	526.50	521.32	519.70	533.99	522.61	526.83	538.90		
<b>Trade, transportation, and utilities</b> .....	488.42	498.59	502.99	501.65	502.50	505.52	498.00	499.66	501.60	501.07	502.59	517.24	509.16	514.23	526.47		
Wholesale trade.....	667.09	684.91	681.38	679.88	689.09	703.64	697.79	702.32	706.46	701.24	699.36	722.34	707.24	711.74	731.90		
Retail trade.....	371.13	377.68	385.33	382.23	379.76	377.57	372.08	376.08	375.35	372.85	375.00	388.62	382.13	385.87	394.01		
Transportation and warehousing.....	614.82	618.64	622.91	622.91	620.66	624.39	624.56	623.82	615.89	611.90	615.65	624.52	619.41	633.57	651.51		
Utilities.....	1,048.44	1,097.16	1,100.03	1,092.24	1,133.82	1,134.02	1,141.33	1,133.27	1,120.47	1,128.84	1,123.32	1,146.37	1,131.46	1,122.95	1,145.50		
<b>Information</b> .....	777.05	805.89	802.27	808.49	819.84	843.60	821.67	827.53	849.34	831.38	830.91	855.71	836.22	841.80	865.36		
<b>Financial activities</b> .....	622.87	644.71	642.61	642.61	643.31	665.03	648.67	650.81	673.43	654.98	651.64	680.99	654.37	657.38	683.89		
<b>Professional and business services</b> .....	597.56	618.46	614.92	613.21	618.77	635.95	625.98	632.49	652.21	645.69	645.53	666.24	646.90	653.75	671.13		
<b>Education and health services</b> .....	523.78	544.80	549.36	546.38	549.96	554.32	550.55	553.80	560.88	555.34	554.27	561.70	557.60	561.28	571.05		
<b>Leisure and hospitality</b> .....	228.65	235.29	238.77	238.92	235.37	239.83	235.97	236.63	236.05	238.07	238.58	243.64	242.57	245.79	252.43		
<b>Other services</b> .....	433.04	443.06	442.86	444.42	444.65	447.95	445.37	447.22	451.05	447.83	444.84	451.98	448.14	449.81	452.09		

<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.
Private nonfarm payrolls, 278 industries												
Over 1-month span:												
2002.....	40.8	36.5	38.3	38.7	40.1	46.0	43.7	43.3	41.7	41.9	41.5	36.0
2003.....	44.1	37.9	34.9	38.3	42.8	38.8	37.6	39.7	50.7	49.8	52.0	51.3
2004.....	51.6	49.5	62.4	65.5	62.4	57.7	52.7	52.0	57.0	54.3	55.0	54.1
2005.....	50.7	57.7	56.7	54.7	54.5	56.7	59.2	54.1	51.4	53.4	61.7	58.6
2006.....	61.0	59.9	58.5	64.4	55.8	56.8	55.4					
Over 3-month span:												
2002.....	34.5	36.2	35.6	35.8	34.9	38.8	38.5	44.8	37.6	39.7	37.2	39.6
2003.....	40.6	34.2	34.7	32.7	35.3	41.7	38.5	33.8	42.6	47.8	49.8	50.5
2004.....	54.3	53.4	57.6	63.1	69.4	68.3	58.8	55.6	57.4	56.5	59.9	55.2
2005.....	52.9	56.7	59.2	60.4	56.8	60.8	60.4	59.7	57.9	52.2	57.0	63.7
2006.....	66.2	65.5	63.3	63.7	63.8	59.7	57.0	58.3				
Over 6-month span:												
2002.....	30.2	30.6	31.5	30.9	32.0	36.3	35.8	37.6	34.5	36.0	36.7	35.3
2003.....	34.4	31.8	31.8	34.0	32.7	36.2	33.3	32.4	40.5	45.3	46.4	47.7
2004.....	49.8	52.3	54.7	60.8	63.3	63.8	63.1	63.5	59.0	61.3	55.9	55.6
2005.....	55.4	57.7	57.4	58.8	55.2	58.6	60.8	59.5	60.6	57.7	58.5	60.6
2006.....	61.2	61.5	63.1	67.6	65.5	65.8	61.7					
Over 12-month span:												
2002.....	33.6	31.7	30.2	30.4	30.2	29.1	32.0	31.3	30.0	29.5	32.9	34.7
2003.....	34.5	31.5	32.9	33.5	34.2	35.1	32.7	33.1	37.1	36.7	37.2	39.2
2004.....	40.3	42.1	44.8	48.4	50.7	57.7	57.0	55.2	56.7	58.3	60.1	60.3
2005.....	60.1	61.0	59.5	58.6	58.6	59.4	60.8	61.0	60.8	58.3	58.8	62.1
2006.....	61.3	61.0	62.2	62.6	64.0	65.3	61.2					
Over 1-month span:												
2002.....	19.6	21.4	18.5	29.2	25.0	30.4	36.9	25.6	28.6	17.9	17.9	19.6
2003.....	32.7	19.6	19.6	10.7	23.2	19.0	19.6	29.2	28.6	36.3	42.3	40.5
2004.....	44.0	47.6	44.6	64.9	53.6	45.8	56.5	52.4	41.7	42.3	39.9	39.3
2005.....	39.3	38.7	38.7	42.3	44.6	34.5	47.6	35.7	45.2	43.5	50.0	52.4
2006.....	59.5	48.8	49.4	57.7	50.0	60.7	50.6					
Over 3-month span:												
2002.....	9.5	9.5	11.3	17.9	14.9	17.9	22.6	25.6	22.6	17.3	9.5	11.9
2003.....	18.5	11.3	12.5	8.3	7.7	11.3	14.9	15.5	16.7	27.4	32.1	35.7
2004.....	43.5	42.3	43.5	53.6	57.7	58.9	53.6	48.8	48.2	40.5	38.1	31.0
2005.....	35.7	39.9	42.9	39.9	37.5	41.1	39.3	35.7	39.9	36.3	36.9	50.0
2006.....	56.0	51.8	48.8	50.6	48.8	51.2	51.8					
Over 6-month span:												
2002.....	7.1	8.3	7.7	8.3	8.3	11.9	12.5	11.9	13.7	8.9	7.1	7.7
2003.....	11.3	11.3	8.3	9.5	10.7	9.5	6.0	8.9	13.7	18.5	24.4	23.8
2004.....	28.6	33.3	33.3	45.8	47.6	51.2	56.0	51.8	48.2	49.4	39.3	35.7
2005.....	36.9	36.9	35.1	33.3	33.3	32.7	36.9	36.9	41.1	41.7	39.3	42.3
2006.....	37.5	45.8	45.2	51.2	48.2	51.8	44.6					
Over 12-month span:												
2002.....	7.1	6.0	6.0	6.5	7.1	3.6	4.8	6.0	4.8	7.1	4.8	8.3
2003.....	10.7	6.0	6.5	6.0	8.3	7.1	7.1	8.3	10.7	10.7	9.5	10.7
2004.....	13.1	14.3	13.1	20.2	23.2	35.7	36.9	38.1	36.3	44.0	44.6	44.6
2005.....	44.6	44.6	41.7	40.5	39.9	33.3	32.7	31.0	32.1	39.3	35.7	40.5
2006.....	41.1	39.9	39.9	42.9	41.7	46.4	43.5					

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

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

Data for the two most recent months are preliminary.

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

Industry and region	Levels <sup>1</sup> (in thousands)							Percent							
	2006							2006							
	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	
Total <sup>2</sup> .....	3,981	3,994	4,089	4,070	3,945	3,960	3,844	2.9	2.9	2.9	2.9	2.8	2.8	2.8	
<b>Industry</b>															
Total private <sup>2</sup> .....	3,533	3,531	3,633	3,603	3,496	3,476	3,354	3.0	3.0	3.1	3.1	3.0	3.0	2.9	
Construction.....	114	121	144	138	119	161	157	1.5	1.6	1.9	1.8	1.6	2.1	2.1	
Manufacturing.....	324	318	318	323	311	301	304	2.2	2.2	2.2	2.2	2.1	2.1	2.1	
Trade, transportation, and utilities.....	687	660	651	672	687	640	622	2.6	2.5	2.4	2.5	2.6	2.4	2.3	
Professional and business services.....	777	716	702	748	693	616	591	4.3	4.0	3.9	4.2	3.9	3.4	3.3	
Education and health services.....	627	640	692	674	651	659	662	3.4	3.5	3.8	3.7	3.6	3.6	3.6	
Leisure and hospitality.....	507	587	506	485	496	487	466	3.8	4.3	3.8	3.6	3.7	3.6	3.4	
Government.....	449	460	458	467	452	467	490	2.0	2.1	2.0	2.1	2.0	2.1	2.2	
<b>Region<sup>3</sup></b>															
Northeast.....	740	707	732	672	670	699	690	2.8	2.7	2.8	2.6	2.6	2.7	2.6	
South.....	1,550	1,547	1,634	1,600	1,591	1,507	1,472	3.1	3.1	3.3	3.2	3.2	3.0	3.0	
Midwest.....	745	797	721	770	787	777	745	2.3	2.5	2.2	2.4	2.4	2.4	2.3	
West.....	928	957	985	1,022	918	935	914	3.0	3.1	3.2	3.3	3.0	3.0	3.0	

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

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

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

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

NOTE: The 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							
	2006							2006							
	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	
Total <sup>2</sup> .....	4,941	4,954	4,884	4,649	4,949	4,899	4,949	3.7	3.7	3.6	3.4	3.7	3.6	3.7	
<b>Industry</b>															
Total private <sup>2</sup> .....	4,584	4,578	4,503	4,301	4,573	4,508	4,623	4.1	4.1	4.0	3.8	4.0	4.0	4.1	
Construction.....	379	403	344	376	374	366	367	5.1	5.4	4.6	5.0	5.0	4.9	4.9	
Manufacturing.....	366	333	341	328	385	378	379	2.6	2.3	2.4	2.3	2.7	2.7	2.7	
Trade, transportation, and utilities.....	1,177	1,117	1,103	1,029	1,018	1,099	1,050	4.5	4.3	4.2	4.0	3.9	4.2	4.0	
Professional and business services.....	953	841	922	858	1,006	905	878	5.6	4.9	5.4	5.0	5.8	5.2	5.1	
Education and health services.....	446	435	435	481	549	465	536	2.5	2.5	2.5	2.7	3.1	2.6	3.0	
Leisure and hospitality.....	847	1,019	899	775	811	846	840	6.6	7.9	6.9	6.0	6.2	6.5	6.4	
Government.....	352	379	397	361	379	392	345	1.6	1.7	1.8	1.6	1.7	1.8	1.6	
<b>Region<sup>3</sup></b>															
Northeast.....	727	814	914	849	852	729	831	2.9	3.2	3.6	3.3	3.3	2.9	3.3	
South.....	1,946	2,061	1,803	1,777	1,849	1,877	1,850	4.1	4.3	3.7	3.7	3.8	3.9	3.8	
Midwest.....	1,043	1,045	1,117	965	1,133	1,072	1,092	3.3	3.3	3.5	3.1	3.6	3.4	3.5	
West.....	1,176	1,083	1,127	1,152	1,114	1,207	1,147	4.0	3.6	3.8	3.9	3.7	4.0	3.8	

<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							
	2006							2006							
	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	
Total <sup>2</sup> .....	4,285	4,531	4,681	4,495	4,811	4,631	4,447	3.2	3.4	3.5	3.3	3.6	3.4	3.3	
<b>Industry</b>															
Total private <sup>2</sup> .....	3,995	4,252	4,360	4,203	4,488	4,299	4,143	3.5	3.8	3.9	3.7	4.0	3.8	3.7	
Construction.....	374	335	422	373	478	324	435	5.0	4.5	5.6	5.0	6.4	4.3	5.8	
Manufacturing.....	353	380	427	346	381	370	363	2.5	2.7	3.0	2.4	2.7	2.6	2.5	
Trade, transportation, and utilities.....	880	997	989	1,022	1,046	1,082	953	3.4	3.8	3.8	3.9	4.0	4.2	3.7	
Professional and business services.....	780	826	798	790	833	755	702	4.6	4.8	4.6	4.6	4.8	4.4	4.0	
Education and health services.....	353	403	399	437	487	424	403	2.0	2.3	2.3	2.5	2.8	2.4	2.3	
Leisure and hospitality.....	848	881	769	770	799	802	823	6.6	6.8	5.9	5.9	6.1	6.2	6.3	
Government.....	300	285	326	302	324	315	297	1.4	1.3	1.5	1.4	1.5	1.4	1.4	
<b>Region<sup>3</sup></b>															
Northeast.....	701	736	714	711	779	724	741	2.8	2.9	2.8	2.8	3.1	2.8	2.9	
South.....	1,653	1,694	1,810	1,710	1,828	1,858	1,649	3.4	3.5	3.8	3.5	3.8	3.8	3.4	
Midwest.....	987	1,032	1,014	992	1,045	871	1,048	3.1	3.3	3.2	3.2	3.3	2.8	3.3	
West.....	970	1,054	1,188	1,116	1,136	1,137	1,022	3.3	3.5	4.0	3.7	3.8	3.8	3.4	

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

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

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

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

NOTE: The 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							
	2006							2006							
	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	
Total <sup>2</sup> .....	2,577	2,663	2,763	2,541	2,723	2,699	2,570	1.9	2.0	2.0	1.9	2.0	2.0	1.9	
<b>Industry</b>															
Total private <sup>2</sup> .....	2,435	2,526	2,606	2,383	2,565	2,554	2,423	2.2	2.2	2.3	2.1	2.3	2.3	2.1	
Construction.....	179	153	182	167	207	154	145	2.4	2.0	2.4	2.2	2.8	2.0	1.9	
Manufacturing.....	196	202	205	175	202	190	187	1.4	1.4	1.4	1.2	1.4	1.3	1.3	
Trade, transportation, and utilities.....	551	602	598	613	622	615	598	2.1	2.3	2.3	2.4	2.4	2.4	2.3	
Professional and business services.....	415	422	426	409	434	386	385	2.4	2.5	2.5	2.4	2.5	2.2	2.2	
Education and health services.....	225	279	267	253	276	290	271	1.3	1.6	1.5	1.4	1.6	1.6	1.5	
Leisure and hospitality.....	569	607	561	535	533	622	544	4.4	4.7	4.3	4.1	4.1	4.8	4.2	
Government.....	143	139	156	159	159	146	151	.7	.6	.7	.7	.7	.7	.7	
<b>Region<sup>3</sup></b>															
Northeast.....	369	368	383	370	370	358	374	1.5	1.4	1.5	1.5	1.5	1.4	1.5	
South.....	1,068	1,114	1,129	1,026	1,152	1,153	1,066	2.2	2.3	2.3	2.1	2.4	2.4	2.2	
Midwest.....	571	600	619	575	581	552	533	1.8	1.9	2.0	1.8	1.8	1.8	1.7	
West.....	569	567	642	593	612	631	593	1.9	1.9	2.2	2.0	2.0	2.1	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 quits level is the number of quits during the entire month; the quits rate is the number of quits during the entire month as a percent of total employment.

<sup>P</sup> = preliminary.

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

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

See footnotes at end of table.

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

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

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

Virgin Islands.

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

<sup>4</sup> Data do not meet BLS or State agency disclosure standards.

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

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

**23. Quarterly Census of Employment and Wages: by State, fourth quarter 2003.**

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

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

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

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

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

<sup>1</sup> Includes establishments that reported no workers in March 2003.

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

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



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

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

See footnotes at end of table.

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

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

See footnotes at end of table.

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

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

See footnotes at end of table.

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

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

See footnotes at end of table.

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

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

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

<sup>2</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>3</sup> Totals do not include the six MSAs within Puerto Rico.

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

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

[Numbers in thousands]

Employment status	1995	1996	1997 <sup>1</sup>	1998 <sup>1</sup>	1999 <sup>1</sup>	2000 <sup>1</sup>	2001	2002	2003	2004	2005
Civilian noninstitutional population.....	198,584	200,591	203,133	205,220	207,753	212,577	215,092	217,570	221,168	223,357	226,082
Civilian labor force.....	132,304	133,943	136,297	137,673	139,368	142,583	143,734	144,863	146,510	147,401	149,320
Labor force participation rate.....	66.6	66.8	67.1	67.1	67.1	67.1	66.8	66.6	66.2	66.0	66.0
Employed.....	124,900	126,708	129,558	131,463	133,488	136,891	136,933	136,485	137,736	139,252	141,730
Employment-population ratio.....	62.9	63.2	63.8	64.1	64.3	64.4	63.7	62.7	62.3	62.3	62.7
Unemployed.....	7,404	7,236	6,739	6,210	5,880	5,692	6,801	8,378	8,774	8,149	7,591
Unemployment rate.....	5.6	5.4	4.9	4.5	4.2	4.0	4.7	5.8	6.0	5.5	5.1
Not in the labor force.....	66,280	66,647	66,836	67,547	68,385	69,994	71,359	72,707	74,658	75,956	76,762

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

**28. Annual data: Employment levels by industry**

[In thousands]

Industry	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total private employment.....	97,866	100,169	103,113	106,021	108,686	110,996	110,707	108,828	108,416	109,862	111,836
Total nonfarm employment.....	117,298	119,708	122,770	125,930	128,993	131,785	131,826	130,341	129,999	131,480	133,631
Goods-producing.....	23,156	23,410	23,886	24,354	24,465	24,649	23,873	22,557	21,816	21,884	22,141
Natural resources and mining.....	641	637	654	645	598	599	606	583	572	591	629
Construction.....	5,274	5,536	5,813	6,149	6,545	6,787	6,826	6,716	6,735	6,964	7,233
Manufacturing.....	17,241	17,237	17,419	17,560	17,322	17,263	16,441	15,259	14,510	14,329	14,279
Private service-providing.....	74,710	76,759	79,227	81,667	84,221	86,346	86,834	86,271	86,599	87,978	89,696
Trade, transportation, and utilities.....	23,834	24,239	24,700	25,186	25,771	26,225	25,983	25,497	25,287	25,510	25,833
Wholesale trade.....	5,433.1	5,522.0	5,663.9	5,795.2	5,892.5	5,933.2	5,772.7	5,652.3	5,607.5	5,654.9	5,724.0
Retail trade.....	13,896.7	14,142.5	14,388.9	14,609.3	14,970.1	15,279.8	15,238.6	15,025.1	14,917.3	15,034.7	15,174.1
Transportation and warehousing.....	3,837.8	3,935.3	4,026.5	4,168.0	4,300.3	4,410.3	4,372.0	4,223.6	4,185.4	4,250.0	4,358.6
Utilities.....	666.2	639.6	620.9	613.4	608.5	601.3	599.4	596.2	577.0	570.2	576.0
Information.....	2,843	2,940	3,084	3,218	3,419	3,631	3,629	3,395	3,188	3,138	3,142
Financial activities.....	6,827	6,969	7,178	7,462	7,648	7,687	7,807	7,847	7,977	8,052	8,227
Professional and business services.....	12,844	13,462	14,335	15,147	15,957	16,666	16,476	15,976	15,987	16,414	16,935
Education and health services.....	13,289	13,683	14,087	14,446	14,798	15,109	15,645	16,199	16,588	16,954	17,344
Leisure and hospitality.....	10,501	10,777	11,018	11,232	11,543	11,862	12,036	11,986	12,173	12,479	12,748
Other services.....	4,572	4,690	4,825	4,976	5,087	5,168	5,258	5,372	5,401	5,431	5,467
Government.....	19,432	19,539	19,664	19,909	20,307	20,790	21,118	21,513	21,583	21,618	21,795

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

Industry	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Private sector:</b>											
Average weekly hours.....	34.3	34.3	34.5	34.5	34.3	34.3	34.0	33.9	33.7	33.7	33.8
Average hourly earnings (in dollars).....	11.64	12.03	12.49	13.00	13.47	14.00	14.53	14.95	15.35	15.67	16.11
Average weekly earnings (in dollars).....	399.53	412.74	431.25	448.04	462.49	480.41	493.20	506.07	517.30	528.56	543.86
<b>Goods-producing:</b>											
Average weekly hours.....	40.8	40.8	41.1	40.8	40.8	40.7	39.9	39.9	39.8	40.0	40.1
Average hourly earnings (in dollars).....	12.96	13.38	13.82	14.23	14.71	15.27	15.78	16.33	16.80	17.19	17.60
Average weekly earnings (in dollars).....	528.62	546.48	568.43	580.99	599.99	621.86	630.04	651.61	669.13	688.03	705.38
<b>Natural resources and mining</b>											
Average weekly hours.....	45.3	46.0	46.2	44.9	44.2	44.4	44.6	43.2	43.6	44.5	45.6
Average hourly earnings (in dollars).....	14.78	15.10	15.57	16.20	16.33	16.55	17.00	17.19	17.56	18.08	18.73
Average weekly earnings (in dollars).....	670.32	695.07	720.11	727.28	721.74	734.92	757.92	741.97	765.94	804.03	854.42
<b>Construction:</b>											
Average weekly hours.....	38.8	38.9	38.9	38.8	39.0	39.2	38.7	38.4	38.4	38.3	38.6
Average hourly earnings (in dollars).....	14.73	15.11	15.67	16.23	16.80	17.48	18.00	18.52	18.95	19.23	19.48
Average weekly earnings (in dollars).....	571.57	588.48	609.48	629.75	655.11	685.78	695.89	711.82	726.83	735.70	751.56
<b>Manufacturing:</b>											
Average weekly hours.....	41.3	41.3	41.7	41.4	41.4	41.3	40.3	40.5	40.4	40.8	40.7
Average hourly earnings (in dollars).....	12.34	12.75	13.14	13.45	13.85	14.32	14.76	15.29	15.74	16.14	16.56
Average weekly earnings (in dollars).....	509.26	526.55	548.22	557.12	573.17	590.65	595.19	618.75	635.99	658.53	673.20
<b>Private service-providing:</b>											
Average weekly hours.....	32.6	32.6	32.8	32.8	32.7	32.7	32.5	32.5	32.4	32.3	32.4
Average hourly earnings (in dollars).....	11.19	11.57	12.05	12.59	13.07	13.60	14.16	14.56	14.96	15.26	15.71
Average weekly earnings (in dollars).....	364.14	376.72	394.77	412.78	427.30	445.00	460.32	472.88	483.89	493.67	508.98
<b>Trade, transportation, and utilities:</b>											
Average weekly hours.....	34.1	34.1	34.3	34.2	33.9	33.8	33.5	33.6	33.6	33.5	33.4
Average hourly earnings (in dollars).....	11.10	11.46	11.90	12.39	12.82	13.31	13.70	14.02	14.34	14.59	14.95
Average weekly earnings (in dollars).....	378.79	390.64	407.57	423.30	434.31	449.88	459.53	471.27	481.14	488.58	499.74
<b>Wholesale trade:</b>											
Average weekly hours.....	38.6	38.6	38.8	38.6	38.6	38.8	38.4	38.0	37.9	37.8	37.7
Average hourly earnings (in dollars).....	13.34	13.80	14.41	15.07	15.62	16.28	16.77	16.98	17.36	17.66	18.16
Average weekly earnings (in dollars).....	515.14	533.29	559.39	582.21	602.77	631.40	643.45	644.38	657.29	666.93	685.27
<b>Retail trade:</b>											
Average weekly hours.....	30.8	30.7	30.9	30.9	30.8	30.7	30.7	30.9	30.9	30.7	30.6
Average hourly earnings (in dollars).....	8.85	9.21	9.59	10.05	10.45	10.86	11.29	11.67	11.90	12.08	12.37
Average weekly earnings (in dollars).....	515.14	533.29	559.39	582.21	602.77	631.40	643.45	644.38	657.29	666.93	685.27
<b>Transportation and warehousing:</b>											
Average weekly hours.....	38.9	39.1	39.4	38.7	37.6	37.4	36.7	36.8	36.8	37.2	37.0
Average hourly earnings (in dollars).....	13.18	13.45	13.78	14.12	14.55	15.05	15.33	15.76	16.25	16.53	16.73
Average weekly earnings (in dollars).....	513.37	525.60	542.55	546.86	547.97	562.31	562.70	579.75	598.41	614.90	619.84
<b>Utilities:</b>											
Average weekly hours.....	42.3	42.0	42.0	42.0	42.0	42.0	41.4	40.9	41.1	40.9	41.1
Average hourly earnings (in dollars).....	19.19	19.78	20.59	21.48	22.03	22.75	23.58	23.96	24.77	25.62	26.67
Average weekly earnings (in dollars).....	811.52	830.74	865.26	902.94	924.59	955.66	977.18	979.09	1,017.27	1,048.82	1,096.13
<b>Information:</b>											
Average weekly hours.....	36.0	36.4	36.3	36.6	36.7	36.8	36.9	36.5	36.2	36.3	36.5
Average hourly earnings (in dollars).....	15.68	16.30	17.14	17.67	18.40	19.07	19.80	20.20	21.01	21.42	22.14
Average weekly earnings (in dollars).....	564.98	592.68	622.40	646.52	675.32	700.89	731.11	738.17	760.81	777.42	808.63
<b>Financial activities:</b>											
Average weekly hours.....	35.5	35.5	35.7	36.0	35.8	35.9	35.8	35.6	35.5	35.5	35.9
Average hourly earnings (in dollars).....	12.28	12.71	13.22	13.93	14.47	14.98	15.59	16.17	17.14	17.53	17.97
Average weekly earnings (in dollars).....	436.12	451.49	472.37	500.95	517.57	537.37	558.02	575.51	609.08	622.99	645.37
<b>Professional and business services:</b>											
Average weekly hours.....	34.0	34.1	34.3	34.3	34.4	34.5	34.2	34.2	34.1	34.2	34.2
Average hourly earnings (in dollars).....	12.53	13.00	13.57	14.27	14.85	15.52	16.33	16.81	17.21	17.46	18.02
Average weekly earnings (in dollars).....	426.44	442.81	465.51	490.00	510.99	535.07	557.84	574.66	587.02	596.96	616.38
<b>Education and health services:</b>											
Average weekly hours.....	32.0	31.9	32.2	32.2	32.1	32.2	32.3	32.4	32.3	32.4	32.6
Average hourly earnings (in dollars).....	11.80	12.17	12.56	13.00	13.44	13.95	14.64	15.21	15.64	16.16	16.69
Average weekly earnings (in dollars).....	377.73	388.27	404.65	418.82	431.35	449.29	473.39	492.74	505.69	523.83	543.70
<b>Leisure and hospitality:</b>											
Average weekly hours.....	25.9	25.9	26.0	26.2	26.1	26.1	25.8	25.8	25.6	25.7	25.7
Average hourly earnings (in dollars).....	6.62	6.82	7.13	7.48	7.76	8.11	8.35	8.58	8.76	8.91	9.13
Average weekly earnings (in dollars).....	171.43	176.48	185.81	195.82	202.87	211.79	215.19	221.26	224.30	228.63	234.96
<b>Other services:</b>											
Average weekly hours.....	32.6	32.5	32.7	32.6	32.5	32.5	32.3	32.0	31.4	31.0	30.9
Average hourly earnings (in dollars).....	10.51	10.85	11.29	11.79	12.26	12.73	13.27	13.72	13.84	13.98	14.25
Average weekly earnings (in dollars).....	342.36	352.62	368.63	384.25	398.77	413.41	428.64	439.76	434.41	433.04	440.80

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	2004			2005			2006			Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
	June 2006										
<b>Civilian workers<sup>2</sup></b>	95.5	96.5	97.0	98.0	98.6	99.4	100.0	100.7	101.6	0.9	3.0
Workers by occupational group											
Management, professional, and related.....	95.2	96.2	96.8	98.0	98.5	99.4	100.0	100.9	101.6	.7	3.1
Management, business, and financial.....	96.5	97.1	97.7	99.0	99.4	99.7	100.0	101.3	101.9	.6	2.5
Professional and related.....	94.4	95.7	96.3	97.5	98.1	99.3	100.0	100.7	101.4	.7	3.4
Sales and office.....	95.5	96.6	96.8	97.7	98.4	99.3	100.0	100.5	101.6	1.1	3.3
Sales and related.....	95.4	96.8	96.3	97.3	97.9	99.2	100.0	99.9	101.1	1.2	3.3
Office and administrative support.....	95.6	96.4	97.1	98.0	98.7	99.4	100.0	100.9	101.9	1.0	3.2
Natural resources, construction, and maintenance.....	95.9	96.4	97.0	97.8	98.8	99.5	100.0	100.8	102.0	1.2	3.2
Construction and extraction.....	95.7	96.3	97.1	97.6	98.5	99.4	100.0	100.7	102.0	1.3	3.6
Installation, maintenance, and repair.....	96.1	96.6	96.9	98.0	99.1	99.6	100.0	100.9	102.0	1.1	2.9
Production, transportation, and material moving.....	96.3	97.3	97.7	98.4	99.0	99.7	100.0	100.4	101.1	.7	2.1
Production.....	96.3	97.3	97.7	98.5	99.1	99.6	100.0	100.4	101.0	.6	1.9
Transportation and material moving.....	96.3	97.2	97.6	98.2	98.8	99.8	100.0	100.5	101.3	.8	2.5
Service occupations.....	95.4	96.5	97.0	97.8	98.3	99.4	100.0	100.8	101.4	.6	3.2
Workers by industry											
Goods-producing.....	95.4	96.5	96.9	98.0	99.0	99.8	100.0	100.3	101.3	1.0	2.3
Manufacturing.....	95.6	96.7	96.9	98.2	99.1	99.8	100.0	100.1	101.0	.9	1.9
Service-providing.....	95.5	96.5	97.0	97.9	98.5	99.3	100.0	100.9	101.6	.7	3.1
Education and health services.....	94.3	95.8	96.4	97.2	97.6	99.1	100.0	100.6	101.3	.7	3.8
Health care and social assistance.....	95.1	96.3	96.7	97.8	98.5	99.3	100.0	101.1	102.0	.9	3.6
Hospitals.....	94.3	95.5	96.2	97.5	98.2	99.3	100.0	101.2	101.9	.7	3.8
Nursing and residential care facilities.....	95.4	96.1	96.6	97.5	98.3	99.2	100.0	101.0	101.4	.4	3.2
Education services.....	93.8	95.5	96.1	96.7	97.0	99.0	100.0	100.2	100.7	.5	3.8
Elementary and secondary schools.....	93.3	95.3	96.0	96.4	96.7	98.9	100.0	100.2	100.5	.3	3.9
Public administration <sup>3</sup> .....	93.8	95.1	95.8	97.1	97.5	99.0	100.0	100.6	101.2	.6	3.8
<b>Private industry workers.....</b>	<b>95.9</b>	<b>96.7</b>	<b>97.2</b>	<b>98.2</b>	<b>98.9</b>	<b>99.5</b>	<b>100.0</b>	<b>100.8</b>	<b>101.7</b>	<b>.9</b>	<b>2.8</b>
Workers by occupational group											
Management, professional, and related.....	95.7	96.5	97.1	98.5	99.1	99.6	100.0	101.1	101.9	.8	2.8
Management, business, and financial.....	96.8	97.3	97.9	99.1	99.6	99.7	100.0	101.3	102.0	.7	2.4
Professional and related.....	94.8	95.8	96.5	98.0	98.8	99.5	100.0	101.0	101.8	.8	3.0
Sales and office.....	95.7	96.6	96.8	97.8	98.5	99.3	100.0	100.5	101.6	1.1	3.1
Sales and related.....	95.4	96.8	96.2	97.2	97.9	99.2	100.0	99.9	101.1	1.2	3.3
Office and administrative support.....	95.8	96.5	97.2	98.1	98.9	99.5	100.0	100.9	101.9	1.0	3.0
Natural resources, construction, and maintenance.....	96.1	96.5	97.1	97.9	98.9	99.5	100.0	100.8	102.1	1.3	3.2
Construction and extraction.....	95.8	96.4	97.2	97.7	98.7	99.5	100.0	100.7	102.2	1.5	3.5
Installation, maintenance, and repair.....	96.3	96.7	97.0	98.1	99.3	99.6	100.0	100.9	102.1	1.2	2.8
Production, transportation, and material moving.....	96.5	97.4	97.8	98.5	99.0	99.7	100.0	100.4	101.1	.7	2.1
Production.....	96.4	97.4	97.7	98.6	99.1	99.6	100.0	100.4	101.0	.6	1.9
Transportation and material moving.....	96.7	97.5	97.9	98.3	99.0	99.8	100.0	100.4	101.2	.8	2.2
Service occupations.....	96.7	97.2	97.7	98.5	99.0	99.5	100.0	100.8	101.5	.7	2.5
Workers by industry and occupational group											
Goods-producing industries.....	95.4	96.5	96.9	98.0	99.0	99.8	100.0	100.3	101.3	1.0	2.3
Management, professional, and related.....	93.8	94.5	95.6	98.0	99.2	100.2	100.0	100.2	100.7	.5	1.5
Sales and office.....	94.0	97.0	95.8	96.8	98.0	99.7	100.0	99.9	102.7	2.8	4.8
Natural resources, construction, and maintenance.....	96.0	96.7	97.3	97.9	98.9	99.6	100.0	100.6	101.9	1.3	3.0
Production, transportation, and material moving.....	96.5	97.5	97.8	98.6	99.2	99.8	100.0	100.3	101.0	.7	1.8
Construction.....	95.4	96.5	96.7	97.4	98.5	99.7	100.0	100.7	101.9	1.2	3.5
Manufacturing.....	95.6	96.7	96.9	98.2	99.1	99.8	100.0	100.1	101.0	.9	1.9
Management, professional, and related.....	94.0	94.8	95.1	97.6	98.9	99.8	100.0	100.0	100.5	.5	1.6
Sales and office.....	94.7	96.6	96.3	97.6	98.7	99.9	100.0	99.5	102.8	3.3	4.2
Natural resources, construction, and maintenance.....	96.2	97.3	97.9	98.3	99.2	99.5	100.0	100.1	100.8	.7	1.6
Production, transportation, and material moving.....	96.6	97.6	97.9	98.7	99.3	99.8	100.0	100.2	100.9	.7	1.6
Service-providing industries.....	96.1	96.8	97.3	98.3	98.9	99.5	100.0	101.0	101.8	.8	2.9
Management, professional, and related.....	96.0	96.8	97.4	98.6	99.1	99.5	100.0	101.3	102.2	.9	3.1
Sales and office.....	95.9	96.6	96.9	97.9	98.5	99.3	100.0	100.6	101.5	.9	3.0
Natural resources, construction, and maintenance.....	96.1	96.3	96.7	97.9	99.0	99.4	100.0	101.2	102.5	1.3	3.5
Production, transportation, and material moving.....	96.5	97.4	97.7	98.3	98.8	99.6	100.0	100.6	101.3	.7	2.5
Service occupations.....	96.7	97.2	97.7	98.5	99.0	99.5	100.0	100.9	101.5	.6	2.5
Trade, transportation, and utilities.....	96.3	96.9	97.0	98.1	98.5	99.4	100.0	100.8	101.4	.6	2.9

See footnotes at end of table.



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

[December 2005 = 100]

Series	2004			2005				2006		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
	June 2006										
Wholesale trade.....	95.3	96.4	96.0	97.7	97.7	99.2	100.0	100.3	100.8	0.5	3.2
Retail trade.....	96.3	96.6	97.1	98.1	98.8	99.5	100.0	100.6	101.2	.6	2.4
Transportation and warehousing.....	97.6	98.4	98.5	98.4	98.6	99.7	100.0	100.4	101.0	.6	2.4
Utilities.....	94.8	95.2	95.1	98.1	99.3	99.5	100.0	107.8	109.3	1.4	10.1
Information.....	96.2	96.6	96.8	98.3	99.2	99.5	100.0	100.9	102.1	1.2	2.9
Financial activities.....	95.5	96.1	96.8	98.4	99.4	99.2	100.0	101.2	101.8	.6	2.4
Finance and insurance.....	96.5	96.9	97.8	98.7	100.0	99.5	100.0	101.5	102.4	.9	2.4
Real estate and rental and leasing.....	89.8	91.3	91.2	96.9	96.7	98.6	100.0	99.8	99.3	-.5	2.7
Professional and business services.....	97.0	97.9	98.5	99.1	99.5	99.6	100.0	101.1	102.2	1.1	2.7
Education and health services.....	94.9	96.1	96.7	97.7	98.4	99.3	100.0	101.0	101.8	.8	3.5
Education services.....	94.1	95.6	96.4	97.1	97.5	99.6	100.0	100.7	101.5	.8	4.1
Health care and social assistance.....	95.1	96.3	96.7	97.8	98.5	99.3	100.0	101.1	101.9	.8	3.5
Hospitals.....	94.2	95.3	96.0	97.5	98.2	99.2	100.0	101.3	102.0	.7	3.9
Leisure and hospitality.....	97.4	97.4	97.7	98.5	99.1	99.6	100.0	100.6	101.3	.7	2.2
Accommodation and food services.....	96.9	97.2	97.9	98.7	98.9	99.5	100.0	100.5	101.4	.9	2.5
Other services, except public administration.....	96.2	96.5	97.2	98.0	98.6	99.9	100.0	101.4	102.7	1.3	4.2
<b>State and local government workers.....</b>	<b>93.9</b>	<b>95.4</b>	<b>96.1</b>	<b>96.9</b>	<b>97.2</b>	<b>99.1</b>	<b>100.0</b>	<b>100.5</b>	<b>100.9</b>	<b>.4</b>	<b>3.8</b>
<b>Workers by occupational group</b>											
Management, professional, and related.....	94.0	95.5	96.2	97.0	97.3	99.0	100.0	100.3	100.8	.5	3.6
Professional and related.....	93.9	95.5	96.1	96.8	97.1	98.9	100.0	100.2	100.8	.6	3.8
Sales and office.....	94.4	95.7	96.5	97.5	97.6	99.3	100.0	100.9	101.5	.6	4.0
Office and administrative support.....	94.2	95.6	96.4	97.4	97.5	99.2	100.0	101.0	101.6	.6	4.2
Service occupations.....	92.7	94.9	95.5	96.2	96.7	99.1	100.0	100.6	101.2	.6	4.7
<b>Workers by industry</b>											
Education and health services.....	93.8	95.5	96.1	96.7	97.0	99.0	100.0	100.3	100.8	.5	3.9
Education services.....	93.8	95.4	96.1	96.6	96.9	98.9	100.0	100.2	100.5	.3	3.7
Schools.....	93.8	95.5	96.1	96.6	96.9	98.9	100.0	100.2	100.5	.3	3.7
Elementary and secondary schools.....	93.4	95.3	96.0	96.4	96.6	98.8	100.0	100.2	100.5	.3	4.0
Health care and social assistance.....	94.7	96.3	96.5	97.6	98.0	99.5	100.0	101.3	102.9	1.6	5.0
Hospitals.....	94.4	96.1	96.7	97.6	98.0	99.5	100.0	100.9	101.3	.4	3.4
Public administration <sup>3</sup> .....	93.8	95.1	95.8	97.1	97.5	99.0	100.0	100.6	101.2	.6	3.8

<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	2004			2005			2006		Percent change		
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
	June 2006										
<b>Civilian workers<sup>1</sup></b>	96.3	97.2	97.5	98.1	98.7	99.4	100.0	100.7	101.5	0.8	2.8
Workers by occupational group											
Management, professional, and related	96.2	97.1	97.5	98.3	98.8	99.4	100.0	100.8	101.6	.8	2.8
Management, business, and financial	97.4	97.9	98.4	99.1	99.5	99.6	100.0	101.2	102.0	.8	2.5
Professional and related	95.6	96.6	97.1	97.8	98.3	99.3	100.0	100.6	101.4	.8	3.2
Sales and office	96.1	97.2	97.2	97.8	98.4	99.3	100.0	100.4	101.6	1.2	3.3
Sales and related	95.8	97.4	96.6	97.3	97.8	99.2	100.0	99.8	101.3	1.5	3.6
Office and administrative support	96.4	97.1	97.6	98.2	98.8	99.4	100.0	100.8	101.8	1.0	3.0
Natural resources, construction, and maintenance	96.6	97.0	97.4	97.8	98.7	99.4	100.0	100.7	101.8	1.1	3.1
Construction and extraction	96.5	96.8	97.4	97.8	98.4	99.3	100.0	100.7	101.9	1.2	3.6
Installation, maintenance, and repair	96.6	97.3	97.4	97.8	99.0	99.5	100.0	100.6	101.6	1.0	2.6
Production, transportation, and material moving	96.7	97.6	97.8	98.3	98.9	99.6	100.0	100.6	101.2	.6	2.3
Production	96.4	97.4	97.5	98.2	98.9	99.5	100.0	100.7	101.2	.5	2.3
Transportation and material moving	97.0	97.9	98.2	98.4	98.9	99.7	100.0	100.5	101.2	.7	2.3
Service occupations	96.5	97.1	97.6	98.2	98.7	99.5	100.0	100.5	101.2	.7	2.5
Workers by industry											
Goods-producing	96.2	97.2	97.2	97.9	98.7	99.5	100.0	100.7	101.8	1.1	3.1
Manufacturing	96.5	97.4	97.4	98.2	98.9	99.6	100.0	100.7	101.7	1.0	2.8
Service-providing	96.3	97.2	97.5	98.2	98.7	99.4	100.0	100.7	101.5	.8	2.8
Education and health services	95.3	96.6	97.0	97.6	98.0	99.1	100.0	100.4	101.1	.7	3.2
Health care and social assistance	95.5	96.7	97.1	98.0	98.5	99.2	100.0	100.8	101.8	1.0	3.4
Hospitals	94.9	96.0	96.7	97.6	98.2	99.2	100.0	100.9	101.7	.8	3.6
Nursing and residential care facilities	95.7	96.2	96.9	97.7	98.4	99.1	100.0	100.7	101.2	.5	2.8
Education services	95.2	96.5	96.9	97.4	97.6	99.0	100.0	100.2	100.5	.3	3.0
Elementary and secondary schools	95.1	96.5	96.9	97.1	97.3	98.9	100.0	100.0	100.3	.3	3.1
Public administration <sup>2</sup>	95.8	96.5	97.0	97.9	98.3	99.3	100.0	100.5	101.1	.6	2.8
<b>Private industry workers</b>	96.5	97.3	97.6	98.3	98.9	99.5	100.0	100.7	101.7	1.0	2.8
Workers by occupational group											
Management, professional, and related	96.5	97.3	97.8	98.6	99.2	99.6	100.0	101.1	102.0	.9	2.8
Management, business, and financial	97.5	98.1	98.5	99.2	99.7	99.5	100.0	101.3	102.2	.9	2.5
Professional and related	95.7	96.7	97.2	98.2	98.8	99.6	100.0	100.9	101.8	.9	3.0
Sales and office	96.1	97.2	97.2	97.8	98.5	99.3	100.0	100.4	101.6	1.2	3.1
Sales and related	95.7	97.4	96.6	97.3	97.8	99.2	100.0	99.8	101.3	1.5	3.6
Office and administrative support	96.4	97.1	97.6	98.2	99.0	99.4	100.0	100.9	101.9	1.0	2.9
Natural resources, construction, and maintenance	96.7	97.1	97.5	97.8	98.7	99.4	100.0	100.7	101.8	1.1	3.1
Construction and extraction	96.6	96.9	97.5	97.8	98.5	99.3	100.0	100.7	102.0	1.3	3.6
Installation, maintenance, and repair	96.8	97.3	97.4	97.8	99.1	99.5	100.0	100.7	101.6	.9	2.5
Production, transportation, and material moving	96.7	97.6	97.8	98.3	98.9	99.6	100.0	100.6	101.2	.6	2.3
Production	96.5	97.4	97.5	98.3	98.9	99.5	100.0	100.7	101.2	.5	2.3
Transportation and material moving	97.1	97.9	98.2	98.5	98.9	99.7	100.0	100.4	101.2	.8	2.3
Service occupations	96.9	97.4	97.9	98.6	99.0	99.6	100.0	100.6	101.3	.7	2.3
Workers by industry and occupational group											
Goods-producing industries	96.2	97.2	97.2	97.9	98.7	99.5	100.0	100.7	101.8	1.1	3.1
Management, professional, and related	96.6	97.0	97.2	98.0	98.8	99.7	100.0	101.1	101.7	.6	2.9
Sales and office	94.6	98.3	96.2	96.8	97.9	99.7	100.0	99.8	103.4	3.6	5.6
Natural resources, construction, and maintenance	96.5	97.0	97.4	97.9	98.6	99.4	100.0	100.7	101.9	1.2	3.3
Production, transportation, and material moving	96.4	97.4	97.5	98.2	98.9	99.5	100.0	100.7	101.3	.6	2.4
Construction	95.9	97.0	96.9	97.3	98.3	99.4	100.0	100.6	102.0	1.4	3.8
Manufacturing	96.5	97.4	97.4	98.2	98.9	99.6	100.0	100.7	101.7	1.0	2.8
Management, professional, and related	96.9	97.4	97.5	98.2	98.9	99.9	100.0	101.1	101.5	.4	2.6
Sales and office	95.7	97.8	97.2	97.9	98.6	100.0	100.0	99.5	103.8	4.3	5.3
Natural resources, construction, and maintenance	96.2	96.8	97.1	97.8	98.6	99.1	100.0	100.9	101.7	.8	3.1
Production, transportation, and material moving	96.5	97.4	97.5	98.3	99.0	99.5	100.0	100.7	101.3	.6	2.3
Service-providing industries	96.6	97.3	97.7	98.4	99.0	99.5	100.0	100.8	101.7	.9	2.7
Management, professional, and related	96.5	97.4	97.9	98.7	99.2	99.6	100.0	101.1	102.0	.9	2.8
Sales and office	96.3	97.1	97.3	97.9	98.5	99.3	100.0	100.5	101.4	.9	2.9
Natural resources, construction, and maintenance	96.8	97.3	97.6	97.8	98.9	99.4	100.0	100.7	101.8	1.1	2.9
Production, transportation, and material moving	97.1	97.9	98.2	98.5	98.9	99.7	100.0	100.4	101.0	.6	2.1
Service occupations	97.0	97.4	98.0	98.6	99.1	99.6	100.0	100.6	101.3	.7	2.2
Trade, transportation, and utilities	96.7	97.3	97.3	97.9	98.4	99.5	100.0	100.4	100.9	.5	2.5

See footnotes at end of table.

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

[December 2005 = 100]

Series	2004			2005				2006		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 2006	
Wholesale trade.....	96.0	97.3	96.1	97.5	97.4	99.0	100.0	100.2	100.7	0.5	3.4
Retail trade.....	96.7	96.9	97.4	98.0	98.8	99.6	100.0	100.5	100.9	.4	2.1
Transportation and warehousing.....	97.6	98.5	98.7	98.2	98.8	99.9	100.0	100.1	100.7	.6	1.9
Utilities.....	96.6	97.1	97.4	98.4	99.2	99.5	100.0	100.8	102.1	1.3	2.9
Information.....	96.7	97.4	97.6	98.4	99.2	99.3	100.0	101.0	101.7	.7	2.5
Financial activities.....	96.3	96.9	97.8	98.7	99.8	99.4	100.0	101.3	102.3	1.0	2.5
Finance and insurance.....	97.9	98.3	99.2	99.1	100.7	99.7	100.0	101.6	102.8	1.2	2.1
Real estate and rental and leasing.....	89.0	90.7	90.7	96.8	96.2	98.3	100.0	99.8	99.9	.1	3.8
Professional and business services.....	97.7	98.5	99.0	99.5	99.7	99.7	100.0	101.0	102.3	1.3	2.6
Education and health services.....	95.2	96.5	97.0	97.9	98.4	99.3	100.0	100.7	101.6	.9	3.3
Education services.....	94.3	96.0	96.8	97.4	97.8	99.7	100.0	100.7	101.4	.7	3.7
Health care and social assistance.....	95.4	96.6	97.1	97.9	98.6	99.2	100.0	100.7	101.6	.9	3.0
Hospitals.....	94.7	95.7	96.5	97.4	98.1	99.1	100.0	100.9	101.8	.9	3.8
Leisure and hospitality.....	97.4	97.2	97.6	98.3	98.8	99.5	100.0	100.6	101.3	.7	2.5
Accommodation and food services.....	96.5	96.7	97.5	97.9	98.3	99.3	100.0	100.5	101.3	.8	3.1
Other services, except public administration.....	96.3	96.6	97.1	97.8	98.4	99.8	100.0	101.3	102.6	1.3	4.3
<b>State and local government workers.....</b>	<b>95.6</b>	<b>96.6</b>	<b>97.0</b>	<b>97.6</b>	<b>97.8</b>	<b>99.1</b>	<b>100.0</b>	<b>100.3</b>	<b>100.8</b>	<b>.5</b>	<b>3.1</b>
Workers by occupational group											
Management, professional, and related.....	95.5	96.6	97.0	97.5	97.8	99.0	100.0	100.2	100.7	.5	3.0
Professional and related.....	95.4	96.6	96.9	97.4	97.7	98.9	100.0	100.2	100.7	.5	3.1
Sales and office.....	96.2	97.3	97.6	98.1	98.0	99.4	100.0	100.6	101.2	.6	3.3
Office and administrative support.....	96.1	97.1	97.5	98.0	97.9	99.3	100.0	100.7	101.4	.7	3.6
Service occupations.....	95.4	96.4	96.8	97.3	97.7	99.3	100.0	100.3	100.8	.5	3.2
Workers by industry											
Education and health services.....	95.4	96.6	97.0	97.4	97.6	99.0	100.0	100.2	100.7	.5	3.2
Education services.....	95.4	96.6	96.9	97.3	97.5	98.9	100.0	100.1	100.4	.3	3.0
Schools.....	95.4	96.6	96.9	97.3	97.5	98.9	100.0	100.1	100.4	.3	3.0
Elementary and secondary schools.....	95.2	96.5	96.9	97.1	97.2	98.9	100.0	100.0	100.3	.3	3.2
Health care and social assistance.....	96.0	97.1	97.3	98.1	98.5	99.4	100.0	101.0	103.0	2.0	4.6
Hospitals.....	95.9	97.1	97.7	98.3	98.6	99.4	100.0	100.9	101.4	.5	2.8
Public administration <sup>2</sup> .....	95.8	96.5	97.0	97.9	98.3	99.3	100.0	100.5	101.1	.6	2.8

<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	2004			2005				2006		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 2006	
<b>Civilian workers.....</b>	<b>93.6</b>	<b>94.8</b>	<b>95.7</b>	<b>97.6</b>	<b>98.3</b>	<b>99.5</b>	<b>100.0</b>	<b>100.9</b>	<b>101.6</b>	<b>0.7</b>	<b>3.4</b>
<b>Private industry workers.....</b>	<b>94.6</b>	<b>95.4</b>	<b>96.2</b>	<b>98.1</b>	<b>99.0</b>	<b>99.7</b>	<b>100.0</b>	<b>101.0</b>	<b>101.7</b>	<b>.7</b>	<b>2.7</b>
Workers by occupational group											
Management, professional, and related.....	93.5	94.4	95.4	98.2	99.0	99.8	100.0	101.3	101.8	.5	2.8
Sales and office.....	94.4	95.2	95.8	97.6	98.5	99.3	100.0	100.8	101.6	.8	3.1
Natural resources, construction, and maintenance.....	94.9	95.4	96.4	98.0	99.3	99.8	100.0	101.1	102.7	1.6	3.4
Production, transportation, and material moving.....	96.1	97.1	97.7	98.7	99.3	100.0	100.0	100.1	101.0	.9	1.7
Service occupations.....	95.9	96.7	97.0	98.3	98.9	99.5	100.0	101.5	102.2	.7	3.3
Workers by industry											
Goods-producing.....	93.9	95.0	96.3	98.3	99.6	100.4	100.0	99.6	100.4	.8	.8
Manufacturing.....	94.1	95.3	96.0	98.3	99.4	100.0	100.0	99.0	99.7	.7	.3
Service-providing.....	94.9	95.5	96.1	98.1	98.7	99.4	100.0	101.5	102.3	.8	3.6
<b>State and local government workers.....</b>	<b>90.3</b>	<b>93.0</b>	<b>94.1</b>	<b>95.5</b>	<b>96.0</b>	<b>99.0</b>	<b>100.0</b>	<b>100.7</b>	<b>101.3</b>	<b>.6</b>	<b>5.5</b>

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	2004			2005				2006			Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended	
										June 2006		
<b>COMPENSATION</b>												
<b>Workers by bargaining status<sup>1</sup></b>												
Union.....	95.9	96.7	97.3	97.9	98.8	99.6	100.0	100.5	101.8	1.3	3.0	
Goods-producing.....	95.9	96.7	97.2	97.7	98.8	99.6	100.0	99.9	101.2	1.3	2.4	
Manufacturing.....	96.7	97.5	97.8	98.3	99.1	99.7	100.0	99.3	100.1	.8	1.0	
Service-providing.....	95.8	96.6	97.3	98.1	98.8	99.6	100.0	101.0	102.2	1.2	3.4	
Nonunion.....	95.9	96.7	97.2	98.3	98.9	99.5	100.0	100.9	101.7	.8	2.8	
Goods-producing.....	95.2	96.4	96.8	98.1	99.0	99.9	100.0	100.5	101.4	.9	2.4	
Manufacturing.....	95.3	96.4	96.6	98.2	99.1	99.8	100.0	100.3	101.3	1.0	2.2	
Service-providing.....	96.1	96.9	97.3	98.3	98.9	99.4	100.0	101.0	101.8	.8	2.9	
<b>Workers by region<sup>1</sup></b>												
Northeast.....	95.5	96.3	96.6	97.6	98.5	99.2	100.0	100.9	101.8	.9	3.4	
South.....	96.2	97.1	97.7	98.9	99.3	99.7	100.0	101.0	101.6	.6	2.3	
Midwest.....	95.9	96.6	96.9	97.8	98.4	99.5	100.0	100.7	101.7	1.0	3.4	
West.....	96.2	96.9	97.4	98.4	99.3	99.7	100.0	100.6	101.8	1.2	2.5	
<b>WAGES AND SALARIES</b>												
<b>Workers by bargaining status<sup>1</sup></b>												
Union.....	96.4	97.1	97.6	97.9	98.7	99.5	100.0	100.3	101.2	.9	2.5	
Goods-producing.....	96.3	96.9	97.1	97.5	98.5	99.2	100.0	100.5	101.6	1.1	3.1	
Manufacturing.....	96.2	97.0	97.1	97.6	98.3	99.0	100.0	100.6	101.2	.6	3.0	
Service-providing.....	96.5	97.3	98.0	98.2	99.0	99.7	100.0	100.1	100.9	.8	1.9	
Nonunion.....	96.5	97.3	97.6	98.3	98.9	99.5	100.0	100.8	101.8	1.0	2.9	
Goods-producing.....	96.2	97.3	97.3	98.0	98.7	99.6	100.0	100.7	101.9	1.2	3.2	
Manufacturing.....	96.5	97.5	97.5	98.4	99.0	99.8	100.0	100.7	101.8	1.1	2.8	
Service-providing.....	96.6	97.3	97.7	98.4	99.0	99.5	100.0	100.8	101.7	.9	2.7	
<b>Workers by region<sup>1</sup></b>												
Northeast.....	96.3	97.1	97.2	97.8	98.6	99.2	100.0	100.8	101.7	.9	3.1	
South.....	96.7	97.5	98.0	98.9	99.3	99.7	100.0	101.0	101.6	.6	2.3	
Midwest.....	96.1	96.9	97.1	97.8	98.2	99.4	100.0	100.4	101.4	1.0	3.3	
West.....	97.0	97.7	98.0	98.4	99.3	99.6	100.0	100.7	102.1	1.4	2.8	

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

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

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

fits at less than full pay.

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

NOTE: Dash indicates data not available.

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

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

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

<sup>2</sup> The definitions for paid sick leave and short-term disability (previously sickness and accident insurance) were changed for the 1996 survey. Paid sick leave now includes only plans that specify either a maximum number of days per year or unlimited days. Short-term disability now includes all insured, self-insured, and State-mandated plans available on a per-disability basis, as well as the unfunded per-disability plans previously reported as sick leave.

Sickness and accident insurance, reported in years prior to this survey, included only insured, self-insured, and State-mandated plans providing per-disability benefits at less than full pay.

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

NOTE: Dash indicates data not available.

### 36. Work stoppages involving 1,000 workers or more

Measure	Annual totals		2005						2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>p</sup>
Number of stoppages:															
Beginning in period.....	17	22	1	1	1	1	1	1	0	1	2	2	1	4	1
In effect during period.....	18	24	3	3	4	4	5	4	3	4	5	6	5	7	4
Workers involved:															
Beginning in period (in thousands).....	170.7	99.6	1.5	4.2	18.3	5.3	1.5	35.0	.0	3.6	4.2	3.1	5.0	10.8	3.0
In effect during period (in thousands).....	316.5	160.7	3.9	6.6	25.3	12.3	13.8	41.5	6.5	10.1	12.9	14.2	13.9	18.2	10.4
Days idle:															
Number (in thousands).....	3,344.1	1,736.1	64.5	98.0	513.0	145.3	181.5	241.5	130.0	124.3	261.5	176.1	179.8	188.0	146.8
Percent of estimated working time <sup>1</sup> .....	.01	.1	( <sup>2</sup> )	( <sup>2</sup> )	.02	.01	.01	.01	( <sup>2</sup> )	( <sup>2</sup> )	.01	.01	.01	.01	.01

<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.

<sup>2</sup> Less than 0.005.

NOTE: p = preliminary.

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

[1982-84 = 100, unless otherwise indicated]

Series	Annual average		2005						2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS</b>															
All items.....	188.9	195.3	195.4	196.4	198.8	199.2	197.6	196.8	198.3	198.7	199.8	201.5	202.5	202.9	203.5
All items (1967 = 100).....	565.8	585.0	585.2	588.2	595.4	596.7	592.0	589.4	593.9	595.2	598.6	603.5	606.5	607.8	609.6
Food and beverages.....	186.6	191.2	191.3	191.3	191.8	192.5	192.8	193.2	194.5	194.4	194.5	194.2	194.7	195.1	195.6
Food.....	186.2	190.7	190.8	190.9	191.4	192.1	192.4	192.9	194.1	194.0	194.0	193.7	194.2	194.5	195.0
Food at home.....	186.2	189.8	189.8	189.5	190.0	190.8	191.0	191.7	193.4	192.6	192.3	191.5	191.9	192.2	192.6
Cereals and bakery products.....	206.0	209.0	209.4	210.1	208.3	209.4	209.1	208.4	210.6	210.3	210.9	210.9	211.9	212.8	214.6
Meats, poultry, fish, and eggs.....	181.7	184.7	184.7	184.4	185.2	184.6	185.8	185.7	185.8	185.4	185.9	185.5	184.7	186.0	185.1
Dairy and related products <sup>1</sup> .....	180.2	182.4	181.6	182.9	181.8	182.6	183.5	183.2	183.7	183.4	183.0	181.3	181.0	179.6	180.8
Fruits and vegetables.....	232.7	241.4	240.3	236.6	240.8	245.7	246.4	252.3	258.5	253.4	248.5	246.6	248.0	248.0	249.1
Nonalcoholic beverages and beverage materials.....	140.4	144.4	144.8	144.3	145.2	145.6	145.5	145.5	147.2	147.3	148.0	146.3	146.6	146.6	146.3
Other foods at home.....	164.9	167.0	167.6	167.7	167.7	168.3	167.3	167.6	169.1	169.1	169.2	168.8	170.0	170.0	171.0
Sugar and sweets.....	163.2	165.2	167.1	164.7	165.8	166.3	166.5	167.8	169.3	167.3	170.1	171.0	171.3	171.9	173.3
Fats and oils.....	167.8	167.7	167.3	167.6	169.4	168.6	166.2	165.2	169.9	170.4	168.5	165.0	168.6	167.3	166.9
Other foods.....	179.7	182.5	183.0	183.9	183.1	184.0	183.0	183.3	184.3	184.7	184.5	184.3	185.4	185.6	186.9
Other miscellaneous foods <sup>1,2</sup> .....	110.4	111.3	111.5	111.8	111.5	112.1	112.7	112.4	112.6	113.4	113.0	113.2	114.3	114.4	115.0
Food away from home <sup>1</sup> .....	187.5	193.4	193.6	194.2	194.6	195.2	195.6	196.0	196.6	197.2	197.6	198.0	198.7	199.2	199.7
Other food away from home <sup>1,2</sup> .....	125.3	131.3	132.0	132.6	133.2	133.5	133.7	133.7	134.1	134.7	135.2	135.8	136.0	136.3	136.8
Alcoholic beverages.....	192.1	195.9	195.8	195.9	196.6	196.8	197.1	196.4	198.0	199.5	200.1	200.1	200.8	201.6	201.3
Housing.....	189.5	195.7	196.6	196.9	197.0	198.4	198.5	198.3	200.0	200.5	201.3	201.7	202.2	203.7	204.7
Shelter.....	218.8	224.4	225.6	225.6	224.4	225.7	225.4	225.6	226.8	228.3	229.9	230.7	231.2	232.2	233.6
Rent of primary residence.....	211.0	217.3	217.5	218.0	218.6	219.3	220.0	220.5	220.9	221.6	222.3	222.9	223.6	224.4	225.2
Lodging away from home.....	125.9	130.3	136.4	134.3	124.7	129.7	125.2	122.8	127.5	133.4	140.4	140.4	137.9	139.1	142.8
Owners' equivalent rent of primary residence <sup>3</sup> .....	224.9	230.2	230.2	230.7	231.2	231.7	232.2	232.8	233.4	234.1	234.9	235.8	236.9	237.9	238.8
Tenants' and household insurance <sup>1,2</sup> .....	116.2	117.6	118.1	117.8	116.6	115.8	115.9	116.1	115.9	116.2	116.2	116.2	116.3	116.4	116.4
Fuels and utilities.....	161.9	179.0	180.1	181.8	188.9	192.8	194.6	191.6	198.7	194.6	192.3	190.8	192.0	197.6	198.5
Fuels.....	144.4	161.6	162.6	164.4	172.1	176.2	178.0	174.7	182.1	177.5	174.8	173.2	174.4	180.4	181.1
Fuel oil and other fuels.....	160.5	208.6	202.9	209.8	235.9	241.1	231.5	227.8	229.5	230.4	236.4	239.8	239.1	241.9	
Gas (piped) and electricity.....	150.6	166.5	168.1	169.6	176.4	180.7	183.4	180.0	188.1	182.8	179.9	177.7	178.8	185.6	186.2
Household furnishings and operations.....	125.5	126.1	125.9	125.8	125.7	125.9	126.1	126.4	126.5	126.8	126.7	126.9	127.2	127.3	127.1
Apparel.....	120.4	119.5	113.8	115.8	120.5	122.7	121.5	117.5	114.9	116.6	122.0	123.4	122.4	118.9	113.8
Men's and boys' apparel.....	117.5	116.1	111.6	112.4	114.0	117.2	117.4	114.1	112.4	112.7	116.2	118.0	116.5	113.0	110.3
Women's and girls' apparel.....	113.0	110.8	102.8	105.1	112.3	115.1	113.9	108.9	103.0	106.3	115.0	116.3	114.4	110.3	102.3
Infants' and toddlers' apparel <sup>1</sup> .....	118.5	116.7	112.8	113.5	115.5	116.3	115.3	115.0	113.3	116.6	118.7	118.2	118.3	115.0	114.4
Footwear.....	119.3	122.6	119.3	121.7	126.0	126.7	124.3	121.4	122.3	122.8	125.4	126.1	125.8	123.0	119.1
Transportation.....	163.1	173.9	174.4	177.7	186.5	184.0	175.6	172.7	175.9	175.8	177.4	184.1	187.6	187.3	189.0
Private transportation.....	159.4	170.2	170.3	173.8	183.1	180.5	171.8	168.9	172.1	171.9	173.5	180.4	183.9	183.2	184.9
New and used motor vehicles <sup>2</sup> .....	94.2	95.6	95.2	95.0	95.4	95.7	95.8	95.8	96.2	96.2	96.0	96.0	95.8	95.7	95.6
New vehicles.....	137.1	137.9	136.3	135.0	135.8	137.1	138.0	138.3	139.3	139.3	138.8	138.4	137.7	137.2	136.9
Used cars and trucks <sup>1</sup> .....	133.3	139.4	141.0	142.0	141.5	140.6	139.4	139.2	139.3	139.5	140.0	140.4	140.9	141.5	142.1
Motor fuel.....	160.4	195.7	197.5	212.7	249.5	237.1	199.7	187.3	199.2	198.1	205.8	235.4	250.9	248.4	255.6
Gasoline (all types).....	159.7	194.7	196.5	211.7	248.5	235.9	198.6	186.2	198.2	197.0	204.7	234.4	249.8	247.3	254.6
Motor vehicle parts and equipment.....	108.7	111.9	111.9	112.4	112.7	113.0	113.6	114.0	114.4	114.9	115.4	115.8	117.0	117.0	117.9
Motor vehicle maintenance and repair.....	200.2	206.9	206.7	207.3	208.7	209.8	210.5	210.7	211.2	212.9	213.4	213.9	214.9	215.5	216.7
Public transportation.....	209.1	217.3	226.1	223.3	220.7	222.7	220.8	217.6	219.9	221.3	222.6	225.3	229.2	234.3	237.4
Medical care.....	310.1	323.2	324.1	323.9	324.6	326.2	328.1	328.4	329.3	332.1	333.8	334.7	335.6	336.0	337.0
Medical care commodities.....	269.3	276.0	276.3	276.8	277.7	278.9	280.3	280.8	282.0	283.1	284.3	285.3	286.3	286.3	287.1
Medical care services.....	321.3	336.7	337.8	337.3	337.9	339.7	341.7	342.0	342.9	346.1	348.0	348.8	349.7	350.3	351.2
Professional services.....	271.5	281.7	282.6	282.4	283.0	284.0	284.5	284.9	284.7	286.5	287.8	288.5	289.0	289.2	289.8
Hospital and related services.....	417.9	439.9	440.9	439.6	439.8	443.6	449.6	449.7	453.6	460.4	463.3	464.6	466.1	467.6	469.3
Recreation <sup>2</sup> .....	108.6	109.4	109.1	109.3	109.7	109.9	109.8	109.7	109.9	110.2	110.6	111.1	111.2	111.2	111.3
Video and audio <sup>1,2</sup> .....	104.2	104.2	103.1	104.3	104.4	104.4	104.2	103.9	104.1	104.3	105.2	105.8	105.5	105.2	105.0
Education and communication <sup>2</sup> .....	111.6	113.7	112.9	113.7	115.3	115.1	115.3	115.3	115.7	115.7	115.6	115.8	115.7	115.9	116.3
Education <sup>2</sup> .....	143.7	152.7	151.3	153.9	157.1	157.4	157.5	157.6	158.3	158.4	158.4	158.6	158.9	159.5	160.3
Educational books and supplies.....	351.0	365.6	364.0	364.6	372.4	373.9	373.6	374.3	379.2	382.0	383.1	383.1	384.7	386.7	386.3
Tuition, other school fees, and child care.....	414.3	440.9	436.6	444.8	454.1	454.7	455.1	455.3	457.2	457.2	457.2	457.7	458.6	460.2	462.9
Communication <sup>1,2</sup> .....	86.7	84.7	84.4	84.0	84.6	84.2	84.4	84.3	84.5	84.5	84.4	84.5	84.2	84.3	84.3
Information and information processing <sup>1,2</sup> .....	84.6	82.6	82.2	81.8	82.4	82.0	82.2	82.2	82.1	82.0	81.9	82.1	81.7	81.8	81.9
Telephone services <sup>1,2</sup> .....	95.8	94.9	94.4	94.1	95.1	94.6	95.2	95.2	95.2	95.2	95.0	95.4	95.2	95.4	95.6
Information and information processing other than telephone services <sup>1,4</sup> .....	14.8	13.6	13.6	13.4	13.3	13.3	13.1	13.1	13.0	13.0	13.0	12.9	12.8	12.7	12.7
Personal computers and peripheral equipment <sup>1,2</sup> .....	15.3	12.8	12.8	12.4	12.3	12.2	12.0	11.7	11.6	11.5	11.4	11.1	10.8	10.7	10.6
Other goods and services.....	304.7	313.4	314.1	314.4	315.0	315.3	316.2	317.3	318.2	319.1	320.0	320.0	320.2	321.5	321.2
Tobacco and smoking products.....	478.0	502.8	503.4	506.5	510.1	509.4	511.2	513.1	515.1	515.9	519.0	518.1	517.5	521.5	521.5
Personal care <sup>1</sup> .....	181.7	185.6	186.1	186.1	186.1	186.4	186.9	187.6	188.1	188.6	189.1	189.1	189.4	189.9	189.7
Personal care products <sup>1</sup> .....	153.9	154.4	155.0	155.2	154.8	155.0	155.0	155.4	155.8	155.6	155.2	155.0	154.6	155.2	155.0
Personal care services <sup>1</sup> .....	197.6	203.9	203.9	204.1	204.6	204.8	205.2	206.6	206.4	207.9	208.5	208.5	208.7	209.1	209.5



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

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		2005							2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	
Miscellaneous personal services.....	293.9	303.0	303.9	304.2	304.7	305.0	305.9	306.6	308.2	309.3	310.9	311.3	312.4	313.3	312.9	
Commodity and service group:																
Commodities.....	154.7	160.2	159.5	161.1	165.6	165.1	161.5	160.0	161.3	161.4	162.8	165.5	166.9	166.3	166.4	
Food and beverages.....	186.6	191.2	191.3	191.3	191.8	192.5	192.8	193.2	194.5	194.4	194.5	194.2	194.7	195.1	195.6	
Commodities less food and beverages.....	136.7	142.5	141.4	143.7	149.9	148.9	143.6	141.3	142.6	142.8	144.7	148.6	150.3	149.3	149.3	
Nondurables less food and beverages.....	157.2	168.4	166.7	171.8	184.4	182.0	171.1	166.3	168.7	169.1	173.3	181.8	185.6	183.8	183.8	
Apparel.....	120.4	119.5	113.8	115.8	120.5	122.7	121.5	117.5	114.9	116.6	122.0	123.4	122.4	118.9	113.8	
Nondurables less food, beverages, and apparel.....	183.9	202.6	203.3	210.4	228.0	222.8	205.9	200.4	206.0	205.7	209.3	222.3	229.2	228.4	231.6	
Durables.....	114.8	115.3	114.9	114.4	114.6	114.9	114.9	114.9	115.3	115.3	115.1	115.1	114.9	114.6	114.6	
Services.....	222.8	230.1	230.9	231.3	231.7	233.0	233.5	233.2	234.9	235.7	236.6	237.1	237.7	239.2	240.2	
Rent of shelter <sup>3</sup> .....	227.9	233.7	234.9	235.0	233.8	235.1	234.9	235.0	236.2	237.8	239.6	240.4	241.0	242.0	243.4	
Transportation services.....	220.6	225.7	227.1	227.0	227.0	227.6	228.4	227.8	228.2	228.7	228.8	229.6	230.7	231.8	232.7	
Other services.....	261.3	268.4	267.2	268.7	271.2	271.5	272.1	272.3	273.2	273.9	274.6	275.5	275.8	276.6	277.2	
Special indexes:																
All items less food.....	189.4	196.0	196.1	197.3	200.0	200.4	198.5	197.4	199.0	199.5	200.8	202.8	203.9	204.3	204.9	
All items less shelter.....	179.3	186.1	185.7	187.1	191.0	191.1	189.0	187.7	189.3	189.4	190.3	192.3	193.5	193.7	194.0	
All items less medical care.....	182.7	188.7	188.8	189.8	192.3	192.6	190.9	190.0	191.6	191.9	193.0	194.7	195.6	196.1	196.6	
Commodities less food.....	138.8	144.5	143.5	145.7	151.8	150.8	145.6	143.3	144.7	144.9	146.8	150.6	152.3	151.3	151.3	
Nondurables less food.....	159.3	170.1	168.5	173.3	185.2	183.0	172.7	168.1	170.5	171.0	175.0	182.9	186.5	184.9	184.9	
Nondurables less food and apparel.....	183.8	201.2	201.8	208.3	224.3	219.6	204.2	199.2	204.3	204.2	207.5	219.2	225.5	224.8	227.6	
Nondurables.....	172.2	180.2	179.4	182.1	188.9	188.0	182.4	180.1	182.0	182.2	184.4	188.7	191.0	190.2	190.4	
Services less rent of shelter <sup>3</sup> .....	233.5	243.2	243.6	244.5	246.8	248.2	249.5	248.8	251.2	251.0	250.9	251.0	251.8	253.9	254.6	
Services less medical care services.....	214.5	221.2	222.0	222.5	222.8	224.1	224.4	225.9	226.5	227.3	227.8	228.2	229.9	231.0	231.0	
Energy.....	151.4	177.1	178.5	186.6	208.0	204.3	187.6	180.0	189.5	186.4	188.6	201.4	209.3	211.3	215.1	
All items less energy.....	194.4	198.7	198.7	198.9	199.2	200.1	200.2	200.8	201.6	202.6	203.0	203.3	203.6	203.9	203.9	
All items less food and energy.....	196.6	200.9	200.8	201.0	201.3	202.3	202.3	202.1	202.6	203.6	204.9	205.5	205.7	205.9	206.2	
Commodities less food and energy.....	139.6	140.3	138.9	139.0	140.2	141.0	140.8	140.1	139.9	140.3	141.5	141.7	141.5	140.7	139.6	
Energy commodities.....	161.2	197.4	198.8	213.6	249.9	238.6	202.7	190.7	202.1	201.8	203.3	236.6	251.4	249.0	256.0	
Services less energy.....	230.2	236.6	237.4	237.7	237.4	238.4	238.6	238.7	239.7	241.1	242.4	243.2	243.7	244.7	245.8	
<b>CONSUMER PRICE INDEX FOR URBAN</b>																
<b>WAGE EARNERS AND CLERICAL WORKERS</b>																
All items.....	184.5	191.0	191.0	192.1	195.0	195.2	193.4	192.5	194.0	194.2	195.3	197.2	198.2	198.6	199.2	
All items (1967 = 100).....	549.5	568.9	568.8	572.3	580.9	581.5	576.1	573.3	577.7	578.6	581.8	587.3	590.5	591.7	593.2	
Food and beverages.....	186.2	190.5	190.6	190.6	191.1	191.8	192.1	192.5	193.8	193.7	193.8	193.4	193.9	194.2	194.6	
Food.....	185.7	190.1	190.2	190.2	190.7	191.4	191.7	192.2	193.4	193.3	193.2	192.8	193.3	193.7	194.1	
Food at home.....	185.4	188.9	188.9	188.7	189.1	189.9	190.1	190.7	192.4	191.7	191.4	190.5	190.9	191.2	191.6	
Cereals and bakery products.....	206.0	208.9	209.2	209.9	208.1	209.2	208.9	208.4	210.8	210.5	211.1	211.2	212.2	213.1	214.9	
Meats, poultry, fish, and eggs.....	181.8	184.7	184.6	184.5	185.1	184.5	185.8	185.6	185.4	185.1	185.8	185.1	184.4	185.4	184.7	
Dairy and related products <sup>1</sup> .....	180.0	182.2	181.4	182.8	181.7	182.4	183.3	183.0	183.5	183.3	182.7	180.8	180.5	179.1	180.3	
Fruits and vegetables.....	230.4	238.9	238.0	234.7	238.8	243.4	243.4	249.6	256.2	251.3	245.9	244.0	246.0	245.7	247.0	
Nonalcoholic beverages and beverage materials.....	139.7	143.7	144.1	143.4	144.6	144.9	144.8	144.9	146.7	146.7	147.3	145.7	145.9	146.1	145.6	
Other foods at home.....	164.5	166.5	167.0	167.1	167.1	167.7	166.9	167.1	168.5	168.7	168.7	168.2	169.4	169.5	170.4	
Sugar and sweets.....	162.5	164.3	166.3	163.8	165.1	165.6	165.7	166.9	168.3	166.5	169.0	169.9	170.5	170.9	172.5	
Fats and oils.....	167.8	167.8	167.4	167.6	169.4	168.6	166.3	165.6	170.4	171.2	169.4	165.7	169.1	167.9	167.9	
Other foods.....	180.1	182.8	183.3	184.0	183.2	184.1	183.4	183.7	184.4	185.0	184.8	184.5	185.5	185.9	187.0	
Other miscellaneous foods <sup>1,2</sup> .....	110.9	111.8	111.9	112.1	111.9	112.5	113.2	112.9	113.0	113.8	113.4	113.4	114.4	115.0	115.2	
Food away from home <sup>1</sup> .....	187.4	193.3	193.4	194.0	194.4	195.1	195.5	195.8	196.4	197.0	197.4	197.8	198.4	198.9	199.4	
Other food away from home <sup>1,2</sup> .....	125.1	131.1	131.8	132.4	133.0	133.3	133.5	133.6	133.7	134.4	134.8	135.6	135.8	136.0	136.3	
Alcoholic beverages.....	192.4	195.8	195.6	195.3	196.0	196.5	197.0	196.3	198.0	199.4	200.5	200.3	200.6	201.0	200.8	
Housing.....	185.0	191.2	191.9	192.3	192.9	194.1	194.4	194.2	195.8	196.1	196.6	196.8	197.4	198.9	199.7	
Shelter.....	212.2	217.5	218.3	218.5	217.9	218.8	218.9	219.2	220.0	221.2	222.4	223.1	223.7	224.7	225.8	
Rent of primary residence.....	210.2	216.5	216.6	217.1	217.7	218.4	219.1	219.7	220.1	220.8	221.4	222.0	222.7	223.5	224.3	
Lodging away from home <sup>2</sup> .....	126.4	130.0	136.9	134.5	124.5	129.2	124.5	122.4	126.1	133.1	140.4	139.8	136.6	138.7	142.6	
Owners' equivalent rent of primary residence <sup>3</sup> .....	204.1	208.8	208.8	209.3	209.7	210.2	210.7	211.2	211.7	212.4	213.0	213.9	214.8	215.7	216.5	
Tenants' and household insurance <sup>1,2</sup> .....	116.4	117.9	118.4	118.1	116.9	116.0	116.2	116.4	116.2	116.5	116.5	116.5	116.6	116.7	116.7	
Fuels and utilities.....	161.2	177.9	179.2	181.0	187.7	191.0	193.0	190.2	197.3	193.2	190.8	189.4	190.4	196.0	196.7	
Fuels.....	143.2	159.7	161.0	162.7	169.9	173.5	175.5	172.4	179.7	175.0	172.4	170.8	171.8	177.8	178.3	
Fuel oil and other fuels.....	160.0	208.1	201.8	208.9	235.4	241.2	231.3	227.4	228.9	229.7	229.8	235.8	238.9	238.3	241.3	
Gas (piped) and electricity.....	149.8	165.4	167.2	168.7	175.2	178.8	181.6	178.3	186.4	181.1	178.3	176.1	177.1	183.7	184.1	
Household furnishings and operations.....	121.1	121.8	121.5	121.5	121.4	121.8	121.9	122.0	122.4	122.5	122.5	122.5	122.8	122.9	122.7	
Apparel.....	120.0	119.1	113.8	115.5	119.6	121.9	121.0	117.2	114.3	116.1	121.6	123.1	121.9	118.4	113.2	
Men's and boys' apparel.....	117.3	115.6	111.2	111.8	113.2	116.6	116.9	113.5	112.0	112.7	115.7	117.5	116.5	113.0	110.3	
Women's and girls' apparel.....	112.8	110.4	102.7	104.5	111.1	114.3	113.4	108.3	102.1	105.4	114.3	115.9	114.0	109.8	101.3	
Infants' and toddlers' apparel <sup>1</sup> .....	121.3	119.3	115.2	116.0	117.6	118.7	117.8	117.6	115.8	118.1	120.8	120.3	120.2	116.8	115.9	
Footwear.....	118.2	121.8	119.0	121.2	124.9	125.4	123.2	120.9	121.6	122.1	124.7	125.4	125.1	122.6	119.1	
Transportation.....	161.5	173.0	173.5	177.1	186.4	183.7	174.7	171.6	174.9	174.8	176.6	183.9	187.7	187.1	189.0	
Private transportation.....	158.8	170.3	170.5	174.4	183.9	181.1	171.9	168.8	172.2	172.0	173.8	181.2	184.9	184.2	186.1	
New and used motor vehicles <sup>2</sup> .....	92.8	94.7														

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

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		2005						2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
New vehicles.....	138.1	138.9	137.2	136.0	136.8	138.2	139.1	139.3	140.3	140.3	139.9	139.5	138.8	138.3	137.9
Used cars and trucks <sup>1</sup> .....	134.1	140.3	141.9	142.9	142.4	141.4	140.2	140.0	140.1	140.3	140.8	141.3	141.8	142.4	143.0
Motor fuel.....	160.9	196.3	198.1	213.4	250.3	238.0	200.5	188.0	199.9	198.7	206.5	236.1	251.3	248.8	256.2
Gasoline (all types).....	160.2	195.4	197.2	212.4	249.3	236.8	199.4	187.0	198.9	197.7	205.6	235.2	250.3	247.8	255.3
Motor vehicle parts and equipment.....	108.2	111.5	111.4	111.9	112.3	112.6	113.2	113.6	113.9	114.3	114.9	115.3	116.5	116.6	117.5
Motor vehicle maintenance and repair.....	202.0	209.3	209.1	209.7	211.1	212.4	213.1	213.2	213.6	215.4	215.8	216.3	217.4	218.0	219.1
Public transportation.....	207.1	215.5	223.3	220.8	218.8	220.9	219.4	216.6	219.0	220.4	221.6	224.0	227.5	232.0	234.1
Medical care.....	309.5	322.8	323.7	323.5	324.0	325.8	327.9	328.2	329.1	331.5	333.2	334.2	335.0	335.5	336.5
Medical care commodities.....	263.2	269.2	269.4	269.9	270.3	271.8	273.4	273.9	275.0	276.3	277.3	278.4	279.4	279.4	280.3
Medical care services.....	321.5	337.3	338.4	337.9	338.4	340.4	342.6	342.8	343.6	346.4	348.3	349.2	350.0	350.6	351.6
Professional services.....	274.0	284.3	285.3	285.0	285.6	286.6	287.1	287.4	287.2	288.9	290.2	290.8	291.3	291.5	292.1
Hospital and related services.....	414.0	436.1	436.9	435.3	435.5	439.8	446.4	446.4	450.1	455.4	459.9	461.2	462.8	464.8	
Recreation <sup>2</sup> .....	106.3	106.8	106.5	106.8	107.0	107.3	107.2	107.1	107.2	107.5	107.9	108.4	108.5	108.6	108.7
Video and audio <sup>1,2</sup> .....	103.4	103.4	102.4	103.6	103.7	103.7	103.5	103.2	103.3	103.6	104.4	104.9	104.7	104.5	104.3
Education and communication <sup>2</sup> .....	110.0	111.4	110.7	111.1	112.6	112.4	112.7	112.6	113.1	113.1	113.0	113.2	113.0	113.3	113.5
Education <sup>2</sup> .....	142.5	151.0	149.7	152.0	155.1	155.3	155.5	155.6	156.7	156.7	156.8	156.9	157.2	157.8	158.4
Educational books and supplies.....	352.2	367.1	365.6	365.9	373.6	375.1	374.8	375.5	380.6	383.5	384.9	384.7	386.2	388.1	387.6
Tuition, other school fees, and child care.....	402.5	427.1	423.4	430.4	439.1	439.7	440.3	440.5	443.3	443.2	443.1	443.5	444.4	446.1	448.0
Communication <sup>1,2</sup> .....	88.3	86.4	86.0	85.7	86.3	85.9	86.2	86.2	86.3	86.3	86.2	86.3	86.0	86.1	86.2
Information and information processing <sup>1,2</sup> .....	86.8	84.9	84.5	84.1	84.8	84.4	84.7	84.6	84.6	84.6	84.5	84.6	84.3	84.4	84.5
Telephone services <sup>1,2</sup> .....	96.0	95.0	94.6	94.3	95.3	94.8	95.3	95.3	95.3	95.4	95.2	95.6	95.3	95.5	95.7
Information and information processing other than telephone services <sup>1,4</sup> .....	15.3	14.2	14.1	14.0	13.9	13.8	13.7	13.6	13.6	13.5	13.6	13.5	13.3	13.3	13.3
Personal computers and peripheral equipment <sup>1,2</sup> .....	15.0	12.6	12.5	12.2	12.1	12.0	11.8	11.6	11.4	11.3	11.3	11.0	10.7	10.5	10.4
Other goods and services.....	312.6	322.2	323.1	323.6	324.4	324.5	325.4	326.6	327.6	328.4	329.4	329.3	329.3	330.8	330.7
Tobacco and smoking products.....	478.8	504.2	505.2	508.5	512.2	511.3	513.2	515.0	517.1	517.9	520.9	519.9	519.4	523.5	523.3
Personal care <sup>1</sup> .....	180.4	184.0	184.6	184.4	184.4	184.7	185.1	185.8	186.3	186.8	187.2	187.2	187.3	187.9	187.9
Personal care products <sup>1</sup> .....	154.4	154.5	155.4	155.4	155.0	155.0	154.9	155.4	155.8	155.6	155.2	155.0	154.7	155.1	155.0
Personal care services <sup>1</sup> .....	198.2	204.2	204.1	204.4	204.8	205.0	205.5	206.9	206.6	208.0	208.5	208.6	208.6	209.2	209.7
Miscellaneous personal services.....	294.0	303.4	304.4	304.6	305.1	305.4	306.2	307.0	308.6	309.7	311.4	311.8	312.7	313.8	313.9
Commodity and service group:															
Commodities.....	155.4	161.4	160.8	162.7	167.4	166.8	162.8	161.2	162.6	162.7	164.3	167.3	168.9	168.2	168.5
Food and beverages.....	186.2	190.5	190.6	190.6	191.1	191.8	192.1	192.5	193.8	193.7	193.8	193.4	193.9	194.2	194.6
Commodities less food and beverages.....	138.1	144.7	143.8	146.4	153.0	151.8	145.9	143.4	144.8	145.1	147.2	151.8	153.7	152.7	152.8
Nondurables less food and beverages.....	160.6	173.2	171.7	177.3	191.0	188.2	176.1	170.8	173.5	174.0	178.7	188.4	192.8	190.8	191.1
Apparel.....	120.0	119.1	113.8	115.5	119.6	121.9	121.0	117.2	114.3	116.1	121.6	123.1	121.9	118.4	113.2
Nondurables less food, beverages, and apparel.....	189.6	210.6	211.3	219.5	239.4	233.5	214.2	207.8	214.2	213.9	218.1	233.2	241.1	240.1	243.8
Durables.....	114.0	115.1	114.9	114.7	114.8	115.0	114.9	114.9	115.2	115.3	115.2	115.2	115.0	114.8	114.8
Services.....	218.6	225.7	226.3	226.8	227.5	228.6	229.3	229.2	230.7	231.2	231.8	232.2	232.8	234.3	235.2
Rent of shelter <sup>3</sup> .....	204.3	209.5	210.2	210.4	209.9	210.8	210.9	211.2	211.9	213.1	214.3	215.0	215.6	216.5	217.6
Transportation services.....	220.9	225.9	226.8	226.9	226.9	227.5	228.5	228.3	228.6	229.0	229.0	229.5	230.3	231.0	231.4
Other services.....	254.1	260.0	258.9	260.2	262.4	262.6	263.2	263.5	264.4	265.0	265.7	266.6	266.8	267.6	268.1
Special indexes:															
All items less food.....	184.1	191.0	190.9	192.3	195.6	195.8	193.5	192.3	193.9	194.2	195.5	197.8	199.0	199.4	199.9
All items less shelter.....	176.4	183.4	183.1	184.6	188.8	188.7	186.2	184.8	186.6	186.5	187.6	189.8	191.1	191.3	191.6
All items less medical care.....	179.1	185.4	185.3	186.5	189.5	189.6	187.7	186.7	188.2	188.4	189.5	191.3	192.4	192.8	193.3
Commodities less food.....	140.0	146.5	145.7	148.2	154.6	153.5	147.8	145.3	146.8	147.0	149.1	153.6	155.5	154.5	154.6
Nondurables less food.....	162.6	174.6	173.2	178.5	191.5	188.9	177.4	172.4	175.1	175.6	180.1	189.3	193.4	191.6	191.9
Nondurables less food and apparel.....	189.0	208.4	209.0	216.5	234.6	229.3	211.8	205.9	211.9	211.7	215.6	229.4	236.6	235.7	239.1
Nondurables.....	173.9	182.5	181.7	184.6	191.9	190.9	184.7	182.2	184.2	184.5	186.9	191.8	194.2	193.4	193.8
Services less rent of shelter <sup>3</sup> .....	207.4	215.9	216.3	217.0	219.2	220.4	221.7	221.1	223.4	222.9	222.7	222.7	223.3	225.3	225.8
Services less medical care services.....	210.6	217.2	217.8	218.3	219.1	220.1	220.7	220.6	222.2	222.5	223.0	223.4	224.0	225.5	226.4
Energy.....	151.3	177.2	178.7	187.2	209.3	204.8	187.1	179.3	188.8	185.9	188.4	202.0	210.0	211.8	215.7
All items less energy.....	189.5	193.5	193.3	193.6	194.1	194.8	195.0	194.9	195.4	196.1	197.0	197.4	197.7	197.9	198.0
All items less food and energy.....	190.6	194.6	194.3	194.6	195.1	195.9	196.1	196.2	196.2	197.1	198.2	198.7	198.9	199.1	199.2
Commodities less food and energy.....	139.4	140.6	139.3	139.6	140.6	141.3	141.2	140.4	140.2	140.7	141.9	142.2	141.9	141.2	140.0
Energy commodities.....	161.5	197.7	199.0	214.0	250.5	239.0	202.8	190.7	202.0	200.9	208.4	236.9	251.4	249.1	256.2
Services less energy.....	226.2	232.3	232.8	233.1	233.1	234.0	234.4	234.6	235.4	236.5	237.5	238.2	238.8	239.7	240.6

<sup>1</sup> Not seasonally adjusted.<sup>2</sup> Indexes on a December 1997 = 100 base.<sup>3</sup> Indexes on a December 1982 = 100 base.<sup>4</sup> Indexes on a December 1988 = 100 base.

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

### 38. 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					
		2006						2006					
		Feb.	Mar.	Apr.	May	June	July	Feb.	Mar.	Apr.	May	June	July
U.S. city average.....	M	198.7	199.8	201.5	202.5	202.9	203.5	194.2	195.3	197.2	198.2	198.6	199.2
<b>Region and area size<sup>2</sup></b>													
Northeast urban.....	M	211.6	212.8	214.7	215.7	216.7	217.5	207.9	209.0	211.0	212.1	213.0	213.5
Size A—More than 1,500,000.....	M	213.8	215.0	216.8	218.1	219.3	220.1	208.6	209.7	211.5	212.8	214.0	214.3
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	125.2	126.0	127.3	127.4	127.7	128.2	125.5	126.1	127.6	128.0	128.1	128.6
Midwest urban <sup>4</sup> .....	M	190.7	192.0	193.0	193.6	194.1	194.6	185.9	187.0	188.3	189.0	189.5	190.0
Size A—More than 1,500,000.....	M	192.5	193.8	194.5	195.1	195.6	196.3	186.9	188.0	189.0	189.7	190.1	190.7
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	121.6	122.3	123.3	123.7	124.0	124.1	121.0	121.7	122.8	123.3	123.6	123.8
Size D—Nonmetropolitan (less than 50,000).....	M	185.2	186.7	187.8	188.1	189.3	190.1	183.2	184.7	186.0	186.4	187.6	188.6
South urban.....	M	191.8	192.8	194.7	195.5	196.3	197.0	188.9	189.9	192.1	192.9	193.5	194.3
Size A—More than 1,500,000.....	M	193.9	194.6	196.5	197.4	198.2	198.9	191.8	192.4	194.7	195.7	196.3	197.1
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	122.1	123.0	124.1	124.6	125.0	125.5	120.7	121.6	122.9	123.3	123.7	124.2
Size D—Nonmetropolitan (less than 50,000).....	M	191.1	192.3	195.1	195.9	196.7	198.0	191.1	192.4	195.3	196.3	196.9	198.1
West urban.....	M	202.7	203.8	205.3	206.9	206.4	206.7	197.2	198.3	200.0	201.9	201.5	201.7
Size A—More than 1,500,000.....	M	205.7	206.8	208.6	210.3	209.5	210.0	198.6	199.7	201.7	203.6	203.0	203.3
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	123.7	124.2	124.9	125.7	125.6	125.6	123.1	123.6	124.4	125.6	125.4	125.5
Size classes:													
A <sup>5</sup> .....	M	181.9	182.8	184.3	185.3	185.6	186.2	180.0	181.0	182.6	183.7	184.0	184.5
B/C <sup>3</sup> .....	M	122.7	123.5	124.5	125.0	125.3	125.6	121.9	122.6	123.8	124.4	124.6	125.0
D.....	M	190.2	191.6	193.5	194.4	195.3	196.0	188.7	190.2	192.2	193.3	194.1	194.8
<b>Selected local areas<sup>6</sup></b>													
Chicago—Gary—Kenosha, IL—IN—WI.....	M	197.2	197.6	197.7	198.4	199.0	199.3	190.6	190.9	191.4	192.0	192.4	192.8
Los Angeles—Riverside—Orange County, CA.....	M	207.5	208.5	210.5	212.4	211.1	211.4	199.9	200.8	202.9	205.0	204.2	204.5
New York, NY—Northern NJ—Long Island, NY—NJ—CT—PA.....	M	216.4	218.2	220.2	221.6	222.6	223.1	210.6	212.0	214.0	215.5	216.7	216.8
Boston—Brockton—Nashua, MA—NH—ME—CT.....	1	—	221.3	—	222.9	—	225.1	—	220.5	—	222.9	—	223.9
Cleveland—Akron, OH.....	1	—	190.7	—	192.4	—	193.1	—	181.6	—	183.8	—	184.3
Dallas—Ft. Worth, TX.....	1	—	188.4	—	191.2	—	191.7	—	189.7	—	192.9	—	193.9
Washington—Baltimore, DC—MD—VA—WV <sup>7</sup> .....	1	—	126.8	—	128.8	—	130.7	—	126.4	—	128.2	—	129.8
Atlanta, GA.....	2	189.8	—	193.9	—	196.0	—	188.5	—	192.0	—	194.4	—
Detroit—Ann Arbor—Flint, MI.....	2	194.8	—	197.2	—	196.8	—	189.6	—	192.2	—	192.0	—
Houston—Galveston—Brazoria, TX.....	2	178.6	—	181.2	—	182.4	—	176.7	—	180.0	—	181.4	—
Miami—Ft. Lauderdale, FL.....	2	202.2	—	203.8	—	203.8	—	199.9	—	202.3	—	202.5	—
Philadelphia—Wilmington—Atlantic City, PA—NJ—DE—MD.....	2	209.0	—	211.6	—	213.9	—	209.1	—	211.1	—	213.2	—
San Francisco—Oakland—San Jose, CA.....	2	207.1	—	208.9	—	209.1	—	202.5	—	204.9	—	205.2	—
Seattle—Tacoma—Bremerton, WA.....	2	203.6	—	207.4	—	208.2	—	198.0	—	202.5	—	203.8	—

<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.

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

[1982-84 = 100]

Series	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Consumer Price Index for All Urban Consumers:											
All items:											
Index.....	152.4	156.9	160.5	163.0	166.6	172.2	177.1	179.9	184.0	188.9	195.3
Percent change.....	2.8	3.0	2.3	1.6	2.2	3.4	2.8	1.6	2.3	2.7	3.4
Food and beverages:											
Index.....	148.9	153.7	157.7	161.1	164.6	168.4	173.6	176.8	180.5	186.6	191.2
Percent change.....	2.8	3.2	2.6	2.2	2.2	2.3	3.1	1.8	2.1	3.3	2.5
Housing:											
Index.....	148.5	152.8	156.8	160.4	163.9	169.6	176.4	180.3	184.8	189.5	195.7
Percent change.....	2.6	2.9	2.6	2.3	2.2	3.5	4.0	2.2	2.5	2.5	3.3
Apparel:											
Index.....	132.0	131.7	132.9	133.0	131.3	129.6	127.3	124.0	120.9	120.4	119.5
Percent change.....	-1.0	-2	.9	.1	-1.3	-1.3	-1.8	-2.6	-2.5	-4	-7
Transportation:											
Index.....	139.1	143.0	144.3	141.6	144.4	153.3	154.3	152.9	157.6	163.1	173.9
Percent change.....	3.6	2.8	0.9	-1.9	2.0	6.2	0.7	-9	3.1	3.5	6.6
Medical care:											
Index.....	220.5	228.2	234.6	242.1	250.6	260.8	272.8	285.6	297.1	310.1	323.2
Percent change.....	4.5	3.5	2.8	3.2	3.5	4.1	4.6	4.7	4.0	4.4	4.2
Other goods and services:											
Index.....	206.9	215.4	224.8	237.7	258.3	271.1	282.6	293.2	298.7	304.7	313.4
Percent change.....	4.2	4.1	4.4	5.7	8.7	5.0	4.2	3.8	1.9	2.0	2.9
Consumer Price Index for Urban Wage Earners and Clerical Workers:											
All items:											
Index.....	149.8	154.1	157.6	159.7	163.2	168.9	173.5	175.9	179.8	188.9	191.0
Percent change.....	2.9	2.9	2.3	1.3	2.2	3.5	2.7	1.4	2.2	5.1	1.1

#### 40. Producer Price Indexes, by stage of processing

[1982 = 100]

Grouping	Annual average		2005						2006						
	2004	2005	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. <sup>P</sup>	May <sup>P</sup>	June <sup>P</sup>	July <sup>P</sup>
<b>Finished goods.....</b>	148.5	155.7	155.5	156.3	158.9	160.9	158.3	158.7	159.9	158.0	159.1	160.6	161.2	161.7	162.0
Finished consumer goods.....	151.7	160.4	160.2	161.4	164.9	167.1	163.7	164.2	165.7	163.0	164.5	166.5	167.2	167.8	168.4
Finished consumer foods.....	152.7	155.7	154.4	154.0	155.8	155.8	156.3	157.5	157.1	153.8	154.4	154.3	154.3	156.4	156.1
Finished consumer goods excluding foods.....	150.9	161.9	162.1	163.8	168.0	171.2	166.1	166.5	168.7	166.2	168.0	170.8	171.8	171.9	172.9
Nondurable goods less food.....	156.6	172.0	172.6	175.4	181.5	184.9	178.0	178.7	181.7	177.9	180.6	184.7	186.2	186.5	188.6
Durable goods.....	135.0	136.6	135.8	135.4	135.5	138.0	137.1	136.6	137.3	137.5	137.4	137.4	137.4	137.1	135.7
Capital equipment.....	141.4	144.6	144.4	144.4	144.5	145.9	145.5	145.3	145.8	146.2	146.4	146.5	146.7	146.8	146.4
<b>Intermediate materials, supplies, and components.....</b>	142.6	154.0	153.2	153.9	158.0	162.5	159.9	159.6	161.6	160.7	161.2	162.6	164.4	165.8	166.8
Materials and components for manufacturing.....	137.9	146.0	144.6	144.4	146.7	149.3	149.4	149.8	151.2	151.9	152.7	153.0	155.4	157.0	158.2
Materials for food manufacturing.....	145.0	146.0	145.1	144.4	145.4	146.6	146.6	146.3	146.0	144.6	144.4	143.5	144.5	146.2	147.2
Materials for nondurable manufacturing..	147.8	163.2	160.8	161.2	166.5	172.9	170.9	170.8	172.2	173.4	173.3	173.7	176.1	177.8	177.9
Materials for durable manufacturing.....	146.6	158.3	155.3	153.8	156.8	159.9	162.2	164.4	167.6	169.6	170.5	172.7	180.2	181.8	185.9
Components for manufacturing.....	127.4	129.9	129.9	130.0	130.0	130.2	130.8	130.8	131.4	131.7	133.1	132.7	133.0	134.4	135.1
Materials and components for construction.....	166.4	176.6	175.7	175.4	177.0	179.2	180.8	181.7	184.2	185.0	185.5	186.4	188.6	189.0	190.3
Processed fuels and lubricants.....	124.3	150.0	149.3	153.4	166.9	180.5	166.5	162.6	167.2	160.1	160.0	165.5	166.7	168.9	169.7
Containers.....	159.3	167.1	166.8	166.8	166.1	166.8	168.3	169.9	170.5	171.2	173.1	173.1	173.6	176.9	176.6
Supplies.....	146.7	151.9	152.0	152.2	152.5	153.6	153.8	154.1	155.3	155.6	155.9	156.0	156.6	156.9	157.3
<b>Crude materials for further processing.....</b>	159.0	182.2	175.4	181.8	200.2	211.6	208.5	200.6	199.0	182.9	178.4	180.9	185.2	181.3	186.9
Foodstuffs and feedstuffs.....	127.0	122.7	120.9	119.6	120.9	120.8	120.9	123.4	119.3	116.6	114.2	112.8	112.7	117.2	118.9
Crude nonfood materials.....	179.2	223.4	212.8	225.1	256.5	276.5	271.1	255.2	255.7	229.3	223.4	228.9	236.6	226.2	234.7
<b>Special groupings:</b>															
Finished goods, excluding foods.....	147.2	155.5	155.5	156.6	159.4	162.0	158.5	158.7	160.3	158.8	160.1	161.9	162.7	162.8	163.3
Finished energy goods.....	113.0	132.6	133.2	137.3	147.0	152.3	140.9	141.9	145.7	139.1	143.1	149.7	151.4	151.7	154.9
Finished goods less energy.....	152.4	155.9	155.5	155.3	155.8	156.8	156.7	156.9	157.4	156.9	157.2	157.2	157.4	157.9	157.4
Finished consumer goods less energy.....	157.2	160.8	160.3	160.1	160.8	161.6	161.6	162.0	162.4	161.5	161.8	161.8	162.0	162.7	162.2
Finished goods less food and energy.....	152.7	156.4	156.2	156.1	156.3	157.5	157.3	157.1	157.9	158.3	158.5	158.5	158.8	158.8	158.3
Finished consumer goods less food and energy.....	160.3	164.3	164.2	164.1	164.2	165.4	165.3	165.1	166.0	166.5	166.7	166.7	167.0	166.9	166.3
Consumer nondurable goods less food and energy.....	180.8	187.1	187.7	187.9	188.1	187.9	188.5	188.7	189.8	190.6	191.0	191.1	191.7	191.9	192.1
Intermediate materials less foods and feeds.....	143.0	155.1	154.1	154.9	159.2	163.8	161.2	160.8	163.0	162.1	162.6	164.1	165.9	167.3	168.3
Intermediate foods and feeds.....	137.1	133.8	134.9	134.4	134.1	134.4	133.6	134.1	135.0	133.6	133.8	132.8	132.9	134.1	134.9
Intermediate energy goods.....	123.2	149.2	148.7	153.0	166.6	180.1	165.8	162.1	166.5	160.5	160.4	165.7	167.5	169.5	169.8
Intermediate goods less energy.....	145.8	153.3	152.3	152.2	153.6	155.7	156.3	156.8	158.3	158.7	159.4	159.7	161.5	162.7	163.8
Intermediate materials less foods and energy.....	146.5	154.6	153.5	153.3	154.9	157.1	157.7	158.3	159.7	160.3	161.0	161.4	163.2	164.5	165.6
Crude energy materials.....	174.6	234.0	224.0	237.5	278.2	308.6	298.0	274.0	274.5	233.6	223.6	227.7	233.4	217.6	228.1
Crude materials less energy.....	144.0	143.5	138.9	140.6	144.3	143.2	145.0	147.6	144.7	144.9	144.1	145.4	148.7	152.6	154.9
Crude nonfood materials less energy.....	193.0	202.4	190.2	200.1	210.2	206.4	212.8	215.6	216.1	224.0	227.7	236.8	249.5	251.7	255.7

p = preliminary

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

[December 2003 = 100, unless otherwise indicated]

NAICS	Industry	2005						2006						
		July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. <sup>P</sup>	May <sup>P</sup>	June <sup>P</sup>	July <sup>P</sup>
	<b>Total mining industries (December 1984=100)</b> .....	193.4	203.6	233.1	254.3	247.4	234.6	234.3	207.4	202.0	205.6	212.0	202.7	212.9
211	Oil and gas extraction (December 1985=100).....	248.4	265.5	316.9	352.8	336.6	312.2	308.9	259.2	247.1	251.0	259.0	242.1	256.3
212	Mining, except oil and gas.....	127.2	127.6	128.8	130.4	131.8	132.5	136.8	137.4	140.0	141.7	146.1	146.5	151.7
213	Mining support activities.....	133.5	136.4	139.5	144.7	154.8	156.9	160.2	163.4	167.2	172.7	174.5	173.8	177.1
	<b>Total manufacturing industries (December 1984=100)</b> .....	151.0	151.8	154.2	156.6	152.7	152.8	154.1	153.5	155.0	157.1	158.5	159.5	159.7
311	Food manufacturing (December 1984=100).....	146.3	146.0	146.3	146.7	146.1	146.2	146.4	145.1	145.2	144.0	144.8	146.6	147.1
312	Beverage and tobacco manufacturing.....	104.8	105.1	105.2	105.2	105.5	105.5	106.0	106.4	106.6	106.5	106.5	106.9	106.2
313	Textile mills.....	103.4	103.7	104.3	104.6	104.9	105.1	105.6	106.1	106.0	106.0	106.6	106.4	106.8
315	Apparel manufacturing.....	99.9	100.0	100.4	99.9	99.9	99.8	100.1	100.2	100.3	100.0	100.2	100.1	100.1
316	Leather and allied product manufacturing (December 1984=100).....	144.8	144.6	144.6	144.7	144.8	144.7	144.9	145.6	145.9	146.5	146.7	146.6	146.7
321	Wood products manufacturing.....	103.3	107.4	109.6	110.7	107.7	108.4	109.6	109.8	110.1	110.5	111.4	109.8	109.1
322	Paper manufacturing.....	106.9	106.6	106.4	106.5	107.4	107.8	108.2	109.5	110.5	110.8	111.8	113.2	113.3
323	Printing and related support activities.....	103.2	103.4	103.6	103.7	103.7	103.9	104.5	104.8	105.2	105.4	105.4	105.6	105.5
324	Petroleum and coal products manufacturing (December 1984=100).....	204.7	215.6	241.5	259.5	208.2	209.2	216.1	205.9	222.8	249.3	259.9	267.8	268.1
325	Chemical manufacturing (December 1984=100).....	186.3	186.4	187.7	191.2	193.6	193.9	195.7	196.2	196.2	195.9	196.7	197.4	198.1
326	Plastics and rubber products manufacturing (December 1984=100).....	140.3	140.2	141.4	143.7	147.2	148.2	149.0	149.1	148.7	149.1	149.6	148.7	149.6
331	Primary metal manufacturing (December 1984=100).....	152.5	150.5	152.4	155.8	159.2	160.7	163.9	165.6	166.4	168.6	176.9	181.3	185.8
332	Fabricated metal product manufacturing (December 1984=100).....	149.7	149.9	150.1	150.5	150.7	151.1	152.0	152.5	153.0	153.4	154.1	155.3	156.9
333	Machinery manufacturing.....	105.8	105.9	106.1	106.3	106.5	106.8	107.4	107.6	107.8	108.0	108.3	108.7	108.9
334	Computer and electronic products manufacturing.....	97.5	97.6	97.1	97.0	96.8	96.6	96.5	96.5	96.5	96.4	96.7	96.6	96.7
335	Electrical equipment, appliance, and components manufacturing.....	107.7	107.7	108.4	109.0	110.3	110.9	111.9	112.3	112.8	114.0	116.3	116.5	117.1
336	Transportation equipment manufacturing.....	102.0	101.8	101.9	103.9	102.9	102.5	103.1	103.2	103.4	103.3	103.2	103.2	102.3
337	Furniture and related product manufacturing (December 1984=100).....	158.4	158.3	158.7	159.2	159.4	160.0	160.7	161.3	161.5	161.3	162.3	162.5	162.8
339	Miscellaneous manufacturing.....	102.9	103.0	103.1	103.3	103.3	103.6	104.0	103.9	104.2	104.4	105.0	104.6	104.8
	<b>Retail trade</b>													
441	Motor vehicle and parts dealers.....	106.7	106.2	106.2	107.4	107.1	107.9	109.2	109.6	112.4	111.0	113.5	114.8	114.2
442	Furniture and home furnishings stores.....	111.2	111.0	112.7	115.1	114.6	115.0	115.9	115.1	116.1	114.9	117.9	116.7	116.7
443	Electronics and appliance stores.....	91.8	95.8	100.7	100.2	99.9	95.3	98.7	97.0	102.9	99.1	97.8	99.1	98.7
446	Health and personal care stores.....	105.8	106.9	106.8	107.0	110.7	111.9	115.6	114.1	120.5	116.8	118.6	119.0	118.8
447	Gasoline stations (June 2001=100).....	46.5	42.3	59.3	64.6	61.9	48.3	45.6	58.3	44.9	43.6	49.8	44.4	45.9
454	Nonstore retailers.....	120.0	110.8	128.4	122.0	118.3	114.0	120.5	120.4	112.0	120.3	117.8	112.5	112.0
	<b>Transportation and warehousing</b>													
481	Air transportation (December 1992=100).....	175.2	172.8	170.2	173.7	178.9	173.2	177.7	180.1	182.5	182.6	182.1	185.6	187.3
483	Water transportation.....	105.9	107.0	108.1	109.7	108.5	108.0	109.4	109.6	111.0	109.3	109.7	111.0	113.2
491	Postal service (June 1989=100).....	155.0	155.0	155.0	155.0	155.0	155.0	164.7	164.7	164.7	164.7	164.7	164.7	164.7
	<b>Utilities</b>													
221	Utilities.....	116.2	119.9	125.5	131.2	130.0	129.6	131.3	127.0	123.5	121.7	120.7	120.3	122.2
	<b>Health care and social assistance</b>													
6211	Office of physicians (December 1996=100).....	116.6	116.5	116.6	116.7	116.7	116.7	116.9	116.9	117.2	117.5	117.3	117.2	117.2
6215	Medical and diagnostic laboratories.....	104.2	104.2	104.3	104.4	104.4	104.4	104.1	104.2	104.2	104.6	104.6	104.4	104.5
6216	Home health care services (December 1996=100).....	120.9	120.9	121.0	121.6	121.7	121.2	121.4	121.6	121.7	121.4	121.5	121.6	121.9
622	Hospitals (December 1992=100).....	146.4	146.6	147.2	149.5	149.9	149.9	151.3	151.5	151.7	151.6	151.9	152.1	153.5
6231	Nursing care facilities.....	106.8	106.6	107.0	107.5	107.7	107.7	108.3	108.5	108.6	108.1	108.2	108.8	109.0
62321	Residential mental retardation facilities.....	104.2	104.2	104.2	104.7	106.0	106.3	107.3	107.3	107.3	107.9	108.0	108.0	108.1
	<b>Other services industries</b>													
511	Publishing industries, except Internet.....	104.1	104.3	104.7	104.9	105.0	105.0	105.4	105.5	105.2	105.2	105.3	105.7	106.0
515	Broadcasting, except Internet.....	99.3	99.8	101.2	104.6	105.2	102.9	100.6	101.1	101.7	103.5	103.9	103.5	101.1
517	Telecommunications.....	98.4	98.2	97.9	97.7	97.4	97.3	97.2	97.1	97.6	97.9	97.6	98.2	98.3
5182	Data processing and related services.....	99.0	98.8	99.0	99.0	98.9	98.9	99.0	99.3	99.2	99.1	99.8	99.6	99.6
523	Security, commodity contracts, and like activity.....	109.9	109.7	109.3	110.3	109.9	110.4	111.2	111.4	111.4	113.2	113.0	113.6	113.6
53112	Lessors of nonresidential buildings (except miniwarehouse).....	104.6	106.4	107.7	106.5	104.9	108.4	105.6	105.5	106.5	107.9	107.2	108.3	108.1
5312	Offices of real estate agents and brokers.....	109.1	109.2	109.0	110.5	110.4	110.3	110.3	110.4	111.3	111.4	110.6	111.0	111.0
5313	Real estate support activities.....	101.9	102.2	103.1	101.4	100.9	102.5	103.8	102.7	103.2	105.7	104.3	104.0	102.9
5321	Automotive equipment rental and leasing (June 2001=100).....	108.8	110.8	112.2	111.0	112.2	112.7	112.8	114.4	114.2	115.1	112.2	115.0	116.4
5411	Legal services (December 1996=100).....	138.8	138.8	139.2	139.6	139.9	140.0	143.6	144.1	144.3	144.8	144.8	144.8	144.8
541211	Offices of certified public accountants.....	101.7	103.1	103.2	104.0	105.1	106.6	104.4	105.9	106.7	107.8	105.3	105.3	105.8
5413	Architectural, engineering, and related services (December 1996=100).....	129.3	129.3	129.8	130.0	130.4	130.6	131.8	132.7	132.8	133.0	134.5	134.4	135.0
54181	Advertising agencies.....	101.5	101.7	101.8	101.8	101.8	102.0	103.2	103.6	103.6	104.5	103.7	103.7	105.4
5613	Employment services (December 1996=100).....	116.2	116.5	116.4	117.3	117.7	118.4	117.8	117.8	118.8	119.1	118.4	118.9	119.5
56151	Travel agencies.....	95.6	96.8	95.8	96.7	96.4	98.0	98.3	98.3	98.4	98.0	97.7	99.3	98.8
56172	Janitorial services.....	101.6	101.8	101.9	101.8	102.0	102.1	102.4	102.6	102.6	103.3	103.5	103.7	103.7
5621	Waste collection.....	102.6	102.6	102.7	103.4	103.4	103.4	103.4	104.0	104.0	104.1	104.0	104.0	104.0
721	Accommodation (December 1996=100).....	134.4	135.1	134.9	133.1	133.1	131.7	133.8	133.5	134.9	135.5	137.1	138.1	139.6

p = preliminary.

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

[1982 = 100]

Index	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Finished goods</b>											
Total.....	127.9	131.3	131.8	130.7	133.0	138.0	140.7	138.9	143.3	148.5	155.7
Foods.....	129.0	133.6	134.5	134.3	135.1	137.2	141.3	140.1	145.9	152.6	155.6
Energy.....	78.1	83.2	83.4	75.1	78.8	94.1	96.8	88.8	102.0	113.0	132.7
Other.....	140.0	142.0	142.4	143.7	146.1	148.0	150.0	150.2	150.5	152.7	156.4
<b>Intermediate materials, supplies, and components</b>											
Total.....	124.9	125.7	125.6	123.0	123.2	129.2	129.7	127.8	133.7	142.5	153.9
Foods.....	119.5	125.3	123.2	123.2	120.8	119.2	124.3	123.3	134.4	145.0	146.0
Energy.....	84.1	89.8	89.0	80.8	84.3	101.7	104.1	95.9	111.9	123.1	149.1
Other.....	135.2	134.0	134.2	133.5	133.1	136.6	136.4	135.8	138.5	146.5	154.5
<b>Crude materials for further processing</b>											
Total.....	102.7	113.8	111.1	96.8	98.2	120.6	121.3	108.1	135.3	159.0	182.1
Foods.....	105.8	121.5	112.2	103.9	98.7	100.2	106.2	99.5	113.5	126.9	122.6
Energy.....	69.4	85.0	87.3	68.6	78.5	122.1	122.8	102.0	147.5	174.7	233.8
Other.....	105.8	105.7	103.5	84.5	91.1	118.0	101.8	101.0	116.8	149.0	176.8

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

[2000 = 100]

SITC Rev. 3	Industry	2005								2006					
		June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	
0	<b>Food and live animals.....</b>	124.3	124.3	124.2	123.8	125.2	123.7	122.8	123.7	123.2	122.9	122.8	122.5	126.8	
01	Meat and meat preparations.....	140.2	137.8	139.2	142.7	142.8	141.6	136.9	131.4	130.6	127.1	121.3	125.6	130.8	
04	Cereals and cereal preparations.....	118.7	120.5	118.4	117.0	121.7	119.9	121.1	124.6	126.7	129.3	129.1	129.7	136.0	
05	Vegetables, fruit, and nuts, prepared fresh or dry.....	133.6	132.1	131.5	129.2	130.0	126.0	123.9	124.4	119.2	117.5	121.4	118.6	125.9	
2	<b>Crude materials, inedible, except fuels.....</b>	130.3	129.5	129.0	126.4	127.4	128.5	131.3	135.2	136.9	137.5	142.4	147.4	151.8	
22	Oilseeds and oleaginous fruits.....	136.5	137.1	135.7	121.7	116.8	119.7	119.7	124.9	120.0	120.8	113.3	120.1	119.5	
24	Cork and wood.....	97.6	97.2	97.0	96.9	96.9	97.2	97.3	98.1	98.7	99.5	99.4	99.9	100.0	
25	Pulp and waste paper.....	101.5	99.9	99.0	99.3	98.7	97.6	97.5	96.9	97.6	98.1	99.2	100.6	101.3	
26	Textile fibers and their waste.....	103.1	104.3	103.3	104.8	107.7	108.4	109.2	112.9	112.0	109.1	109.8	107.7	110.4	
28	Metalliferous ores and metal scrap.....	212.9	209.1	206.8	206.2	214.2	214.0	227.8	242.7	259.1	261.1	295.8	321.9	346.1	
3	<b>Mineral fuels, lubricants, and related products.....</b>	181.0	193.5	192.3	231.9	244.6	203.5	205.5	216.7	210.7	211.0	227.0	233.4	232.3	
33	Petroleum, petroleum products, and related materials.....	188.7	200.3	197.0	239.3	245.0	206.0	206.3	217.1	215.0	223.0	240.7	252.2	251.7	
5	<b>Chemicals and related products, n.e.s. ....</b>	115.7	116.3	117.1	118.8	120.9	120.8	119.6	120.1	120.8	120.7	120.5	121.6	123.4	
54	Medicinal and pharmaceutical products.....	107.6	107.2	107.1	107.3	107.4	107.2	107.1	108.2	108.6	108.3	108.4	108.6	109.6	
55	Essential oils; polishing and cleaning preparations.....	112.4	112.2	112.2	112.6	112.2	112.0	111.8	111.7	112.0	112.9	113.6	114.3	114.6	
57	Plastics in primary forms.....	122.1	121.8	123.3	126.9	136.5	139.0	135.3	134.1	134.5	132.3	129.0	131.6	133.4	
58	Plastics in nonprimary forms.....	103.3	103.8	104.2	104.9	105.7	107.3	108.0	109.1	109.4	109.1	109.7	109.5	109.6	
59	Chemical materials and products, n.e.s. ....	106.1	106.2	106.2	106.3	107.4	107.6	107.7	109.7	110.4	110.4	109.8	110.1	110.7	
6	<b>Manufactured goods classified chiefly by materials.....</b>	113.9	113.5	113.5	113.9	114.5	115.0	116.0	117.7	118.7	119.6	120.5	121.9	124.2	
62	Rubber manufactures, n.e.s. ....	115.5	116.5	116.2	116.9	116.9	117.1	117.8	119.1	119.3	119.4	119.7	121.0	121.1	
64	Paper, paperboard, and articles of paper, pulp, and paperboard.....	103.9	103.4	103.4	103.7	103.0	102.7	102.8	104.3	104.7	105.0	107.6	107.6	109.5	
66	Nonmetallic mineral manufactures, n.e.s. ....	103.5	103.7	103.9	104.2	105.2	105.5	105.5	105.8	105.3	105.3	105.2	105.2	105.7	
68	Nonferrous metals.....	106.1	106.6	107.5	108.5	110.5	113.2	118.2	122.5	126.3	130.9	134.7	144.0	156.5	
7	<b>Machinery and transport equipment.....</b>	98.7	98.3	98.0	98.0	98.1	98.0	98.1	98.3	98.3	98.4	98.6	98.7	98.7	
71	Power generating machinery and equipment.....	111.3	111.1	111.1	111.2	111.8	112.4	112.4	113.2	113.4	113.3	114.0	114.1	114.2	
72	Machinery specialized for particular industries.....	110.7	111.3	111.6	112.1	112.6	112.8	114.1	115.0	115.2	115.3	116.3	116.5	116.7	
74	General industrial machines and parts, n.e.s., and machine parts.....	109.3	109.3	109.3	109.4	109.7	109.8	109.9	110.4	110.8	110.9	111.6	111.7	111.8	
75	Computer equipment and office machines.....	80.9	79.5	79.5	79.1	78.3	77.5	77.1	77.9	77.7	77.7	77.1	77.5	77.0	
76	Telecommunications and sound recording and reproducing apparatus and equipment.....	89.7	89.5	89.5	89.4	89.4	89.4	89.5	88.6	87.9	87.7	88.1	88.0	87.8	
77	Electrical machinery and equipment.....	87.4	86.7	85.2	84.9	84.9	84.6	84.6	84.3	83.8	83.9	84.0	84.0	84.0	
78	Road vehicles.....	103.0	103.2	103.3	103.5	103.8	103.9	103.8	104.1	104.2	104.2	104.3	104.4	104.4	
87	<b>Professional, scientific, and controlling instruments and apparatus.....</b>	103.1	103.6	103.6	103.8	103.6	103.5	103.7	104.0	104.2	104.2	104.3	104.6	104.8	

NOTE: The data series for table 43 will end at June 2006. This table will be deleted from the CLS department in the January 2007 edition.

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

[2000 = 100]

SITC Rev. 3	Industry	2005							2006					
		June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
0	<b>Food and live animals.....</b>	113.9	113.3	113.9	113.5	114.8	115.4	117.4	119.5	115.9	116.5	115.2	117.3	117.3
01	Meat and meat preparations.....	138.5	139.6	139.5	140.8	140.5	141.2	140.4	139.1	140.5	138.6	138.3	138.6	137.8
03	Fish and crustaceans, mollusks, and other aquatic invertebrates.....	87.8	90.0	90.9	91.4	92.4	91.1	91.7	91.4	93.2	94.7	93.9	95.1	94.9
05	Vegetables, fruit, and nuts, prepared fresh or dry.....	109.0	106.6	109.0	106.2	110.4	112.3	120.6	124.4	109.4	111.3	108.3	113.6	114.5
07	Coffee, tea, cocoa, spices, and manufactures thereof.....	127.8	120.5	118.7	119.1	117.4	122.1	120.3	128.7	127.7	124.7	124.9	124.6	121.7
1	<b>Beverages and tobacco.....</b>	108.5	108.7	108.8	108.9	108.8	108.6	108.5	108.5	109.0	109.4	109.5	109.6	109.7
11	Beverages.....	109.1	109.3	109.3	109.5	109.6	109.4	109.3	109.3	109.4	109.9	110.0	110.1	110.3
2	<b>Crude materials, inedible, except fuels.....</b>	130.5	128.7	127.9	132.0	131.8	129.8	133.7	136.4	137.4	134.6	135.3	138.6	137.6
24	Cork and wood.....	127.0	122.4	120.9	124.5	126.2	119.6	123.6	126.9	126.6	125.4	123.8	128.3	120.6
25	Pulp and waste paper.....	103.6	104.2	102.8	102.2	105.9	105.6	106.0	105.7	107.9	108.5	111.4	115.5	116.6
28	Metalliferous ores and metal scrap.....	176.0	180.1	185.7	193.3	187.5	190.8	195.2	196.3	199.6	203.6	207.6	211.2	211.6
29	Crude animal and vegetable materials, n.e.s. ....	111.7	103.5	95.6	106.0	102.7	101.9	111.3	113.7	112.7	91.0	92.7	93.0	93.6
3	<b>Mineral fuels, lubricants, and related products.....</b>	179.0	192.6	206.4	223.5	222.1	204.0	202.3	212.2	203.5	201.9	221.1	233.5	228.8
33	Petroleum, petroleum products, and related materials.....	182.4	197.1	211.7	225.1	216.9	195.9	195.7	208.1	206.0	207.6	230.6	244.8	241.1
34	Gas, natural and manufactured.....	148.5	157.8	164.4	209.1	257.1	259.3	245.5	241.0	187.3	165.6	162.2	162.8	151.5
5	<b>Chemicals and related products, n.e.s. ....</b>	112.4	113.2	113.5	114.6	115.7	115.1	115.0	115.9	115.9	115.9	115.4	115.7	116.6
52	Inorganic chemicals.....	138.2	140.4	144.0	151.7	164.4	163.7	162.0	160.8	159.7	161.4	162.1	160.4	159.4
53	Dyeing, tanning, and coloring materials.....	110.3	110.8	110.6	111.0	110.6	110.4	110.2	109.0	108.0	108.1	106.6	106.7	107.3
54	Medicinal and pharmaceutical products.....	110.3	110.8	110.6	111.0	110.6	110.4	110.2	109.0	108.0	108.1	106.6	106.7	107.3
55	Essential oils; polishing and cleaning preparations.....	94.5	94.5	95.3	95.2	95.1	95.0	94.7	94.7	94.3	94.4	94.4	94.7	94.6
57	Plastics in primary forms.....	125.1	125.5	123.4	125.5	130.7	135.9	138.0	135.7	134.6	132.8	130.7	130.1	130.7
58	Plastics in nonprimary forms.....	107.2	106.7	106.4	106.6	106.5	107.0	106.9	107.8	108.0	108.0	108.5	108.5	108.5
59	Chemical materials and products, n.e.s. ....	102.4	101.7	101.8	101.8	103.4	103.2	103.1	102.8	102.2	102.0	102.1	102.3	102.5
6	<b>Manufactured goods classified chiefly by materials.....</b>	112.8	112.4	112.1	112.8	114.1	114.2	114.4	115.9	117.4	118.2	119.8	123.6	126.5
62	Rubber manufactures, n.e.s. ....	104.5	104.3	104.3	104.4	104.5	104.5	104.6	104.8	104.9	105.5	106.1	106.2	107.0
64	Paper, paperboard, and articles of paper, pulp, and paperboard.....	102.1	103.9	103.7	103.7	104.0	104.4	104.4	105.2	105.6	105.7	106.7	106.9	107.7
66	Nonmetallic mineral manufactures, n.e.s. ....	101.4	101.4	101.7	101.9	102.1	101.9	101.8	101.9	102.0	102.1	103.3	103.3	103.4
68	Nonferrous metals.....	117.7	118.8	118.4	121.1	125.1	128.6	133.3	140.4	148.2	152.9	158.6	181.8	196.8
69	Manufactures of metals, n.e.s. ....	108.6	108.7	108.4	109.0	108.8	108.9	108.4	110.0	110.8	110.7	110.8	111.1	111.5
7	<b>Machinery and transport equipment.....</b>	95.0	94.6	94.6	94.4	94.3	94.2	94.1	94.0	94.0	94.0	94.0	94.0	94.2
72	Machinery specialized for particular industries.....	110.9	110.8	110.8	111.0	111.0	111.1	111.1	111.9	112.3	112.3	112.4	112.7	113.0
74	General industrial machines and parts, n.e.s., and machine parts.....	107.2	107.4	107.1	107.3	107.4	107.3	107.3	108.3	108.8	109.0	109.5	110.1	110.7
75	Computer equipment and office machines.....	70.5	69.2	69.1	68.3	68.0	67.6	67.3	66.8	66.4	66.2	65.8	65.4	65.2
76	Telecommunications and sound recording and reproducing apparatus and equipment.....	82.1	81.4	80.9	80.5	80.3	80.0	79.8	79.5	79.3	79.2	79.0	78.8	78.7
77	Electrical machinery and equipment.....	94.4	93.9	94.1	94.0	93.7	93.7	94.0	94.0	94.3	94.4	94.4	94.5	95.3
78	Road vehicles.....	103.8	103.9	104.0	104.1	104.2	104.2	104.1	103.9	104.0	103.9	104.1	104.1	104.2
85	Footwear.....	100.5	100.8	100.7	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
88	Photographic apparatus, equipment, and supplies, and optical goods, n.e.s. ....	99.0	98.3	97.9	98.1	98.2	98.3	98.0	97.5	97.7	97.4	97.5	97.6	98.0

NOTE: The data series for table 44 will end at June 2006. This table will be deleted from the CLS department in the January 2007 edition.



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

[2000 = 100]

Category	2005						2006						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>ALL COMMODITIES</b> .....	106.8	106.6	107.5	108.3	107.6	107.7	108.5	108.6	108.8	109.6	110.4	111.2	111.6
Foods, feeds, and beverages.....	125.4	124.9	122.8	123.0	122.5	121.9	122.8	121.9	121.7	121.0	122.0	125.3	128.2
Agricultural foods, feeds, and beverages.....	125.6	124.9	122.6	122.9	122.4	121.7	122.8	121.6	121.5	120.8	121.9	125.3	128.5
Nonagricultural (fish, beverages) food products.....	122.4	124.6	123.6	123.8	123.2	123.6	122.7	124.2	123.2	122.5	122.9	125.0	125.2
Industrial supplies and materials.....	123.3	123.4	127.4	130.1	127.4	127.9	129.9	130.6	131.3	133.9	136.5	138.8	139.4
Agricultural industrial supplies and materials.....	116.0	115.1	116.4	117.3	117.7	117.4	116.9	117.2	116.8	117.2	116.4	117.3	116.5
Fuels and lubricants.....	158.0	156.7	184.8	191.5	163.1	163.4	172.0	169.7	173.5	187.0	194.9	196.3	198.9
Nonagricultural supplies and materials, excluding fuel and building materials.....	120.7	121.0	122.2	124.7	125.0	125.7	127.0	128.1	128.5	129.8	132.0	134.7	135.2
Selected building materials.....	106.0	105.8	105.7	105.8	106.1	106.5	107.2	108.4	108.5	108.6	109.0	109.8	109.8
Capital goods.....	98.0	97.6	97.6	97.7	97.6	97.7	98.1	98.1	98.2	98.4	98.4	98.4	98.4
Electric and electrical generating equipment.....	102.9	102.5	102.6	103.3	103.4	103.6	103.7	104.0	104.4	104.5	104.6	104.8	104.8
Nonelectrical machinery.....	93.3	92.7	92.7	92.6	92.4	92.5	92.8	92.7	92.7	92.7	92.7	92.6	92.6
Automotive vehicles, parts, and engines.....	103.5	103.6	103.7	104.0	104.0	103.9	104.1	104.2	104.4	104.6	104.7	104.9	105.1
Consumer goods, excluding automotive.....	101.5	101.6	101.9	102.0	102.0	101.9	102.3	102.4	102.3	102.6	103.2	103.5	103.8
Nondurables, manufactured.....	101.1	101.2	101.5	101.7	101.6	101.6	102.3	102.5	102.4	102.7	103.0	103.3	103.7
Durables, manufactured.....	101.5	101.5	101.8	101.4	101.5	101.5	101.5	101.4	101.3	101.4	102.2	102.4	102.5
Agricultural commodities.....	123.9	123.2	121.5	121.9	121.6	121.0	121.7	120.8	120.7	120.2	120.9	123.9	126.2
Nonagricultural commodities.....	105.5	105.4	106.5	107.3	106.6	106.8	107.6	107.8	108.0	108.8	109.6	110.3	110.6

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

[2000 = 100]

Category	2005						2006						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>ALL COMMODITIES</b> .....	110.5	112.1	114.4	114.5	112.3	112.3	113.7	112.8	112.7	115.1	117.2	117.3	118.5
Foods, feeds, and beverages.....	113.7	114.1	114.2	115.1	115.6	117.5	119.2	116.7	117.0	116.2	118.1	118.0	118.0
Agricultural foods, feeds, and beverages.....	122.1	122.4	122.6	123.4	124.6	127.2	129.7	125.4	125.4	124.6	127.1	126.8	126.4
Nonagricultural (fish, beverages) food products.....	94.8	95.6	95.6	96.5	95.3	95.9	95.8	97.2	98.3	97.6	98.1	98.5	99.4
Industrial supplies and materials.....	151.7	158.0	167.2	167.6	159.1	158.6	163.8	160.8	160.4	170.1	178.2	178.2	182.3
Fuels and lubricants.....	191.2	204.6	222.1	221.5	204.1	202.4	211.7	203.3	201.5	221.1	233.9	230.3	240.7
Petroleum and petroleum products.....	195.5	209.9	224.4	217.5	197.1	196.6	208.1	206.0	207.2	230.7	245.4	242.7	255.0
Paper and paper base stocks.....	104.8	104.3	104.3	105.4	105.8	106.1	106.7	107.5	107.7	109.3	110.4	111.3	111.6
Materials associated with nondurable supplies and materials.....	114.4	115.1	117.3	118.3	117.6	117.8	118.3	118.8	119.3	119.0	119.5	120.6	121.2
Selected building materials.....	114.9	114.6	117.6	120.0	116.0	116.9	118.5	118.5	118.0	118.1	120.0	117.3	116.8
Unfinished metals associated with durable goods.....	138.8	137.1	138.2	140.4	143.5	145.8	150.8	157.4	161.1	165.4	180.2	193.4	184.8
Nonmetals associated with durable goods.....	100.6	100.6	100.7	100.9	100.9	100.5	100.9	101.0	100.8	101.0	101.0	101.1	101.1
Capital goods.....	91.7	91.7	91.5	91.3	91.1	91.0	91.1	91.1	91.1	91.0	91.0	91.2	91.3
Electric and electrical generating equipment.....	98.4	98.5	99.0	99.2	99.2	99.3	99.8	100.0	100.1	100.3	100.9	102.1	102.2
Nonelectrical machinery.....	89.1	89.0	88.7	88.4	88.3	88.1	88.1	88.0	88.0	87.8	87.7	87.9	87.9
Automotive vehicles, parts, and engines.....	103.4	103.5	103.6	103.7	103.7	103.6	103.4	103.5	103.5	103.6	103.7	103.9	104.1
Consumer goods, excluding automotive.....	99.7	99.5	99.7	99.6	99.5	99.6	99.8	99.9	99.6	99.5	99.7	99.8	100.2
Nondurables, manufactured.....	103.0	102.9	103.1	102.9	102.8	102.7	103.1	102.9	102.8	102.6	102.5	102.6	102.6
Durables, manufactured.....	96.2	96.0	96.2	96.2	95.9	96.2	96.3	96.5	96.3	96.4	96.9	96.9	97.7
Nonmanufactured consumer goods.....	100.1	98.9	100.6	100.4	100.0	101.2	101.6	101.4	98.2	98.4	98.4	98.6	99.7

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

[2000 = 100, unless indicated otherwise]

Category	2004			2005			2006		
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June
Air freight (inbound).....	116.6	118.7	125.1	126.3	125.6	127.5	124.6	124.6	128.1
Air freight (outbound).....	99.0	100.7	104.7	103.8	107.2	112.4	112.0	113.5	116.3
Inbound air passenger fares (Dec. 2003 = 100).....	106.1	110.1	112.5	114.5	116.1	118.3	108.5	110.5	128.2
Outbound air passenger fares (Dec. 2003 = 100).....	114.2	114.2	105.4	105.0	120.5	120.1	110.8	110.6	131.0
Ocean liner freight (inbound).....	121.1	120.3	122.7	121.3	128.5	127.9	126.8	125.4	112.7

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

[1992 = 100]

Item	2003			2004				2005				2006	
	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
<b>Business</b>													
Output per hour of all persons.....	128.0	130.8	130.3	131.4	132.8	133.0	133.5	134.5	134.9	136.6	136.7	138.2	138.6
Compensation per hour.....	150.8	152.5	153.6	154.4	155.8	157.5	160.1	161.6	162.0	165.2	166.5	169.3	171.5
Real compensation per hour.....	117.8	118.4	118.9	118.5	118.3	119.1	120.0	120.4	119.5	120.3	120.3	121.7	121.7
Unit labor costs.....	117.8	116.6	117.9	117.5	117.3	118.5	119.9	120.1	120.0	121.0	121.8	122.5	123.7
Unit nonlabor payments.....	116.7	120.2	119.5	122.9	126.2	125.5	125.8	127.9	130.0	131.1	132.3	133.4	133.9
Implicit price deflator.....	117.4	118.0	118.5	119.5	120.6	121.1	122.1	123.0	123.7	124.7	125.7	126.6	127.5
<b>Nonfarm business</b>													
Output per hour of all persons.....	127.0	130.1	129.9	130.5	132.2	132.2	132.4	133.5	134.3	135.8	135.8	137.2	137.6
Compensation per hour.....	149.7	151.7	152.9	153.4	154.8	156.6	158.7	160.4	161.0	164.1	165.3	168.0	170.2
Real compensation per hour.....	117.0	117.8	118.4	117.8	117.6	118.3	118.9	119.5	118.9	119.5	119.4	120.8	120.9
Unit labor costs.....	117.9	116.6	117.7	117.6	117.2	118.4	119.9	120.1	119.9	120.9	121.7	122.5	123.8
Unit nonlabor payments.....	118.1	121.5	120.5	123.6	126.8	126.6	127.0	129.4	131.8	133.1	134.3	135.4	136.2
Implicit price deflator.....	118.0	118.4	118.7	119.8	120.7	121.4	122.5	123.5	124.3	125.3	126.4	127.3	128.3
<b>Nonfinancial corporations</b>													
Output per hour of all employees.....	133.6	135.7	136.6	137.6	138.6	140.5	141.0	142.8	144.5	145.6	146.7	149.3	-
Compensation per hour.....	148.8	150.8	152.0	151.8	153.2	155.0	157.1	158.6	159.3	162.4	163.6	166.1	-
Real compensation per hour.....	116.2	117.1	117.7	116.5	116.4	117.1	117.7	118.2	117.6	118.3	118.2	119.4	-
Total unit costs.....	111.3	111.0	110.9	110.0	110.2	110.0	110.8	110.9	110.2	111.9	111.3	110.8	-
Unit labor costs.....	111.4	111.1	111.3	110.4	110.5	110.3	111.4	111.1	110.2	111.6	111.5	111.3	-
Unit nonlabor costs.....	111.2	110.8	110.0	109.1	109.3	109.2	109.3	110.3	110.2	112.6	110.5	109.3	-
Unit profits.....	105.9	112.9	117.8	131.2	139.2	142.3	142.4	148.5	159.0	149.9	159.6	174.5	-
Unit nonlabor payments.....	109.8	111.4	112.1	115.0	117.3	118.1	118.2	120.5	123.3	122.6	123.6	126.7	-
Implicit price deflator.....	110.8	111.2	111.6	111.9	112.8	112.9	113.7	114.2	114.6	115.3	115.6	116.5	-
<b>Manufacturing</b>													
Output per hour of all persons.....	159.7	163.0	162.6	161.8	163.3	164.0	166.1	168.1	169.7	171.2	173.2	174.8	176.1
Compensation per hour.....	157.2	159.4	162.0	157.5	159.8	163.0	165.5	166.1	167.8	170.7	170.9	173.0	173.8
Real compensation per hour.....	122.8	123.7	125.4	120.8	121.4	123.2	124.0	123.7	123.8	124.3	123.4	124.4	123.4
Unit labor costs.....	98.5	97.7	99.6	97.3	97.8	99.4	99.6	98.8	98.9	99.7	98.7	99.0	98.7

NOTE: Dash indicates data not available.

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

[2000 = 100, unless otherwise indicated]

Item	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Private business</b>													
Productivity:													
Output per hour of all persons.....	86.0	86.4	87.3	87.5	90.1	91.8	94.4	97.2	100.0	102.8	107.0	111.2	115.0
Output per unit of capital services.....	102.6	102.9	104.4	103.3	103.5	103.7	103.0	102.0	100.0	96.3	95.2	96.4	98.6
Multifactor productivity.....	92.7	93.0	93.7	93.5	95.1	96.0	97.5	98.7	100.0	100.2	101.8	104.7	107.7
Output.....	70.9	73.2	76.8	79.2	82.8	87.2	91.5	96.2	100.0	100.5	102.0	105.5	110.6
Inputs:													
Labor input.....	80.2	82.5	86.2	88.7	90.5	94.1	96.3	98.9	100.0	98.6	97.3	97.2	98.7
Capital services.....	69.1	71.2	73.6	76.6	80.0	84.1	88.8	94.3	100.0	104.4	107.1	109.4	112.1
Combined units of labor and capital input.....	76.5	78.7	82.0	84.7	87.1	90.8	93.9	97.5	100.0	100.3	100.2	100.8	102.7
Capital per hour of all persons.....	83.9	84.0	83.6	84.7	87.1	88.5	91.6	95.3	100.0	106.8	112.3	115.3	116.6
<b>Private nonfarm business</b>													
Productivity:													
Output per hour of all persons.....	86.4	86.8	87.8	88.3	90.7	92.1	94.7	97.3	100.0	102.7	106.9	111.1	114.9
Output per unit of capital services.....	103.5	103.9	105.2	104.3	104.2	104.1	103.4	102.3	100.0	96.3	95.1	96.3	98.6
Multifactor productivity.....	93.2	93.5	94.3	94.3	95.6	96.3	97.7	98.8	100.0	100.1	101.8	104.6	107.7
Output.....	70.8	73.2	76.7	79.3	82.8	87.2	91.5	96.3	100.0	100.5	102.1	105.5	110.6
Inputs:													
Labor input.....	79.7	82.2	85.6	88.1	90.1	93.7	96.0	98.9	100.0	98.7	97.3	97.3	98.9
Capital services.....	68.4	70.5	72.9	76.0	79.5	83.7	88.5	94.2	100.0	104.5	107.3	109.6	112.3
Combined units of labor and capital input.....	76.0	78.3	81.4	84.1	86.6	90.5	93.7	97.5	100.0	100.4	100.2	100.9	102.8
Capital per hour of all persons.....	83.5	83.6	83.5	84.7	87.0	88.5	91.5	95.2	100.0	106.7	112.4	115.4	116.6
<b>Manufacturing [1996 = 100]</b>													
Productivity:													
Output per hour of all persons.....	88.6	90.2	93.0	96.5	100.0	103.8	108.9	114.0	118.3	119.7	—	—	—
Output per unit of capital services.....	95.9	96.9	99.7	100.6	100.0	101.4	101.7	101.7	101.0	95.1	—	—	—
Multifactor productivity.....	94.0	95.1	97.3	99.2	100.0	103.1	105.7	108.7	111.3	110.3	—	—	—
Output.....	85.5	88.3	92.9	96.9	100.0	105.6	110.5	114.7	117.4	112.1	—	—	—
Inputs:													
Hours of all persons.....	96.5	97.8	99.9	100.4	100.0	101.7	101.5	100.7	99.2	93.6	—	—	—
Capital services.....	89.1	91.1	93.2	96.4	100.0	104.1	108.7	112.8	116.2	117.9	—	—	—
Energy.....	93.1	96.6	99.9	102.3	100.0	97.5	100.6	102.9	104.3	98.9	—	—	—
Nonenergy materials.....	83.5	86.5	90.3	93.1	100.0	101.9	107.5	107.9	106.9	105.5	—	—	—
Purchased business services.....	92.0	92.9	96.0	100.4	100.0	103.9	103.1	105.4	106.5	97.7	—	—	—
Combined units of all factor inputs.....	90.9	92.8	95.5	97.7	100.0	102.4	104.6	105.5	105.5	101.6	—	—	—

NOTE: Dash indicates data not available.

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

[1992 = 100]

Item	1960	1970	1980	1990	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Business</b>													
Output per hour of all persons.....	48.9	66.3	79.2	94.4	106.5	109.4	112.7	115.9	118.8	123.6	128.6	133.1	136.6
Compensation per hour.....	13.9	23.6	54.1	90.6	113.0	119.8	125.6	134.4	140.0	144.9	150.7	157.8	165.8
Real compensation per hour.....	60.8	78.8	89.1	96.2	100.5	105.1	107.9	111.8	113.3	115.4	117.3	119.6	121.6
Unit labor costs.....	28.4	35.6	68.4	96.0	106.1	109.5	111.5	116.0	117.8	117.2	117.1	118.5	121.4
Unit nonlabor payments.....	24.9	31.5	61.3	93.7	113.8	110.0	109.4	107.3	110.0	114.2	118.7	123.9	127.5
Implicit price deflator.....	27.1	34.1	65.8	95.1	109.0	109.7	110.7	112.7	114.9	116.1	117.7	120.6	123.7
<b>Nonfarm business</b>													
Output per hour of all persons.....	51.9	68.0	80.6	94.5	106.4	109.3	112.4	115.5	118.3	123.1	128.0	132.4	136.0
Compensation per hour.....	14.5	23.7	54.4	90.4	112.8	119.5	125.1	133.9	139.2	144.2	149.9	156.7	164.7
Real compensation per hour.....	63.3	79.2	89.5	96.1	100.3	104.8	107.4	111.3	112.6	114.8	116.6	118.8	120.8
Unit labor costs.....	27.9	34.9	67.5	95.7	106.0	109.3	111.3	115.9	117.6	117.1	117.1	118.4	121.1
Unit nonlabor payments.....	24.3	31.2	60.4	93.5	114.5	111.0	111.0	108.8	111.6	116.1	120.0	124.8	129.2
Implicit price deflator.....	26.6	33.5	64.9	94.9	109.1	109.9	111.1	113.3	115.4	116.7	118.2	120.7	124.1
<b>Nonfinancial corporations</b>													
Output per hour of all employees.....	56.2	69.8	80.8	95.4	109.9	113.5	117.3	121.5	123.5	128.2	133.7	139.1	145.9
Compensation per hour.....	16.2	25.7	57.2	91.1	111.7	118.1	123.5	131.9	137.3	142.0	147.6	153.6	161.8
Real compensation per hour.....	70.8	85.9	94.1	96.8	99.4	103.6	106.1	109.7	111.0	113.0	114.9	116.4	118.7
Total unit costs.....	27.3	35.6	69.2	96.0	101.1	102.9	104.0	107.4	111.6	110.7	110.5	110.4	110.1
Unit labor costs.....	28.8	36.9	70.8	95.5	101.7	104.1	105.3	108.6	111.2	110.7	110.4	110.4	110.9
Unit nonlabor costs.....	23.3	32.2	64.9	97.3	99.7	99.5	100.4	104.2	112.6	110.8	110.8	110.2	107.9
Unit profits.....	50.2	44.4	66.9	96.9	154.3	137.0	129.1	108.7	82.2	98.0	116.5	137.7	158.1
Unit nonlabor payments.....	30.5	35.4	65.5	97.2	114.3	109.5	108.0	105.4	104.5	107.4	112.3	117.6	121.3
Implicit price deflator.....	29.4	36.4	69.0	96.1	105.9	105.9	106.2	107.5	108.9	109.6	111.0	112.8	114.4
<b>Manufacturing</b>													
Output per hour of all persons.....	—	—	—	92.9	118.0	123.8	128.3	134.4	137.1	146.2	154.4	163.0	171.2
Compensation per hour.....	—	—	—	90.5	112.2	118.8	123.4	134.7	137.9	147.8	160.1	163.8	174.6
Real compensation per hour.....	—	—	—	96.1	99.8	104.2	106.0	112.0	111.5	117.7	124.6	124.1	128.2
Unit labor costs.....	—	—	—	97.4	95.1	95.9	96.2	100.3	100.6	101.1	103.7	100.5	102.2
Unit nonlabor payments.....	—	—	—	100.4	109.7	103.9	104.7	106.1	104.8	103.0	—	—	—
Implicit price deflator.....	—	—	—	99.2	104.2	100.8	101.5	103.9	103.2	102.3	—	—	—

Dash indicates data not available.

51. Annual indexes of output per hour for selected NAICS industries, 1987–2005

[1997=100]

NAICS	Industry	1987	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Mining</b>														
21	Mining.....	85.5	85.1	101.7	101.3	100.0	103.6	111.4	111.2	109.1	113.9	116.2	107.2	—
211	Oil and gas extraction.....	80.1	75.7	95.3	98.1	100.0	101.2	107.9	119.4	121.6	124.0	130.3	112.4	—
212	Mining, except oil and gas.....	69.8	79.3	94.0	96.0	100.0	104.6	105.9	106.8	109.0	111.4	114.0	115.4	—
2121	Coal mining.....	58.4	68.1	88.2	94.9	100.0	106.5	110.3	115.8	114.4	112.2	113.1	112.8	—
2122	Metal ore mining.....	71.2	79.9	98.5	95.3	100.0	109.5	112.7	124.4	131.8	142.4	146.3	139.4	—
2123	Nonmetallic mineral mining and quarrying.....	88.5	92.3	97.3	97.1	100.0	101.3	101.2	96.2	99.3	103.6	108.1	112.5	—
<b>Utilities</b>														
2211	Power generation and supply.....	65.6	71.1	88.5	95.2	100.0	103.7	103.5	107.0	106.4	102.9	105.1	107.5	—
2212	Natural gas distribution.....	67.8	71.4	89.0	96.0	100.0	99.0	102.7	113.2	110.1	115.4	114.1	118.6	—
<b>Manufacturing</b>														
3111	Animal food.....	83.6	91.5	93.8	86.1	100.0	109.0	110.9	109.7	131.4	142.7	137.0	149.4	—
3112	Grain and oilseed milling.....	81.1	88.6	98.7	90.0	100.0	107.5	116.1	113.1	119.5	122.4	123.9	129.9	—
3113	Sugar and confectionery products.....	87.6	89.5	93.2	97.8	100.0	103.5	106.5	109.9	108.6	108.0	112.5	116.3	—
3114	Fruit and vegetable preserving and specialty.....	92.4	87.6	98.3	98.8	100.0	107.1	109.5	111.8	121.4	126.6	122.6	126.0	—
3115	Dairy products.....	82.7	91.1	97.6	97.8	100.0	100.0	93.6	95.9	97.1	104.9	110.6	106.8	—
3116	Animal slaughtering and processing.....	97.4	94.3	99.0	94.2	100.0	100.0	101.2	102.6	103.7	107.3	106.8	108.9	—
3117	Seafood product preparation and packaging.....	123.1	119.7	110.3	118.0	100.0	120.2	131.6	140.5	153.0	169.8	173.3	158.7	—
3118	Bakeries and tortilla manufacturing.....	100.9	94.5	100.7	97.3	100.0	103.8	108.6	108.3	109.9	110.7	111.1	114.3	—
3119	Other food products.....	97.5	92.5	104.1	105.1	100.0	107.8	111.4	112.6	106.2	112.0	118.7	118.5	—
3121	Beverages.....	77.1	87.6	103.2	102.0	100.0	99.0	90.7	90.8	92.7	99.8	107.9	111.5	—
3122	Tobacco and tobacco products.....	71.9	79.1	97.3	98.4	100.0	98.5	91.0	95.9	98.2	67.0	78.7	82.3	—
3131	Fiber, yarn, and thread mills.....	66.5	74.4	91.9	98.9	100.0	102.1	103.9	101.3	109.1	133.3	148.8	150.8	—
3132	Fabric mills.....	68.0	75.3	95.5	98.1	100.0	104.2	110.0	110.1	110.3	125.4	136.8	139.1	—
3133	Textile and fabric finishing mills.....	91.3	82.0	84.3	85.0	100.0	101.2	102.2	104.4	108.5	119.8	125.2	121.0	—
3141	Textile furnishings mills.....	91.2	88.0	92.3	93.8	100.0	99.3	99.1	104.5	103.1	105.5	114.4	120.7	—
3149	Other textile product mills.....	92.2	91.4	95.9	97.2	100.0	96.7	107.6	108.9	103.1	105.3	104.5	117.7	—
3151	Apparel knitting mills.....	76.2	86.2	109.3	122.1	100.0	96.1	101.4	108.9	105.6	112.0	106.4	92.7	—
3152	Cut and sew apparel.....	69.8	70.1	85.2	90.6	100.0	102.3	114.6	119.8	119.5	104.0	117.3	110.9	—
3159	Accessories and other apparel.....	97.8	101.3	112.1	112.6	100.0	109.0	99.2	98.3	105.2	76.1	78.9	73.3	—
3161	Leather and hide tanning and finishing.....	79.8	64.6	79.7	91.2	100.0	100.0	104.8	115.1	114.9	83.2	80.9	83.8	—
3162	Footwear.....	76.7	78.1	96.5	103.7	100.0	102.1	117.3	122.3	130.7	102.7	103.2	101.1	—
3169	Other leather products.....	99.4	102.9	74.4	80.3	100.0	113.2	105.8	113.4	109.1	95.1	101.3	129.0	—
3211	Sawmills and wood preservation.....	77.6	79.4	90.4	95.9	100.0	100.3	104.7	105.4	108.8	114.5	121.3	117.3	—
3212	Plywood and engineered wood products.....	99.8	102.9	101.5	101.1	100.0	105.2	98.8	98.9	105.3	110.5	107.3	101.8	—
3219	Other wood products.....	103.2	105.5	99.8	100.5	100.0	101.1	104.6	103.1	104.9	114.4	114.4	119.4	—
3221	Pulp, paper, and paperboard mills.....	81.7	84.0	98.4	95.4	100.0	102.5	111.1	116.3	119.9	133.1	141.4	145.4	—
3222	Converted paper products.....	89.0	90.1	97.2	97.7	100.0	102.5	100.1	101.1	100.5	105.7	109.6	112.5	—
3231	Printing and related support activities.....	97.7	97.6	98.8	99.9	100.0	100.6	102.8	104.6	105.3	110.2	111.2	114.0	—
3241	Petroleum and coal products.....	72.1	76.1	89.9	93.5	100.0	102.2	107.1	113.5	112.1	118.0	119.3	123.2	—
3251	Basic chemicals.....	94.6	93.4	91.3	89.4	100.0	102.7	115.7	117.5	108.8	123.7	136.1	148.7	—
3252	Resin, rubber, and artificial fibers.....	77.4	76.4	95.4	93.1	100.0	106.0	109.8	109.8	106.2	123.1	122.2	123.3	—
3253	Agricultural chemicals.....	80.4	85.8	89.9	91.7	100.0	98.8	87.4	92.1	90.0	99.2	108.2	115.6	—
3254	Pharmaceuticals and medicines.....	87.3	91.3	95.9	100.0	100.0	93.8	95.7	95.6	99.5	96.7	100.6	104.2	—
3255	Paints, coatings, and adhesives.....	89.3	87.1	92.3	99.1	100.0	100.1	100.3	100.8	105.6	108.9	115.3	119.4	—
3256	Soap, cleaning compounds, and toiletries.....	84.4	84.8	96.1	97.3	100.0	98.0	93.0	102.8	106.0	124.0	118.0	127.7	—
3259	Other chemical products and preparations.....	75.4	77.8	93.5	94.0	100.0	99.2	109.3	119.7	110.4	120.9	123.1	118.8	—
3261	Plastics products.....	83.1	85.2	94.5	96.6	100.0	104.2	109.9	112.3	114.6	123.8	129.4	130.6	—
3262	Rubber products.....	75.5	83.5	92.9	94.2	100.0	99.4	100.2	101.7	102.3	107.1	110.9	112.0	—
3271	Clay products and refractories.....	86.9	89.4	97.4	102.4	100.0	101.2	102.7	102.9	98.4	99.7	103.5	109.3	—
3272	Glass and glass products.....	82.3	79.1	87.5	94.7	100.0	101.4	106.7	108.2	102.8	107.4	114.9	113.7	—
3273	Cement and concrete products.....	93.6	96.6	99.7	102.0	100.0	105.1	105.9	101.6	98.0	102.4	108.2	102.0	—
3274	Lime and gypsum products.....	88.2	85.4	90.0	93.7	100.0	114.9	104.4	98.5	101.8	98.5	106.7	103.4	—
3279	Other nonmetallic mineral products.....	83.0	79.5	91.4	96.0	100.0	99.0	95.6	96.6	98.6	106.0	112.6	107.8	—
3311	Iron and steel mills and ferroalloy production.....	64.8	70.2	90.0	94.1	100.0	101.3	104.8	106.0	104.4	124.9	130.3	157.7	—
3312	Steel products from purchased steel.....	79.7	84.4	100.6	100.5	100.0	100.6	93.8	96.4	97.9	96.8	93.9	94.1	—
3313	Alumina and aluminum production.....	90.5	90.7	95.9	95.4	100.0	101.5	103.5	96.6	96.2	124.4	126.7	136.8	—
3314	Other nonferrous metal production.....	96.8	96.3	102.7	105.9	100.0	111.3	108.4	102.3	99.5	107.7	120.2	120.9	—
3315	Foundries.....	81.8	86.6	93.1	96.0	100.0	101.2	104.5	103.6	107.4	116.7	116.3	123.7	—
3321	Forging and stamping.....	85.4	89.0	93.9	97.4	100.0	103.5	110.9	121.1	120.7	125.0	133.2	140.1	—
3322	Cutlery and hand tools.....	86.3	85.4	97.2	103.8	100.0	99.9	108.0	105.9	110.3	113.6	113.4	111.8	—
3323	Architectural and structural metals.....	88.7	87.9	93.3	93.9	100.0	101.0	102.0	100.7	101.7	106.2	109.0	103.7	—
3324	Boilers, tanks, and shipping containers.....	86.0	90.1	97.3	100.7	100.0	100.0	96.5	94.2	94.4	105.7	108.5	99.9	—
3325	Hardware.....	88.7	84.8	97.2	102.2	100.0	100.5	105.2	114.3	113.5	115.4	125.3	123.6	—
3326	Spring and wire products.....	82.2	85.2	99.0	102.4	100.0	110.6	111.4	112.6	111.9	129.3	139.4	134.4	—
3327	Machine shops and threaded products.....	76.9	79.2	98.3	99.8	100.0	99.6	104.2	108.2	108.8	115.1	115.9	113.0	—

51. Continued—Annual indexes of output per hour for selected NAICS industries, 1987–2004

[1997=100]

NAICS	Industry	1987	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
3328	Coating, engraving, and heat treating metals.....	75.5	81.3	102.2	101.7	100.0	100.9	101.0	105.5	107.3	116.3	118.5	125.5	—
3329	Other fabricated metal products.....	91.0	86.5	96.3	98.2	100.0	101.9	99.6	99.9	96.7	106.5	111.6	111.4	—
3331	Agriculture, construction, and mining machinery.....	74.6	83.3	95.4	95.7	100.0	103.3	94.3	100.3	100.3	103.6	116.1	126.7	—
3332	Industrial machinery.....	75.1	81.6	97.1	98.5	100.0	95.1	105.8	130.0	105.8	117.6	117.0	125.0	—
3333	Commercial and service industry machinery.....	86.9	95.6	103.6	107.2	100.0	105.9	109.8	100.9	94.3	97.6	104.5	106.1	—
3334	HVAC and commercial refrigeration equipment.....	84.0	90.6	96.4	97.2	100.0	106.2	110.2	107.9	110.8	118.6	130.0	130.4	—
3335	Metalworking machinery.....	85.1	86.5	99.2	97.5	100.0	99.1	100.3	106.1	103.3	112.9	115.4	117.1	—
3336	Turbine and power transmission equipment.....	80.2	85.9	91.3	98.0	100.0	105.0	110.8	114.9	126.9	130.8	143.0	124.0	—
3339	Other general purpose machinery.....	83.5	86.8	94.0	94.9	100.0	103.7	106.0	113.7	110.5	118.1	128.3	124.0	—
3341	Computer and peripheral equipment.....	11.0	14.7	49.9	72.6	100.0	140.4	195.8	234.9	252.0	298.9	375.4	431.7	—
3342	Communications equipment.....	39.8	48.4	74.4	84.5	100.0	107.1	135.4	164.1	152.9	128.3	143.2	143.5	—
3343	Audio and video equipment.....	61.7	77.0	141.6	106.1	100.0	105.4	119.6	126.3	128.4	149.9	170.7	242.8	—
3344	Semiconductors and electronic components.....	17.0	21.9	63.8	83.1	100.0	125.8	173.9	232.4	230.4	263.9	324.4	362.4	—
3345	Electronic instruments.....	70.2	78.5	97.9	97.6	100.0	102.3	106.7	116.7	119.3	118.4	125.7	141.7	—
3346	Magnetic media manufacturing and reproduction.....	85.7	83.7	105.0	103.1	100.0	106.4	108.9	105.8	99.8	110.4	126.1	140.3	—
3351	Electric lighting equipment.....	91.1	88.2	91.9	95.8	100.0	104.4	102.7	102.0	106.7	112.3	111.6	120.4	—
3352	Household appliances.....	73.3	76.5	91.8	91.9	100.0	105.3	103.9	117.2	124.7	133.0	147.5	157.6	—
3353	Electrical equipment.....	68.7	73.6	98.0	100.4	100.0	100.2	98.7	99.4	101.0	101.8	103.2	110.2	—
3359	Other electrical equipment and components.....	78.7	76.0	92.0	96.3	100.0	105.2	113.8	119.1	112.7	114.4	116.5	116.2	—
3361	Motor vehicles.....	75.4	85.6	88.5	91.0	100.0	113.4	122.6	109.7	110.0	126.0	140.7	142.0	—
3362	Motor vehicle bodies and trailers.....	85.0	75.9	97.4	98.5	100.0	102.9	103.1	98.8	88.7	105.4	109.8	108.2	—
3363	Motor vehicle parts.....	78.7	76.0	92.3	93.0	100.0	105.0	110.0	112.3	114.8	130.4	136.9	138.3	—
3364	Aerospace products and parts.....	86.5	89.1	94.9	98.9	100.0	120.2	120.0	103.2	116.7	118.1	124.3	116.8	—
3365	Railroad rolling stock.....	55.6	77.6	81.8	80.8	100.0	103.3	116.5	118.5	126.1	145.9	139.8	126.1	—
3366	Ship and boat building.....	95.5	99.6	93.1	93.5	100.0	99.3	112.0	121.9	121.5	131.0	133.9	136.8	—
3369	Other transportation equipment.....	73.7	62.9	94.1	101.5	100.0	111.5	113.8	132.4	140.2	150.9	163.7	168.7	—
3371	Household and institutional furniture.....	85.2	88.2	97.2	99.8	100.0	102.2	103.1	101.9	105.5	112.1	115.1	118.2	—
3372	Office furniture and fixtures.....	85.8	82.2	84.9	86.3	100.0	100.0	98.2	100.2	98.0	115.8	126.6	129.5	—
3379	Other furniture-related products.....	86.3	88.9	94.8	97.6	100.0	106.9	102.0	99.5	105.0	110.2	110.0	121.1	—
3391	Medical equipment and supplies.....	76.3	82.9	96.6	100.5	100.0	108.7	110.4	114.6	119.3	131.2	141.1	143.4	—
3399	Other miscellaneous manufacturing.....	85.4	90.5	95.9	99.7	100.0	102.0	105.0	113.6	111.7	118.1	124.6	125.8	—
<b>Wholesale trade</b>														
42	Wholesale trade.....	73.2	79.8	94.0	97.1	100.0	103.4	110.9	116.2	118.0	123.8	127.9	134.7	135.5
423	Durable goods.....	62.3	67.5	90.1	94.7	100.0	106.9	118.9	124.6	128.3	139.7	145.5	159.8	164.8
4231	Motor vehicles and parts.....	74.5	78.6	94.6	96.1	100.0	106.4	120.4	116.6	119.9	133.4	137.8	144.0	153.0
4232	Furniture and furnishings.....	80.5	90.1	102.7	103.2	100.0	99.9	102.3	112.4	110.5	116.0	123.9	129.8	127.2
4233	Lumber and construction supplies.....	109.1	108.4	101.6	103.9	100.0	105.4	109.3	107.6	116.4	123.9	133.2	138.9	131.5
4234	Commercial equipment.....	28.0	34.2	74.5	88.1	100.0	124.8	160.3	179.0	213.4	261.0	288.1	332.2	359.1
4235	Metals and minerals.....	101.7	103.1	105.2	102.3	100.0	100.9	94.0	93.9	94.4	96.3	97.8	108.9	105.0
4236	Electric goods.....	42.8	50.3	83.8	89.2	100.0	105.9	127.4	152.7	147.4	159.4	165.9	194.7	201.8
4237	Hardware and plumbing.....	82.2	88.0	99.2	99.2	100.0	101.8	104.3	103.7	100.5	102.6	104.0	107.7	105.9
4238	Machinery and supplies.....	74.1	81.5	90.0	94.3	100.0	104.3	102.9	105.5	102.8	100.3	103.1	111.9	118.2
4239	Miscellaneous durable goods.....	89.8	90.5	99.5	101.0	100.0	100.8	113.7	114.7	116.8	124.6	119.5	134.8	135.7
424	Nondurable goods.....	91.0	98.9	98.5	99.2	100.0	99.1	100.8	105.1	105.1	105.8	110.7	113.5	114.2
4241	Paper and paper products.....	85.6	81.0	95.4	95.0	100.0	98.4	100.1	100.9	104.6	116.6	119.7	131.1	144.9
4242	Druggists' goods.....	70.7	80.6	94.8	99.5	100.0	94.2	93.1	85.9	84.9	89.8	100.5	106.4	112.0
4243	Apparel and piece goods.....	86.3	99.3	90.6	97.0	100.0	103.6	105.1	108.8	115.2	122.8	125.9	130.8	144.1
4244	Grocery and related products.....	87.9	96.2	103.9	100.4	100.0	101.1	101.0	102.4	101.8	98.6	104.3	103.2	101.5
4245	Farm product raw materials.....	81.6	79.4	87.4	89.2	100.0	94.3	101.6	105.1	102.1	98.1	98.2	109.1	100.5
4246	Chemicals.....	90.4	101.1	98.7	98.7	100.0	97.1	93.3	87.9	85.3	89.1	91.9	90.1	88.1
4247	Petroleum.....	83.8	109.3	100.6	106.9	100.0	88.5	102.9	138.1	140.6	153.6	155.9	167.0	152.8
4248	Alcoholic beverages.....	99.3	110.0	101.5	101.2	100.0	106.5	105.6	108.4	106.4	106.8	107.9	103.0	108.9
4249	Miscellaneous nondurable goods.....	111.2	109.0	99.8	101.2	100.0	105.4	106.8	115.0	111.9	106.1	109.1	119.7	126.7
425	Electronic markets and agents and brokers.....	64.3	74.3	95.4	100.4	100.0	103.3	110.9	119.3	117.8	117.8	111.8	107.4	98.1
<b>Retail trade</b>														
44-45	Retail trade.....	79.1	81.4	94.0	97.6	100.0	105.7	112.7	116.1	120.1	125.6	131.6	138.0	142.7
441	Motor vehicle and parts dealers.....	78.3	82.7	95.5	98.5	100.0	106.4	115.1	114.3	116.0	119.9	124.3	127.4	128.0
4411	Automobile dealers.....	79.2	84.1	95.8	98.3	100.0	106.5	116.3	113.7	115.5	117.2	119.5	124.7	123.4
4412	Other motor vehicle dealers.....	70.6	69.7	88.3	98.1	100.0	109.6	114.8	115.3	124.6	133.6	133.8	142.8	150.5
4413	Auto parts, accessories, and tire stores.....	71.8	79.0	95.2	97.8	100.0	105.1	107.6	108.4	101.3	107.7	115.1	110.3	118.6
442	Furniture and home furnishings stores.....	75.1	79.0	93.7	97.3	100.0	104.1	110.8	115.9	122.4	129.3	134.6	147.0	149.4
4421	Furniture stores.....	77.3	84.8	93.6	96.0	100.0	104.3	107.5	112.0	119.7	125.2	128.8	139.4	138.4
4422	Home furnishings stores.....	71.3	71.0	93.3	98.7	100.0	104.1	115.2	121.0	126.1	134.9	142.6	157.1	163.8
443	Electronics and appliance stores.....	38.0	47.7	87.8	93.5	100.0	122.6	150.6	173.7	196.7	233.5	292.7	334.7	365.1
444	Building material and garden supply stores.....	75.8	79.5	91.9	96.6	100.0	107.4	113.8	113.3	116.8	120.8	127.1	134.6	135.1

51. Continued—Annual indexes of output per hour for selected NAICS industries, 1987–2004

[1997=100]

NAICS	Industry	1987	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
4441	Building material and supplies dealers .....	77.6	81.6	93.4	97.1	100.0	108.3	115.3	115.1	116.7	121.3	127.5	134.0	134.6
4442	Lawn and garden equipment and supplies stores .....	66.9	69.0	83.9	93.8	100.0	102.3	105.5	103.1	118.4	118.3	125.7	140.2	139.4
445	Food and beverage stores .....	110.9	107.5	102.3	101.0	100.0	100.0	101.9	101.1	103.9	104.8	107.2	113.1	119.1
4451	Grocery stores.....	111.1	106.9	102.7	100.9	100.0	99.6	102.5	101.1	103.3	104.8	106.7	112.3	117.3
4452	Specialty food stores .....	138.5	127.2	102.9	101.0	100.0	100.5	96.4	98.5	108.2	105.3	112.2	121.1	137.4
4453	Beer, wine and liquor stores .....	94.7	98.7	95.4	101.7	100.0	105.9	100.3	107.0	108.3	111.4	118.4	129.9	147.6
446	Health and personal care stores .....	84.0	91.0	91.4	96.3	100.0	104.0	107.1	112.2	116.2	122.9	129.5	134.0	132.8
447	Gasoline stations .....	83.9	84.2	99.4	99.5	100.0	106.7	110.7	107.7	112.9	125.1	119.9	122.3	129.5
448	Clothing and clothing accessories stores .....	66.3	69.8	92.7	99.5	100.0	106.3	114.0	123.5	126.4	131.3	138.9	139.2	147.5
4481	Clothing stores .....	67.1	70.0	91.7	98.8	100.0	108.7	114.2	125.0	130.3	136.0	141.8	141.0	153.7
4482	Shoe stores .....	65.3	70.8	96.4	103.7	100.0	94.2	104.9	110.0	111.5	125.2	132.5	124.9	129.4
4483	Jewelry, luggage, and leather goods stores .....	64.5	68.1	94.1	98.8	100.0	108.7	122.5	130.5	123.9	118.7	132.9	144.5	137.2
451	Sporting goods, hobby, book, and music stores .....	74.4	82.1	95.0	95.9	100.0	107.9	114.0	121.1	127.1	127.5	131.3	151.1	164.2
4511	Sporting goods and musical instrument stores .....	70.5	79.5	94.7	95.1	100.0	111.6	119.3	127.8	132.4	132.7	136.7	160.1	172.8
4512	Book, periodical, and music stores .....	84.3	87.9	95.4	97.6	100.0	100.9	104.0	108.7	116.9	117.8	121.8	134.8	149.3
452	General merchandise stores .....	73.5	75.1	92.0	96.7	100.0	105.3	113.4	120.2	124.8	129.1	136.9	140.7	146.1
4521	Department stores .....	87.2	83.9	94.6	98.5	100.0	100.4	104.5	106.2	103.8	102.0	106.8	109.0	109.6
4529	Other general merchandise stores .....	54.8	61.2	87.2	93.8	100.0	114.7	131.0	147.3	164.7	179.3	188.8	192.9	203.5
453	Miscellaneous store retailers .....	65.1	69.5	88.8	94.8	100.0	108.9	111.3	114.1	112.6	119.1	126.1	131.2	142.0
4531	Florists .....	77.6	73.3	82.4	92.8	100.0	102.3	116.2	115.2	102.7	113.8	108.9	103.0	127.5
4532	Office supplies, stationery and gift stores .....	61.4	66.4	91.7	93.3	100.0	111.5	119.2	127.3	132.3	141.5	153.9	173.0	182.6
4533	Used merchandise stores .....	64.5	70.4	85.9	94.8	100.0	119.1	113.4	116.5	121.9	142.0	149.7	155.7	168.1
4539	Other miscellaneous store retailers .....	68.3	75.0	88.9	97.0	100.0	105.3	103.0	104.4	96.9	94.4	99.9	97.2	104.3
454	Nonstore retailers .....	50.7	54.7	79.8	91.4	100.0	114.3	128.9	152.2	163.6	182.1	195.5	216.1	222.3
4541	Electronic shopping and mail-order houses .....	39.4	43.4	72.5	85.5	100.0	120.2	142.6	160.2	179.6	212.7	243.6	272.8	284.2
4542	Vending machine operators .....	95.5	95.1	86.4	94.6	100.0	106.3	105.4	111.1	95.7	91.2	102.3	110.4	112.7
4543	Direct selling establishments .....	70.8	74.1	93.2	101.7	100.0	101.9	104.2	122.5	127.9	135.0	127.0	131.8	128.7
<b>Transportation and warehousing</b>														
481	Air transportation.....	81.1	77.5	95.3	98.8	100.0	97.6	98.2	98.2	91.9	102.2	112.7	125.6	—
482111	Line-haul railroads.....	58.9	69.8	92.0	98.4	100.0	102.1	105.5	114.3	121.9	131.9	142.0	146.4	—
48412	General freight trucking, long-distance .....	85.7	89.2	95.8	95.3	100.0	99.4	99.1	101.9	103.2	107.0	110.7	109.8	—
48421	Used household and office goods moving.....	106.7	112.6	101.4	97.7	100.0	91.0	96.1	94.8	84.0	81.6	86.2	88.7	—
491	U.S. Postal service .....	90.9	94.2	97.7	96.7	100.0	101.6	102.8	105.5	106.3	106.4	107.8	110.1	—
492	Couriers and messengers.....	148.3	138.5	101.5	100.2	100.0	112.6	117.6	121.9	123.4	131.1	134.1	126.5	—
<b>Information</b>														
5111	Newspaper, book, and directory publishers.....	105.9	96.3	92.7	92.5	100.0	103.9	104.1	107.7	105.8	104.7	109.6	107.0	—
5112	Software publishers.....	10.2	28.4	73.2	88.3	100.0	134.8	129.2	119.2	117.4	122.1	138.1	161.6	—
51213	Motion picture and video exhibition .....	90.7	109.2	99.4	98.9	100.0	99.8	101.8	106.5	101.6	99.8	100.6	103.9	—
515	Broadcasting, except internet.....	99.5	98.2	102.5	101.3	100.0	100.8	102.9	103.6	99.2	104.0	106.7	108.2	—
5151	Radio and television broadcasting .....	98.1	97.7	104.8	103.4	100.0	91.5	92.6	92.1	89.6	95.1	94.4	91.4	—
5152	Cable and other subscription programming.....	105.6	100.3	92.8	93.0	100.0	136.2	139.1	141.2	128.1	129.8	145.9	158.4	—
5171	Wired telecommunications carriers .....	56.9	66.0	87.6	96.5	100.0	107.7	116.7	122.7	116.7	124.1	130.2	131.3	—
5172	Wireless telecommunications carriers.....	75.6	70.4	90.0	101.7	100.0	110.5	145.2	152.8	191.9	217.9	242.5	288.7	—
5175	Cable and other program distribution.....	105.2	100.0	92.6	92.6	100.0	97.1	95.8	91.6	87.7	95.0	101.2	113.7	—
<b>Finance and insurance</b>														
52211	Commercial banking .....	72.8	80.7	95.6	100.0	100.0	96.9	99.1	101.7	97.5	100.3	102.6	108.1	—
<b>Real estate and rental and leasing</b>														
532111	Passenger car rental .....	90.5	88.5	100.2	109.0	100.0	100.0	112.2	111.9	112.2	114.1	120.4	118.3	—
53212	Truck, trailer and RV rental and leasing .....	60.6	68.8	88.7	96.9	100.0	115.1	120.4	119.9	114.4	112.6	113.7	134.5	—
53223	Video tape and disc rental.....	77.0	97.1	119.5	102.4	100.0	113.2	129.4	134.9	133.3	130.3	148.5	154.7	—
<b>Professional, scientific, and technical services</b>														
541213	Tax preparation .....	82.9	76.2	90.6	96.2	100.0	107.6	105.8	100.9	94.4	111.4	110.0	101.3	—
54181	Advertising agencies.....	95.9	107.9	102.5	103.4	100.0	89.2	97.9	107.5	106.9	112.9	120.7	133.0	—
541921	Photography studios, portrait.....	98.1	95.9	107.3	100.6	100.0	124.8	109.8	108.9	102.2	97.6	104.2	92.1	—
<b>Administrative and Waste Management</b>														
56151	Travel agencies.....	89.3	94.6	93.0	100.1	100.0	111.4	115.5	119.4	115.2	127.6	147.3	167.7	—
56172	Janitorial services.....	70.1	87.0	90.4	96.4	100.0	95.6	99.0	101.4	102.5	106.0	119.2	117.5	—
<b>Assistance</b>														
6215	Medical and diagnostic laboratories.....	-	-	90.8	94.5	100.0	118.8	124.8	131.9	135.4	137.6	141.0	141.1	—
621511	Medical laboratories.....	-	-	91.3	94.7	100.0	117.1	121.5	127.4	127.7	123.1	128.7	130.8	—
621512	Diagnostic imaging centers.....	-	-	89.8	94.1	100.0	121.4	129.7	139.9	148.6	163.3	160.3	154.3	—
<b>Accommodation and Food Services</b>														
7211	Traveler accommodations.....	82.9	80.0	97.7	99.6	100.0	100.3	106.4	112.9	109.3	113.3	115.6	122.2	—
722	Food services and drinking places .....	96.0	102.4	100.3	99.1	100.0	101.0	100.9	103.5	103.8	104.4	106.3	107.1	108.8

**51. Continued—Annual indexes of output per hour for selected NAICS industries, 1987–2004**

[1997=100]

NAICS	Industry	1987	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
7221	Full-service restaurants .....	92.1	99.4	96.2	96.1	100.0	100.9	100.8	103.0	103.6	104.4	104.2	104.9	107.5
7222	Limited-service eating places .....	96.5	103.6	104.1	102.0	100.0	101.2	100.4	102.0	102.5	102.7	105.4	106.9	106.8
7223	Special food services .....	89.9	99.8	100.8	98.3	100.0	100.6	105.2	115.0	115.3	114.9	117.6	118.8	122.8
7224	Drinking places, alcoholic beverages.....	136.7	123.3	104.6	102.4	100.0	99.7	98.8	100.6	97.6	102.9	118.6	112.6	119.7
	<b>Other services (except public administration)</b>													
8111	Automotive repair and maintenance.....	85.9	89.9	103.2	99.8	100.0	103.6	106.0	109.4	108.9	103.6	104.0	112.1	-
81211	Hair, nail and skin care services .....	83.4	82.1	93.3	96.4	100.0	108.5	108.5	108.1	114.4	110.2	119.4	126.2	-
81221	Funeral homes and funeral services.....	103.7	98.4	102.4	98.6	100.0	106.8	103.3	94.8	91.8	94.6	95.7	93.3	-
8123	Drycleaning and laundry services .....	97.1	94.8	99.2	100.9	100.0	100.1	105.1	107.6	110.9	112.5	103.8	111.5	-
81292	Photofinishing .....	95.8	107.7	108.0	106.6	100.0	69.2	76.3	73.8	81.2	100.5	100.4	102.9	-

NOTE: Dash indicates data are not available.

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

Country	Annual average		2004				2005				2006
	2004	2005	I	II	III	IV	I	II	III	IV	I
United States.....	5.5	5.1	5.7	5.6	5.5	5.4	5.2	5.1	5.0	5.0	4.7
Canada.....	6.4	6.0	6.6	6.5	6.3	6.4	6.2	6.0	6.0	5.8	5.7
Australia.....	5.5	5.1	5.7	5.6	5.6	5.2	5.1	5.1	5.0	5.1	5.2
Japan.....	4.8	4.5	4.9	4.7	4.8	4.6	4.6	4.4	4.4	4.5	4.3
France.....	9.8	9.7	9.8	9.8	9.8	9.8	9.9	9.8	9.7	9.5	9.3
Germany.....	9.9	9.7	9.7	9.8	10.0	10.0	10.0	9.9	9.4	9.5	-
Italy.....	8.1	7.8	8.3	8.1	8.0	8.0	7.9	7.8	7.8	7.8	-
Sweden.....	6.6	-	6.7	6.8	6.6	6.4	6.3	-	-	-	-
United Kingdom.....	4.8	4.8	4.8	4.8	4.7	4.7	4.7	4.7	4.8	5.1	-

NOTE: Dash indicates data not available. Quarterly figures for Japan, France, Germany, Italy, and Sweden are calculated by applying annual adjustment factors to current published data, and therefore should be viewed as less precise indicators of unemployment under U.S. concepts than the annual figures. See "Notes on the data" for information on breaks in series. For

further qualifications and historical data, see *Comparative Civilian Labor Force Statistics, Ten Countries, 1960-2005* (Bureau of Labor Statistics, April 6, 2006), on the Internet at <http://www.bls.gov/fls/home.htm>.

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



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

[Numbers in thousands]

Employment status and country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Civilian labor force</b>											
United States.....	132,304	133,943	136,297	137,673	139,368	142,583	143,734	144,863	146,510	147,401	149,320
Canada.....	14,456	14,623	14,884	15,135	15,403	15,637	15,891	16,366	16,729	16,955	17,108
Australia.....	8,995	9,115	9,204	9,339	9,414	9,590	9,752	9,907	10,092	10,244	10,524
Japan.....	65,990	66,450	67,200	67,240	67,090	66,990	66,860	66,240	66,010	65,770	65,850
France.....	24,742	24,982	25,116	25,434	25,767	26,083	26,368	26,707	26,865	26,900	-
Germany.....	38,980	39,142	39,415	39,752	39,375	39,302	39,459	39,413	39,276	39,796	-
Italy.....	22,574	22,674	22,749	23,000	23,172	23,357	23,520	23,728	24,021	24,065	-
Netherlands.....	7,208	7,301	7,536	7,617	7,848	8,137	8,130	8,308	8,391	8,505	8,441
Sweden.....	4,460	4,459	4,418	4,402	4,430	4,489	4,530	4,544	4,567	4,576	-
United Kingdom.....	28,129	28,239	28,401	28,474	28,777	28,952	29,085	29,335	29,557	29,776	30,094
<b>Participation rate<sup>1</sup></b>											
United States.....	66.6	66.8	67.1	67.1	67.1	67.1	66.8	66.6	66.2	66.0	66.0
Canada.....	64.8	64.7	65.0	65.3	65.8	65.8	65.9	66.7	67.3	67.3	67.0
Australia.....	64.5	64.6	64.3	64.3	64.0	64.4	64.4	64.4	64.6	64.7	65.4
Japan.....	62.9	63.0	63.2	62.8	62.4	62.0	61.6	60.8	60.3	60.0	60.0
France.....	55.4	55.7	55.6	55.9	56.3	56.5	56.8	57.1	57.0	56.9	-
Germany.....	57.1	57.1	57.3	57.7	56.9	56.7	56.7	56.4	56.0	56.5	-
Italy.....	47.3	47.3	47.3	47.6	47.9	48.1	48.2	48.5	49.1	49.1	-
Netherlands.....	58.8	59.2	60.8	61.1	62.6	64.4	63.9	64.9	65.2	65.7	65.2
Sweden.....	64.1	64.0	63.3	62.8	62.8	63.8	63.7	64.0	64.0	63.7	-
United Kingdom.....	62.4	62.4	62.5	62.5	62.8	62.9	62.7	62.9	63.0	63.0	63.1
<b>Employed</b>											
United States.....	124,900	126,708	129,558	131,463	133,488	136,891	136,933	136,485	137,736	139,252	141,730
Canada.....	13,210	13,338	13,637	13,973	14,331	14,681	14,866	15,223	15,579	15,861	16,080
Australia.....	8,256	8,364	8,444	8,618	8,762	8,989	9,091	9,271	9,481	9,677	9,987
Japan.....	63,900	64,200	64,900	64,450	63,920	63,790	63,460	62,650	62,510	62,640	62,910
France.....	21,955	22,036	22,176	22,597	23,056	23,698	24,142	24,314	24,288	24,259	-
Germany.....	35,780	35,637	35,508	36,059	36,042	36,236	36,350	36,018	35,615	35,876	-
Italy.....	20,030	20,120	20,165	20,366	20,613	20,969	21,356	21,665	21,973	22,105	-
Netherlands.....	6,730	6,858	7,163	7,321	7,595	7,907	7,947	8,076	8,080	8,118	8,036
Sweden.....	4,056	4,019	3,973	4,034	4,117	4,229	4,303	4,310	4,303	4,276	-
United Kingdom.....	25,691	25,941	26,413	26,686	27,051	27,368	27,599	27,812	28,073	28,358	28,637
<b>Employment-population ratio<sup>2</sup></b>											
United States.....	62.9	63.2	63.8	64.1	64.3	64.4	63.7	62.7	62.3	62.3	62.7
Canada.....	59.3	59.1	59.6	60.4	61.3	62.0	61.9	62.4	63.0	63.3	63.4
Australia.....	59.2	59.3	59.0	59.3	59.6	60.3	60.1	60.3	60.7	61.2	62.1
Japan.....	60.9	60.9	61.0	60.2	59.4	59.0	58.4	57.5	57.1	57.1	57.3
France.....	49.2	49.1	49.1	49.7	50.4	51.4	52.0	52.0	51.5	51.3	-
Germany.....	52.4	52.0	51.6	52.3	52.1	52.2	52.2	51.5	50.8	50.9	-
Italy.....	42.0	42.0	41.9	42.2	42.6	43.2	43.8	44.3	44.9	45.1	-
Netherlands.....	54.9	55.6	57.8	58.7	60.6	62.6	62.5	63.1	62.8	62.7	62.0
Sweden.....	58.3	57.7	56.9	57.6	58.4	60.1	60.5	60.7	60.3	59.5	-
United Kingdom.....	57.0	57.3	58.2	58.5	59.1	59.4	59.5	59.6	59.8	60.0	60.0
<b>Unemployed</b>											
United States.....	7,404	7,236	6,739	6,210	5,880	5,692	6,801	8,378	8,774	8,149	7,591
Canada.....	1,246	1,285	1,248	1,162	1,072	956	1,026	1,143	1,150	1,093	1,028
Australia.....	739	751	759	721	652	602	661	636	611	567	537
Japan.....	2,100	2,250	2,300	2,790	3,170	3,200	3,400	3,590	3,500	3,130	2,940
France.....	2,787	2,946	2,940	2,837	2,711	2,385	2,226	2,393	2,577	2,641	-
Germany.....	3,200	3,505	3,907	3,693	3,333	3,065	3,110	3,396	3,661	3,920	-
Italy.....	2,544	2,555	2,584	2,634	2,559	2,388	2,164	2,062	2,048	1,960	-
Netherlands.....	478	443	374	296	253	230	183	232	311	387	405
Sweden.....	404	440	445	368	313	260	227	234	264	300	-
United Kingdom.....	2,439	2,298	1,987	1,788	1,726	1,584	1,486	1,524	1,484	1,417	1,458
<b>Unemployment rate</b>											
United States.....	5.6	5.4	4.9	4.5	4.2	4.0	4.7	5.8	6.0	5.5	5.1
Canada.....	8.6	8.8	8.4	7.7	7.0	6.1	6.5	7.0	6.9	6.4	6.0
Australia.....	8.2	8.2	8.3	7.7	6.9	6.3	6.8	6.4	6.1	5.5	5.1
Japan.....	3.2	3.4	3.4	4.1	4.7	4.8	5.1	5.4	5.3	4.8	4.5
France.....	11.3	11.8	11.7	11.2	10.5	9.1	8.4	9.0	9.6	9.8	9.7
Germany.....	8.2	9.0	9.9	9.3	8.5	7.8	7.9	8.6	9.3	9.9	9.7
Italy.....	11.3	11.3	11.4	11.5	11.0	10.2	9.2	8.7	8.5	8.1	-
Netherlands.....	6.6	6.1	5.0	3.9	3.2	2.8	2.2	2.8	3.7	4.6	4.8
Sweden.....	9.1	9.9	10.1	8.4	7.1	5.8	5.0	5.1	5.8	6.6	-
United Kingdom.....	8.7	8.1	7.0	6.3	6.0	5.5	5.1	5.2	5.0	4.8	4.8

<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.

NOTE: Dash indicates data not available. See "Notes on the data" for information on breaks in series. For further qualifications and historical data, see

Comparative Civilian Labor Force Statistics, Ten Countries, 1960-2005 (Bureau of Labor Statistics, April 6, 2006), on the Internet at <http://www.bls.gov/fls/home.htm>.

## 54. Annual indexes of manufacturing productivity and related measures, 15 economies

[1992 = 100]

Measure and economy	1980	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Output per hour</b>																
United States.....	68.4	93.5	96.3	100.0	102.7	108.1	112.1	116.8	121.7	130.2	136.7	147.7	149.2	165.1	176.8	186.0
Canada.....	74.2	93.4	95.3	100.0	105.8	110.8	112.4	109.7	113.5	117.7	124.2	131.4	129.2	134.1	137.2	141.2
Australia.....	69.4	91.7	96.4	100.0	106.1	105.0	105.6	113.0	114.6	117.6	119.1	127.3	130.3	135.4	140.7	139.8
Japan.....	63.6	94.4	99.0	100.0	101.7	103.3	111.0	116.1	121.0	121.2	126.7	135.9	135.9	139.2	154.5	165.1
Korea.....	-	81.5	91.7	100.0	108.5	117.7	128.8	141.6	159.7	178.0	198.0	214.9	213.4	234.2	250.5	280.7
Taiwan.....	48.3	89.0	96.6	100.0	102.7	106.3	114.6	122.3	127.9	134.3	141.5	149.5	158.1	170.0	176.1	184.3
Belgium.....	65.4	96.8	99.1	100.0	102.5	108.4	113.2	116.0	125.7	126.9	124.6	129.3	130.7	136.9	141.0	145.5
Denmark.....	83.2	98.5	99.7	100.0	100.3	112.7	112.7	109.0	117.7	117.1	119.0	123.2	123.4	125.7	132.1	133.2
France.....	60.5	92.7	96.4	100.0	101.2	109.4	116.0	116.7	125.8	132.7	138.8	148.7	151.0	158.4	158.8	164.4
Germany.....	77.2	99.0	98.3	100.0	101.0	108.5	110.2	113.3	120.0	120.4	123.4	132.0	135.4	137.0	142.4	149.0
Italy.....	78.6	96.6	96.1	100.0	101.2	104.8	107.9	108.3	110.3	110.8	110.5	113.5	114.0	112.2	111.2	110.6
Netherlands.....	69.1	98.7	99.0	100.0	102.0	113.1	117.3	119.3	121.4	124.1	127.0	132.7	132.5	136.5	138.0	145.4
Norway.....	77.9	98.1	98.2	100.0	99.6	99.6	100.7	102.5	102.0	99.9	103.6	106.6	109.8	112.8	122.6	125.4
Sweden.....	73.1	94.6	95.5	100.0	107.3	118.2	125.1	130.2	142.0	150.7	164.1	176.8	172.6	190.7	204.5	224.6
United Kingdom.....	57.3	90.1	94.2	100.0	103.9	108.0	106.2	105.4	106.8	108.4	113.6	120.8	124.8	127.6	132.8	140.3
<b>Output</b>																
United States.....	73.6	98.2	96.8	100.0	104.2	112.2	117.3	121.6	129.0	137.7	143.7	152.7	144.2	148.2	151.0	158.2
Canada.....	85.0	106.0	99.0	100.0	105.9	114.1	119.6	119.6	127.7	134.0	145.0	159.3	152.7	155.9	156.5	162.4
Australia.....	89.8	104.2	100.7	100.0	103.8	109.1	108.5	111.9	114.5	117.8	117.5	123.1	121.9	127.9	130.2	130.1
Japan.....	60.8	97.1	102.0	100.0	96.3	94.9	98.9	103.0	106.5	100.2	101.9	109.2	105.5	102.8	112.6	118.8
Korea.....	29.9	86.7	95.0	100.0	105.4	116.8	129.9	138.3	145.0	133.5	162.6	190.2	194.3	209.1	220.6	245.8
Taiwan.....	44.6	90.2	96.2	100.0	102.3	108.1	114.4	119.5	126.9	131.1	139.6	150.3	140.8	151.2	159.9	174.9
Belgium.....	78.2	101.0	100.7	100.0	97.0	101.4	104.2	105.6	112.5	114.1	113.3	118.3	118.3	119.1	118.1	120.8
Denmark.....	94.3	101.7	100.3	100.0	97.0	107.5	112.7	107.5	116.3	117.2	118.2	122.5	122.5	120.8	120.4	117.0
France.....	80.0	97.7	99.2	100.0	95.9	100.6	106.2	106.3	113.3	119.0	123.1	128.8	130.1	129.9	129.2	130.5
Germany.....	85.3	99.1	102.4	100.0	92.0	94.9	94.0	92.0	96.1	97.2	98.2	104.8	106.6	104.6	105.7	110.6
Italy.....	84.4	99.4	99.3	100.0	96.5	102.4	107.2	105.4	108.8	110.7	110.3	113.6	113.0	111.7	110.2	110.2
Netherlands.....	76.9	99.0	99.8	100.0	97.7	104.5	108.2	108.9	111.6	114.9	117.6	122.8	121.9	122.0	120.0	121.4
Norway.....	104.9	101.4	99.0	100.0	101.7	104.6	107.3	110.3	114.2	113.7	113.6	112.8	112.3	112.2	115.6	117.9
Sweden.....	90.7	110.1	104.1	100.0	101.9	117.5	132.5	137.1	147.6	159.5	173.9	189.7	185.6	196.4	203.6	223.6
United Kingdom.....	87.3	105.4	100.1	100.0	101.4	106.2	107.8	108.7	110.7	111.3	112.2	114.9	113.4	109.9	110.0	112.1
<b>Total hours</b>																
United States.....	107.5	105.0	100.5	100.0	101.4	103.8	104.6	104.2	106.0	105.7	105.1	103.4	96.6	89.8	85.4	85.0
Canada.....	114.6	113.5	103.9	100.0	100.1	103.0	106.4	109.0	112.4	113.8	116.8	121.3	118.2	116.2	114.1	115.0
Australia.....	129.3	113.6	104.4	100.0	97.8	103.9	102.8	99.1	100.0	100.1	98.7	96.7	93.5	94.5	92.5	93.0
Japan.....	95.5	102.9	103.1	100.0	94.7	91.9	89.1	88.7	88.0	82.7	80.4	80.3	77.7	73.9	72.9	72.0
Korea.....	-	106.4	103.6	100.0	97.1	99.2	100.9	97.6	90.8	75.0	82.1	88.5	91.1	89.3	88.1	87.6
Taiwan.....	92.4	101.4	99.6	100.0	99.6	101.7	99.8	97.7	99.2	97.6	98.7	100.5	89.0	89.0	90.8	94.9
Belgium.....	119.7	104.3	101.5	100.0	94.7	93.6	92.0	91.1	89.6	89.9	90.9	91.4	90.5	87.0	83.8	83.0
Denmark.....	113.3	103.3	100.6	100.0	96.8	95.4	100.0	98.6	98.8	100.1	99.4	99.4	99.3	96.1	91.1	87.8
France.....	132.3	105.5	102.9	100.0	94.8	91.9	91.6	91.1	90.0	89.7	88.7	86.6	86.1	82.0	81.3	79.4
Germany.....	110.5	100.1	104.1	100.0	91.1	87.5	85.3	81.2	80.1	80.7	79.6	79.4	78.7	76.4	74.3	74.2
Italy.....	107.4	102.9	103.3	100.0	95.4	97.7	99.4	97.3	98.6	99.9	99.8	100.1	99.1	99.6	99.1	99.6
Netherlands.....	111.2	100.3	100.8	100.0	95.8	92.4	92.3	91.2	91.9	92.6	92.6	92.5	92.0	89.4	86.9	83.5
Norway.....	134.7	103.4	100.8	100.0	102.1	105.0	106.6	107.6	112.0	113.7	109.6	105.9	102.3	99.4	94.3	94.0
Sweden.....	124.0	116.4	109.0	100.0	94.9	99.4	105.9	105.3	103.9	105.9	106.0	107.3	107.5	103.0	99.6	99.6
United Kingdom.....	152.3	117.0	106.2	100.0	97.6	98.3	101.5	103.1	103.6	102.7	98.8	95.1	90.8	86.1	82.8	79.9
<b>Hourly compensation (national currency basis)</b>																
United States.....	55.9	90.5	95.6	100.0	102.0	105.3	107.3	109.3	112.2	118.7	123.4	134.7	137.8	147.9	160.1	163.6
Canada.....	47.9	88.5	95.0	100.0	102.0	103.9	106.5	107.4	108.4	112.9	116.7	120.5	124.8	128.8	133.2	133.1
Australia.....	-	86.3	94.0	100.0	105.9	103.9	112.7	122.3	124.0	127.7	132.2	138.9	147.7	154.7	164.5	167.8
Japan.....	58.6	90.6	96.5	100.0	102.7	104.7	108.3	109.1	112.6	115.4	114.8	113.7	114.6	114.7	115.5	116.1
Korea.....	-	68.0	85.5	100.0	115.9	133.1	161.6	188.1	204.5	222.7	223.9	239.1	246.7	271.6	285.0	316.6
Taiwan.....	29.6	85.2	93.5	100.0	105.9	111.1	120.2	128.2	132.1	137.1	139.6	142.3	151.4	145.0	147.3	149.3
Belgium.....	52.5	90.1	97.3	100.0	104.8	106.1	109.2	111.1	115.5	117.3	118.8	120.9	127.3	132.8	136.7	138.9
Denmark.....	45.2	93.6	97.8	100.0	102.4	106.0	108.2	112.6	116.5	119.6	122.6	125.0	130.9	136.8	143.7	149.9
France.....	41.3	91.0	96.4	100.0	102.9	106.8	110.6	112.3	112.0	113.0	117.2	123.3	126.7	134.0	139.3	142.7
Germany.....	53.6	89.4	91.4	100.0	106.2	111.0	117.0	122.5	124.9	126.7	129.6	136.3	140.6	144.1	147.2	148.0
Italy.....	30.4	87.6	94.2	100.0	105.7	106.8	111.3	119.0	123.0	122.2	124.1	127.8	132.5	135.8	140.1	143.8
Netherlands.....	60.5	89.8	94.8	100.0	104.5	109.0	112.1	114.4	117.2	122.0	126.0	132.0	138.2	146.2	151.1	156.9
Norway.....	39.0	92.3	97.5	100.0	101.5	104.4	109.2	113.6	118.7	125.7	133.0	140.5	148.9	156.7	163.3	167.6
Sweden.....	37.3	87.8	95.5	100.0	97.4	99.8	106.8	115.2	121.0	125.6	130.3	136.8	143.8	151.7	159.2	162.6
United Kingdom.....	33.7	83.7	94.2	100.0	104.6	107.3	108.8	109.6	113.4	122.2	129.6	137.0	142.7	151.1	157.4	163.7

See notes at end of table.

54. Continued— Annual indexes of manufacturing productivity and related measures, 15 economies

Measure and economy	1980	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Unit labor costs</b>																
(national currency basis)																
United States.....	81.8	96.8	99.2	100.0	99.3	97.4	95.7	93.6	92.2	91.2	90.3	91.2	92.4	89.6	90.5	87.9
Canada.....	64.6	94.8	99.7	100.0	96.5	93.8	94.7	97.9	95.5	95.9	94.0	91.7	96.6	96.1	97.1	94.2
Australia.....	—	94.1	97.5	100.0	99.8	99.0	106.7	108.2	108.2	108.5	110.9	109.1	113.3	114.2	116.9	120.0
Japan.....	92.1	95.9	97.5	100.0	101.0	101.4	97.5	94.0	93.0	95.2	90.6	83.6	84.4	82.4	74.8	70.3
Korea.....	42.4	83.4	93.3	100.0	106.8	113.1	125.5	132.8	128.0	125.1	113.1	111.2	115.6	116.0	113.8	112.8
Taiwan.....	61.3	95.7	96.7	100.0	103.2	104.5	104.9	104.8	103.3	102.1	98.7	95.2	95.7	85.3	83.7	81.0
Belgium.....	80.3	93.0	98.1	100.0	102.3	97.9	96.4	95.8	91.9	92.4	95.4	93.5	97.4	97.0	97.0	95.4
Denmark.....	54.2	95.0	98.1	100.0	102.2	94.1	96.0	103.3	98.9	102.1	103.0	101.4	106.1	108.8	108.8	112.5
France.....	68.2	98.2	100.0	100.0	101.7	97.6	95.3	96.2	89.0	85.2	84.5	83.0	83.9	84.6	87.7	86.8
Germany.....	69.4	90.3	93.0	100.0	105.2	102.4	106.2	108.2	104.1	105.2	105.1	103.3	103.8	105.1	103.4	99.3
Italy.....	38.7	90.7	98.0	100.0	104.5	101.9	103.2	109.8	111.4	110.3	112.3	112.6	116.2	121.1	126.0	130.1
Netherlands.....	87.6	91.1	95.7	100.0	102.4	96.4	95.6	95.9	96.5	98.3	99.1	99.5	104.3	107.1	109.5	108.0
Norway.....	50.0	94.1	99.2	100.0	101.9	104.8	108.4	110.8	116.4	125.7	128.3	131.9	135.6	138.8	133.3	133.7
Sweden.....	51.0	92.9	100.0	100.0	90.8	84.4	85.3	88.5	85.2	83.3	79.4	77.4	83.3	79.5	77.9	72.4
United Kingdom.....	58.9	92.9	100.0	100.0	100.7	99.4	102.5	104.0	106.1	112.8	114.1	113.4	114.3	118.4	118.5	116.7
<b>Unit labor costs</b>																
(U.S. dollar basis)																
United States.....	81.8	96.8	99.2	100.0	99.3	97.4	95.7	93.6	92.2	91.2	90.3	91.2	92.4	89.6	90.5	87.9
Canada.....	66.7	98.1	105.2	100.0	90.4	83.0	83.4	86.7	83.3	78.1	76.5	74.6	75.4	74.0	83.8	87.5
Australia.....	—	100.0	103.3	100.0	92.3	98.5	107.5	115.2	109.5	92.9	97.4	86.3	79.7	84.5	103.7	120.2
Japan.....	51.5	83.9	91.8	100.0	115.3	125.8	131.6	109.5	97.4	92.2	101.0	98.4	88.0	83.5	81.7	82.4
Korea.....	54.8	92.1	99.3	100.0	104.0	110.0	127.4	129.5	106.0	70.1	74.6	77.2	70.2	72.8	74.9	77.3
Taiwan.....	42.8	89.4	91.0	100.0	98.3	99.3	99.7	96.0	90.3	76.6	76.8	76.6	71.2	62.1	61.2	61.1
Belgium.....	88.3	89.5	92.3	100.0	95.1	94.2	105.2	99.4	82.5	81.8	81.0	68.8	69.5	73.1	87.5	94.6
Denmark.....	58.1	92.7	92.5	100.0	95.1	89.4	103.5	107.6	90.4	92.0	89.0	75.6	76.9	83.3	99.9	113.4
France.....	85.5	95.4	93.8	100.0	95.0	93.2	101.2	99.6	80.7	76.4	72.6	61.8	60.6	64.5	80.1	87.1
Germany.....	59.6	87.3	87.5	100.0	99.3	98.6	115.8	112.2	93.8	93.4	89.4	76.2	74.2	79.4	93.5	98.6
Italy.....	55.7	93.3	97.3	100.0	81.8	77.9	78.0	87.7	80.6	78.2	76.2	66.2	66.2	72.8	90.8	103.0
Netherlands.....	77.5	87.9	90.0	100.0	96.9	93.2	104.8	100.0	87.0	87.2	84.3	73.3	74.5	80.8	98.9	107.2
Norway.....	62.9	93.5	95.0	100.0	89.1	92.3	106.4	106.6	102.1	103.5	102.2	93.0	93.7	108.1	117.0	123.3
Sweden.....	70.2	91.3	96.3	100.0	67.8	63.7	69.6	76.9	64.9	61.1	55.9	49.1	46.9	47.6	56.2	57.4
United Kingdom.....	77.6	93.9	100.0	100.0	85.6	86.2	91.6	91.9	98.4	105.8	104.5	97.3	93.2	100.7	109.7	121.1

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

55. Occupational injury and illness rates by industry,<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.

55. 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.

**56. Fatal occupational injuries by event or exposure, 1998-2003**

Event or exposure <sup>1</sup>	Fatalities			
	1998-2002 average <sup>2</sup>	2003 <sup>3</sup>		
		Number	Number	Percent
Total.....	6,896	5,534	5,559	100
<b>Transportation incidents.....</b>	<b>2,549</b>	<b>2,385</b>	<b>2,367</b>	<b>42</b>
Highway incident.....	1,417	1,373	1,350	24
Collision between vehicles, mobile equipment.....	696	636	648	12
Moving in same direction.....	136	155	135	2
Moving in opposite directions, oncoming.....	249	202	269	5
Moving in intersection.....	148	146	123	2
Vehicle struck stationary object or equipment in roadway.....	27	33	17	( <sup>4</sup> )
Vehicle struck stationary object, or equipment on side of road.....	281	293	324	6
Noncollision incident.....	367	373	321	6
Jackknifed or overturned—no collision.....	303	312	252	5
Nonhighway (farm, industrial premises) incident.....	358	323	347	6
Overturned.....	192	164	186	3
Worker struck by a vehicle.....	380	356	336	6
Rail vehicle.....	63	64	43	1
Water vehicle.....	92	71	68	1
Aircraft.....	235	194	208	4
<b>Assaults and violent acts.....</b>	<b>910</b>	<b>840</b>	<b>901</b>	<b>16</b>
Homicides.....	659	609	631	11
Shooting.....	519	469	487	9
Stabbing.....	61	58	58	1
Self-inflicted injuries.....	218	199	218	4
<b>Contact with objects and equipment.....</b>	<b>963</b>	<b>872</b>	<b>911</b>	<b>16</b>
Struck by object.....	547	505	530	10
Struck by falling object.....	336	302	322	6
Struck by flying object.....	55	38	58	1
Caught in or compressed by equipment or objects.....	272	231	237	4
Caught in running equipment or machinery.....	141	110	121	2
Caught in or crushed in collapsing materials.....	126	116	126	2
<b>Falls.....</b>	<b>738</b>	<b>719</b>	<b>691</b>	<b>12</b>
Fall to lower level.....	651	638	601	11
Fall from ladder.....	113	126	113	2
Fall from roof.....	152	143	127	2
Fall from scaffold, staging.....	91	88	85	2
Fall on same level.....	65	64	69	1
<b>Exposure to harmful substances or environments.....</b>	<b>526</b>	<b>539</b>	<b>485</b>	<b>9</b>
Contact with electric current.....	289	289	246	4
Contact with overhead power lines.....	130	122	107	2
Contact with temperature extremes.....	45	60	42	1
Exposure to caustic, noxious, or allergenic substances.....	102	99	121	2
Inhalation of substances.....	50	49	65	1
Oxygen deficiency.....	89	90	73	1
Drowning, submersion.....	69	60	52	1
<b>Fires and explosions.....</b>	<b>190</b>	<b>165</b>	<b>198</b>	<b>4</b>

<sup>1</sup> Based on the 1992 BLS *Occupational Injury and Illness Classification Manual*. Includes other events and exposures, such as bodily reaction, in addition to those shown separately.

<sup>2</sup> Excludes fatalities from the Sept. 11, 2001, terrorist attacks.

<sup>3</sup> The BLS news release of September 17, 2003, reported a total of 5,524 fatal work injuries for calendar year 2003.

Since then, an additional 10 job-related fatalities were identified, bringing the total job-related fatality count for 2002 to 5,534.

<sup>4</sup> Equal to or greater than 0.5 percent.

NOTE: Totals for major categories may include sub-categories not shown separately. Percentages may not add to totals because of rounding.

## Obtaining information from the Bureau of Labor Statistics

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<b>Employment and unemployment</b> Employment, hours, and earnings: National State and local Labor force statistics: National Local UI-covered employment, wages Occupational employment Mass layoffs Longitudinal data Job openings and labor turnover	<a href="http://www.bls.gov/ces/">www.bls.gov/ces/</a> <a href="http://www.bls.gov/sae/">www.bls.gov/sae/</a>  <a href="http://www.bls.gov/cps/">www.bls.gov/cps/</a> <a href="http://www.bls.gov/lau/">www.bls.gov/lau/</a> <a href="http://www.bls.gov/cew/">www.bls.gov/cew/</a> <a href="http://www.bls.gov/oes/">www.bls.gov/oes/</a> <a href="http://www.bls.gov/mls/">www.bls.gov/mls/</a> <a href="http://www.bls.gov/nls/">www.bls.gov/nls/</a> <a href="http://www.bls.gov/jlt/">www.bls.gov/jlt/</a>	<a href="mailto:cesinfo@bls.gov">cesinfo@bls.gov</a> <a href="mailto:data_sa@bls.gov">data_sa@bls.gov</a>  <a href="mailto:cpsinfo@bls.gov">cpsinfo@bls.gov</a> <a href="mailto:lausinfo@bls.gov">lausinfo@bls.gov</a> <a href="mailto:cewinfo@bls.gov">cewinfo@bls.gov</a> <a href="mailto:oesinfo@bls.gov">oesinfo@bls.gov</a> <a href="mailto:mlsinfo@bls.gov">mlsinfo@bls.gov</a> <a href="mailto:nls_info@bls.gov">nls_info@bls.gov</a> <a href="mailto:Joltsinfo@bls.gov">Joltsinfo@bls.gov</a>
<b>Prices and living conditions</b> Consumer price indexes Producer price indexes Import and export price indexes Consumer expenditures	<a href="http://www.bls.gov/cpi/">www.bls.gov/cpi/</a> <a href="http://www.bls.gov/ppi/">www.bls.gov/ppi/</a> <a href="http://www.bls.gov/mxp/">www.bls.gov/mxp/</a> <a href="http://www.bls.gov/cex/">www.bls.gov/cex/</a>	<a href="mailto:cpi_info@bls.gov">cpi_info@bls.gov</a> <a href="mailto:ppi-info@bls.gov">ppi-info@bls.gov</a> <a href="mailto:mxpinfo@bls.gov">mxpinfo@bls.gov</a> <a href="mailto:cexinfo@bls.gov">cexinfo@bls.gov</a>
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Series	Release date	Period covered	Release date	Period covered	Release date	Period covered	MLR table number
Employment situation	September 1	August	October 6	September	November 7	October	1; 4-29
Productivity and costs	September 6	2nd quarter*			November 2	3rd quarter	2; 48-51
U.S. Import and Export Price Indexes	September 14	August	October 13	September	November 9	October	43-47
Consumer Price indexes	September 15	August	October 18	September	November 16	October	2; 40-42
Real earnings	September 15	August	October 18	September	November 16	October	14-16, 29
Producer Price Indexes	September 19	August	October 17	September	November 14	October	2; 37-39
Employment Cost Indexes			October 31	3rd quarter			1-3; 30-33

\* = revised.